

ASPECTS OF HAUSA MORPHOSYNTAX
IN ROLE AND REFERENCE GRAMMAR

By

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ABSTRACT OF THE DISSERTATION
Aspects of Hausa morphosyntax in Role and Reference Grammar
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The primary focus of this thesis is Hausa, a Chadic language spoken in Niger and Nigeria and communities in various west African cities. Most of the topics of the thesis have been discussed in other places. The main endeavour here is to apply the Role and Reference Grammar framework (RRG) in order to gain new insights into the structure and the processes of the language. RRG is a structuralist-functional theory developed and exposed most thoroughly in Foley and Van Valin (1984) and Van Valin (1992). In its basic approach to language, RRG recognizes the importance of structure, and in fact, it makes use of a formal apparatus to represent clause structure. However, in RRG, the structure of language is ultimately explained by the semantics and the pragmatics of the utterances. It is in this sense that RRG is a structuralist-functional theory. A running theme in this thesis will be the contrast between functionalist accounts and purely formal accounts already proposed of aspects of Hausa morphosyntax.

The thesis has mainly three parts. The first part (chapter 1 and chapter 2) deals with Hausa simple clause structure and its relation to the information structure. Chapter 1 introduces the fundamental tenets of RRG as well as its technical aspects. It presents RRG's characteristic view of simple clause structure --the Layered Structure of the Clause (LSC)-- and the system of junctures and nexus types in terms of which complex sentences are conceived. An overview of RRG's linking system from semantics to morphosyntax is also given. The chapter also presents the information structure theory, an important component. Indeed, in RRG, the information status of a constituent --whether it is topic or focus-- is relevant for its morphosyntactic status. The notions of topic and focus are applied to the problem of the "relative" marking in Hausa, and the functional account is shown to be superior in many ways to a previous purely formal treatment. Chapter 2, based on the notions of the LSC, argues that Hausa has only a preverbal pronoun as the pivot core argument, therefore, it is claimed that Hausa does not have a nominal "subject", the apparent "subject" nominal being a topic in the Core-External Position (CEP). The notions of topic and focus are again used to satisfactorily account for the conditions of the preverbal pronoun omission. According to this treatment, the preverbal pronoun is omitted when the

antecedent nominal is in the CEP or when it is a focused nominal. The preverbal pronoun cannot be omitted if the antecedent is a left dislocated topic NP. The functional account turns out again to be superior to an alternative account couched in purely formal terms.

The second part (chapter 3-5) deals with the verbal system of Hausa. Chapter 3 is a review of three conceptualizations of the Hausa verbal system, including Parsons' (1960) grade system. Chapter 4 approaches the verbs from two perspectives. Semantically, the verbs are classified into the Dowty/ Vendler verbal aspectual classes of State, Achievement, Activity, and Accomplishment verbs. Grade 1 is taken as the neutral or basic grade, and it is made up of verbs from all of the aspectual classes. Grade 2 is mostly made up of accomplishment verbs, and its main function is to select and highlight either the theme (the located or moved argument) or the locative argument as the undergoer. Grade 2 has then the same function as the English spray/ load alternation. Grade 3 is made up of achievement verbs only. Also, a detailed study of the semantics of the grade 6, grade 7, and grade 8 is given. Morphologically, the verbal system is approached from the perspective of the schema model, as proposed in Bybee and Slobin (1982) and Bybee and Moder (1983). The schema approach, which posits that certain derivational processes are "output-oriented" and not "input-oriented", handles the complex derivational relationship of the grades in a very intuitive way, when compared to other approaches. Chapter 5 claims that Hausa has two nuclear cosubordination structures, where two predicates, a primary verb and an auxiliary verb, combine to form one functional predicate, similar to the French faire+Verb construction. The constructions in question are the V+mà structure (labelled grade 9) and the V+dà structure, otherwise known as the grade 5 in Parsons' system. Various kinds of arguments of a semantic, syntactic, and morphological nature are presented in favor of the nuclear cosubordination analysis and against other previously proposed solutions.

The last part of the thesis (chapter 6) presents a new approach to Hausa nominalization and the phenomenon of nominalization in general, based on the RRG concepts. The chapter claims that Hausa verbs, as in many other languages, become verbal nouns in a tenseless environment. It also claims that a verbal noun, not a finite verb, appears in nuclear cosubordination with grade 9 mà and grade 5 dà. Finally, the chapter also proposes that Hausa verbs become verbal nouns when they are followed by a pronominal or a zero argument. In sum, exception made of the intransitive grade 3 and grade 7, Hausa has a finite verb only when the verb is followed by a noun undergoer argument, regardless of the tense/ aspect conditions. This functional categorization process also accounts for facts in a related Chadic language. The second part of the chapter gives an RRG structural account of the phenomenon of nominalization in general. The chapter assumes the existence of a predication operator which applies at the various nodes of the LSC to determine a

continuum of syntactic categories ranging, in Hausa, from the verb to the grade 1 gerund, the grade 2 gerund, and the derived nominal. This analysis is also applied to a group of selected languages including English and Hebrew. The chapter shows that the RRG account is more satisfactory than previous nominalization accounts in that it handles all the categories, which is not the case in the alternative accounts.

In conclusion, the theory of RRG has allowed new insights into Hausa, insights which put in question many current established views of the language. The thesis in turn shows RRG to be superior to other syntactic theories because it explains and accommodates many phenomena in Hausa that must be stipulated or treated in an ad hoc way in other theories.

LIST OF ABBREVIATIONS

1, 2, 3	1st, 2nd, 3rd person
A	actor
ACC	accusative
ADJ	adjective
ADV	adverb
ag	agent
ANAPH	anaphoric marker
ARG	argument
ASP	aspect
CEP	Core-External Position
CONT	continuous
cop	copula
DAT	dative
DC	deictic center
DEF	definite, definiteness operator
DN	derived nominal
DO	direct object
eff	effector
ERG	ergative
EVE	eventual
exp	experiencer
f	feminine
FCP	functional categorization principle
FOC	focus
FUT	future
GEN	genitive
GER	gerund
GR	grammatical relations
gr1	grade 1
H	high tone
HAB	habitual
I, II, III, etc	grade 1, grade 2, grade 3, etc
ICP	intransitive copy pronoun
IF	Illocutionary Force operator
IGCP	intransitive genitive copy pronoun
IMP	impersonal
IMPER	imperative
INF	infinitive
INFL	inflection
INTR	instrumental
L	low tone
LDP	left dislocated position
loc	locative
LS	Logical Structure
LSC	Layered Structure of the Clause
m	masculine
MOD	modal, modality
MR	macrorole
NEG	negative
NOM	nominative
OBJ	object
OM	object marker

P	pivot
p	plural
pat	patient
PCS	pre-core slot
PER	periphery
PERF	perfect
PFD	potential focus domain
PO	predication operator
POT	potential
PRES	present
PRO	pronoun (in RRG trees)
PRT	particle
PTAM	person-tense/ aspect marker
PVP	preverbal pronoun
RDP	right dislocated phrase
REDUP	reduplication
REFLEX	reflexive
REL	relative
RRG	Role and Reference Grammar
s, sg	singular
SIM	simultaneous
SS	same subject
STA	status operator
SUB	subjunctive
TAM	tense/ aspect marker
th	theme
TNS	tense operator
TR	thematic relations
U	undergoer
VN	verbal noun

Chapter 1 *

OVERVIEW OF RRG

1.0 INTRODUCTION

The aim of this chapter is to present an overview of the basic tenets and notions of Role and Reference Grammar, the syntactic theory used as framework in this thesis. These notions are illustrated with data from languages so far investigated in RRG literature, as well as with data from Hausa. Section 1.1 gives the RRG general view of language, and situates the theory among the other major syntactic theories. Section 1.2 and 1.3 deal with the clause structure posited for simple and complex sentences respectively. Section 1.4 presents the linking between the lexical semantics of verbs and the level of syntax. Finally, section 1.5 deals with the theory of information structure adopted in RRG. This section also contains a detailed discussion of the Hausa topic and focus structures, as well as the "relative" marking in subordinate clauses and in simple past tense clauses.

1.1 THEORETICAL FOUNDATIONS OF RRG

Across the range of mainstream linguistic theories, there is essentially two fundamental views on what constitutes language. The first and dominant view is characterizable as formalist because it considers only the formal aspect of language as its essence and, consequently, as the only aspect worthy of study by linguists. Today, this view is mostly associated with the theory of Government and Binding and other generativist theories where grammar is defined as a set of structural descriptions of sentences and formal rules and principles to relate them. This leads to a conception of language as a system isolated both from pragmatics, meaning, and from other cognitive processes in general (Chomsky 1977, 1981:4). The second view of language on the other hand denies any relevance to the formal aspect of language. This view characterizes extreme functionalist theories such as that proposed in Hopper (1987). In these approaches, grammar is reduced to discourse, any apparent structural system being taken as an epiphenomenon of recurrent discourse patterns, formulaic expressions, etc.

Between the formalist and functionalist extremes, there are theories which have an eye on both the formal and functional aspects of language. Kuno's (1975) Functional Syntax can be characterized as conservatively functionalist in that it only adds some functionalist explanatory principles to what is inherently a formalist undertaking (cf. a critical review in Van Valin 1990d). In consequence, only that aspect of grammar not amenable to a formal account is considered to be motivated by pragmatics and semantics.

Like Kuno's Functional Syntax, RRG too is concerned with both formal and functional aspects of language. Thus in RRG, grammar is a formal system in the traditional structuralist sense. However, RRG also views language primarily as a communication tool and this function of language is what shapes its structure. That is, one can describe and explain the formal aspect of language only with reference to semantics and pragmatics. Because of its genuine double concern, RRG is characterizable as a structuralist-functionalism theory.

Beside these general contrasts, RRG has also adopted some particular positions at the technical level. For example, RRG, contrary to GB and Relational Grammar, posits only one level of syntactic structure. So, it has no rules akin to transformations, the surface structure of actual sentences being directly linked to the semantics. The semantics-to-syntax linking will be presented in section 1.4. The next section presents the RRG view of clause structure.

1.2 CLAUSE STRUCTURE IN RRG

According to Van Valin (1992), the clause embodies two fundamental structures, relational and non-relational structures. Relational structure refers to the relation between a predicate and its arguments. Non-relational structure on the other hand refers to the hierarchical organization of constituents in a sentence. These two types of relations are universal in that all languages have a distinction between predicate and arguments and also have hierarchical groupings of the elements in a sentence. Because they are so fundamental and universal, the two structures, relational and non-relational, should be explicitly spelled out by any syntactic theory. Lexical Functional Grammar for example has distinct formal representations for the relational structure (f-structure) and the non-relational structure (c-structure). But this is not always the case. Relational Grammar for instance deals only with the relational structure, while Generalized Phrase Structure Grammar concerns itself only with the non-relational structure. GB on the other hand posits the non-relational structure, from which, it derives the relational structure. RRG, more like LFG, has explicit representations of both relational and non-relational structures. The relational structure will be the topic of section 1.4. In this section, the hierarchical organization of the clause developed in RRG is surveyed.

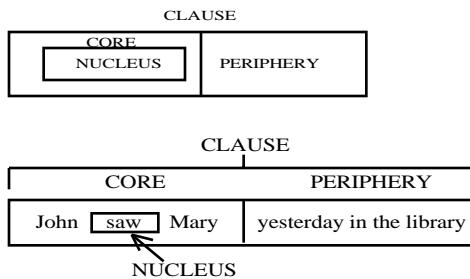
1.2.1 LAYERED STRUCTURE OF THE CLAUSE (LSC)

The elaboration of the clause structure model of RRG was guided at the start by the consideration of data from languages of various syntactic types: free word-order languages such as Dyirbal, head-marking languages such as Lakhota and Tzotzil, as well as more familiar fixed word-order configurational or dependent-marking languages such as English.

Consequently, all these languages are accounted for in RRG in a straightforward way with the same basic principles. So, there is no need to make ad hoc restatements of core principles to suit less known language types, as is the case in GB for example.

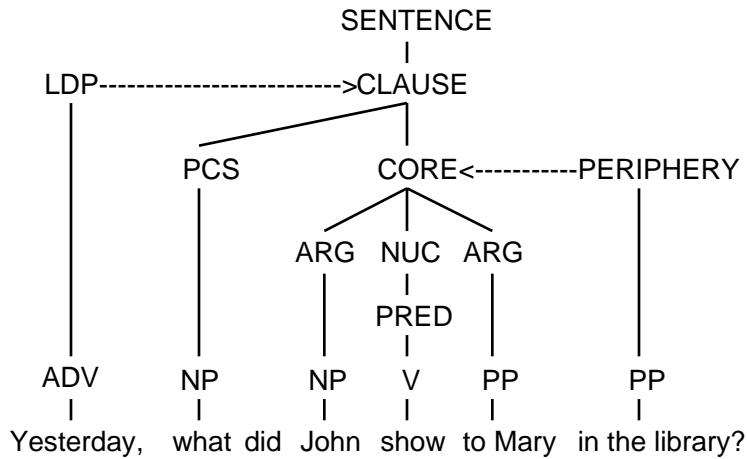
The RRG view of clause structure, called the Layered Structure of the Clause, is based on the contrast between predicate and arguments on the one hand, and the contrast between those NPs and adpositional phrases that are arguments of the predicate and those that are not. All languages have these two semantically-based distinctions: predicate vs. arguments and arguments vs. non-arguments. The primary syntactic constituent units of the clause are the nucleus, the core, and the periphery. The nucleus is a node and contains the predicate (one or more verbs). The core contains the nucleus and the arguments of the verb or verbs. The periphery contains the non-argument NPs and adpositional phrases as well as adjuncts such as adverbs. The periphery modifies the core node. Both core and periphery are subsumed under the clause node, as represented below (from Van Valin 1992):

(1)



These hierarchical syntactic units are defined semantically (by the two contrasts predicate vs. arguments and arguments vs. non-arguments), and they obtain regardless of the word-order type of a language. So, all the elements in the hierarchical units can occur in principle in any order. A single-clause sentence may also contain a pre-core slot (PCS) and a Left-Detached Position (LDP). The PCS is the structure which contains wh-words in languages where they do not occur in situ. The LDP is the location of dislocated constituents that are set off from the clause by a pause such as 'John' in 'as for John, I haven't seen him for a while'. The constituent structure is represented in RRG as follows (from Van Valin 1992):

(2)



1.2.2 CLAUSE STRUCTURE IN HEAD-MARKING LANGUAGES

This subsection introduces the structural contrast between languages which signal predicate-argument relations on the head and those languages that signal the same relations on the dependent. This distinction between head-marking and dependent-marking languages is relevant and given some details here because it will be argued in chapter 2 that Hausa patterns like a head-marking language for the subject argument. First, the typological work in this domain is presented, then its relevance in RRG.

1.2.2.1 Nichols 1992 typology and Hausa

The aim of this section, is to present the head- and dependent-marking parameter and give the crucial feature taken in RRG to characterize a particular language. In predicate-argument relationships such as those between a verb and its arguments, a preposition and its object, a head nominal and its dependent nominal, languages vary as to how the relation is marked. Nichols (1986, 1992) establishes a typology of predicate-argument relations marking strategies and, essentially puts forth five to six cases.

Some languages have an affix, a clitic or an ablaut on the constituent which is governed by another to show the relation between them. Nichols calls such languages dependent-marking languages. The nominative or accusative case marking find in languages such as Chechen constitutes a typical dependent-marking instances. Chechen is illustrated below (from Nichols 1992):

(3)	da:-s	wo'a-na	urs-Ø	tu:xira
	father-ERG	son-DAT	knife-NOM	struck
'Father stabbed son' (lit: 'struck with knife')				

In the sentence (3) above, all of the dependent nominals take case-marking affixes, ergative -s for da 'father', dative -na for wo'a 'son' and nominative -Ø for urs 'knife'. The head verb apparently has no marking referring to the relationship it has with any of the arguments. This is then a typical case of a dependent-marking language.

Some languages have the affix (or one of the alternative markings) on the predicate governing the argument. These languages are called head-marking languages. The affix can be a full agreement affix referencing the person, number, and gender of the dependent. This exemplified for Tzutujil below (from Nichols 1992):

(4)	x-Ø-kee-tij	tzyaq	ch'ooya7
	ASP-3s-3p-ate	clothes	rats
'Rats ate the clothes.'			

Here in (4), the subject and object arguments, ch'ooya7 'rats' and tzyaq 'clothes' respectively, are unmarked, but they are cross-referenced on the verb by a third person plural and a third person singular marker respectively. Thus, only the verb carries the relevant markings showing the relations it has with the nominals. Some of the languages classed as head-marking have an affix which only signals that a certain argument is present, but does not reference its lexical features such as person, number, and gender. Notice also that the characterization of a language as head- or dependent-marking is relative. Most commonly, languages are mixed, showing both head- and dependent-marking strategies according to the construction or the argument considered.

In some languages, a clear double marking occurs on both the head and the dependent, while in other languages there is no marking on either constituent. These two cases are illustrated below with Nogai and !Kung in (5a-b) respectively (from Nichols 1992):

- | | | | |
|-----|----|--------------------|-----------|
| (5) | a. | men-im | kullyg-ym |
| | | 1sg-GEN | work-1sg |
| | | 'my work' | |
| | b. | dz'heu | Xanu |
| | | woman | book |
| | | 'the woman's book' | |

The Nogai example in (a) above shows a possessive pronoun, but the nominal head also carries a suffix referencing the possessor. In example (b), !Kung marks neither the head, nor the dependent.

There are also cases of "split" marking, where a head switches strategies depending on the type of argument it occurs with. Thus, in Hungarian, prepositionl phrases are head-marking with pronouns, but not with nominals. This is illustrated below (from Nichols 1992):

- (6) a. mellet-em
 beside-1sg
 'beside me'

 b. a ház mellet
 the house beside
 'beside the house'

Yet in other languages, the marking is detached and occurs on neither the dependent nor the head. According to Nichols, usually, these markers are cliticized pronouns indexing the lexical features of the dependent. In Uto-Aztecán languages, the subject clitic pronouns are placed together with tense and mood particles. This is illustrated below:

- (7) noo xu-n-po xwaani ?ari.
 I MOD-1sg-TNS John-OBJ kick
 'I should kick John.'

In the sentence above, the subject noo 'I' is cross-referenced by a suffix occurring with the tense and modality markers. Hausa too functions quite similarly to the Uto-aztecán example above. This is illustrated below:

- (8) Abdù yaa fa nùfi gidaa.
 Abdu 3ms.PERF indeed head-II home
 'Abdu indeed headed home.'

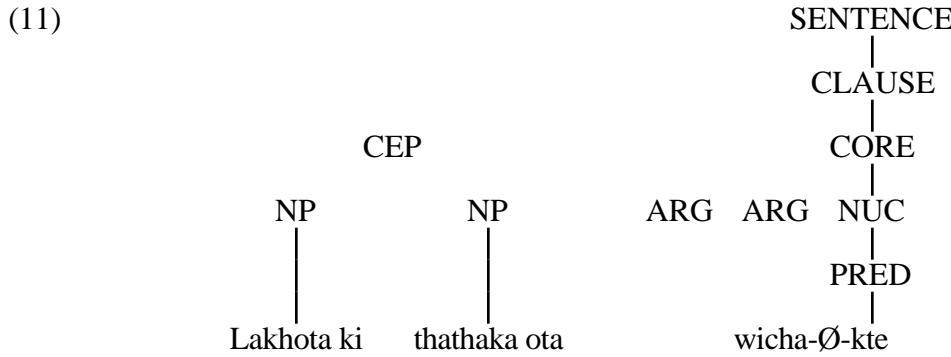
In the sentence (8) above, a free word marking person and tense/ aspect follows the subject Abdu. This marking is separate from the verb nùfi 'head, go toward', as evidenced by its ability to be followed by the modal particule fa 'indeed'. Thus, by Nichols criteria, Hausa should labelled as a "detached" marking language in its clause structure. In the next section we will see that by other criteria, Hausa can be considered to function like a head-marking language.

1.2.2.2 Head- and dependent-marking languages in RRG

There are two other notions --endocentric vs. exocentric languages-- mentioned in Nichols (1992), and which are shown to correlate with the notions of head- and dependent-marking. In RRG works, the notions of endocentric/ exocentric essentially summarize the syntactic relevance of Nichols typology. For RRG, the labelling of a construction as head- or dependent-marking follows from the syntactic behavior of the dependent nominal. Thus, a crucial feature of head-marking languages is their ability to drop any nominal argument cross-referenced by a suffix on the head. Van Valin (1987a, 1992) cites the following examples from Lakhota and Tzotzil in (9-10) respectively:

- (9) a. lakhota ki thathaka ota wicha-Ø-kte.
Indian the bison many 3pU-3sgA-kill
(lit: 'the Indian bisons many they-killed-them')
'The Indian killed many bisons.'
- b. wicha-Ø-kte.
3pU-3sgA-kill
'He killed them.'
- (10) a. s-malal li ?anttz-e
3ERG-husband the woman-DEF
'the woman's husband' (lit: 'her-husband the woman')
- b. s-malal
3ERG-husband
'her husband'

In (9), Lakhota illustrates a clausal head-marking strategy. In (9a), both the subject and object nominals are cross-referenced on the verb. (9b) shows that the two nominals can be omitted and yet the remaining head verb is grammatical. (10a) illustrates head-marking in a NP. The dependent nominal ?antz 'woman' is cross-referenced on the head nominal by the ergative suffix. Again, as shown in (10b), the dependent nominal can be omitted and the head alone stands for a possessive phrase. The notion of "endocentric" captures the ability of these constructions to drop the dependents while the head and the suffixes stand for the original phrase. Because normally real arguments are not so optional, the two nominals in (9a) are not considered as arguments in RRG clause structure representation. The two nominals are in a core-external but clause-internal position while the pronominal suffixes are the only (core-internal) arguments. In this work, the core-external-but-clause-internal position is referred as the CEP (core-external position). The Lakhota sentence in (9a) is represented below:



According to Van Valin (1992), semantically, the function of the two nominals represented above in the CEP is to specify the reference of the argument pronouns in the core.

Syntactically, the two nominals are irrelevant for the statements of rules for grammatical phenomena because these phenomena can obtain even when the nominals are omitted (see also Van Valin 1985, 1987). However, the CEP nominals are clause internal and are within the IF operator; they can hence be questioned or asserted. This approach of RRG contrasts with that of virtually all other formal theories based on dependent-marking languages and which analyze the CEP nominals as arguments while the pronominal suffixes are taken to be agreement markers (cf. Bresnan and Mchombo 1987 on Chichewa, and the marked notion of "pro drop" languages in GB).

In this work, it is claimed that by the criteria used in RRG works, Hausa, for all practical purposes, can be analyzed as patterning like a head-marking language. However, because the pronoun is still not really attached to the verb, the characterization would be that Hausa has an endocentric clause structure. Otherwise, just like in Lakhota, the Hausa "subject" nominal is totally optional and the verb with only the person-tense/ aspect marker can stand on its own as a full clause. This is illustrated below:

- (12) yaa fa nùfi gidaa.
 3ms.PERF indeed head-II home
 'he headed home.'

Not only the endocentric analysis is descriptively adequate, but it will be seen in the next chapter that it explains facts that other analyses cannot handle.

1.2.3 OPERATORS IN RRG

There are two projections in RRG representation of a clause. The first is the constituent projection such as the one illustrated in (11) above for Lakhota. The second projection is the operator projection and it is the topic of this subsection.

In the figure under (2) above, the auxiliary verb 'did' is not attached to any node in the constituent projection. This is so because 'did' is not a constituent but it is the morphological realization of the tense operator modifying the clause. There are many types of operators in RRG modifying the different levels of the LSC. Some examples of operators are given below (from Van Valin 1992):

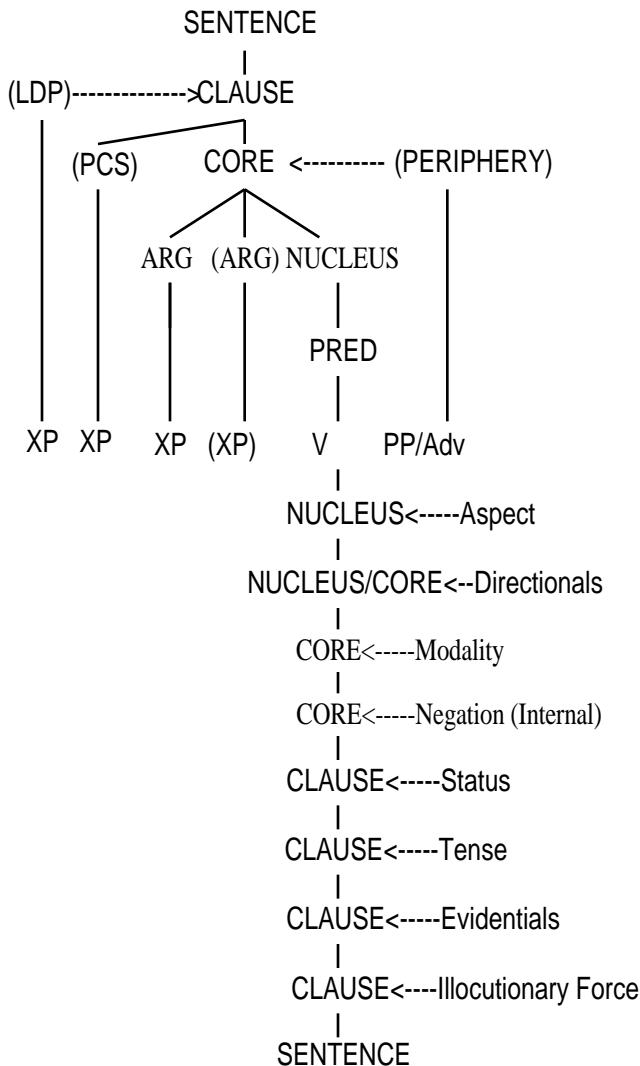
- (13)
- a. Nuclear operators: Aspect
Directionals (only those modifying orientation of action or event without reference to participants)
 - b. Core operators: Directionals (only those expressing the orientation or motion of one participant with reference to another participant or to the speaker)
Modality (root modals, e.g. ability, permission, obligation)
Internal (narrow scope) negation
 - c. Clausal operators: Status (epistemic modals, external negation)
Tense
Evidentials
Illocutionary Force [IF]

The nuclear operators modify the action, event, or state itself, without reference to the participants. The scope is the nuclear node containing the predicate or predicates. Core operators such as directionals and modality have scope over the whole core and thus over the nucleus and the arguments. Core operators then modify the relation between the arguments and the action or event/ state. There are two groups of clausal operators. The first group includes the tense and status operators which position the proposition within the temporal and realis-irrealis scale. The second group of clausal operators includes evidentials and the illocutionary force (or IF). Evidentials mark the epistemological basis of the proposition (that is, how the speaker came to know what is uttered). The IF operator specifies the type of speech act.

In RRG formalism, the operators are represented separately in an operator projection distinct from the constituent projection. This decoupling allows equivalent operators in different languages to be represented with their scope (nucleus, core, or clause) no matter the particular position of their marker in the clause in various languages. Thus, a tense marker can be a suffix, a prefix, or a free word preceding or following the nucleus. In every

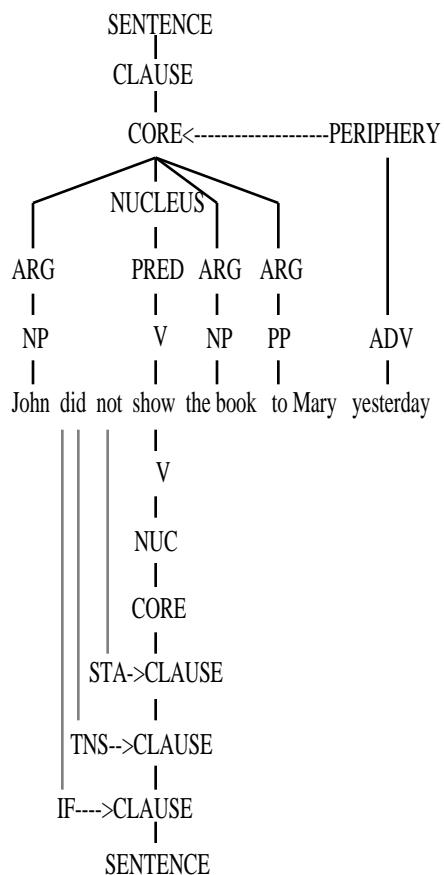
case however, it has the clause as its scope. To capture these facts, Johnson (1987) proposes a projection grammar where a clause is represented by a constituent projection and an operator projection as illustrated below:

(14)

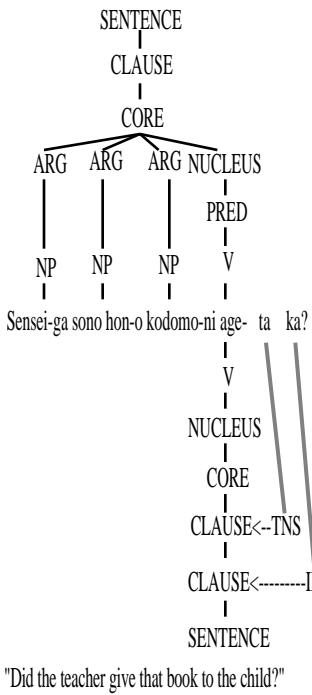


As it can be seen, in the operator projection, the notation allows the repeating of a node to explicitly represent the fact that more than one operator can modify a given node at a time. Actual sentences, along with their operators, are illustrated below with Japanese and English (from Van Valin 1992):

(15) a.



b.

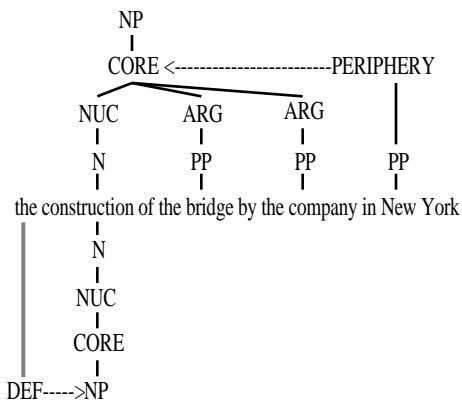


"Did the teacher give that book to the child?"

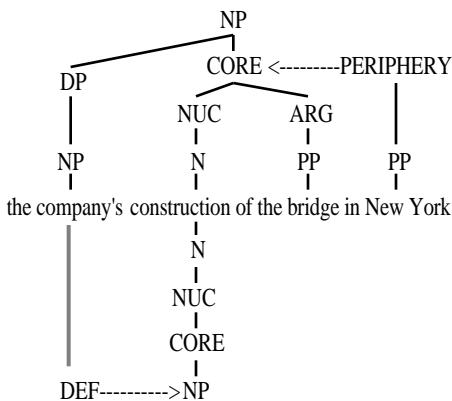
1.2.4 LAYERED STRUCTURE OF THE NOUN PHRASE

RRG rejects the assumption --central in X-bar theory-- that NPs and clauses have a parallel structure. In X-bar syntax, this parallel is mostly based on the clausal analysis of the English double genitive construction such as in 'the enemy's destruction of the city' in Chomsky (1970). In this analysis, 'the enemy' is taken as the subject argument of the DN, just as it is the subject with the corresponding verb 'destruct'. Similarly, 'city' is taken as the direct object of the DN, as with the regular verb. Because of the fact that most other languages lack the double genitive construction, the English DN is treated in RRG as a particular case on which a universal account cannot be based. Furthermore, Nunes (1990, 1992) argues that the NP in the specifier position of the DN is not an argument like the "of" nominal following the DN, but a constituent in the DN's LDP. Therefore, she concludes that NPs in general can only have one single direct argument introduced by "of" in English. An additional oblique argument introduced by "by" is possible such as 'the company' in 'the construction of the bridge by the company in New York'. The current RRG view of the structure of the NP is illustrated below (from Nunes 1992, cited in Van Valin 1992):

(16) a.



b.

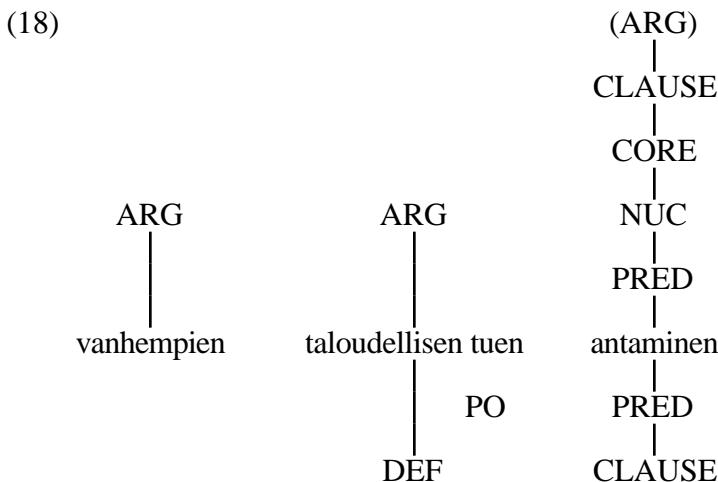


Notice that the clause and the NP share the same basic layered structure in that the NP also involves a core and a nucleus. The core can be modified by peripheral adjuncts, just as it is the case with a clausal core. In the figure under (16a), the DN 'construction' has two arguments, a direct argument introduced by "of" and an indirect argument introduced by "by". In the second figure, the agent argument is placed in the detached position and the DN has only one argument. In this thesis (cf. chapter 6), an alternative analysis of (16b) is proposed where both genitive nominals are direct core arguments of the DN. In chapter 6, beside English, we will see that there are a number of other languages, including Hausa, which have a double genitive construction with a DN, and where the two arguments of the DN carry the same marking. Also, in most languages, and contrary to English, the agent and the patient arguments can each appear unrestricted as the sole argument of the DN. Some patterns are given below (from English, Hausa, and Finnish):

- (17) a. the examination took three hours.
- b. kaamùn Abdù
 catch-DN-of Abdu
 'Abdu's arrest' or 'an arrest by Abdu'
- c. vanhempien taloudellisen tuen antaminen on
 parents-GEN economic support-GEN give-VN is
 riippuvaista tuloista.
 dependent incomes-PART

'Parents' giving of economic support is dependent on their income.'
 (adapted from Koptjevskaja-Tamm 1988:148)

In example (a), a DN appears without any overt argument, although it is a process nominal and has understood participants. In (b), the Hausa DN appears with only one argument which can be either the agent or the patient. Finally in (c), the DN in Finnish appears with two arguments which are marked with the same genitive marker. In view of the variety of the crosslinguistic data, in this work, it is tentatively suggested that the LSC of the DN is the same as that of a clause. The difference between a verb and a (process) DN is accounted for by a difference in the level of predication of the two categories. The verb predicates at the CLAUSE node and takes obligatory arguments, while the DN predicates at the PRED node and takes optional arguments that are also marked genitive. The Finnish example in (17c) above is partially represented as shown below:



For more details on the analysis of the process DNs, the reader is referred to the chapter 6 on nominalization, particularly in section 6.2.

1.3. COMPLEX SENTENCES

So far, the clausal diagrams seen above represented simple sentences containing one clause. RRG, more than any other syntactic theory, has developed a rich system aimed at handling the structure of complex sentences. In this system, three LSC units (clause, core, nucleus) can be combined and have up to three types of relationship (coordination, subordination, cosubordination). These relations are explained next.

1.3.1 NEXUS RELATIONS

Traditional or generative grammar assumed that there are only two types of linkage or nexus between combined clauses: the coordination relation and the subordination relation. Coordination is conceived as involving a juncture of two or more units of equal status. For example, the coordinated clauses appear in the form they would take if they were independent clauses. Subordination on the other hand involves a main clause taking another clause as an adverbial modifier. The subordinated clause appears usually with subordination marking distinguishing it from an independent main clause. In addition to these two traditional relations, RRG also posits a third nexus type, the cosubordination relation. This relation exhibit properties of both coordination and subordination. The three nexus types are illustrated below with data from Kewa (from Franklin 1971, cited in Van Valin 1992):

- (19) a. nipú ípu-la pare ní paalá na-pía
 3sg come-3sgPRES but 1sg afraid NEG-be.3sgPRES
 'He is coming, but I am not afraid.'
- b. (ní) épo lá-lo-pulu irikai épa lia.
 1sg whistle say-1sgPRES-CAUSAL dog come-3sgFUT
 'Because I am whistling, the dog will come.'
- c. (ní) épo lá-ri épa-wa
 1sg whistle say-SIM.SS come-1sgPAST
 'I whistled while I came,' or 'I came whistling.'

In sentence (a) above, nipú-la 'he is coming' and ní paalá na-pía 'I am not afraid' are potentially independent sentences. So, they are in a simple case of coordination, joined by the conjunction pare 'but'. Sentence (b) illustrates a case of subordination where the verb of the first clause (the subordinate clause) is marked -pulu 'because'. Note that each verb has an independent tense marking. Sentence (c) presents a case of switch-reference construction. Contrary to the coordination and subordiantion structures, here the verb of the first clause has no tense or person marking. This is not however an example of subordination (which does allow the subordinate clause to be marked for tense and person),

but it is a cosubordination construction where one clause obligatorily depends on the other for the expression of tense and person marking. Thus, the three relations are clearly distinct, and the cosubordination cases in Kewa and in other languages pose a difficult problem for traditional analyses. In RRG, the main characterization of a cosubordination juncture is that the clauses involved are of equal status (as in a coordination juncture), but they obligatorily share grammatical categories such as tense and mood. In this sense, units in a cosubordination structure are in a dependence relation (this feature of cosubordination is amply illustrated in Van Valin 1992 and in this work in chapter 5 for Hausa; cf. also Olson 1981). The nexus types can be represented as follows:

(20)	Nexus		
	+Embedding Subordination (distrib. dependence)	-Embedding +dependence cosubordination (operator dependence)	-dependence coordination

As one can see, both subordination and cosubordination involve a dependence structure. In subordination, the dependence is distributional, the subordinate clause is restricted to that environment. For cosubordination on the other hand, the dependence concerns only the sharing of operators.

1.3.2 LEVELS OF JUNCTURES

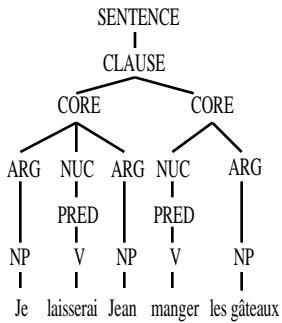
Another difference between traditional approaches and the RRG approach to complex sentences is in the types of units thought to be involved in a nexus relation. For traditional and generative grammar, only clauses can in a straightforward way be conjoined or subordinated. For RRG on the other hand, the three syntactically relevant units of the LSC can enter in any of the three nexus relations. These LSC units are the clause, the core, and the nucleus. The combination gives nine possible juncture types. At the clause level, one can have clausal coordination, clausal subordination, and clausal cosubordination. These three juncture types are all illustrated in (19) above. At the core level one has core coordination, core subordination, and core cosubordination. Core junctures are illustrated below:

- (21) a. John's winning the race surprised everyone.
 b. Je laisserai Jean manger les gâteaux.
 1sg let-FUT John eat the cakes
 'I will let John eat the cakes.'

- c. fu fi fase isoe.
 3sg sit letter write
 'He sat writing a letter.'

According to Foley and Van Valin (1984:255), the gerund is a core, that is, a verb stripped of everything but its arguments. In sentence (a) above, a gerund core appears in a subordination relation with another core. Thus, in RRG, traditional cases of subordination, where a clause functions as an argument of another clause, are treated as core junctures. Hence, only adverbial clause constructions are considered as clausal subordination in RRG (although "that" clause complement are taken to involve a clause and a core in a subordination nexus, cf. Foley and Van Valin 1984). The sentences (21b-c) above illustrate core coordination from French and core cosubordination from Barai respectively. Notice how in both cases the two cores in relation overlap by sharing one core argument. In (21b), Jean is semantically an argument of both laisser 'let' and manger 'eat', while fu 'he' in (21c) is an argument of fi 'sit' and isoe 'write'. In addition, the two cores each can have their own particular argument. Obligatory sharing of one core argument is considered as the criteria for a non-subordinate core juncture in RRG. The core coordination structure given in (21b) can be diagrammed as shown below (from Van Valin 1992):

(22)



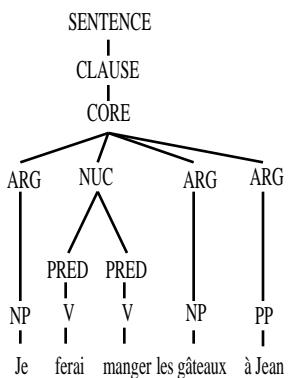
Similarly, at the nuclear level too, one can have nuclear coordination, nuclear subordination, and nuclear cosubordination. Examples of nuclear junctures are provided below:

- (23) a. John painted the table red
- b. je ferai manger les gâteaux à Jean.
 1sg make.FUT eat the cakes to John
 'I will make John eat the cakes.'

- c. fu fase fi isoe
 3sg letter sit write
 'He sat writing a letter.'

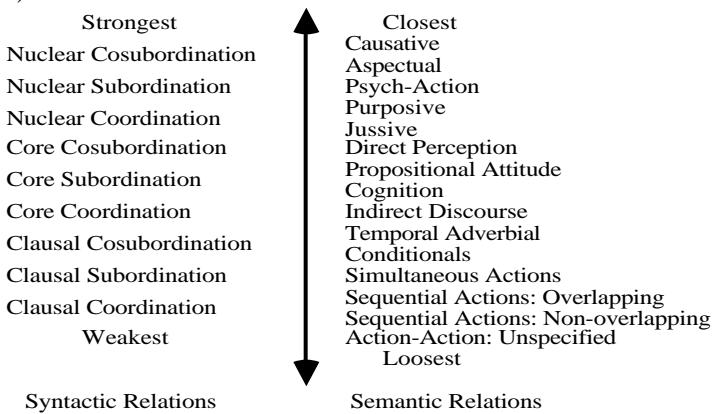
Sentence (a) above illustrates a nuclear coordination in English. Sentences (b-c) illustrate a nuclear cosubordination from French and Barai. The main features of a nuclear juncture is that two or more nuclei combine to form a single complex nucleus with a single set of core arguments. In nuclear cosubordination in particular, two or more predicates behave as if they constitute a single predicate. This feature and other properties of nuclear cosubordinations will be the topic of chapter 5, where it is shown that Hausa V+mà and the grade 5 V+dà are cases of nuclear cosubordination. The French construction exemplified in (23b) above can be diagrammed as shown below (from Van Valin 1992):

(24)



In conclusion, the concepts in the layered structure posited for the simple sentence are also crucial in understanding the structures of complex sentences. According to Van Valin (1992), no language has all of the nine possible juncture types, but each language chooses among them. Also, the juncture type chosen in a particular language depends on the semantic relation to be expressed by the juncture. Thus, crosslinguistically, there is a correlation between the strength of the juncture (the weakest is the clausal coordination and the strongest is the nuclear cosubordination) and the relevance of the semantic function expressed. This is captured by the Interclausal Relational Hierarchy given below (from Van Valin 1992):

(25)

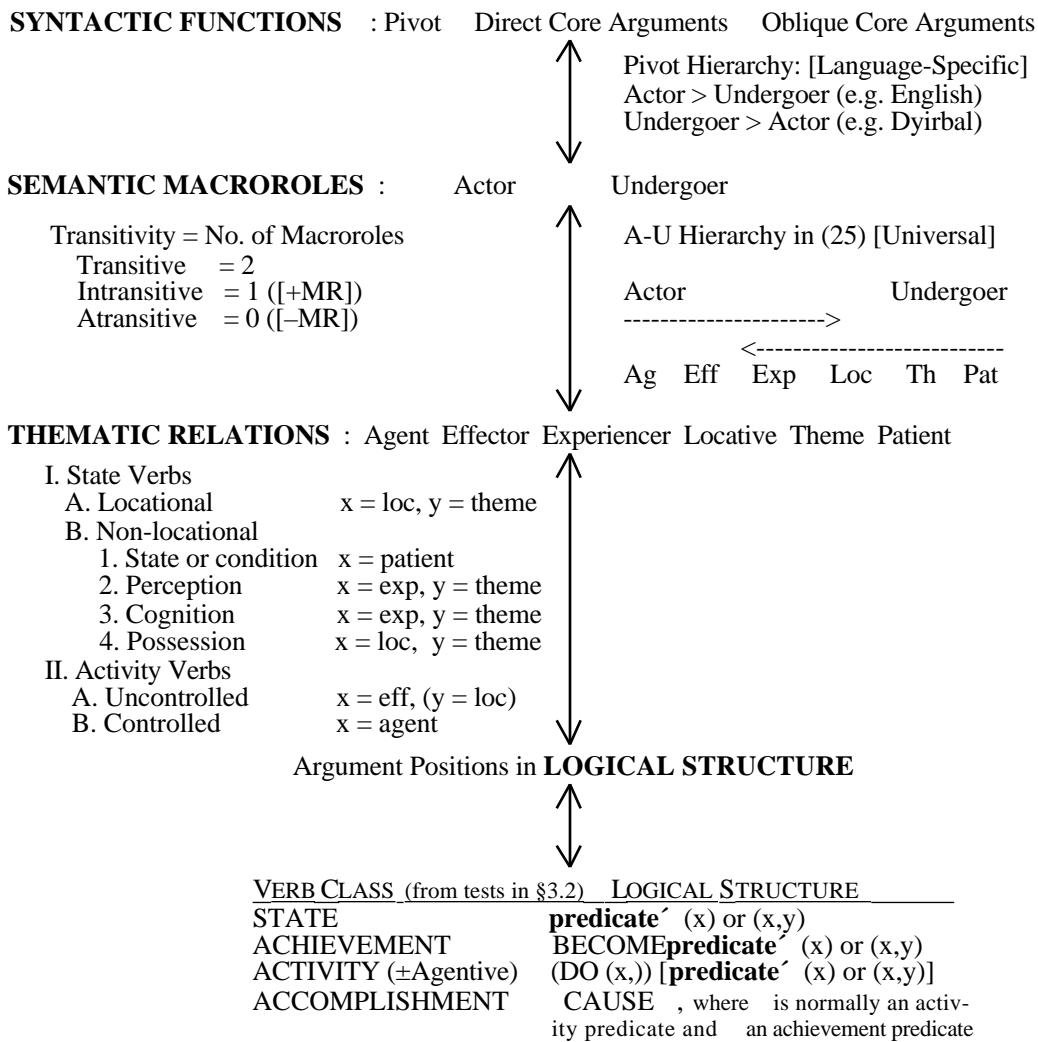


These nine juncture types represent the domain of syntax. Nuclear cosubordination is the last syntactic construction before the domain of morphological processes. Thus, it is the strongest juncture and historically, it can easily evolve into a stage where the two nuclei are reanalyzed as a stem and affix. An example of this reanalysis will also be seen for Hausa in chapter 5.

1.4 LINKING BETWEEN SEMANTICS AND SYNTAX IN RRG

RRG is a theory where syntactic structure is grounded on the lexical-semantic properties of verbs. The lexical representation of a given predicate determines the syntactic structure it can enter. This is why an uncommonly rich system of lexical decomposition of verbs is used to define the thematic relations which are linked to syntactic positions via the semantic macroroles. Below is a figure representing the level of the lexical decomposition of verbs (or Logical Structure, LS for short), the level of syntax, and the steps between them (from Van Valin 1992):

(26)



As one can see, there are discrete steps to arrive from the lexical representation to syntactic structure set up to insure there is no circularity. The determinism is only one way, from semantics to syntax, not the other way around. This differs from other theories where syntax is presumably derived from semantics, but the semantics is inferred from the surface syntax. The subsections below explicate what the verb classes are, how one obtain them, what are the semantic macroroles, and how they relate to syntax.

1.4.1 VERB CLASSES AND LOGICAL STRUCTURE

RRG's approach to the lexicon is based on Vendler's (1967) classification of verbs into states, achievements, activities, and accomplishments, and the modification of this classification found in Dowty (1979). This classification, originally based on English, have

since been found to be valid across languages. Examples of class membership in English are as follows (from Van Valin 1992):

(27)	STATES	ACHIEVEMENTS	ACCOMPL.	ACTIVITIES
	be shattered	shatter (INTR)	shatter (TR)	swim
	have	receive	give	walk
	know	learn	teach	talk
	believe	realize	convince	think (about)
	be dead	die	kill	watch
	be cool	cool (INTR)	cool (TR)	sparkle

For a particular verb, the membership assignment is far from arbitrary. Dowty (1979:60) proposes for English a series of syntactic and semantic tests for defining the classes. The tests as well as the behavior of the four classes with regard to each test are given in the table below (from Van Valin 1992):

(28)	Criterion	States	Achiev.	Accompl.	Activities
1. Occurs with progressive	No	D: Yes /P: No	Yes	Yes	
2. Occurs with adverbs like vigorously, carefully, etc.	No	No	Yes	Yes	
3. Occurs with for an hour, spend an hour V+ing	Yes	D: Yes / P: No	Yes	Yes	
4. Occurs with in an hour, take an hour to Verb	No	D: Yes / P: No	Yes	No	
5. Verb for an hour entails at all times in the hour	Yes	D: No / P: d.n.a.	No	Yes	
6. x is V+ing entails x has V+ed	d.n.a.	D: No / P: d.n.a.	No	Yes	
7. Has inherent causative semantics	No	No	Yes	No	

These tests collectively discriminate the four classes and, more importantly, they can assign any given English verb occurrence to one or the other of the classes. This insures that there is no arbitrariness in the class assignment. Also, each language would need its particular adapted set of tests. Although the tests probe universal aspectual properties of verbs, a particular test is only a device and may be lacking in a given language. Thus, in English, the fact that the "V+ing => V+ed" test is fine with activity verbs underlines the unbounded temporal aspect of this class. However, one may have to find another way of testing the unbounded temporal aspect of activity verbs if the language at hand lacks the continuous

aspect. In chapter 4, on the Hausa grade system, a set of specific tests will be developed for Hausa.

Dowty's assumption is that state verbs are basic and all the other classes are derived from them. He was unable however to derive activity verbs from state verbs, so that these two classes, for all practical purposes, are considered as basic while achievement and accomplishment verbs are derived. The relationship between the classes can be seen in their respective decomposed lexical representation or Logical Structure. The LSs for the four classes are given below (from Van Valin 1992):

(29)	Verb Class	Logical Structure
STATE		predicate' (x) or (x,y)
ACHIEVEMENT		BECOME predicate' (x) or (x,y)
ACTIVITY		(±Agentive) (DO (x)) [predicate' (x) or (x,y)])
ACCOMPLISHMENT		P1 CAUSE P2, where P1 is normally an activity predicate and P2 an achievement predicate.

State verbs are basic and consist of a predicate and one or two arguments. Achievement verbs are in essence state verbs modified by the operator BECOME. Achievements too can have one or two arguments. In the lexical decomposition adopted in Van Valin (1992), activity verbs are also basic, like state verbs. They may be obligatorily agentive (containing the operator "DO"), or they may be non-agentive. Activity verbs can have one or two arguments. Finally, the accomplishment class of verbs is derived from the combination of an activity predicate and an achievement predicate bound by the operator "CAUSE". The second predicate can also be an activity verbs for some verbs such as 'roll' (x roll y = x caused y to roll), 'walk' (x walk y = x caused y to walk). Some examples of English verbs and their associated LSs are given below (from Van Valin 1992):

(30)a. STATES		
Bob is a lawyer.		be' (Bob, [lawyer'])
The watch is broken.		broken' (the watch)
The magazine is on the desk.		be-on' (the desk, the magazine)
Max is at the office.		be-at' (the office, Max)
Sam saw the painting.		see' (Sam, the painting)

b. ACHIEVEMENTS

Bob became a lawyer.
The watch broke.
Max arrived at the office.
The magazine fell on the floor.
Sam noticed the painting.

BECOME **be'** (Bob, [lawyer'])
BECOME **broken'** (the watch)
BECOME **be-at'** (the office, Max)
BECOME **be-on'** (the floor, the magazine)
BECOME **see'** (Sam, the painting)

c. ACTIVITIES

The children cried.
The ball rolled.
The door squeaks.
Mary did something.
Larry ate fish.

cry' (the children)
roll' (the ball)
squeak' (the door)
do' (Mary)
eat' (Larry, fish)

d. ACCOMPLISHMENTS

Joan tossed the journal on the desk.
[**toss'** (Joan, the journal)] CAUSE [BECOME **be-on'** (the desk, the journal)]
Max ran to the office.
[**run'** (Max)] CAUSE [BECOME **be-at'** (the office, Max)]
The baby broke the watch [accidentally].
[**do'** (the baby)] CAUSE [BECOME **broken'** (the watch)]
Louise showed the painting to Sam.
[**do'** (Louise)] CAUSE [BECOME **see'** (Sam, the painting)]

The derivational relation state => achievement => accomplishment is actually instantiated morphologically in many languages. Also, the activity => accomplishment derivation is well documented, as is the case with English verbs of motion, consumption, and creation. This is illustrated below:

- (31) a. Bill ran in the park.
b. Bill ran to the park.

'Ran' in sentence (a) above is an activity verb, as evidenced by its ability to pass the 'V+ing=>V+ed' test. The verb 'ran' in (b) must end in a result state, i.e. the park has to be reached for the completive reading to obtain. As it will be seen in chapter 4, in Hausa many activity verbs are inchoative, that is, they are achievement verbs incorporating an activity predicate. The verb ruugàa 'run' for example incorporates the notion of the inception of an activity, and translates as 'start to run'. The inherent inchoative sense may be the reason why ruugà is not felicitous as complement of 'start': *yaa faarà ruugàawaa 'he started running'. Real activity verbs have no problem occurring as complements of 'start', as one can judge with English 'run'. Another test of the inchoative emphasis is whether the description of someone having 'V+ed' includes or excludes his 'still V+ing' in real life. Activity 'V+ed' verbs exclude the 'still V+ing' state of affair. For example, 'he ran in the park' is usually

understood as implying 'he is no longer running now'. On the other hand, inchoative activity do not exclude the 'still V+ing' state of affair when used in the perfective. So, yaa ruugàa 'he set off running' or 'he ran away' can describe the real state of affair where someone is still running. This test will be formalized as 'V+ed incl. still V+ing', to be distinguished from the activity 'V+ing=>V+ed' test which probes the resultative aspect and serves to isolate activity verbs from all other classes.

1.4.2 THEMATIC RELATIONS

All other syntactic theories, if they use them at all, list thematic relations in an arbitrary fashion as a verb's lexical representation. In RRG, thematic relations are not stipulated, but they are systematically derived from argument-positions in the LS of verbs. The thematic relations generated by LS positions are given below (from Van Valin 1992):

(32)

I. STATE VERBS

A. Locational	be-at' (x,y)	x = locative, y = theme
B. Non-Locational		
1. State or condition	broken' (x)	x = patient
2. Perception	see' (x,y)	x = experiencer, y = theme
3. Cognition	believe' (x,y)	x = experiencer, y = theme
4. Possession	have' (x,y)	x = locative, y = theme
5. Equational	be' (x,y)	x = locative, y = theme

II. ACTIVITY VERBS

A. Uncontrolled		
a. Non-motion	cry' (x) or eat' (x,y)	x = effector, y = locative
b. Motion	roll' (x)	x = theme
B. Controlled	DO (x, [cry' (x)])	x = agent

Notice that one needs only to define the argument positions for state and activity verbs because these are the basic classes. The other classes add no new thematic relation or argument position. As seen in (32) above, the patient is the single argument of a state or condition state verb. The theme is the second argument of any state verb, or the single argument of a motion activity verb. The Locative is the first argument of a location, possession or equational state verb; it can also be the second argument of an uncontrolled non-motion activity verb. Finally, the agent relation is associated with the single argument of a controlled activity verb.

One point that needs explication is the second argument of activity verbs such 'eat', 'drink', 'play'. Here, the effector is engaged in an unbounded, activity which does not necessarily imply a result state. Therefore, the second argument cannot be a patient, but it is

a locative instead. Thus in sentence such as 'John eats fish', 'fish' is not a patient in an accomplishment LS, but it is a locative argument of an activity predicate. Indeed, by Dowty's tests, 'eat (fish)' is an activity use of 'eat' and differs from the accomplishment use 'eat a fish', with does take a patient (cf. 'John is eating fish' => 'John ate fish').

Also, most other theories have no principled way of constraining the number of the thematic relations. In RRG, the relations are systematically derived from argument positions in LS, therefore, their number is limited. Nonetheless, there is a semantic continuum from the end-point relation of agent to that of patient. The cline can be represented as follows (from Van Valin 1992):

(33)



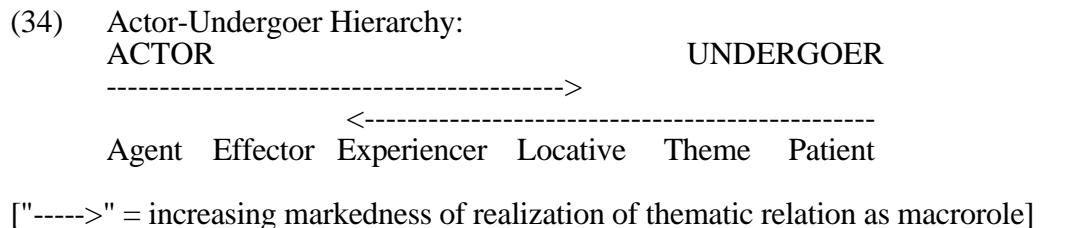
At one end is the agent, the willfull, volitional, and instigating participant. At the other end is the patient, the non-willfull, non-instigating, and maximally affected participant. The effector is closer to agent, and behaves dynamically in bringing about the verb's action/ result, but it may lack volition or control. The experiencer is the foci of an internal event. Locatives in general are not particularly affected or affecting, at least not canonically. The locative relation in fact encompasses more fine-grained roles such as Goal, Source, Recipient, etc, as indicated in (33) above. Themes are participants that are moved around or located. They are not as affected as patients are.

In conclusion, in RRG, the semantic relations are not the lexical representation of verbs. The lexical representation of a verb is its LS, with is given by the verbs class as determined by the tests. On the other hand, the semantic relations are instrumental in linking the LS argument-position to the macroroles and ultimately to syntactic positions in sentences. The next step in the linking is the macroroles tier.

1.4.3 THE MACROROLES

There are only two macroroles, actor and undergoer. The main function of the macroroles is to interface the grammatical relations (GRs, if the language at hand has them) and the semantic relations. In the grammar of languages, many semantic relations are conflated and treated the same for the purpose of syntactic or case marking. For example, themes and patients can function the same in the grammar even if they are semantically two distinct notions. They tend to appear as "direct objects". In consequence, one needs more general notions to express the relevant grammatical generalizations. There is no precise cut-

point as to which thematic relations link to actor macrorole on the one hand, and which relations link to undergoer on the other hand. The association between the two notions is mapped in hierarchical terms. Access to the actor macrorole is more available to the agent, the effector, the experiencer, etc. Access to the undergoer macrorole is more available to the patient, the theme, the locative, etc. The Actor-Undergoer hierarchy (A-U hierarchy) is represented below (from Van Valin 1992):



This is the default situation, there are marked assignments where a higher ranked argument for a given macrorole is passed over in favor of a less ranked argument. Thus, a locative can take the undergoer macrorole over the patient or the theme (= marked undergoer choice construction). This is particularly illustrated in dative shift or applicative constructions such as English 'Bill (agent-Actor) gave Fred (locative-Undergoer) the book (theme)'. Marked undergoer choice process can be found for Hausa in the grade 9 V+mà construction, as it will be seen in chapter 5.

Transitivity in RRG is defined in terms the number of macroroles a verb has, not the number of syntactic arguments. A verb is transitive if it has two macroroles, it is intransitive if it has one macrorole. If the verb has no macrorole at all, then, it is atransitive. The default macrorole assignments in RRG are given below (from Van Valin 1992):

- (35) Default Macrorole Assignment Principles
- a. Number: the number of macroroles a verb takes is less than or equal to the number of arguments in its LS
 - 1. If a verb has two or more arguments in its LS, it will take two macroroles.
 - 2. If a verb has one argument in its LS, it will take one macrorole.
 - b. Nature: for verbs which take one macrorole,
 - 1. If the verb has an activity predicate in its LS, the macrorole is actor.
 - 2. If the verb has no activity predicate in its LS, the macrorole is undergoer.

Thus, the verb 'eat' in 'John eats fish' is considered as intransitive in RRG, because the locative argument 'fish' does not link to the undergoer macrorole, hence the (activity) verb has only the actor macrorole argument. By looking at the cline in (34) above, it is clear that the actor and the undergoer macrorole are respectively "agent" and "patient" only

prototypically. They are also partly semantic and partly syntactic, because they interface the semantic relations and the GRs in syntax. This function of the macrorole is taken up in the next subsection.

1.4.4 GRAMMATICAL RELATIONS

RRG has a unique stance vis-à-vis the GRs. First, GRs are not primitive constructs and do not exist in all languages. Thus, there are languages for which only the macroroles of actor and undergoer are relevant for syntactic marking. There are also languages where the GR categories are needed. For example in English, both the actor and the undergoer can be "subject" and appear in initial position (cf. active vs. passive subject sentences); therefore, in that position, the distinction between actor and undergoer macroroles is neutralized. In an active sentence, the actor is the "subject", while in a passive sentence this function is assumed by the undergoer. The GR function of an argument does not change its macrorole assignment. Secondly, in RRG there is only one GR, the function of "pivot". So, RRG has no notion corresponding to that of "direct object", "indirect object", etc. Beside the pivot, there are only core arguments.

The concept of pivot refers to the syntactic argument crucially involved in a given syntactic construction. In English, contrary to a language such as Achenese, verb agreement for example is associated with a restricted neutralization of the actor and the undergoer. One needs the syntactic notion of pivot in order to state the generalization relative to the agreement phenomenon. For a language like English, and most other languages which have pivots, the same syntactic argument, the pivot, seems to be the privileged argument in that it is referred to by a number of syntactic constructions, not one. Thus, beside agreement, the English pivot is also involved in control, equi, as well as other key syntactic structures. This is why most languages can be characterized as accusative (unmarked pivot is actor) or ergative (unmarked pivot is undergoer). In other languages however, the function of pivot shifts from one syntactic argument to another depending on the construction considered. Such languages --for example Jacaltec-- cannot be easily classified as accusative or ergative. Note that even in accusative language, a few constructions will make reference to the undergoer, not the actor; and similarly, in languages labelled ergative, the actor can be central in a few constructions. Thus, there is no "pure" accusative or ergative language.

An important aspect of GRs in RRG is the mechanism of the assignment of the pivot function to actor or undergoer in transitive verbs. In English, the presiding factor is discourse pragmatics. The syntactic pivot is highly topical ("subject"), and this is the reason determining the assignment. So, if the actor is topic, it is assigned the pivot function in an active sentence. If however the undergoer is more topical in the discourse context, then it is

assigned the pivot function in a passive construction. English and other languages with a passive construction are called in RRG "pragmatic pivot" languages (ergative languages will have an antepassive construction to promote the topical actor to pivot function). The discourse-based GR assignment is not universal. In languages like Amele, only actor can be pivot. There is no construction akin to the English passive where the undergoer would be "promoted" to pivot function. The undergoer can be pivot only with intransitive verbs. These languages are called in RRG "semantic pivot" languages, because semantics, not discourse context, determines what argument is linked to pivot.

In conclusion, some languages have a restricted neutralization of macroroles and hence need the GR notion of "pivot". Other languages do not have the restricted neutralization, and therefore, they lack GRs (which then can't be primitive notions in a syntactic theory). Of the languages with a restrictive neutralization of macroroles, some allow either the actor or the undergoer to be linked to the pivot function, depending on discourse context. These languages have a pragmatic pivot. The rest of the restricted neutralization languages automatically realize a given macrrole as pivot, and have no passive (or antepassive) construction. These languages have a semantic pivot. The two types of pivot can be characterized as follows (from Van Valin 1992):

- (36) a. Syntactic pivot [+pragmatic influence]: the selection of the argument to function as pivot of a transitive verb is not predictable from its semantic role and may be influenced by discourse-pragmatic considerations, in particular its topicality. Such a pivot will be called a PRAGMATIC PIVOT [PrP].
- b. Syntactic pivot [-pragmatic influence]: the selection of the argument to function as pivot of a transitive verb is predictable from its semantic role, which is determined by the lexical semantic properties of the verb. Such a pivot will be called a SEMANTIC PIVOT [SmP].

Hausa has a restricted neutralization of macroroles. The actor of a transitive verb is marked syntactically in the same way as the sole undergoer argument of an intransitive verb. This is illustrated below:

- (37) a. Kafàr teebùr taa karèè.
leg-of table 3fs.PERF break-IV
'The table's leg broke.'
- b. Abdù yaa karyà Kafàr teebùr.
Abdu 3ms.perf break-I leg-of table
'Abdu broke the table's leg.'

In sentence (a) above, Kafàr teebùr 'table's leg' is an patient because it is the sole argument of a state predicate embedded in an achievement verb. As a patient, this argument is linked to the undergoer macrorole, which in turn is assigned the pivot function. In sentence (b), Abdu is the actor (it is the argument of an activity predicate embedded in an accomplishment verb), while Kafàr teebùr 'table's leg' is the undergoer, in accordance with the A-U hierarchy in (34) above. The actor Abdu is linked to the pivot function, just as the undergoer Kafàr teebùr 'table's leg' is in sentence (37a). So, both actor and undergoer can appear sentence-initially as pivot, where they cue the "agreement" on the verb. One can then consider Hausa to have a pivot and also to be an accusative language.

There are many constructions in which the pivot is the central constituent. In chapter 2, arguments are provided showing that the core pivot argument in Hausa is the PVP, not the clause initial NP. This analysis is assumed here. There are many complement-taking verbs which are restricted to pivot control. Verbs such as Ki 'refuse', taBà 'try once', faarà 'begin', Kaarè 'finish', exclusively have pivot control of the understood actor, as illustrated below:

- (38) a. yaa faarà jiimàr faatàa.
 3ms.PERF begin-I tan-DN-of leather
 'He began tanning the leather.'
- b. *yaa faarà tà jèemi faatàa.
 3ms.PERF begin-I 3fs.SUB an-II leather
 '*He began tanning the leather.'

As one can see, only the pivot of the main verb faarà 'begin' can control the actor of the subordinate clause. Other verbs allow both pivot and non-pivot control, while some other verbs exclude disallow pivot control. These cases are illustrated below:

- (39) yaa_j soo yà_{i/j} tai Maraadi.
 3ms.PERF want 3ms.SUB go Maradi
 'He wanted to go to Maradi.', 'He wanted him to go to Maradi.'
- (40) a. yaa sàa Kânsì suuyàr gujiyaa.
 3ms.PERF put himself fry-DN-of peanuts
 'He put himself into frying the peanuts.'
- b. yaa sàa Indoo suuyàr gujiyaa.
 3ms.PERF put Indo fry-DN-of peanuts
 'He made Indo fry the peanuts.'
- (41) a. yaa bar Indoo tà yi kwaanaa.
 3ms.PERF let -II Indo 3fs.SUB do sleep
 'He let Indo sleep.'

- b. *yaa bar kânhshì yà yi kwaanaa.
 3ms.PERF let-II himself 3ms.SUB do sleep
 'He allowed himself to sleep.'

The verb soo 'want' and sâa 'put, make' in (39-40) respectively admit both pivot and non-pivot control. bar 'let' on the other hand admits only non-pivot control, as shown in (41a-b).

It is also the case that Hausa is a pragmatic pivot language. Thus, if the actor is irrelevant or easily inferred in discourse, the undergoer can be topicalized and promoted to the pivot function in a passive construction. In this case, the actor can be expressed in an oblique phrase or dropped out altogether. This is illustrated below:

- (42) a. Kafâr teebùr taa kàryu (gà Abdù).
 leg-of table 3fs.PERF break-VII (with Abdu)
 'The table's leg is broken by Abdu.'

Here, Abdu is the actor, but it is backgrounded to a peripheral position. Kafâr teebùr 'table's leg', the undergoer, is foregrounded to pivot function. The grade 7 in Hausa is the passive construction, as it will be seen in chapter 4. Therefore, one can also conclude that Hausa is a pragmatic pivot language with both transitive actor and undergoer being able to fill the pivot role.

This concludes the survey of the linking steps from semantics to syntax as represented in the table under (26). The actual linking algorithm can be summarized as given below (from Van Valin 1992):

- (43) Linking from Logical Structure
1. Determine the semantic roles of the arguments, based on their position in the decomposed semantic structure.
 2. Determine Actor and Undergoer assignments, following the A-U Hierarchy in (34).
 3. Assign Actor and Undergoer to specific morphosyntactic statuses.
 - a. This is language-specific (see 36).
 - b. In English, the accessibility to pivot is Actor > Undergoer.
 4. Assign the remaining core arguments their appropriate case markers/prepositions.
 5. If there is an NP which is [+WH], then assign it to the PCS.

In the linking steps defined in table under (43) above, the semantic macroroles are the interface between semantics and syntax. Any process that is taking place below the macroroles is lexical and in the domain of semantics. Any process taking place above the macroroles is in the realm of syntax. In chapter 4, actual linking from semantics to

morphosyntax will be seen with Hausa simple sentences. The next and last section of this chapter treats the notions of topic and focus in RRG and in Hausa.

1.5 INFORMATION STRUCTURE

Another main component system of RRG is information structure. This component integrates the discourse factors into the theory, factors which in other formal theories are frequently ignored despite their relevance to syntactic phenomena. RRG indeed makes a crucial use of the notions of "topic" and "focus" to explain various syntactic constructions which elsewhere are uniquely approached in a structural way. Such phenomena are coreference, reflexivization, extraction, etc. In this work, the notions of topic and focus will particularly be used to constrain the phenomenon of the preverbal pronoun drop in chapter 2. The aim of this section is to present the theoretical basis of the notions (section 1.5.1), the various focus types (section 1.5.2), and the topic and focus constructions in Hausa (sections 1.5.3 and 1.5.4).

1.5.1 TOPIC and FOCUS

The RRG approach to information structure relies on Kempson's (1975) reformulation of Gricean maxims and on Lambrecht's (1987) definition of the notions of topic and focus. In Lambrecht's information structure theory, there are essentially two statuses in which informational units can be. An informational unit, a noun, a predicate, or a PP, can be the topic or the focus of a sentence. The status of the informational unit can determine its syntactic behavior and, for some languages, even its morphology and syntactic position.

For Lambrecht, there is a fundamental relationship between what is topic or what is focus and the pragmatic presupposition associated with the sentence. First he defines the pragmatic presupposition as the set of propositions which the speaker assumes the hearer considers true, believe, knows or is aware of at the time of the utterance. The propositions that are not presumed by the hearer constitute the domain of the assertion. So, the assertion is the proposition which is added to the pragmatic presupposition by an utterance. It is in the frame of these two domain (presupposition and assertion) that the notions of topic and focus are defined. The topic is an element of the pragmatic presupposition domain. Its referent is active, or accessible in the discourse. The focus of an utterance is the part that is asserted, questioned, considered, or denied.

1.5.2 TAXONOMY OF FOCUS STRUCTURES

As said earlier, the informational status of a constituent has repercussions on the form and syntax of that constituent. Lambrecht terms "focus structure" the prosodic and morpho-

syntactic system which serves to express the contrast between the presupposition and the assertion part of the sentence. There are two fundamental types of focus: broad and narrow focus. In narrow focus, the whole focus domain centers on one informational unit such as an NP. In broad focus on the other hand the focus domain is expanded over more than one constituent. There are two kinds of broad focus, predicate focus and sentence focus.

1.5.2.1 **Predicate focus** (unmarked broad focus)

Predicate focus coincides with the traditional information organization of a sentence into Topic-Comment. In this structure, the predicate verb and the NP object are the assertion domain, and are the "comment" about the subject or Topic. The NP object in particular is the unmarked focus constituent (Van Valin 1992). Examples of predicate focus across languages are as follows (from Lambrecht 1987, cited in Van Valin 1992):

- (44) Q: How's your car?
 A: a. My car / it broke DOWN (English)
 b. (La mia macchina) si è ROTTA (Italian)
 c. (Ma voiture) elle est en PANNE (French)
 d. (Kuruma wa) KOSHOO-shi-ta (Japanese)

In Hausa, similarly the predicate focus will have as domain the verb and the object argument in simple sentences. This is illustrated below:

- (45) Q: How about Abdu?
 A: Abdù yaa TAFI MARAADI.
 Abdu 3ms.PERF go-III Maradi
 'Abdu went to Maradi.'

The sentence in (45) above is indeed the most natural answer to the questions Abdù fa? 'how about Abdu?' or inaa Abdù? 'where/ how is Abdu?'. Therefore, the referent of Abdu is clearly established as the topic, about which an assertion is made in the predicate. The focus domain here is the verb and its argument. Notice that because RRG has no structural notion equivalent to VP, grammatical processes which seems to refer to VP are taken to refer instead to a grammaticalized predicate focus structure.

1.5.2.2 **Sentence focus** (marked broad focus)

Sentence focus constructions are found in sentences which do not have a topic NP. Thus, the domain of the assertion spans the entire sentence. These constructions usually involve existential or presentational sentences. Examples of such information structure are

as follows (the examples of (46) are from Lambrecht 1987, cited in Van Valin 1992; the examples of (47) are from Van Valin 1992):

- (46) Q: What happened?
A: a. My CAR broke down.
b. Mi si è rotta la MACCHINA
c. J'ai ma VOITURE qui est en PANNE.
d. KURUMA ga koshoo-shi-ta

(47) a. Once upon a time there was an old man and a dog.
b. Then out from under the bed ran a mouse.
c. There arose a violent storm.

In (46), the answers asserts everything in the sentence, nothing is presupposed and there is no topic which is commented upon. Presentational and existential sentences are illustrated in (47). In Hausa, examples of sentence focus are as follows:

'Suddenly there was a boy running fast out of the garden.'

(note: PP "dà+pronoun" adds an intensive meaning to adjectives or Staticives)

- b. àkwai wani bàbban màalàmii à lookàcin dâa...
there.be some.m great eacher at ime-of old.times
'There was a great teacher in the ancient times...'

c. dà àkwai ruwaa à tùuluu./ baabù ruwaa à tùuluu.
there.be water in pot/ NEG.there.be water in pot
'There is water in the pot./ There is no water in the pot.'

d. dà jàma'àa à Koofàr faadà.
there.be people at gate-of palace
'There are people at the palace.'

e. an yi wata sàraunìyaa mai tsananií lookàcin
IMP.PERF do some.f queen owner.of toughness time-of
dâa.

'There used to be a very tough queen in the ancient times!'

In (48) above are various devices used in Hausa to introduce new participants in discourse. In sentence (a) above gàa is the presentational predicate translating as 'here is/ was' (cf. gàani! 'here I am!'). Sentences (b-c) illustrate the existential predicates àkwai, dà àkwai and dà. As far as I can tell, the difference between them is only stylistic, dà being avoided when speaking to superiors, whether it is alone, as in (d), or in conjunction with àkwai, as in (c). On the other hand, dà and àkwai can also conflate into dàkwai (cf. Gouffé 1967-68:38). Sentence (c) also presents the negative existential baabù (sometimes it is also bâa) which translates as 'there is/ was not' (cf. bâa Allàa 'god does not exist', bâa Abdù 'Abdu is dead'; cf. also Newman 1971). Finally, another existential construction uses the impersonal construction with the verb yi 'do'. It has the same meaning as àkwai, only the impersonal construction can be specified for tense/ aspect (ân yi Daarii, zaa à yi Daarii, both 'there will be some cold'). In Lambrecht's theory, all the sentences above lack a topic NP. The introduced NP appears following the existential or presentational predicate. So, nothing is presupposed and the whole sentence is in the focus domain.

1.5.2.3 Narrow focus

Narrow focus obtains when a single syntactic constituent is the assertion domain. The constituent can be any informational unit, a NP, a PP, or even the verb. Some examples are given below (from Lambrecht 1987, cited in Van Valin 1992):

- (49) Q: I heard your motorcycle broke down?
 A: a. My CAR broke down.
 b. è la mia MACCHINA che si è rtta.
 c. C'est ma VOITURE qui est en panne.
 d. KURUMA ga koshoo-shi-ta.

In the examples above, the predicate is presupposed, and the assertion states only that it is the car which is broken (contrastively to something else). Narrow focus constructions include wh-words and contrastively-marked NPs such as in (49) above. The focal element can be the "subject", in which case one has a marked narrow focus construction. The construction is "marked" because normally the subject is a topical element, thus, the least likely to be in focus. The focussed element can also be a constituent in the predicate, in which case one has an unmarked narrow focus construction. The construction is "unmarked" because the focus falls inside the predication part of the sentence, which is the domain of the assertion. The next two subsections detail the topic and focus constructions found in Hausa.

1.5.3 TOPIC CONSTRUCTIONS IN HAUSA

This subsection distinguishes two major topic constructions in Hausa, the regular CEP position and the more topical LDP. The difference between them is that the LDP nominals are modified by an independent pronoun and optionally set off from the clause by a pause, whereas the CEP nominal are bare and have no pause following them. The two types of constituent have different properties, especially with regard to resumptive pronouns. In this section, the terms "subject" and "object" will be used, but later in chapter 2 on, they will be dropped in favor of the RRG technical terms seen in the preceding section.

1.5.3.1 The CEP topic nominals

Assumed here, but more evidenced in chapter 2, is the fact that the regular NP "subject" in Hausa is a nominal outside the core and in the CEP position. The CEP subject nominal is then a topic, in accordance with the information theory of Lambrecht. An unexpected fact for a language like Hausa --thought to have a familiar, exocentric clause structure-- is that it is possible for a patient nominal also to appear in the CEP, by a topicalization process. This is illustrated below:

- (50) a. ruwaa sun jânyee.
water 3p.PERF draw-IV
'The water they drew (it) all.'
'The water has all receded.' (water is plural in Katsinanci)

One reason for my considering the preposed patient as a CEP nominal is the fact that it is not possible to distinguish it from a CEP subject argument. Indeed, there is no pause or any kind of prosody marked on the displaced patient nominal. This is why the sentence (50) above has two interpretations. In the first interpretation, the PVP sun '3p.PERF' refers to ruwaa 'water', which is then the subject. In the second interpretation, the PVP refers to some other entity and ruwaa is just a topicalized patient nominal. Only the linguistic or real world context can cue one or the other interpretation. Whether subject or object, ruwaa 'water' in (50) above is a nominal in the CEP and it is marked as a topic. When the object is fronted in the CEP, a resumptive pronoun is obligatory for human referents, but optional for other referents. This is illustrated below:

- (51) a. Abdù Indoo taa tuuràa *(shi) makarantaa.
Abdu Indo 3fs.PERF push-I 3ms school
'(As for) Abdu Indo sent him to school.'
- b. littaafii Indoo taa baadàa (shi) wàje.
book Indo 3fs.PERF give-I (3ms) out
'(As for) the book Indo gave it out.'

Thus, for non-human referents, the resumptive pronoun is optional. This contrasts with focus constructions where the resumptive pronoun is ungrammatical as we will see in the next subsection. Although Hausa clause in this work is taken to be endocentric for the subject only, the examples in (51) above are structurally endocentric for both subject and object, much like in the Lakhota example of (9). On the other hand, the relationship between the subject nominal in the CEP and the preverbal pronoun is more complex and will be treated in chapter 2.

1.5.3.2 The tagged LDP nominals

A more prominent topic position in Hausa is what will be analyzed here as the LDP. Nominals in this position are marked with a pronoun "tag". The nominal can be the subject or the object. This is illustrated below:

- (52) a. shii Abdù yanàa zuwàa Maraadi gòobee.
 3ms Abdu 3ms-CONT go-DN Maradi tomorrow
 'As for Abdu he is going to Maradi tomorrow.'
- b. shii Abdù Indoo taa tuuràa shi makarantaa.
 3ms Abdu Indo 3fs.PERF push-I 3ms school
 'As for Abdu Indo sent him to school.'

In sentence (a) above, the subject is tagged with an agreeing independent pronoun, and the result is a higher topicality than it would be without the pronoun. In sentence (b), the pronominal tag is appended to the object. Whichever nominal is tagged is assumed here to be in the LDP. There is some evidence showing that indeed the tagged nominal is in the LDP, hence in a highly topicalized position. First, a tagged nominal cannot appear clause internally, for example as an object following the verb. This is illustrated below:

- (53) a. maalàm yaa àiki (*ita) Bàlkii.
 teacher 3ms.PERF send-II (3fs) Balki
 'The teacher send away Balki.'
- b. maalàm yaa àikee ta (ita) Balkii.
 teacher 3ms.PERF send-II 3fs (3fs) Balki
 'The teacher send her away, Balki.'

Sentence (a) above shows that a tagged nominal cannot appear core internally as a direct argument. Instead, the object can be tagged with a pronoun, and be set off the clause, at end of the sentence, in the right equivalent of the LDP (the RDP), as shown in sentence (b).

Secondly, tagged nominals do not appear after a focussed constituent. This is illustrated below:

- (54) a. *[ABIN WAASAA] shii Abdù yakèe yîi.
 thing-of play 3ms Abdu 3ms.REL CONT do-VN
 'As for Abdu, it is a toy that he is making.'

The sentence (54) above shows that the tagged nominal shii Abdù 'him Abdu' cannot appear after the focused material àbin wàasaa 'thing-of play (it is)'. The ungrammaticality of (54) can be understood if one considers the LSC diagram in (2) above. There, it is shown that the LDP is a position modifying the clause node, whereas the PCS position --which contains focussed material--is clause internal. Thirdly, the tagged nominal differs from a focussed nominal in its inability to appear following an unmarked subject. The construction where the subject is tagged and follows an unmarked CEP object is quite marginal. These points are illustrated below:

- (55) a. Indoo ABDU ta tuuràa makarantaa.
 Indo Abdù 3fs.PERF push-I school
 'Indo, (it is) Abdu that she sent to school.'
- b. *Indoo shii Abdù ta tuuràa shi makarantaa.
 Indo 3ms Abdù 3fs.PERF push-I 3ms school
 '*Indo, as for Abdu, she sent him to school.'
- c. ?Abdù ita Indoo taa tuuràa shi makarantaa.
 Abdu 3fs Indo 3fs.PERF push-I 3ms school
 '?Abdu, as for Indo, she sent him to school.'

In sentence (a), the unmarked subject Indoo can appear before the focussed nominal Abdù 'it is Abdu', which is fine. In (b), a tagged object cannot follow an unmarked subject in the CEP. Again, the LSC clearly explains this fact because the CEP is clause internal and the LDP is not. In (c), the subject can be tagged and follow the object nominal. But the result is predictably quite marginal. Finally, a fourth evidence for the LDP status of a tagged nominal is the fact that both subject and object cannot be tagged at the same time. This is illustrated below:

- (56) *shii Abdù ita Indoo taa tuuràa shi makarantaa.
 3ms Abdu 3fs Indo 3fs.PERF push-I 3ms school
 '*As for Abdu, as for Indo, she sent him to school.'

Because the tagging serves to highly topicalize a nominal, one would not expect two different nominals in the same sentence to be equally highly topicalized. So, the tagged

nominals are clearly more topical than the untagged CEP nominals. Indeed, one can have both subject and object in the CEP as this position involves only a "mild", un-emphasized topic-hood.

With respect to resumptive pronouns, the LDP nominals slightly differ from the CEP nominals in that the omission of the copy pronoun is marginal even for non-human referent nouns. This is illustrated below:

- (57) a. shii littaafin fa Indo taa baadàa ?(shi) wàje.
 3ms book-DEF MOD Indo 3fs.PERF give-I (3ms) out
 'As for the book, Indo indeed gave it out.'
- b. littaafii Indo taa baadàa (shi) wàje.
 book Indo 3fs.PERF give-I (3ms) out
 'As for the book Indo gave it out.'

Sentence (a) above shows that a pronominal copy is almost required when the object is in the LDP with a pronominal tag. This contrasts with the CEP nominal in sentence (b) which, straightforwardly, takes an optional copy pronoun.

Before concluding, one may mention another highly topical construction in Hausa which always involves a substantially marked pause following the topicalized nominal. There are reasons to believe that this construction is in fact outside the sentence altogether and therefore cannot be represented in the LSC. Some examples of the construction are given below:

- (58) a. **Abdùu?** yanàa zuwàa MaraaDi.
 Abdu 3ms.CONT go-DN Maradi
 'Abdu? He is going to Maradi.'
- b. **Abdùu?** Abdù yaa tafi makarantaa.
 Abdu Abdu 3ms.PERF go-III school
 'Abdu? Abdu went to school.'
- c. iccèe? an baadà iccèe wàje.
 plant IMP.PERF give-I plant out
 'The plant? Someone gave it out.'
- d. fitaa? ai mukàn fita wani lookàcii.
 going.out-VN indeed 1p-HAB go.out-III some time
 'As for going out, we indeed do go out sometimes.'
 (adapted from Tuller 1986:423)

These constructions are appropriate as answer to questions such as 'how about Abdu?' or 'what did Abdu do?'. So, the nominal is highly topical. But, as one can see, it is not in the sentence. The speaker here somehow is inquiring again to ensure that Abdu or iccèe are the

topic of the conversation. So, the constructions are more like queries. This is supported by the fact that the set-off nominal has an intonational pattern similar to that of questions, including the lengthening of the vowel characteristic of questions (cf. wàa ya ga Abdùu? 'who saw Abdu?'; cf. Newman and Newman 1981). Because the topicalized nominal is out of the sentence, it can be recapitulated by another lexical NP, as seen in (58b-d).

In conclusion, Hausa has an unmarked topic construction involving the subject and the object in the CEP position. A lexical NP "subject" is always in the CEP. The patient is in the CEP only when it is preposed, from where it binds a clitic pronoun on the verb (optional for non-human referents). A more highly topical construction involves the tagging of nominals with corresponding independent pronouns. These tagged nominals were argued here to be in the LDP. In chapter 2, it will be shown that the two types of nominal have more marked differences.

1.5.4 FOCUS CONSTRUCTIONS IN HAUSA

The constructions involving a focussed constituent are the focus-fronting construction, the question and the relative clause formation. Focus-fronting and question are expressed by two strategies. The focussed or questioned material can be fronted into a copular clause or it can be simply fronted. Relative clauses do not involve a copular clause, instead, the head noun is followed by an optional relative pronoun and the relative marker dà. In all three constructions (focus-fronting, question, relative clause), whether with the copular or non-copular strategy, the "relative" marking is also used if the tense/ aspect is the perfect or the continuous. First the copular strategy is presented, then the non-copular strategy, and finally the "relative" marking is taken up.

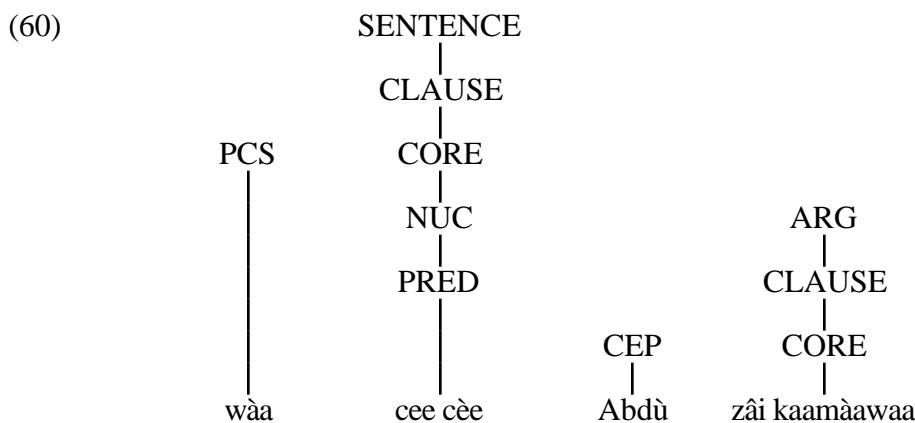
1.5.4.1 The copular clause focus construction

The first strategy involves fronting of the focal element in a copular clause construction. This strategy concerns only the focus-fronting and the question formation. This is illustrated below:

- (59) a. Aali nèe Abdù zâi bâa gooròo.
Ali cop.m Abdu FUT-3ms give kolanuts
'It is (to) Ali that Abdu is going to give kolanuts.'
- b. wàa cee (cèe) Abdù zâi kaamàawaa?
who cop.f (cop) Abdu FUT-3ms catch-I-VN
'Who is Abdu going to catch?'
- c. mìi nee (nèe) Abdù zâi kaamàawaa?
what cop.m (cop) Abdu FUT-3ms catch-I-VN
'What is Abdu going to catch?'

- d. mootar suwàa nee/ cee Abdù zâi tuukàawaa?
 car-of p-who cop.m/ cop.f Abdu FUT-3ms drive-I-VN
 'Whose car is Abdu going to drive?'

Sentence (a) above shows a simple focus-fronting construction involving the verb's object. Any constituent in the clause can in principle be focussed. The focus is followed by the copula nee (or cee if focus is feminine) which takes a tone opposite to the immediately preceding tone. Sentence (b-e) illustrates a question formation, with a human referent in (b), and a non-human referent in (c). Notice that in questions the copula can optionally be doubled, for reasons that are not clear, in this thesis at least. In (d), an NP in a possessive construction is questioned, and the whole NP is fronted with the copula agreeing in gender either with the wh-word or the possessed head-noun. In this work, the copula in focus construction is analyzed as involving a separate clause. Thus, the sentence in (59b) can be diagrammed as follows:



It is assumed that the two clauses are in a subordination relation, with the copular clause as the main clause (for example it can stand on its own as in wàa cee cèe? 'who is she?/ who is it?'). That indeed the copular phrase is a separate clause is evidenced by the fact that many modifiers, including relative clauses, can appear following the copula. This is illustrated below:

- (61) a. [wàa cee cèe ita kàu] [shii Abdù ya gani]
 who cop.f cop 3fs MOD 3ms Abdu 3ms.REL PERF see-DN
 kàasuwaa]?
 market

'Who is it [that she!] that Abdu saw at the market?'

- b. [wàa nee nèe wandà ya shaa giyàa] [Indoo
 who cop.m cop 3ms-that 3ms.REL PERF drink beer Indo
 ta kòoree shì]?
 3fs.REL PERF chase.away-II 3ms
- 'Who is it that drunk beer (that) was chased away by Indo?'
- c. mìi nee nèe na Indoo (dà) Abdù zâi Daukàa?
 what cop.m cop of Indo (that) Abdu FUT-3ms take-DN
 'What is it belonging to Indo that Abdu is going to take?'
- d. mii nee nèe wannàn?
 what cop.m cop this
 'What is this?'

In sentence (a) above, the wh-word is modified by a topicalizing pronoun. The next nominal, the subject of the main verb, is also topicalized by a corresponding pronoun. Notice that the function of the pronominal tag is to add more topicality to a constituent, not more focus. Therefore, in sentence (a), the questioned referent is both focussed and topicalized. The main point is that viewing the sentence as made up of two clauses would better account for the double status of the wh-word, which would then be focal for the main clause, but topical in the bounds of the copular clause. Also, this would allow the simultaneous topicalization of the wh-word and the subject of the main verb. In sentence (61b), the wh-word is modified by a relative clause. Notice that in both sentences (61a-b), the topicalizing pronoun and the relative clauses will have to be represented syntactically as complement of the copula. Semantically though, the pronoun and the relative clause are modifiers of the wh-word. This analysis is also valid for the possessive phrase na Indoo 'of Indo' in sentence (61c), where the head-noun is questioned. And the analysis also pertains to sentence (61d) where wannàn? 'this' would be the complement of the copula. Other question constructions showing that the copula heads a separate clause include suu suwàa nee nèe or suwàa nee nèe suu, both meaning 'who do they think they are!'; or simply suwàa nee nèe 'who are they?', 'who is there?'. Similarly, a separate clause analysis can account for the following focus-fronting example:

- (62) yaaròo shii nèe Abdù ya àikaa.
 boy 3ms cop.m Abdu 3ms.REL PERF send-II
 'The boy, it is him that Abdu sent.'

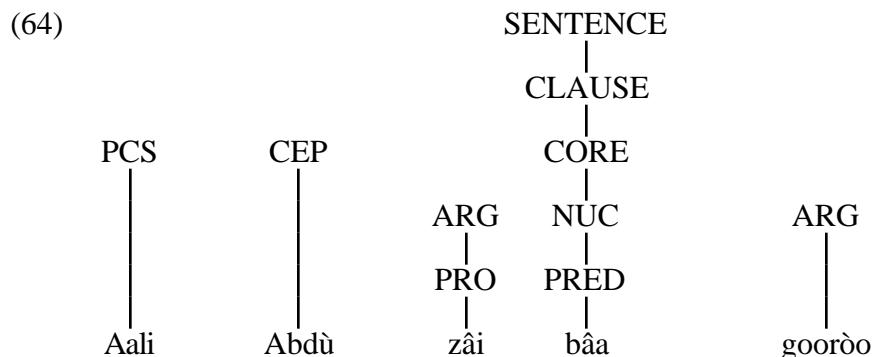
In the sentence above, yaaròo 'boy' would be in the CEP of the copular clause, while the pronoun shii 'he' is the direct argument of the copula. Similarly, In the main clause, Abdù would be in the CEP while the preverbal pronoun ya 'he' is the real "subject" of àikaa 'send' (cf. chapter 2). In this analysis, there would then be two clauses in (62) above.

1.5.4.2 The non-copular clause focus strategy (the PCS)

The second strategy for expressing narrow focus involves the simple fronting of the focussed constituent. This strategy is illustrated below:

- (63) a. Aali Abdù zâa ya bàa gooròo.
 Ali Abdu FUT-3ms give kolanuts
 'It is to Ali that Abdu is going to give the kolanuts to.'
- b. wàa Abdù zâa ya aikìi kàasuwaa?
 who Abdu FUT-3ms send-DN market
 'Who is Abdu going to send to the market?'
- c. mìi Abdù zây yi?
 what Abdu FUT-3ms do
 'What is Abdu going to do?'
- d. mootar suwàa Abdù zâa ya saidàawaa?
 car-of 3p-who Abdu FUT-3ms sell-VN
 'Whose car is Abdu going to sell?'

In sentence (a) above, a focussed nominal appears fronted without the copula. Sentences (b-c) illustrate a question formation without the copula for human and non-human referent respectively. Sentence (d) shows a question with a possessive construction, where the possessor is questioned. The non-copular strategy is taken to involve the fronting of the focussed material into the pre-core slot or PCS. In RRG, this is the position where wh-words and focussed nominals appear if they are not in-situ. (63a) can be diagrammed as follows:



In the previous section 1.5.4.1, it was seen that modifiers of the wh-word can appear in the copular clause as complement of the copula. One would expect these same modifiers not to appear in constructions using the non-copular strategy. This expectation is straightforwardly born out for the question formation, as illustrated below:

- (65) a. *[wàa ita kàu] [(shii) Abdù ya gani] see-DN
 who 3fs MOD 3ms Abdu ya ganii
 kàasuwaa]?
 market
- *'Who that she! did Abdu see at the market?'
- b. *[wàa wandà ya shaa giyàa] [Indoo
 who 3ms-that 3ms.REL PERF drink beer Indo
 ta kòoree shì]?
 3fs.REL PERF chase.away-II 3ms
- *'Who that drunk beer was chased away by Indo?'
- c. *mìi na Indoo (dà) Abdù zâi Daukàa?
 what of Indo (that) Abdu FUT-3ms take-DN
 *What belonging to Indo that Abdu is going to take?'
- d. *mìi wannàn?
 what this
 *What this?'

Sentence (a) above shows that the wh-word cannot be modified by the topicalizing pronoun, whether or not the subject of the main clause is also topicalized. In sentences (b-c) a relative clause and a possessor construction respectively cannot modify the wh-word. Notice though that when the possessor is a pronoun, the result is not totally bad (cf. ?mìi naatà Abdù zâi saidàawaa 'what of her's is Abdu going to sell?'. In sentence (d) a wh-word cannot appear with the demonstrative pronoun, although the same wh-word can appear alone as in mîi? 'what?'. The situation with focus-fronting is rather different. Here, the relative clause and the possessor are possible with both the copular and the non-copular construction.. This is illustrated below with the relative clause construction:

- (66) a. yaaròo nee wandà Indoo ta kiraa Abdu
 boy cop.m 3ms-that Indo 3fs.REL PERF call-II Abdu
 ya àikaa.
 3ms.REL PERF send

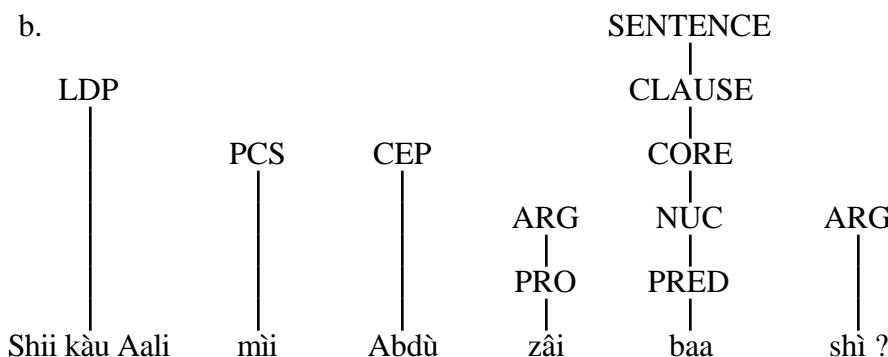
'It is the boy that Indoo called (that) Abdu send somewhere.'

- b. yaaròo wandà Indoo ta kiraa Abdu
 boy 3ms-that Indo 3fs.REL PERF call-II Abdu
 ya àikaa.
 3ms.REL PERF send

'The boy that Indoo called (it is him that) Abdu send somewhere.'

Thus, in (a-b) above a relative clause modifies a focussed noun in copular and non-copular constructions respectively. So, apparently, it only with the wh-word that modification is strictly restricted to the copular clause construction. However, I think that the data strongly suggest that the copular and non-copular strategies are structurally different, the first involving a separate clause, the other involving the PCS. Thus, the copula is not simply an optional focus marker as one might thing on a first look. To summarize the preceding two subparts, all the different syntactic positions seen above --the LDP, the PCS, the CEP can cooccur in one simple sentence, as illustrated below in (67b) for (67a):

- (67) a. Shii kàu Aali mìi Abdù zâi baa shì ?
 2ms MOD Aali what Abdu FUT-3ms give 3ms
 'As for Ali, what is Abdu going to give him?'



1.5.4.3 The "relative" marking

The relative marking in Hausa is thought to occur whenever some constituent is relativized, focus-fronted, or questioned. A fourth context of use is, in the literature, referred to as "the narrative use" of the relative marking, or the "definite perfect" (Schuh 1985). Previous accounts state the constraints on the relative marking by associating it with the three focus "extractions" mentioned above. In Tuller (1986), the focus function of the relative marking is formally extended even to the "narrative" use. In this section, it is shown that focus structure can obtain without the relative marking, and that relative marking can appear without a focus construction. It is suggested first that the relative marking appears in clauses containing a (background) topical and realis information with the nominal-fronting constructions. A second and separate usage of the relative perfect form is found in clauses containing completed and punctual events, and this second usage, it is claimed, marks the past tense category. There will be five subparts which deal successively with the relative clause construction, the focus-fronting construction, the realis topic marker, the past tense marker, and the cases of ambiguity or combination of these last two markers.

1.5.4.3.1 Relativization

Contrary to focus-fronting and question, relativization does not involve the use of the copula. In relativization, the head noun is fronted, and is followed by an optional relative pronoun wan- (masc.), wad- (fem.), and waDàn- (plur.), which in RRG is analyzed as being the focussed element in the PCS.¹ An obligatory relative clause marker dà follows the pronoun and introduces the relative clause. It is in addition to these markers that the relative marking appears, usually on the next verb or verbs of the relative clause(s). The relative marking however is restricted to the affirmative perfect and continuous aspects only. This is illustrated below:

- (68) a. yaaròo wandà soojà **sukà** àikaa yaa
boy 3ms-that soldiers 3p-REL PERF send-II 3ms.PERF

daawoo
return-VI

'The boy that the soldiers sent (somewhere) came back.'

- b. soojà **sun** àiki yaaròo.
soldiers 3p-PERF send-II boy
'The soldiers sent the boy (somewhere).'

- (69) a. yaaròo wandà soojà **sukèe** aikìi yaa
 boy 3ms-that soldiers 3p-REL CONT send-DN 3ms.PERF
 tàfiyàrshì.
 going-of-3ms

'The boy that the soldiers send (here and there) is gone.'

- b. soojà **sunàa** aikìn yaaròo.
 soldiers 3p-CONT send-DN-of boy
 'The soldiers are sending the boy (here and there).'

In sentence (68a), the relative marking sukà '3p-REL PERF' appears before the verb of the relative clause. A simple perfect form such as sun '3p.PERF' is impossible. In sentence (68b) on the other hand, one gets the perfect form. The relative marking form here is possible but would be the "narrative use" (see section 1.5.4.3.3). Similarly, in (69a), the relative clause takes the continuous relative marking sukèe '3p-REL CONT', a simple continuous form is impossible. In (69b), only the simple form sunàa '3p-CONT' is possible, the sentence not being able to occur in the "narrative use". Problems with the analyses associating the relative marking with focus begin when one considers the future tense and the eventual mood on the one hand, and the negative perfect, the negative continuous, and the subjunctive on the other hand. With the future and the eventual, the relative marking is impossible and the regular future or eventual person-tense/aspects markers (PTAM for short) are used in the fronting constructions. This is illustrated below:

- (70) a. yaaròo wandà soojà **zâa su** aikìi yaa tàfiyàrshì.
 boy 3ms-that soldiers FUT-3p send-DN 3ms.PERF going-of-3ms
 'The boy that the soldiers are to send is gone.'

- b. soojà **zâa su** aikìn yaaròo.
 soldiers FUT-3p send-DN boy
 'The soldiers are going to send the boy.'

- (71) a. bâ'â san wurin-dà **sukàa** sàbkaa ba.
 NEG.PERF-IMP know-II place-that 3p-EVE land-III NEG
 'No one knows the place they might settle in.'

- b. Indoo taa bar Koofaa bùuDe koo yâara
 Indo 3fs.PERF leave-II door open MOD children
 sukàa daawòowaa.
 3p-EVE return-VI-VN

'Indo let the door open just in case the children come back.'

(70-71) respectivley show sentences containing verbs in the future and the eventual. With these categories, the person-tense/aspect marking (PTAM) forms used in the relative clause of the (a) examples are the same as those used in the regular clause of the (b) examples. The behavior of the relative marking with the negative perfect and negative continuous is more complex. When the relative clause construction has a nominal as its "subject", then the relative marking is impossible and the regular PTAM forms are used. This is illustrated below:

- (72) a. yaaròò wandà soojà **bà sù** àikaa **ba**
 boy 3ms-that soldiers NEG.PERF 3p send-II NEG
 yaa daawoo.
 3ms.PERF return-VI

'The boy that the soldiers did not send (somewhere) came back.'

- b. soojà **bà sù** àiki yaaròò **ba.**
 soldiers NEG PERF 3p send-II boy NEG
 'The soldiers did not send the boy (somewhere).'

- (73) a. yaaròò wandà soojà **bâ su** aikii yaa
 boy 3ms-that soldiers NEG.CONT 3p send-DN 3ms.PERF
 tâfiyàrshì.
 going-of-3ms

'The boy that the soldiers are not sending is gone.'

- b. soojà **bâ su** aikìn yaaròò.
 soldiers NEG.CONT 3p send-DN boy
 'The soldiers are not sending the boy.'

(72-73) respectively presents sentences in the negative perfect and negative continuous. As one can see, the relative clauses in the (a) sentences carry the same person-tense/aspect marker as the non-relative clauses in the (b) examples. If the relative clause has no nominal subject, then the insertion of the copula aC 'be' or the continuous relative marking form kèe 'REL CONT' is possible but strictly optional. This is illustrated below:²

- (74) a. àbincin dà (**ab/ kèe**) **bà sù** ci ba.
 food-DEF that (cop/ REL CONT) NEG.PERF 3p eat NEG
 'The food that they did not eat.'

- b. àbincin dà (**ab/ kèe**) bâa su cìi.
 food-DEF that (cop/ REL CONT) NEG.CONT 3p eat
 'The food that they are not eating/ they don't eat.'

Note that beside the requirement that a nominal subject must not be present, the insertion of aC 'be' or kèe 'REL CONT' is better if the relative pronoun too is absent, as it is the case above in (74). On the other hand, no matter the configuration of the relative clause, the insertion is the less favoured option (note that the "C" of aC 'be' represents a consonant which assimilates to the next consonant -- see also Gouffé 1964:49-54; 1966-67:60-64). Whether or not there is insertion, the original negative perfect or negative continuous PTAM remains unaffected, as indicated in (74) above. One can also notice that both negative perfect and negative continuous clauses take the same insertion form, aC 'be' or kèe 'REL CONT'. The same insertion forms also occur optionally with the subjunctive, as seen below:

- (75) a. aikìn dà (**ak/ kèe**) kà ganii kà reenàa.
 work that (cop/ REL CONT) 2ms.SUB see-DN 2ms.SUB belittle-I
 'A work (of the type) you would see and belittle.'
- b. kà ga aikìi kà reenàa.
 2ms.SUB see-II work 2ms.SUB belittle-I
 'You would see a work and belittle it.'

In the example (a) above, we have relative clauses in the subjunctive, and the option exists of inserting the copula aC or the continuous relative form kèe, as shown. Again, whether there is insertion or not, the subjunctive PTAM forms in the relative clauses in (a) are the same as those found in the regular clauses of the (b) example. With the potential and the habitual aspect, the problem of the relative marking is irrelevant. In fact these aspects do not occur in relative clauses. The two categories (potential and habitual) are respectively replaced by the future and the continuous. This is illustrated below:

- (76) a. yaaròo **yâa** jee kàasuwaa.
 boy 3ms.POT go market
 'The boy will go to the market.'
- b. yaaròo wandà **zaa yà** jee kàasuwaa.
 boy 3ms-that FUT-3ms go market
 'The boy that will go to the market.'
- (77) a. yaaròo **yakàn** jee kàasuwaa.
 boy 3ms.HAB go market
 'The boy usually goes to the market.'

- b. yaaròo wandà **yakèe** zuwàà kàasuwaa.
 boy 3ms-that 3ms-REL CONT go-VN market
 'The boy that usually goes to the market.'

In (76a), the sentence is in the potential aspect. It is impossible to have the potential in the relative clause, with or without kèe insertion (cf. *yaaròo wandà (kèe) yâa jee kàasuwaa 'the boy that will go to the market'). This is why only the future is available in relativization, as seen in (76b). Similarly, the regular sentence in (77a) is in the habitual. Like the potential, this aspect cannot appear in relativization (cf. *yaaròo wandà (kèe) yakàn jee kàasuwaa 'the boy that usually goes to the marked') and is replaced by the continuous, as seen in (77b). It is as if the distinctions between the future and the potential on the one hand, and between the continuous and the habitual on the other are neutralized in relativization. From the examples (76-77) above, it clear that relativization does not automatically trigger the relative marking.

1.5.4.3.2 Focus-fronting construction

The facts of the relative marking are very similar in focus-fronting and question formation, so, only the focus-fronting construction will be illustrated here. Here too, the relative marking does not occur in all tense/ aspects. Four situations obtain. First, the relative marking occurs in the affirmative perfect and continuous, just as it is the case with relativization. This is illustrated below:

- (78) a. yaaròo nee soojà **sukà** àikaa.
 boy cop.m soldiers 3p-REL PERF send-II
 'It is a boy that the soldiers sent (somewhere).'
 b. yaaròo nee soojà **sukèe** aikìi.
 boy cop.m soldiers 3p-REL CONT send-DN
 'It is a boy that the soldiers are sending.'

The sentence (a) above illustrates the relative perfect, and the sentence (b) the relative continuous.³ Secondly, for the negative perfect, the negative continuous and the regular subjunctive, the continuous relative form kèe or the copula aC 'be' is optionally inserted. This is illustrated below:

- (79) a. yaaròo nee (**as/ kèe**) soojà **bàsù** àikaa **ba.**
 boy cop.m (cop/ REL CONT) soldiers NEG perf-3p send-II NEG
 'It is a boy that the soldiers did not send (somewhere).'
 b. yaaròo nee (**as/ kèe**) soojà **bâasu** aikìi.
 boy cop.m (cop/ REL CONT) soldiers NEG.CONT-3p send-DN
 'It is a boy that the soldiers are not sending.'

In example (a) above, the focus construction in the negative perfect accepts an optional copula aC or the relative continuous form. Note again that it is not the relative perfect that is borrowed. In example (b), the sentence is in the continuous, and it is possible to insert aC or the relative continuous form. The same copula aC or the relative continuous form kèe are also borrowed optionally for the subjunctive in focus-fronting construction, as seen below:

(80)	aikìn	Abdù	nee	(ak/ kèe)	kà	ganii
	work-of	Abdu	cop.m	(cop/ REL CONT)	2ms.SUB	see-DN
					kà	reenàa.
			2ms.SUB	belittle-I		

'It is Abdu's work (that) you would see and belittle.'

In Katsinanci, relativization, focus-fronting, and question in the negative perfect, negative continuous, and the subjunctive are the only contexts where the copula aC 'be' appears. In more westernly dialects however, aC is used where Katsinanci and Standard Hausa would use the relative continuous form kèe 'REL.be' (cf. Doutchi: shii as sarkii 'HE is the emir' vs. Maradi: shii kèe sarkii 'HE is the emir'). The third case concerns the future and the eventual, which again do not take a relative form or an insertion. This is illustrated below:

- | | | | | | | |
|------|----|--|-------|--------------|---------------|---------|
| (81) | a. | yaaròo | nee | soojà | zâa su | aikiì. |
| | | boy | cop.m | soldiers | FUT-3p | send-DN |
| | | 'The boy that the soldiers are to send is gone.' | | | | |
| | b. | MaraaDi | nèe | sukàa | sàbkaa. | |
| | | Maradi | cop.m | 3p-EVE | land | |
| | | 'It is in Maradi that they may settle.' | | | | |

Thus, as with the relativization construction, the future and the eventual have no relative form. Finally, the fourth situation concerns the potential and the habitual. Here too these categories are simply replaced with the future and the progressive respectively, as seen below:

- | | | | | | | | | |
|------|----|--|-------|----------|---------------|--------------|-----------|-----------|
| (82) | a. | yaaròo | nee | *yâa/ | zaa yâ | jee | kàasuwaa. | |
| | | boy | cop.m | 3ms.POT/ | FUT-3ms | go | market | |
| | | 'The boy that will go to the market.' | | | | | | |
| | b. | yaaròo | nee | *yakàn | jee/ | yakèe | zuwàa | kàasuwaa. |
| | | boy | cop.m | 3ms-HAB | go/ | 3ms-REL CONT | go-VN | market |
| | | 'It is a boy that usually goes to the market.' | | | | | | |

In sentence (a) above, the subject is focus-fronted and the potential aspect is impossible. One would rather use the future, as indicated. Similarly, in sentence (b) the habitual cannot appear in the focus-fronted construction, instead, it is replaced by the continuous aspect.

So, with a partial exception for the negative perfect and negative continuous, all fronting constructions behave the same with respect to relative marking. Strictly speaking, it is only the affirmative perfect and the affirmative continuous which requires the relative marking in fronting constructions. All other tense/ aspects either do not take the relative marking, or accept only an optional insertion of the copula aC or the relative form kèe, the potential and the habitual aspects being completely replaced and irrelevant for the fronting constructions. In sum, the association between focus structure and relative marking is rather tangential. Despite this lack of complete correlation between focus structures and relative marking, Tuller (1986) first assumes that in the fronting constructions, the operator in COMP is assigned a [+focus] feature, and this what triggers the relative marking. According to her, "...the non-relative INFL form is excluded where it is governed by an operator in [SPEC, CP] as a result of wh-movement" (p.112). Notice that this account leaves out all the fronting structures without the relative marking or with an optional aC/ kèe insertion. The next subsection proposes an alternative.

1.5.4.3.3 The realis topic marker

In this work, the problem of the relative marking is approached from a functional perspective. Bagari 1976 (cited in Tuller 1986), already suggests that the relative marking in focus structures serves to mark clauses which contain old information. While this account is on the right track, it too does not handle the focus structures without relative marking. The generalization proposed here about the relative marking is that it marks background topical information that is also in realis status. Indeed, the realis status condition explains why the relative marking is not used in tenses and aspects other than the perfect and continuous.

Besides the focus structures, there are subordination constructions in which the relative marking can appear, and one of the determining factor is whether or not the event of the subordinate clause is realis or not. This is illustrated below with "reason" subordinate clauses introduced by the conditionals dàa and dà and their variants:

(83)	a.	(in)dàa	mun	san	kinàa	zuwàa	dàa
		were.it.a факт	1p.PERF	know-II	2fs-CONT	come-VN	PRT
		mun	daakàtaa	makì.			
		1p.PERF	wait-I	MA- 2fs			

'If we knew you were coming, we would have waited for you.'

b.	dà	yakè	mun	san	kinàa
	as.it.is.a факт	3ms-REL CONT	1p.PERF	know-II	2fs-CONT
	zuwàa	sai	mukà	daakàtaa	makì.
	come-VN	then	1p-REL PERF	wait-I	MA-2fs

'Because we knew you were coming, we waited for you.'

c.	dà	mukà	san	kinàa	zuwàa
	as.it.is.a факт	1p-REL PERF	know-II	2fs-CONT	come-VN
	sai	mukà	daakàtaa	makì.	
	then	1p-REL PERF	wait-I	MA-2fs	

'Because we knew you were coming, we waited for you.'

In sentence (a) above, the subordinate clause is introduced by (in)dàa 'if', which can be more precisely glossed as 'were it a fact' and marks the event of the subordinate as non-realized. Here, although the aspect is the perfect, the relative marking is impossible. In this construction, the main clause is also introduced by dàa, but a dàa which cannot take the optional in. Also, the clauses can be reversed but the subordinate clause marker must take the in, as seen in dàa mun daakàtaa makì indàa mun san kinàa zuwàa 'we would have waited for you if we knew you were coming.' In sentence (b) above, the event of the subordinate clause is realized. This event precedes and determines the event in the main clause. So, the subordinate clause contains topical and realis information and this licenses the obligatory yakè insertion. Here too the two clauses can be reversed with sai 'then' becoming optional, as seen in: (sai) mukà daakàtaa makì dà yakè mun san kinàa zuwàa '(then) we waited for you, as we knew you were coming'. Sentence (c) (which is actually ambiguous, as we will see later) is an alternate of sentence (b). It shows that the reason subordinator dà can have a relative PTAM, but the yakè insertion in sentence (b) is the most frequent construction. Note that the relative marking in the main clause of sentence (b) is the past tense marker and is taken up further below. The subordinator dà 'because, as.it.is.fact' can be added the particle tun 'since' to give tundà 'since it is a fact' which has the same meaning as dà alone. Only, with tundà, the use of the relative marker yakè is optional, as seen in tundà (yakè) mun san kinàa zuwàa sai mukà daakàtaa makì 'since we knew that you are coming, we waited for you'. It will be assumed here that tundà, which incorporates the word for 'since', more unambiguously marks a clause as topical and realis, therefore rendering the relative marking optional.

Another irrealis/ realis construction involves dàa and dà modified by koo 'even'. Here too the realis subordinate clauses take the relative marking, but not the irrealis ones. This is illustrated below (with koo+dà written conjunctively):

- (84) a. koodàa mun san kinàa zuwàa bà(a) zaa mù
even.if 2p.PERF know-II 2fs.CONT come-VN NEG FUT-2p

daakàtaa mà cîn àbinci ba.
wait -I MA eat-DN food NEG

'Even if we knew you were coming we wouldn't have put off eating anyway.'

- b. koodà yakè mun san kinàa zuwàa
although 3ms-REL CONT 1p.PERF know-II 2fs-CONT come-VN

bà mù daakàtaa mà cîn àbinci ba.
NEG 1p.PERF wait-I MA eat-DN food NEG

'Although we knew that you were coming, we did not put off eating.'

The set of sentences in (84) above is similar to those of (83), the only difference is that the subordinate clause event in (84) is given as not a valid reason for the event of the main clause to happen. In sentence (84a), the topical information is hypothetical and therefore non-realis. In sentence (84b) the subordinate clause denotes a fact, and the relative marking is required. In both sentences, the clauses can be reversed without a change in meaning.⁴

With other subordinating particles, the realis/ irrealis factor is less clear cut, but it can still be shown as the determining factor on the appearance of the relative marking. As noted in Bagari (1976), there exist what he calls "reality conditionals" which may or may not trigger the relative marking in the subordinate clause. This is illustrated below with in/ ìdan 'if':

- (85) a. ìdan Gizo yaa yi shillòo, kù baa shì yàDaa.
if Spider 3ms.PERF do swing 2p.SUB give 3ms peanuts
'If Spider has swung, please give him some peanuts.'
- b. ìdan Gizo ya yi shillòo, kù baa shì gyàDaa.
once Spider 3ms.REL PERF do swing 2p.SUB give 3ms peanuts
'Once Spider has swung, please give him some peanuts.'

In each sentence above, the carrying out of the action in the second clause depends on the event in the first clause. The subordinate conditional clause is then topical vis-à-vis the main clause. The first condition for the realis topic marking is met in both sentences. In sentence (a), the speaker does not know whether or not Spider has swung. The addressee will check

and see if Spider has swung, and if so, peanuts will be given. In sentence (b) on the other hand, the speaker knows that Spider haven't swung yet. The speaker is only instructing that peanuts be given if Spider swings. In sentence (85a), the reality status of the subordinate clause information is not known. In sentence (85b) on the other hand, the event of the subordinate clause is only likely to happen. So, there is no plain realis/ irrealis contrast. That the relative marking is used here too is not surprising. Indeed, Foley and Van Valin (1984) show that the realis/ irrealis contrast is not a simple binary contrast for some languages. Sometimes, the irrealis dimension is a continuum encompassing further distinctions. This is represented below (from Foley and Valin 1984:213):

- (86) real <= necessary - probable - possible - => unreal

In Hausa then, the grammatical phenomenon that refers to the realis status also refer to the "probable or "certain" status, as opposed to the possible or the unreal status. Thus, although generally one can associate the relative marking with the realis, the interaction with specific constructions --such as in/ idan subordinate clauses here-- must be taken into account.

The examples in (83-85) above show how relevant the information status is for the relative marking. It can also be shown that the information must really be topical in order for the relative marking to appear. This is illustrated below:

- (87) a. yâaran [dà [sukà rìkiDà] [sukà
 children that 3p.REL PERF metamorphose-I 3p.REL PERF
 zama kuuràayee]] sun koomàa mutàanee.
 become-III hyenas 3p.PERF return-I people
- 'The children [that [metamorphosed] *and* [became hyenas]] have reverted to humans.'
- b. yâaran [dà sukà rìkiDà] sun zama
 children that 3p.REL PERF metamorphose-I 3p.PERF become-III
 kuuràayee (*sûu koomàa mutàanee gòobe).
 hyenas 3p.POT return people tomorrow
- 'The children [that metamorphosed] became hyenas (*will revert to humans tomorrow).'

In sentence (a) above, there are two stacked relative clauses introduced by one relative clause marker dà. Both are background information and the whole sentence says that the children who became humans again are those ones who metamorphosed and became hyenas. The

information in the two relative clause is topical and realis and this triggers the relative marking in both. In sentence (b), there is only one relative clause dà sukà rìkiDà 'that metamorphosed', which serves as background for the assertion in the main clause. The sentence says that the children who became hyenas are the ones who metamorphosed. So, only the first clause is topical, and because it is also in realis status, it takes the relative marking. Notice that a totally new assertion is not possible following the main clause, unless some explicit connector is used marking it as such (cf. yâaran dà sukà rìkiDà sun zama kuuràayee àmmaa sùu koomàa mutàanee gòobe'the children that metamorphosed became hyenas, *but* they will revert to humans tomorrow').⁵ So, as it can be seen, each clause that contains topical and realis information is in principle marked with the relative marking. The situation is a bit different in the case of question and NP focus-fronting.

The topicality + realis account is also valid with the two other fronting constructions. In focus-fronting and wh-questions, the focus is narrow and falls on the fronted constituent. The remaining of the clause is then topical and marked with the relative marking. This however works for simple clauses only. With complex sentences, the relative marking falls only on the first clause after the WH-word of the focussed nominal. This problem is the basis for one of the two major objections Tuller (1986) has against the functional account proposed by Bagari (1976) according to which the relative marking marks presupposed information. She cites the two sentences below (adapted from p.245 and p.120 respectively):

- (88) a. wàa yakèe tsàmmaanì wai yâara sun/
who 3ms-REL CONT thinking that children 3p.PERF/
***sukà** tafi daajì?
3p-REL PERF go-III bush
'Who thinks that the children went into the bush?'
- b. mìi sukà cêe yâara sun/ **?sukà** sàyaa?
what 3p-REL PERF say children 3p.PERF/ 3p-REL PERF buy-II
'What did they say the children bought?'

According to Tuller, the sentence in (a) above has a wh-word originating from the main clause, which takes the relative marking because it is presupposed. For Tuller however, both clauses of sentence (a) should take the relative marking because they are all topical with respect to the focussed wh-word. But they don't, and this is proof for her that a functional account does not work. Similarly, in sentence (b), the wh-word originates from the subordinate clause and still, the relative marking in the second clause is only marginally

possible. In the (upgraded) functional account proposed here, stacked relative clauses are all topical and must bear the relative marking. With question and NP focus on the other hand, the clauses after the first one are not necessarily topical. This can be understood if one considers that in the information theory adopted in RRG, wh-words originate only from the potential focus domain or PFD (see Van Valin 1992). The PFD varies from language to language. In English, it is the whole clause because any unit in a clause can receive the primary stress, the subject, the verb and/or the object. Hausa works in a similar way, in that any of the above constituents can be focus-fronted. Because they are in the PFD, the clauses after a first clause in a wh-word construction are not "old information" and may not take the relative marking. Stacked relative clauses on the other hand cannot be in the PFD ("extractions" do not occur out of them for example) and are all topical, therefore, they behave differently from the subordinate clauses in questions or NP focus. In sum, with the fronting constructions, the relative marking on the next clause helps place a narrow focus on the wh-word or the fronted nominal. Thus, the second clauses of (88a-b) above are in the PFD (as direct complement of the main verb). In fact, and contrary to what Tuller reports, both sentences of (88) can have the relative marking in their second clauses, only they don't have the same reading as the version without the relative marking. This is illustrated below:

- (89) a. wàà kèè tsàmaanìì yâara (nèè) **sukà** tâfi
 who REL CONT thinking children (cop.p) 3p.REL PERF go-III
 daajii?
 bush

'Who thinks that it is the children who went into the bush?'

- b. mìi sukà cêè yâara (nèè) **sukà** sàyaa?
 what 3p-REL PERF say children (cop.p) 3p.REL PERF buy
 'What did they say it is the children who bought [it]?'

As one can see, the second clauses of the sentences above carry the relative marking. Note however that the embedded subordinate clause has a focus structure itself. Therefore, one cannot say that the subordinate is topical if an element in it can be in focus. Generally, this type of constructions involve an echo-question where the speaker repeats the previous discourse. That is, sentence (b) cannot be uttered unless a sentence such as sun cèè yâara nèè sukà sàyee tâ 'they said that it is the children who bought it' is heard in the previous discourse.

Tuller's second argument against Bagari's account is based on the fact that, according to her, some main predicates necessarily entails that the information in the subordinate clause

is presupposed and the clause should therefore take the relative marking. However, she shows that predicate such as 'be surprised that' fail to trigger the relative marking in their subordinate clauses. This is illustrated below (adapted from Tuller 1986:144)

- (90) a. naa yi màamaakìi wai Aali yanàa/
1s.PERF do surprise that Ali 3ms-CONT/

*yakèe sòn Aishà.
3ms-REL CONT love-of Aisha

'I was surprised that Ali love Aisha.'

- b. naa yi baKin cikìi wai Màryaamà tanàa/
1s.PERF do black belly that Maryama 3fs-CONT/

*takèe rashìn laafiyàa.
3fs-REL CONT lack-of health

'I am sorry that Maryama is sick.'

Here too according to Tuller, the subordinate clause must bear the relative marking if Bagari's functional account is right. The problem again is that the subordinate clauses in (a-b) above are very much in focus. Indeed, the sentences of (90) have the predicate focus type in Lambrecht's (1987) focus taxonomy. In this type of focus structure, the main verb and its complement constitute the actual focus domain (where the focus falls), therefore, the subordinate clause does not contain topical information and should not take the relative marking. Actually, the sentences can have the relative marking in the subordinate clause, but with a different meaning, as illustrated below:

- (91) a. naa yi màamaakìi wai Aali (nèe) yakèe
1s.PERF do surprise that Ali (cop.m) 3ms-REL CONT

sòn Aishà.
love-of Aisha

'I was surprised that it is Ali who loves Aisha.'

- b. naa yi baKin cikìi wai Màryaamà (cèe)
1s.PERF do black belly that Maryama (cop.f)

takèe rashìn laafiyàa.
3fs-REL CONT lack-of health

'I am sorry that it is Maryama who is sick.'

The ability of the subordinate clause to embed a focussed nominal shows that it is not at all topical. The facts of (89) and (91) above renders Tuller arguments invalid against a functional account of the relative marking of the type proposed here.

In conclusion, in Hausa, topical and realis information requires the use of the relative marking. This marking can be considered as the morphological realization of a status operator which is restricted to subordinate clauses. The topicality constraint handles the limitation of the marking to fronting constructions and conditional or reason subordinate clauses. The realis status constraint accounts for why only the perfect and the continuous aspects have a relative form. Because the term "relative marking" is inaccurate, misleading, and confusing, the new term of "realis topic marker" (a short of "realis status and topical information marker") will be used when necessary in this work. The next point deals with the use of the relative marking in non-focus or conditional constructions, a usage known as the "narrative use" of the relative marking.

1.5.4.3.4 The past tense marker

This subpart argues for a past tense analysis of some occurrences of the relative marker. In particular, it is shown that an independent clause may take the relative marking if the event it contains is viewed as punctual. We will also see that there is a tense restriction in Hausa where subordinate clauses of verbs such sâa 'put' cannot occur in the perfect if the main clause is in the past tense.

As said in the introduction, it is possible to have the relative marking in sentences which do not involve a fronting construction. Most Hausa descriptive grammars associate this relative marking with the narrative context or any chronological report of sequential events. Schuh 1985 (cited in Tuller 1986), shows that there are restrictions on which sequences of events are reported with the relative marking, and that not all narratives exhibit the marking. This is illustrated below (adapted from Tuller 1986:102):

(92)	a.	ìdan	Gizò	yaa	yi	shillòo	yaa	gàji,
		once	Spider	3ms.PERF	do	swing	3ms.PERF	tire-III
		sai	yà	saukoo	yà		ci	gyàDaa.
		then	3ms.REL PERF	come.down-VI	3ms.REL PERF	eat		peanuts

'Once Spider swung and got tired of it, he would come down and eat some peanuts.'

b.	dà	sàmàarii	ukkù	sukà	ìsa	sukà	
	when	youths	three	3p-REL PERF	arrive-III	3p-REL PERF	
	nèemi	sù	ga	sarkii.	ákà	yii	musù
	seek-II	3p.SUB	see-II	emir	IMP-REL PERF	do	MA-3p
	isòo.		sukà	faaDì	sukà	yi	gaisuwaa.
	announcement		3p-REL PERF	fall-III	3p-REL PERF	do	greeting

'When the three youths arrived, they sought to see the emir. They were announced. They reached the ground and greeted.'

According to Schuh, the relative marking appears only when the chronological events are completed relative to the moment of speech and when they are individual. By "individual", it is meant that the action or events happen exactly one time. Thus, in (92a) above, the first two clauses are not individual, because there are many instances of swinging and getting tired, hence there is no relative marking. In sentence (92b) on the other hand, all the clauses contain events that are sequenced and that happen each once. Because the events are specific to a given time or place, and because they are completed, Schuh (1985) relabels the "narrative use" of the relative marking as the "definite perfect".

Tuller (1986) essentially adopts the analysis of Schuh, to which she adds a formal GB account. As seen above in the conclusion of section 1.5.4.3.3, she posits that it is the [+focus] operator present in COMP that triggers the relative marking. She also assumes, in a rather ad hoc way, that a null [+focus] operator is present in COMP for those conditional clauses containing the relative marker. For her, the motivation for the null operator solution is to be found with time adverbials such as lookàcin dà 'at the time when'. Tuller considers lookàcii 'time' in lookàcin dà as a relativized noun adverbial, but that this relative construction never takes an overt COMP operator, so that the nominal lookàcii is directly followed by the relative clause marker dà. Despite the lack of the operator, the subordinate clauses would exhibit the relative marking. This is illustrated below:

(93)	lookàcin	(*wan)dà	sukà	zoo
	time-DEF	(3ms)that	3p-REL PERF	come
'At the time when they arrived' (for Tuller, lit: 'time that they come')				

In the example above, the relative pronoun cannot be overt but the relative marking appears. From this observation, she concludes that a null operator too can trigger the relative marking (in her analysis of lookàcin dà, Tuller follows Bagari 1976 and most Hausaists; this thesis instead considers lookàcin dà as a possessive construction translatable as 'time when'). For the narrative use of the relative marking, she extends the null operator analysis, and claims

that a covert operator marked [+focus] resides in COMP and triggers the relative marking, although, in the narrative, there is no extraction at all, no overt operator, and no subordinating particle. Her approach can be summarized as follows: In other African languages, such as Aghem (Grassfield Bantu), verbs in simple declarative sentences can be "focussed" with the relative marking, as seen below (from Tuller p.107, citing Hyman and Watter 1984):

- (94) a. m naa zi b.-'k. n.
I PAST.1.FOC ate fufu today
'I did eat fufu today.'
- b. n m. zi kib. n.
I PAST.1 ate fufu today
'I ate fufu today.'

Tuller states that Hausa does not use the relative marking in simple declarative sentences like Aghem does to focus a verb. She cites the following data to illustrate this failure (p.107):

- (95) a. yâara sun ci tuwoo.
children 3p.PERF eat tuwoo
'The children ate staple-food.'
- b. *yâara suka ci tuwoo.
children 3p.REL PERF eat tuwoo

Nonetheless, she suggests that the narrative use of the relative marking in complex sentence in Hausa is related to the use of relative marking in Aghem in the example (94a) above. According to her, individualized events represent focalized material (with respect to the background information at the beginning of the narrative) and are marked by a null [+focus] operator in COMP. This makes them similar to the fronting constructions and explains the relative marking.

This formal account has many problems. First, Hausa does have the semantic equivalent of the Aghem construction in (94a), only the relative marking is not used. Thus, to say 'I did eat fufu today', one use naa-ci-fa-fufu-yâu 'I-ate-indeed-fufu-today'. This, in Hausa, is not a focus construction (that is, the speaker is not denying that he read a book instead), but it is a simple emphasis. To really focus the action of eating in Hausa, one has to front the verb as in: cîn-fufu-nèe-na-yi 'eating-fufu-is-I-did', 'it is eating fufu that I did'. Secondly, the main problem with Tuller's account is that the sentence in (95b) that she gives as ungrammatical does exist, but it does not mark the verb as focus. This is illustrated below:

- (96) yâara sukà ci tuwoo.
 children 3p.REL PERF eat tuwoo
 'Then the children ate staple food.'
 NOT: 'It is eating staple food that the children did.'
 NOT: 'The children did eat staple food.'

As one can see, the relative marking in the sentence above does not mark focus or emphasis. It is a past tense. It only happens that in Hausa one does not find simple clauses in the past tense standing on their own out of a discourse context. But this is not unique to Hausa. In French for example, a person can enter a room and say: le lièvre s'est échappé 'the hare has fled', and this sentence can stand on its own as a discourse (assuming listeners know about a hare outside). However, the same person could not have said only le lièvre s'échappa 'the hare fled', even if the listeners know about a hare outside. The sentence has to be inserted in larger discourse or even in another sentence (note that the sentence in (96) is distinct from the subject focus construction which is homophonous to (96) if the particle nee is omitted, as in yâara (nèe) sukà ci tuwoo 'it is the children who ate staple food'). Another simple sentence in the past tense can be contrasted to a regular perfect sentence, as seen in the following:

- (97) a. yâara sukà tardà Indoo taa Kaarè àbinci.
 children 3p-REL PERF find-I Indo 3fs.PERF finish-IV food
 '(Then) the children found Indo has finished cooking the food.'
- b. yâara sun tardà Indoo taa Kaarè àbinci.
 children 3p-PERF find-I Indo 3fs.PERF finish-IV food
 'The children found Indo has finished cooking the food.'

Sentence (a) above is usually heard in some larger discourse. The sentence cannot stand alone, contrary to the perfect sentence in (b), which does not imply that other events are described previously and which therefore is a piece of discourse on its own (again, (97a) must be distinguished from the focus structure which is homophonous if the copula nee is omitted, cf. yâara (nèe) sukà tardà Indoo taa Kaarè àbinci 'it is the children who found Indo has finished cooking the food')

As proposed in Bagari (1976), one has to divorce the narrative use of the relative marking from its realis topic marking function found in fronting constructions. The realis topic marking is automatic in fronting constructions, the past tense is not automatic where it occurs. The past tense is used if the event is viewed as past, completed, and punctual. That the event must be punctual (or conceived as such) is evidenced by the fact that no one, as far as I know, has reported a narrative use of the continuous relative marking (cf. also Schuh's

"definite perfect" label). It is not clear whether Schuh means "punctual" by saying that the event must be "individual" in order for the past tense marker to appear. But the notion of the event's being punctual is critical because an utterance can or cannot take the past tense marker depending on how punctual the events in it are viewed by the speaker. This is shown below, partially repeating an example from Schuh given in (92) above:

- (98) a. ìdan Gizò yaa yi shillòo (**can**) yaa gàji,
once Spider 3ms.PERF do swing (long) 3ms.PERF tire-III
sai yà saukoo yà ci gyàDaa.
then 3ms.REL PERF come.down-VI 3ms.REL PERF eat peanuts

'Once Spider has swung (all his soul) and gotten tired of it, he would come down and eat some peanuts.'

- b. ìdan Gizò ya yi shillòo (***can**) ya
once Spider 3ms.REL PERF do swing (long) 3ms.REL PERF
gàji, sai yà saukoo yà ci gyàDaa.
tire-III then 3ms.REL PERF come.down-VI 3ms.REL PERF eat
peanuts

'Once Spider swung (all his soul) and got tired of it, he would come down and eat some peanuts.'

First, in/ ìdan 'if, once' in the sentences of (98) is not used as a conditional but as a time adverbial meaning 'after'. So, it is not introducing a background information, this is why the first two clauses of sentence (98a) above do not have the realis topic marker. All four clauses are equally "new" information. The first two clauses yaa yi shillòo/ yaa gàji 'he has swung/ he has gotten tired' are conceived as non-punctual, and therefore, they do not qualify for the past tense marking. That the two clauses are not punctual is shown by the fact that the emphatic can 'long, a lot' can modify them. Still in sentence (98a), the last two clauses yà saukoo and yà ci gyàDaa 'he came down', 'he ate peanuts' are framed as punctual (they are introduced by sai 'then') and must appear in the past tense. As shown in sentence (98b), all four clauses can appear in the past tense. In this case, the first two sentences are viewed as punctual and cannot be modified by the emphatic can 'long, a lot'. If can is added, it can only take its regular place adverbial meaning (cf. ìdan Gizò ya yi shillòo can... 'once Spider swung **there**' and probably not: 'once Spider swung **all his soul**...'). Note also that the non-past tense clause can be repeated to emphasize the spread of the event (ìdan Giizò yaa yi shillòo yaa yi shillòo 'once Spider has swung a lot...'), but the past tense clause cannot be

satisfactorily repeated (??idan Gizò ya yi shillòo ya yi shillòo...?'once Spider swung a lot'). Because they are all framed as punctual, with completed events, the four clauses of sentence (98b) appear all in the past tense. This also means that they are part of a larger story.

As seen in note 3, just like the conditional in/ idan, the reason subordinator dà can also function as a temporal adverbial clause introducer dà, with the meaning of 'when'. In this usage, dà introduces a subordinate clause which permutes with basic time adverbs such as jiyà 'yesterday'. This is illustrated below:

- (99) a. [jiyà] yâara sun zoo sun Dàuki gooròo.
 [yesterday] children 3p.PERF come 3p.PERF take-II kolanuts
 'Yesterday the children came and took the kolanuts.'
- b. [dà Abdù **ya** daawoo] yâara sun
 [when Abdu 3ms.REL PERF return-VI] children 3p.PERF
 zoo sun Dàuki gooròo.
 come 3p.PERF take-II kolanuts
 'When Abdu returned, the children came and took the kolanuts.'

Sentence (a) above shows a regular adverb jiyà 'yesterday', which can be replaced by the adverbial clauses introduced by dà 'when' in sentence (b). In both (a-b) above, it is possible to place the adverb and the adverbial clause sentence-finally without any change in meaning (cf. yâara sun zoo sun Dàuki gooròo jiyà/ dà Abdù ya daawoo 'the children came and took the kolanuts yesterday/ when Abdu returned').

The temporal subordinator dà 'when' can optionally be modified by the words lookàcii or sa'aa, both meaning 'time, moment'. As said in connection with (93), in this thesis, the string (lookàcii) dà is not treated as a relative clause, as done by most Hausaists. Instead, it is viewed as a case where the word lookàcii (or sa'aa) modifies the subordinator itself, in a possessive construction '(time-of) when', which can be rendered in English as '(at the time) when'. Because the relative marking that dà triggers here is the past tense, the marking occurs only when the subordinate clause event is completed and punctual, as illustrated below:

- (100) a. (lookàcii) dà Aali **yanàa** sôn Bâlki yaa
 (time-of) when Ali 3ms-CONT love-DN-of Balki 3ms-PERF
 riKà zôowaa ganimmù.
 keep-I come-VN see-DN-of-1p
 '(During the period) when he was in love with Balki, Ali kept visiting us.'

- b. (lookàcin) dà Abdù ya daawoo yâara
 (time-of) when Abdu 3ms.REL PERF return-VI children
 sun zoo sun Dàuki goorò.
 3p.PERF come 3p.PERF take-II kolanuts

'(At the time) when Abdu returned, the children came and took the kolanuts.'

In sentence (a), the subordinate clause contains an event spanning a long period of time and which is conceived as non-punctual. There is no reason then to mark the subordinate clause with the past tense. In sentence (b) on the other hand, the event of the subordinate is viewed as punctual and this licenses the past tense marking. In fact though, and contrary to in/ ìdan, the time subordinator dà does not allow a perfect PTAM in the subordinate clause. That is, if the event is not punctual, then it cannot be in the perfect, but it has to occur in another aspect, such as the continuous, as seen in sentence (100a) above. So, there is no version of sentence (100b) without the relative marking where the event would be perfect but non-punctual (cf. *lookàcin dà Abdù yaa daawoo yâara sun zoo 'when Abdu returned, the children came and took the kolanuts'). One may assume that it is a property of the subordinator dà 'when' not to allow a non-punctual perspective of completed (perfect) events, contrary to the conditional in/ ìdan 'once'.⁶

An illustration of the punctuality factor and its interaction with other tenses and aspects can be illustrated with purposive constructions. Here, the speaker has the choice of framing the events as punctual and non-punctual, but constraints apply, as seen below:

- (101) a. yâara sun zoo sun Dàuki goorò.
 children 3p.PERF come 3p.PERF take-II kolanuts
 'The children came and took the kolanuts.'
- b. yâara sun zoo sukà Dàuki goorò.
 children 3p.PERF come 3p.REL PERF take-II kolanuts
 'The children came and took the kolanuts.'
- c. yâara sukà zoo sukà Dàuki goorò.
 children 3p.REL PERF come 3p.REL PERF take-II kolanuts
 '(Then) the children came and took the kolanuts.'
- d. *yâara sukà zoo sun Dàuki goorò.
 children 3p.REL PERF come 3p.PERF take-II kolanuts
 '(Then) the children came and took the kolanuts.'

In sentence (a) above, both clauses are in the perfect because both are viewed as completed only. In sentence (b), the event of the first clause is viewed as completed, but that of the

second clause is viewed not only as completed but also as punctual and this licenses the relative marking. In sentence (c) both events are framed as punctual. The only difference between sentence (a) and (c) is that sentence (c) obligatorily must be in a story-discourse. Sentence (d) shows that the main clause cannot be in the past tense while the purposive clause is in the perfect. So, there seems to be a rule in Hausa whereas subordinate clauses cannot appear in the perfect if the main clause is in the past tense. The subordinate clause can have aspects other than the perfect. This is illustrated below:

- (102) a. yâara **sukà** zoo **sunàa** neeman gooròo.
 children 3p.REL PERF come 3p-CONT searching-DN kolanuts
 '(Then) the children came looking for the kolanuts.'
- b. yâara **sukà** zoo **sù** Dàuki gooròo.
 children 3p.REL PERF come 3p.SUB take-II kolanuts
 '(Then) the children came to take the kolanuts.'

Tuller does not discuss the specific cases above, but it is clear that the six sentences in (101-102) above cannot be handled by the null [+focus] COMP operator analysis. Another case of obligatory relative marking in perfect subordinate clauses occur with the verb sâa and show that the restriction holds only if the two events are dependent. Tuller discusses the verb sâa '(causative) make' and bar 'let' and concludes that they belong to a class of verbs which bars their subordinate clause to appear in the perfect if the main clause has the relative marking. The problem is illustrated below:

- (103) a. **yaa** sàa yâara **sun** ci àbinci.
 3ms.PERF put children 3p.PERF eat food
 'He made the children eat.'
- b. **yaa** sàa yâara **sukà** ci àbinci.
 3ms.PERF put children 3p.REL PERF eat food
 'He made the children eat.'
- c. **ya** sàa yâara **sukà** ci àbinci.
 3ms.REL PERF put children 3p.REL PERF eat food
 '(Then) he made the children eat.'
- d. ***ya** sàa yâara **sun** ci àbinci.
 3ms.REL PERF put children 3p.PERF eat food
 'He made the children eat.'
- e. **ya** sàa mutâanee **sun** yi aikìn banzaa.
 3ms.REL PERF put people 3p.PERF do work-of zero
 '(Then) he acted in such a way that people's work became worthless.'

Sentences (a-c) have the acceptable combinations. In sentence (d), the subordinate clause cannot be in the perfect if the main clause is in the past tense. This is because the two events are temporally linked and dependent. In sentence (e), the two events are independent, both in temporality and in causality. That is, the people worked at another time for some unspecified reason. Sentence (e) is just saying that some people's work was subsequently rendered worthless by the action of the referent of the main clause actor. The contrast between dependent and non-dependent events accounts for the ambiguous behavior of the verb bar which in its 'let' sense implies two dependent events, but in its 'leave (a situation)' sense implies causally unrelated events. This is illustrated below:

- (104) a. wàà nee nèè akà cêe **kaa** baroo
 who cop.m cop IMP-REL PERF say 2ms.PERF let/leave-VI
 yaa mutù?
 3ms.PERF die

'Who is it that was said you have left him and he died?'
 'Who is it that was said you have left under the circumstances of his death?'
 (i.e. you left while his death is still in the news, fresh in memory)

- b. wàà nee nèè akà cêe **ka**
 who cop.m cop IMP-REL PERF say 2ms.REL PERF
 baroo **ya** mutù?
 let/leave-VI 3ms.REL PERF die

'Who is it that was said you have left him and he died?' (this reading only)

- c. wàà nee nèè akà cêe **ka**
 who cop.m cop IMP-REL PERF say 2ms.REL PERF
 baroo **yaa** mutù?
 let/leave-VI 3ms.PERF die

'Who is it that was said you have left under the circumstances of his death?'
 (this reading only)

In all sentences above, the first relative marking is triggered by the wh-word focus.⁷ In sentence (a), both clauses are in the perfect and the events can be viewed as dependent or not, as shown by the two possible readings. In the non-dependent reading, the events only have a temporal relationship. In sentence (b), both clauses are in the past tense and the sentence can only have the dependent events sense ('let'). In sentence (c), the last clause is in perfect and the preceding one in the past, and only the independent events reading is

possible. Thus, the restriction barring the sequence of past tense and a perfect PTAM applies only when the two events are dependent. The restriction in itself is not surprising, because most languages show some constraints on the possible combinations of tense/aspect categories in a sentence (cf. for example Chung and Timberlake 1985). In Hausa, a subordinate complement clause with a completed event is framed as punctual if the main clause too is punctual and the subordinate clause event causally depends on the event in the main clause.

From the data above, it is clear that a single formal principle such as the presence of a null or overt [+focus] operator in COMP cannot be the right account. One has to distinguish a past tense use of the relative marking which can occur without focus construction.

1.5.4.3.5 Ambiguity and Combination of markers

This subpart deals with the unavoidable cases of ambiguity of a given relative marking as a status or a tense marker and cases where the same marking simply fulfills both function simultaneously.

In the two previous subparts, we have seen that in/ ìdan can be the conditional 'whether, if' or the temporal 'once, when' (cf. discussion of (85) and (98) respectively). There is a set of ambiguous sentences discussed by Bagari (1976), Schuh (1985), and Tuller (1986) and which are given below (from Tuller, glosses from original, but tones added):

- (105) a. in/ ìdan yâara sun zoo, zân baa sù^{3p}
if children 3p.PERF come FUT-1s give 3p

kwabòo-kwabòo.
penny-penny

'If the children come, I'll give them a penny each.'

- b. in/ ìdan yâara sukà zoo, zân baa sù^{3p}
if children 3p.REL PERF come FUT-1s give 3p

kwabòo-kwabòo.
penny-penny

'If the children come, I'll give them a penny each.'

As indicated, Bagari and Tuller consider the sentences (a-b) above to have the same meaning. Tuller accounts for the relative marking contrast between the two sentences by positing two different in/ ìdan's 'if'. The one in sentence (a) is the head of a PP with the CP

as the complement, while the other in/ ìdan 'if' in sentence (b), is the specifier of a subordinate clause and triggers the relative marking. Thus, in sentence (b), there is a null [+focus] operator in COMP but not in sentence (a). My intuition (and that of other consulted speakers) about the above sentences differs from Bagari's intuition (on which Tuller bases her analysis). For Bagari, the two sentences have the same meaning, but he admits that sentence (105a) has more certainty than sentence (105b). But he also indicates that other speakers have the reverse judgement, sentence (105) being more certain than sentence (105a). It is not clear from Tuller's quote of Bagari (1976) what "more certain" means.

It is proposed here that the distinction between the status and the tense function of the relative marking can help explain the inconsistency found by Bagari in speakers' interpretations of sentences (105). The fact is that both sentences in (105) are ambiguous, and the four possible senses contrast two by two. The first contrast is that involving the reality status of the sentences, as shown below:

- (106) a. in/ ìdan yâara sun zoo, zân baa sù
if children 3p.PERF come FUT-1s give 3p

kwabòo-kwabòo.
penny-penny

'If the children have arrived, I'll give them a penny each.'

- b. in/ ìdan yâara sukà zoo, zân baa sù
if children 3p.REL PERF come FUT-1s give 3p

kwabòo-kwabòo.
penny-penny

'If the children come, I'll give them a penny each.'

In this contrast, with sentence (a) above, the speaker does not know whether or not the children have come. The next likely action is for the speaker to check and see if indeed the children have arrived, and eventually give the money. In sentence (b) the speaker knows that the children have not yet arrived, but their arrival is likely. Note that there is no absolute certainty here, in/ ìdan in (106) is thus the conditional 'if', not the temporal adverb 'when'. These two distinct usages can be seen below:

- (107) a. In/ ìdan saafiyaa ta yi zân gwadàa makù
when morning 3fs.REL PERF do FUT-1s show-I MA-2p
takàrdâr.
letter-DEF

'When the morning comes I will show you the letter.'

- b. naa cèe masù kadà sù shigoo. In/ ìdan
1s.PERF say MA-3p NEG 3p.SUB enter-VI. If
kàu (sukà sakìi) sukà shigoo
indeed (3p.REL PERF let.loose-DN) 3p.REL PERF enter-VI
kù hanàa masù kallon tèelée yâu.
2p.SUB refuse-I MA-3p watching TV today

'I told them not to enter. If they (dare) enter, do not let them watch TV today.'

In sentence (a) above, the event of the morning coming is certain and in/ ìdan is the temporal adverbial 'when'. In sentence (b) on the other hand, the event of the children entering is not certain and the context of the sentence suggests that in/ ìdan here is a conditional. It is this type of in/ ìdan that appears in sentence (106b) above. Presumably then, in Hausa, a clause such as '(please check) whether or not John has come' is placed more toward the unrealis end-point than a clause such as '(stay here) if John should come...'.

The second contrast between Bagari's sentences in (105) occurs when in/ ìdan takes a temporal adverbial function. In this case, one sentence is viewed as having a non-punctual event, while the other contains a punctual event in the (relative) past tense. This is illustrated below:

- (108) a. in/ ìdan yâara sun zoo, zân baa sù
if children 3p.PERF come FUT-1s give 3p
kwabòo-kwabòo.
penny-penny

'Once the children have come, I'll give them a penny each.'

- b. in/ ìdan yâara sukà zoo, zân baa sù
if children 3p.REL PERF come FUT-1s give 3p
kwabòo-kwabòo.
penny-penny

'When the children come, I'll give them a penny each.'

These two sentences now should have the same "certainty" for all speakers. The only difference between them is that in sentence (a) the event of the temporal clause is framed as non-punctual (hence the translation 'have come'). In sentence (b) the subordinate clause event is framed as punctual and therefore takes the past tense marker. In Hausa, as pointed out by many (cf Abraham 1962, Schuh 1985), the past tense is a relative tense, like all other Hausa tenses and aspects. For example, the future can be used to describe events in the past as in dà zâa su fitaa an gwadâa masù takârdâr 'when they were going out, they were shown the letter' lit: 'when they will go out (impersonal) showed them the letter'. It is not surprising then that the past tense marker is used to describe a future event seen in a past perspective relative to another event. In short, to correctly interpret Bagari's sentences in (105), one has to distinguish the two types of in/ ïdan and the two types of relative marking. Conditional in/ ïdan may or may not occur with the realis topic marker (cf. the set of sentences in (106)). The temporal adverb in/ ïdan may or may not appear with the past tense marker (cf. the set of sentences in (108)). If one fails to make the two distinctions, and one compares unmatched senses, then the speakers' inconsistency described by Bagari (1976) can arise.

Another case of ambiguity occurs with dà when it is interpretable as the reason subordinator dà 'because' or the temporal subordinator dà 'when'. Such ambiguity is illustrated in the sentence below:

(109)	dà	mukà	san	kinàa	zuwàa	sai
	when	1p-REL PERF	know-II	2fs-CONT	come-VN	then
		mukà	daakàtaa	maki.		
		1p.REL PERF	wait-I	MA-2fs		

'Because we knew you were coming we waited for you.'
'When we learned that you were coming, we waited for you.'

In the first reading, dà means 'because' and, as a reason subordinator, it introduces the realis and topical information in the subordinate clause. The relative marking here is the realis topic marker. In the second reading of (109) above, the event of the subordinate clause is viewed as punctual. The reading is better rendered as 'at the precise moment when we learned that you are coming, we decided to wait for you'.

From the examples in (105-108) on in/ ïdan and the examples in (109) on dà, it is clear that one has to look at the semantics of the sentences before deciding what the relative marking in a particular clause stands for. Besides these ambiguous cases, there are also cases where the same marking simultaneously stands for the realis topic marker and the past

tense marker. In these cases, illustrated in note 7 of this chapter, the sentence is not ambiguous in meaning.

In this subpart on the relative marking, we have seen that two of its usages must be distinguished. First, the relative marking is used to mark clauses that carry topical and realis status information. The context of this use is essentially the fronting constructions and the conditional subordinate clauses. In this function, the label "realis topic marker" was suggested for the relative marking. The relative marking is also used to mark clauses in the past tense. These clauses contain events viewed as completed and punctual. The informational status of the past tense clauses is the broad predicate focus found with any other regular clause. They have no particular relationship with the narrow focus of the fronting constructions, as suggested by Tuller, therefore, one should reject the GB notion of a [+focus] null operator in COMP. It is also clear that the label "narrative use" of the relative marking is inadequate for what is fundamentally a past tense category, but which, as in many other languages, tend to be used primarily in narrative context.⁸ One may wonder why the two uses have the same form. First notice that in both contexts, one is dealing with realis event. Indeed, events in the past tense are completed, hence realis events. Secondly, in RRG terms, both the realis topic marker and the past tense marker are operators applying at the CLAUSE level on the LSC (one as a status operator and the other as a tense operator), and it is not surprising at first that the same form is used for both. Also, historically, and according to Newman and Schuh (1974:19), the relative marking was the original form for the Chadic perfective. One may then say that in Hausa the form was extended to mark the reality status, but it clear from what we saw above that the tense/ aspect marking function is not eliminated, and that the marker has the two functions. The following table summarises the forms, contexts, and functions of the relative marking:

(110) contexts: ⁹	realis topic: <u>yakè/ kèe</u>	past tense: (rel. PTAM)	Examples:
relative clause	yes	yes	n2/68-69
affirm. focus/ question	no	yes	n3/78
negat. focus/ question	(yes)		79
conditional <u>in/ idan</u>	no	yes	85
reason <u>dà</u>	yes	yes	83b/83c
temporal <u>in/ idan</u>		yes	98b
temporal <u>dà</u>		yes	99b
main clause		yes	101, 103
complement clause		yes	101, 103

This section presented the information structure theory which RRG has adopted. Using Lambrecht's notions of topic and focus as well as the different types of focus structures, RRG is able to formulate restrictions on extraction phenomenon that rival those found in GB-oriented accounts (cf. Van Valin 1992). In this section, we have also seen that Hausa has three precore structures. The PCS receives the focus-fronted NP, the wh-word, and the relative pronoun. The CEP contains the lexical NP pivot as well as the fronted undergoer NP. The LDP contains left-dislocated nominals which are tagged by an agreeing independent pronoun. A table of the three positions is given below showing the information status of their contents.

(111)	CEP	LDP	PCS
Topic	+	+	-
Focus	±	-	+

The CEP nominals are topical NPs about which a comment is made in the predicate, so, they appear in predicate focus construction. LDP nominals are highly topicalized and the table reflects this by assigning them opposite values for topic (+) and focus (-) statuses. The PCS nominals on the other hand are extremely focussed and appear in narrow focus construction. This is why they are assigned opposite values for topic (-) and focus (+), the reverse of the LDP nominals. From this, it follows that CEP nominals are in an intermediary status between the highly topicalized LDP nominals and the highly focussed PCS nominals. In the next chapter, it will be shown that these characterizations account for the behavior of the three types of nominals with respect to the preverbal pronoun drop.

Conclusion to chapter 1

This chapter introduced the reader to the fundamentals of RRG. It was not possible to give all the facets of the theory, or all of its recent developments (for which see Van Valin 1992). The reader is therefore encouraged to consult the literature cited. It is hoped however that those aspects relevant to the rest of the dissertation are all mentioned. The next chapter deals with the general clause structure of Hausa.

* General note:

The primary data in this thesis is from the Katsinanci dialect, centred around Katsina (in Nigeria) and Maradi (in Niger). Katsinanci is classed among the Western dialects (Zaria 1982). In the transcription, long vowels are marked as double letters, low tone as /à(a)/, falling tone /â(a)/, and high tone left unmarked. Also, the examples are transcribed as they are used in Katsinanci, but the standard general orthography rules are applied.

Notes to chapter 1

¹ Although it is optional, the presence or absence of the pronoun does have syntactic and semantic consequences, as seen in the discussion of (74).

² kèe is most frequent, but it is also possible to have the complete relative PTAM forms yakè '3ms-REL CONT', sukè '3p-REL CONT, etc, with the preverbal pronoun retained. Note that although it is glossed as '3ms-REL CONT', an inserted form such as yakè has a short final vowel, as opposed to long final vowel of the true relative PTAM yakèe.

It is also possible to have the kèe/ yakè insertion with a relative clause in the affirmative perfect or continuous. This is illustrated below:

- (i) a. duk yaaròo wandà yakè yaa ìsa
any child 3ms-that REL CONT 3ms.PERF suffice-III

shìgaa makarantaa
enter-III-VN school

'any child that is in age of starting school'
- b. duk yaaròo wandà ya ìsa shìgaa
any child 3ms-that 3ms.REL PERF suffice-III enter-III-VN

makarantaa
school

'any child that is in age of starting school'

In example (a) the realis topic marker is the inserted relative continuous form yakè '3ms-REL CONT', while the PTAM itself is in the perfect. The corresponding regular relative clause is shown in (b). In example (a), the relative clause can structurally be considered as the complement of the relative copula yakè. This construction must be distinguished from the non-restrictive NP modification that involves the reason subordinator dà 'because' (not the relative marker dà 'that'), as seen below:

- (ii) yaaròn, dà yakè yaa fii sù
boy-DEF because 3ms-REL CONT 3ms.PERF surpass 3p

wàayoo, ya ruugàawarhì gidaa dà jirgin
smartness 3ms.REL PERF run-VN-of-3ms home with plane-of

wàasansù.
play-of-3p

'The boy, who is smarter than they are, run home with their toy-plane.'

This sentence, like the real relative clause can appear with a relative PTAM instead of the yakè insertion (cf. yaaròn, dà ya fii sù wàayoo, ya ruugàawarhì gidaa dà jirgin wàasansù 'the boy, who is smarter than they are, run home with their toy-plane'). On the other hand, and contrary to a true relative clause, the sentence in (ii) above cannot occur with a relative pronoun (cf. yaaròn, (*wan)dà ya fii sù wàayoo, ya ruugàawarhì gidaa dà jirgin wàasansù). If a relative pronoun is allowed, then the sentence takes a restrictive sense, i.e. a regular

relative clause (cf. yaaròo wàndà ya fii sù wàayoo yaa ruugàawarhì gidaa dà jirgin wàasansù 'the boy who is smarter than they are run home with they toy-plane'). The non-restrictive clause in (ii) takes a relative marking triggered by the reason subordinator dà 'because', which is seen in detail below in discussion of (83-84).

³ Contrary to the relative clause (see note 2), the fronting constructions do not allow kèe yakè insertion in lieu of the relative PTAM in the affirmative perfect or continuous (cf. the perfect *yaaròo nee yakè soojà sun àikaa 'It is a boy that the soldiers sent (somewhere) or the continuous *yaaròo nee yakè soojà sunàa aikii 'it is a boy that the soldiers are sending.'

⁴ As it will be seen in the subpart devoted to the past tense marking, dà and its modified versions can be used as temporal adverbs, where they can contrast not along the realis/irrealis scale, but along the punctual/ non-punctual dimension. This double usage of dà can be illustrated below:

(i)	a.	an	sai	matà	kèekee	tun	(lookàcin)	dà
		IMP-PERF	buy	MA-3fs	bike	since	(time-of)	when

ta	sàbka.
3fs-REL PERF	graduate-III

'She was bought a bike since the time she graduated.'

b.	an	sai	matà	kèekee	tundà	(yakè)
	IMP-PERF	buy	MA-3fs	bike	because	(3ms-REL PERF)

taa	sàbka.
3fs.PERF	graduate-III

'She was bought a bike because she graduated.'

Tun and dà are represented disjunctively when they mark time --lookàcin 'time-of' can be inserted between them--, but conjunctively when they mark cause subordination. The relative marking in sentence (a) is the past tense marker. In sentence (b) the inserted yakè is only the realis topic marker.

⁵ When the event in the two main clauses do not contradict each other, it is possible to have the connector omitted, as in: yâaran dà sukà rìkiDà sun zama kuuràayee (àmmaa) an Damrèe su 'the children that metamorphosed became hyenas, and they are in custody now').

⁶ Although the traditional analysis of lookàcin dà as a relative clause is rejected here, one still has to admit that some speakers have come to view the structure as a relative clause indeed. Thus, sentence (100a) has a marginal, but acceptable alternative with the relative continuous: lookàcin dà Aali yakèe sôñ Bâlkî yaa riKâ zôowaa ganimmù 'during the period when he was in love with Balki, Ali kept visiting us'. In this version, the word lookàcii is obligatory (cf. *dà Aali yakèe sôñ Bâlkî yaa riKâ zôowaa ganimmù 'when he was in love with Balki, Ali kept visiting us'), which shows that it is only because speakers are now taking lookàcii as a relative head that the relative continuous is possible. With regular sentences such as (100a), the word lookàcii is completely optional. The existence of

sentences like (100a) is noted in Abraham (1959:163) who gives: sândà sunàà yâaraa = sândà sukèe yâaraa 'during their boyhood'.

Another odd occurrence of the relative marking is in marginal sentences such as:

- (i) a. koo dà mukèe zuwàa Indoo taa Kaarè
even.as 1p-REL CONT go-VN Indo 3fs.PERF finish-IV

dafà àbinci.
cook-I food
- 'Even as we arrived, Indoo has finished cooking the food.'
- b. mukèe nan zàmne sai gâa mai goorò
1p-REL CONT there sitting then there.is owner.of goorò

dà gwârraa manyà manyà.
with kolanuts big big
- 'As we were sitting there and here comes a kolanuts seller with huge kolanuts.'

All the sentences above are really marginal and many speaker will reject them. They are the informal versions of koo dà mukà jee Indoo taa Kaarè dafà àbinci 'even as we arrived, Indoo has finished cooking the food' and munàa nan zàmne sai gâa mai goorò dà gwârraa manyà manyà 'as we were sitting there and here comes a kolanuts seller with huge kolanuts' (note that the disjunctively written koo dà in its regular use means 'as soon as' and is different from the reason subordinator koodà 'although, even though' seen in (84); koo dà 'as soon as' appears in sentences such as koo dà mukà ìsa sai akà baamù takàrdaa mù cikàa 'as soon as we arrived, we were given a form to fill').

⁷ Here, the (extra) main clause akà cêe 'impersonal said' is used to filter out the effect of the wh-construction. Without this main clause, the ambiguous reading of (104a) cannot obtain: *wàa nee nèe kaa baroo yaa mutù? '-?'. The wh-word must be followed by a relative PTAM: wàa nee nèe ka baroo yaa mutù? 'who is it you left under the circumstances of his death?' or wàa nee nèe ka baroo ya mutù? 'who did you let die?'. In these previous examples, the first relative marking probably plays two roles, it is the realis topic marker and the past tense marker. The ungrammatical (*wàa nee nèe kaa baroo yaa mutù?) in fact may be felicitous in echo-question construction, and more with the sense of 'who is it "you left him and he died"?'

⁸ In French for example, although the passé simple is reportedly dropping out of the spoken language, it is still heavily used in mystery novels among others, to describe sequential, completed, and punctual actions.

⁹ A frequent context for relative marking among African languages is the factive construction. In Hausa, the factive construction does not in itself trigger the relative marking. There are many ways to express the situation for which one in English would use a that-clause. The most common and straightforward way is to juxtapose a proposition (in the CEP) which is referred to by a third masculine singular PVP in the main clause. This is illustrated below:

- (i) a. [Abdù yaa sai mà Dantà giyàa] yaa
 Abdu 3ms.PERF buy MA son-of-3fs beer 3ms.PERF
 bàa Indoo haushii.
 give Indo bad.feelings

'The fact that Abdu bought beer for her son gave Indo bad feelings.'

- b. [Abdù yaa sai mà Dantà giyàa] (ya)nàa
 Abdu 3ms.PERF buy MA son-of-3fs beer 3ms-CONT
 bàa Indoo haushii.
 give Indo bad.feelings

'The fact that Abdu bought beer for her son is giving Indo bad feelings.'

In the examples above, there is no relative marking at all. In sentence (a), the that-clause appears in the CEP, from where it is referenced by the PVP. Sentence (b) in the continuous more clearly shows the CEP status of the proposition because there, the PVP can be omitted. PVP omission is one property of CEP nominals, as it will be seen in chapter 2. There is another way to form factive construction which uses the relative marking, but here too, the marking is due to the focus structure involved, as illustrated below:

- (ii) a. Abdù yaa sai mà Dantà giyàa shii (nèe)
 Abdu 3ms.PERF buy MA son-of-3fs beer 3ms cop.m
 ya bàa Indoo haushii.
 3ms.REL PERF give Indo bad.feelings

'The fact that Abdu bought beer for her son is what gave Indo bad feelings.'

- b. Abdù yaa sai mà Dantà giyàa shii (nèe)
 Abdu 3ms.PERF buy MA son-of-3fs beer 3ms cop.m
 (ya)kèe bàa Indoo haushii.
 3ms-REL CONT give Indo bad.feelings

'The fact that Abdu bought beer for her son is what is giving Indo bad feelings.'

The that-clause in the sentences above is structurally in the LDP, while the independent pronoun shii is in the PCS as focussed constituent, as shown by the presence of the optional copula nèe. Because of the focus construction, the relative marking appears on the main clause PTAM. Also, sentence (b) shows that when the main clause is in the continuous, the PVP (referring to the focussed pronoun shii) can be dropped. PVP drop is also a property of focussed nominals. Another frequent way of rendering the factive construction in Hausa is by, somehow, topicalizing one constituent of the that-clause (particularly the object) and introducing the remaining clause with the temporal subordinator dà 'when'. This is illustrated below:

- (iii) a. giyàa dà Abdù ya sai mà Dantà
 beer when Abdu 3ms.REL PERF buy MA son-of-3fs
 (ya)nàa bâa Indoo haushii.
 3ms-CONT give Indo bad.feelings

'The fact that Abdu bought beer for her son is giving Indo bad feelings.'

- b. giyàa dà Abdù ya sai mà Dantà shii
 beer when Abdu 3ms.REL PERF buy MA son-of-3fs 3ms
 (nèe) (ya)kèe bâa Indoo haushii.
 cop.m 3ms-REL CONT give Indo bad.feelings

'The fact that Abdu bought beer for her son is what is giving Indo bad feelings.'

Notice that the sentences above do not involve relativization. So, dà is not the relative marker "that", but the temporal "when". This can be easily shown by the fact that the relative pronoun (operator) cannot occur before dà, as seen below:

- (iv) *giyàa waddà Abdù ya sai mà Dantà
 beer 3fs-that Abdu 3ms.REL PERF buy MA son-of-3fs
 (ta/ya)nàa bâa Indoo haushii.
 3fs/3ms-CONT give Indo bad.feelings

'The fact that Abdu bought beer for her son is giving Indo bad feelings.'

The sentence above is ungrammatical with the relative pronoun, whether the main clause PVP agrees with the purported head noun giyàa 'beer.fem' or with the whole that-clause (referenced by the default third person masculine ya). In fact, it is not necessary to topicalize any constituent out of the that-clause to get the use of dà 'when', as seen below:

- (v) a. dà su Abdù sukà sai mà Dantà giyàa
 when 3p Abdu 3p-REL PERF buy MA son-of-3fs beer
 yaa bâa Indoo haushii.
 3ms.PERF give Indo bad.feelings

'The fact that the Abdus' bought beer for her son is giving Indo bad feelings.'
 lit. 'when the Abdus' bought beer for her son it gave Indo bad feeling.'

- b. dà su Abdù sukà sai mà Dantà giyàa
 when 3p Abdu 3p-REL PERF buy MA son-of-3fs beer
 (nee) ya bâa Indoo haushii.
 cop.m 3ms.REL PERF give Indo bad.feelings

'The fact that the Abdus' bought beer for her son is giving Indo bad feelings.'
 lit. 'it is when the Abdus' bought beer her son that gave Indo bad feeling.'

The fact is that one can treat the relative marking in the that-clause of (iii) and (v) as the past tense marker. The relative marking of the main clause in (iiib) and (vb) on the other hand is due to the focus structure.

Notice that there are many other ways of expressing that-clause construction. The point is that from the examples above, the that-clause construction is not inherently marked with the relative marking. So, apparently, in Hausa, the realis topic marking is restricted to focus constructions and subordinate adverbial clauses, as reflected in (110); it does not apply to subordinate complement clauses.

Chapter 2

THE PREVERBAL PRONOUN AS THE PIVOT ARGUMENT

2.0 INTRODUCTION

This chapter presents a general conception of Hausa clause structure analyzed applying the RRG structural and functionalist notions seen in the previous chapter. Contrast with other views of the clause structure, whenever possible, will be highlighted. At the end, it is hoped that the reader will realize how the RRG view of language easily explains facts which are intractable for other theories, or would require the creation of special rules beside the theory's core principles.

The chapter has two sections and begins by addressing the issue of the pivot argument in section 2.1. It is argued that Hausa has an endocentric detached-marking construction where the core pivot argument is a pronoun in the preverbal word which marks person and tense/aspect. Section 2.2 deals with the conditions on the omission of the pronoun in the preverbal word. It is claimed that this omission is function of the position and the information status of the antecedent NP. CEP nominals allow the omission of the pronoun unless they are pronominalized or emphasized. PCS nominals, which are highly focussed, allow nearly unrestricted pronoun omission. The highly topicalized LDP nominals on the other hand simply do not allow the omission of the pronoun.

2.1 THE REAL PIVOT AND THE CORE EXTERNAL NP

In contrast to the traditional conception of Hausa, as well as analyses in recent theoretically oriented works, this section claims that under normal circumstances, Hausa has no lexical NP as "subject"; or, in RRG terms, the lexical NP is not functioning as the pivot. It is proposed instead that the sentence core has, for a simple transitive verb, a preverbal pronoun as pivot. The lexical NP, if present, is in a position inside the clause but outside the core, the CEP (cf. previous chapter).

First, for reasons of convenience, the complete paradigms of the preverbal pronouns for all Hausa tense/ aspects are presented in section 2.1.1. Then, in sections 2.1.2-2.1.4 the traditional analysis and an actual and a potential theoretical analyses are reviewed, along with the problems they face. Section 2.1.5 then gives the RRG analysis, along with the supporting arguments.

2.1.1 THE HAUSA PERSON-TENSE/ ASPECT MARKING

In Hausa, the verb itself is not formally marked for tense/ aspect; instead, the marking goes on a separate preverbal word which includes a pronoun usually referencing the

"subject" NP (if there is one). In Hausa literature, this preverbal word is labelled the "pre-verbal pronoun" (Newman and Schuh 1974) or the "person/ aspect marker" (Newman 1987:714). In this thesis, the person marker part will be referred to as the "preverbal pronoun" or PVP. The aspect marker part will be referred to as the "tense/ aspect marker" or TAM. Finally, the whole preverbal word will be called the "person/ tense/ aspect marker" or PTAM. Katsinanci dialect formally has nine tense/ aspects/ mood categories, including the two relative versions of the perfect and continuous aspects. The paradigms below are adapted for Katsinanci from Newman and Schuh (1974). The eventual mood, a category not mentioned by Newman and Schuh, is reported for Standard Hausa in Abraham 1959:143,140, Gregersen 1967:42-57 and, for the western dialects, in Gouffé 1967-1968:45-47 (cf. Gouffé 1967-68). It is also from Gouffé (1967-68) that the term "eventual" is taken. The perfect and the continuous paradigms differ so much from their corresponding negative paradigms that the latter are usually given as categories of their own. For comparison purposes, the set of independent pronouns is also given. The paradigms are as follows: ¹

(1)	<u>Free pronouns</u>	<u>Perfect</u>	<u>Rel. Perfect</u>	<u>Neg. Perfect</u>
1s	nii	naa	na	bàn/ bà nà...ba
2ms	kai	kaa	ka	bà kà...ba
2fs	kee	kin	kikà	bà kì...ba
3ms	shii	yaa	ya	bài...ba
3fs	ita	taa	ta	bà tà...ba
1p	muu	mun	mukà	bà mù...ba
2p	kuu	kun	kukà	bà kù...ba
3p	suu	sun	sukà	bà sù...ba
imp.		an	aka	bà à...ba
	<u>Continuous</u>	<u>Rel. Cont.</u>	<u>Neg. Cont.</u>	<u>Potential</u>
1s	inàa	nikèe	bâa ni/ bân	nîi/ nâa
2ms	kanàa	kakèe	bâa ka	kâa
2fs	kinàa	kikèe	bâa ki	kîi/ kîn
3ms	yanàa	yakèe	bâa ya/ bâi	yâa
3fs	tanàa	takèe	bâa ta	tâa
1p	munàa	mukèe	bâa mu	mûu/ mûn
2p	kunàa	kukèe	bâa ku	kûu/ kûn
3p	sunàa	sukèe	bâa su	sûu/ sûn
imp.	anàa	akèe	bâa a	âa/ ân

	<u>Future</u>	<u>Eventual</u>	<u>Habitual</u>	<u>Subjunctive</u>
1s	zâa ni/ zân	nikâa	nikàn	'n
2ms	zâa ka	kakâa	kakàn	kâ
2fs	zâa ki	kikâa	kikàn	kì
3ms	zâa ya/ zâi	yakâa	yakàn	yà
3fs	zâa ta	takâa	takàn	tà
1p	zâa mu	mukâa	mukàn	mù
2p	zâa ku	kukâa	kukàn	kù
3p	zâa su	sukâa	sukàn	sù
imp	zâa a	akâa	akàn	à

As it can be seen above, three cases obtain in the morphophonological relation between the PVP and the TAM. The first stage is that where the PVP appears alone and unassimilated, such as in the subjunctive in (1). According to Newman and Schuh (1974:10), the subjunctive mood is indicated by a zero morpheme, thus, the PVP appears in its basic form, with a short final vowel and a low tone. In the second stage, the PVP is still morphologically distinct, but this time, a TAM is present and the PVP is affected and changed from its original low tone to high tone. This is the case in the continuous and the future in (1). Finally, in the third stage, the PVP and the TAM form a portemanteau and are inseparable. This can be seen with the perfect or the potential, or the first person, second person masculine and third person masculine of the relative perfect. As seen above, the preverbal word formed by the pronoun and the tense/ aspect marking will be referred to only as the PTAM, and it will not be assigned a category label. In fact, in the RRG trees proposed below, the PVP relates to constituent projection as the pivot argument, while the TAM (including the continuous nâa) is part of the operator projection as a tense/ aspect operator.

The aim of the remainder of this section, as stated above, is to determine the function of the pre-verbal pronoun: is the person, number, and gender marking simply an agreement, or is it a pronoun which is the real pivot of the clause? The next subsections present the current view on this problem and a new RRG analysis.

2.1.2 THE TRADITIONAL ANALYSIS

Hausa is traditionally said to have a nominal subject-argument followed by a pronoun which also carries the aspect marking. Indeed, no study, as far as I am aware, has questioned the belief that the nominal at the beginning of a sentence such as the one below is in fact the "subject":

- (2) Audù yaa nèemi aikìi.
 Abdu 3ms.PERF search-II work
 'Audu searched for a job.'

Audu in example (2) above is labelled the subject, while the status of the PVP is most of the time left unexplained. So, it is common for descriptive grammars of Hausa to explicitly state the equivalent of the following: "You must have a pronoun immediately before the verb, no matter whether there is a noun subject or not. This is necessary because in Hausa the tense of the verb is shown by the pronoun." (Maxwell and Forshey, n.d., cited in Newman and Schuh 1974:2-3). Thus, it is generally thought that the only reason the PVP cooccurs with a noun subject is because it carries the aspect marking. The implication is that it is not itself the subject. One apparent piece of supporting evidence widely cited is the fact that the PVP can indeed be dropped when the TAM is phonologically distinct such as in the continuous (or its relative version) as seen below:

- (3) a. Abdù (ya)nàa neemar aikìi.
 Abdu (3ms)-CONT search-II-VN work
 'Audu is searching for a job.'
- b. aikìi nee Abdù (ya)kèe neemaa.
 work be.m Abdu (3ms)-REL CONT search-II-VN
 'It is a job that Audu is searching for.'
- c. Abdù *(yâa) nèemi aikìi.
 Abdu 3ms.POT search-II work
 'Audu will search for a job.'

In the examples (a-b) above, the PVP ya is optional because the TAM is formally distinct. When the TAM is not distinct, the PVP cannot drop, and this is shown in the potential aspect sentence in (c). As far as I am aware, most descriptive grammars have avoided conceiving of the PVP as an agreement marker; this probably has to do with the fact that the PVP resembles the independent pronoun so closely and is separate from the verb. One other reason may have to do with the fact that the nominal "subject" can be dropped, leaving the PVP alone. This is illustrated in the following:

- (4) (Abdù) yaa zoo.
 Abdu 3ms.PERF come-VI
 'Abdu/ he came.'

In sentences such as (4) above, where the nominal is omitted, the traditional thinking is that the PVP is now a pronoun subject, a subject which also happens to carry a tense/ aspect marking.

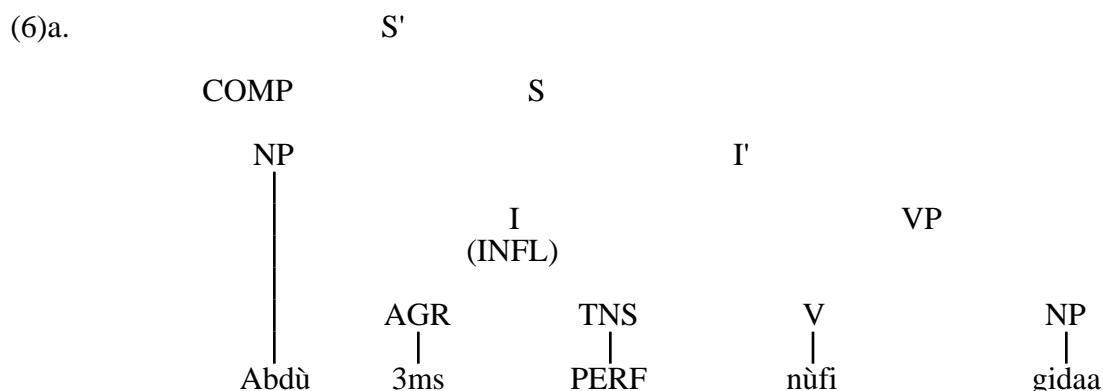
In conclusion, for traditional grammars, Hausa clauses without nominal subject have a pronoun subject. When a nominal is present, it takes over the subject function, and the pronoun is retained not as a subject or an agreement marker, but only because it supports the tense/ aspect marking. In section 2.2, devoted to the PVP drop conditions, we will see the weakness of this traditional argument.

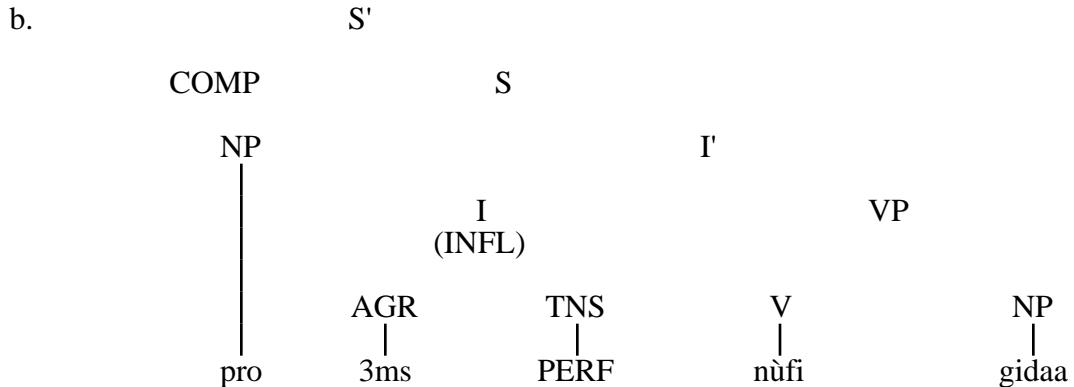
2.1.3 THE GB ANALYSIS OF SIMPLE CLAUSE STRUCTURE

In Tuller (1982, 1986), the omissibility of the nominal "subject" is given an important theoretical significance. Thus, according to Tuller, Hausa is a pro-drop language similar to Italian, in that the subject NP can be dropped with no consequence for grammaticality because it is recoverable from the AGR features. When the subject drops, it is replaced by an empty category, *pro*. In the GB analysis, the two sentences in (5a-b) below, can be represented as in (6a-b) respectively:

- (5) a. Abdù yaa nùfi gidaa.
 Abdu 3ms.PERF head-II home
 'Abdu headed home.'

b. yaa nùfi gidaa.
 3ms.PERF head-II home
 'He headed home.'





In both cases, the PTAM is formally an INFL(ection) node composed of an agreement node or AGR, and a tense node. The AGR node acquires its features (or phi-features: person, number, and gender) through agreement with the subject in the base. Contrary to non-pro-drop languages, in Hausa, these phi-features are realized phonologically at S-structure. It is this S-structure realization which in turn allows Hausa to be a pro-drop language. So, and contrary to the traditional analysis, even when the subject is dropped, the PVP is still an agreement marker and the real subject in this case is *pro*. The real question here, which the GB analysis does not address, is why the phi-features are realized at S-structure. In this and other GB works, this fact is simply stipulated: some languages do realize phi-features at S-structure, some do not. It is shown here that if one considers a wider array of Hausa facts, notably the behavior of the NP "subject", it becomes clear why the AGR features have to be overt in Hausa. The PVP must be overt because it is the pivot argument of the sentence. Also, one crucial implication of the GB analysis is that the AGR features in the INFL have to match the lexical features of the purported subject NP. However, below it is shown that this assumption is not always verified, and that the analysis also faces a number of other problems.

2.1.4 THE LFG-TYPE ANALYSIS

Bresnan and Mchombo (1987) proposed an analysis for Chichewa (extendable to other Bantu languages) where, according to them, pronominal affixes on the verb referring to the subject can be either grammatical or anaphoric agreement markers. This is illustrated below (adapted from Bresnan and Mchombo, with (b) inferred):

- (7) a. njûchi zi-ná-lúm-a alenje
 bees subj Mark-past-bite-indic hunters
 'The bees bit the hunters.'

- b. zi-ná-lúm-a alenje
 subject-past-bite-indic hunters
 'They bit the hunters.'
- c. mkángó uwu, alenje a-ku-gánizá kutí
 lion(3) this hunters subjMark-pres-think that
 !ú-ma-fúná ku-gúmúlá nyumbá yá mfúmu
 subject(3)-habit-want inf-pull down house of chief.
 'This lion the hunters think that it wants to pull down the chief's house.'

For Bresnan and Mchombo (1987), the first nominal in (7a) is the real subject and the subject marker *zi* incorporated into the verb is an agreement marking, much like in the GB analysis of Hausa. In the (b-c) sentences however, the subject is now the incorporated pronoun, because there is no overt antecedent nominal, as in sentence (7b), or because the antecedent is non-local, as in (7c). Below, we will only be concerned with the hypothetical application this analysis to Hausa. It is claimed that this type of analysis too cannot be adequate for Hausa for reasons which will be seen below.

2.1.5 THE RRG-BASED ANALYSIS

This section explores the position of Hausa vis-à-vis the parameter of head- and dependent-marking classification of Nichols (1986). It is proposed that regular sentences have a split strategy along the type of the arguments. With the pivot argument, Hausa follows a detached-marking pattern where the relation between the verb and its pivot is marked on a separate person, tense/ aspect word. With the undergoer argument on the other hand, regular sentences follow a dependent-marking pattern where the undergoer is characterizable by its position next to the verb (for more on the undergoer properties, see chapter 5). This section is concerned with the pivot argument only. The proposal is that in regular sentences, the lexical NP is not the pivot. Contrary to the claim of the alternate analyses, here the PVP, whenever it appears, is taken as the real pivot argument of the clause. This section deals exclusively with the cases where the PVP is indeed present.

The most decisive argument for the PVP as pivot is the fact that the nominal "subject" can be deleted and yet the sentence stays grammatical. This is illustrated in the following:

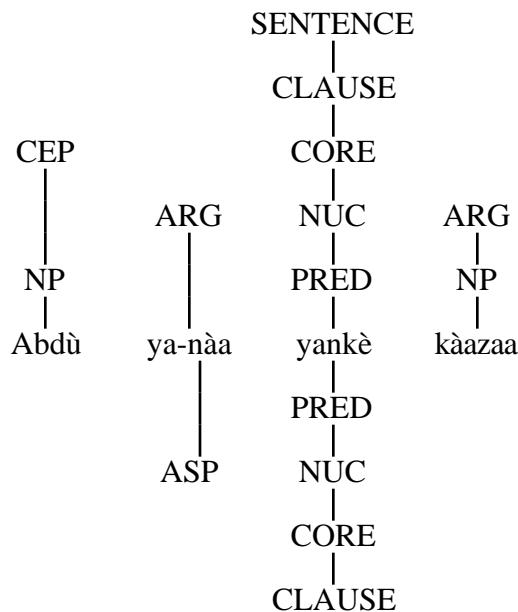
- (8) a. (Abdù) yanàa yankè kàazaa.
 Abdu 3ms-CONT slit-IV chicken
 'Abdu/ he is killing the chicken.'

- b. (mutàanee) sukà cirikee màa sukà nùfi
 (people) 3p-REL PERF rise-IV MA.2ms 3p-REL PERF head-II
 faadàr sarkii.
 court-of emir

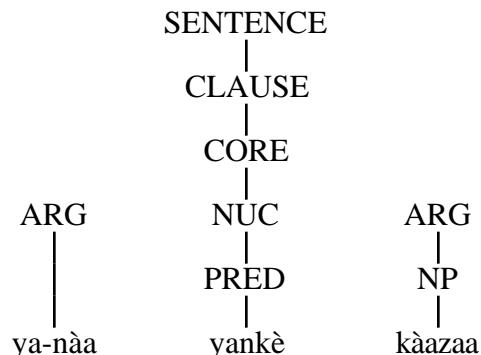
'Then the people/ they rose up, mind you, and headed for the emir's palace.'

In (8a), with the nominal deleted, the sentence is grammatical and means only 'he killed the chicken'. In sentence (b) too (which is in the simple past), the nominal can be omitted to mean 'they rose up...'. This ability of the lexical NP to delete without loss of grammaticality is a critical property of endocentric constructions or head-marking languages viewed from the RRG perspective, as seen in the previous chapter. To reflect the fact that the PVP is the first argument of the core, sentence (8a), with the lexical NP present, can be represented as in (9a) below, and the same sentence without the lexical NP is diagrammed in (9b).

(9) a.



b.



As seen in the introductory chapter, RRG has assumed an extra-core but intra-clausal position named here the core external position (CEP), where lexical NPs referenced by pronominal arguments marked on the verb in head-marking languages reside. So, in Hausa sentences where a nominal appears preverbally, then that nominal is in fact in the CEP. In other words, it is not an argument in the core of the clause. This fact is well represented in the layered structure (9a) above, where Abdù is outside of the core, in the CEP. The clause does contain a core with two arguments, but these arguments are yaa 'he', the pivot, and kàazaa 'chicken', the undergoer. This representation shows clearly why the "subject" nominal can be dropped without loss of grammaticality, as seen in (8a) and diagrammed in (9b). Here, the sentence is complete because both the essential argument positions are satisfied. So, in the RRG analysis, one does not need to posit an empty category (as in GB) or posit a change in the function of the same morpheme from one structure to another (as in the LFG-type analysis). This approach assumes that Hausa simple clause are endocentric with regard to the pivot only (usually the actor in the unmarked voice), while the undergoer can be a regular nominal. The verb does have a marking relating to the undergoer, but this marking only registers the presence of the undergoer and does not reference its features (cf. chapter 6). Note also that in (9a), the TAM part of the preverbal word is not linked to the constituent projection. Indeed, nàa is taken here as the continuous aspect marker and therefore, it is represented as an aspect operator (applying to the CORE node) in the operator projection.

There are many facts which can easily be explained in the RRG analysis and which are either left unexplained or are a potential problem for the competing analyses. In the following sections, these points are presented and, where relevant, the three analyses are contrasted.

2.1.5.1 The non-bound status of the PVP

The first evidence for the argument status of the PVP (and hence the non-argument status of the nominal), is the fact that morphologically, the PVP is not attached to the verb. This is true whether the CEP is filled or not. As a test, one can observe the behavior of modals particles such as dai 'indeed', fa 'indeed', which can intervene between the PVP and the verb. This behavior of modals is illustrated below:

- (10) a. (Aali dai) yaa san Abdù.
 Ali indeed 3ms.PERF know-II Abdu
 'Ali indeed knows Abdu.'

or:

- b. (Aali) yaa dai san Abdù.
- c. (Aali) yaa san dai Abdù.
both: 'Ali indeed knows Abdu.'

As we can see, the modal can appear between any two words in the sentences above, establishing each word as separate. One may expect a pronoun argument to be a free element, to be a clitic, or even to be an affix (as in real head-marking languages like Lakhota), but usually, one does not expect an agreement marker to be an independent word. In Hausa, the PVP is free even when the nominal in the CEP is present, a fact not helpful to an LFG-type analysis, which would posit the PVP as an agreement in this context. Also, according to Tuller (1986:153), Hausa is unique among known "pro-drop" languages in having its INFL as a free word, separate from the verb at PF (in other words, there is no affix-hopping). This peculiarity of Hausa can only strengthen the stance that an agreement analysis of the PVP is indeed inaccurate.

2.1.5.2 No agreement between the PVP and the "subject"

The second argument for the RRG analysis is even more crucial in that a nominal can appear in the CEP which is not referenced in lexical features by the PVP. One can take this fact to be a clear indication that the nominal is not the argument but an element external to the core. So far, one can cite two distinct cases where the lack of agreement occurs.

2.1.5.2.1 Empathic impersonal construction

First, in daily spoken Hausa, all humans (and on occasions also animals), can be referred to by the impersonal PVP a, as shown below:

- (11)
- a. Indoo an koomoo gidaa.
Indo IMP.PERF come-VI home
'Indo is back home.'
 - b. su Indoo an koomoo gidaa.
3p Indo IMP.PERF come-VI home
'Indo is back home.' or 'Indo and others are back home.'
 - c. Indoo taa koomoo gidaa.
Indo 3fs.PERF come-VI home
'Indo is back home.'

Sentences (a), (b), and (c) above mean essentially the same thing (except for the second reading of (b)). In sentence (a), Indoo is feminine singular, yet the agreement is impersonal.

In sentence (b), on the face of it, su Indoo is plural, but again the concord PVP is impersonal, and the sentence is really ambiguous (neither reading is cued by a particular intonation for example). Also, both (11a) and (11b) are naturally pronounced with the same intonation as the expected sentence in (11c). In its regular use, the impersonal pronoun refers to an unspecified entity. In the usage above however, I believe that the impersonal has the function of downplaying the importance of a negative event for the referent of the CEP nominal. That this may be true is shown by the fact that the construction is mostly used by family members and friends acknowledging the malefactive event. These two main usages of the impersonal are illustrated below:

- (12) a. daDàa an kaamà Abdù.
 so IMP.PERF catch-I Abdu
 'So! Abdu is arrested.' (lit. unspecified arrested Abdu.)
- b. daDàa Abdù bà à sàamu jaràbaawàa ba.
 so Abdu NEG IMP.PERF obtain-II exam NEG
 'So! Abdu failed his exam.'

In sentence (a) above we have the usual impersonal construction where the agent is not relevant or is easily inferred (the police). In Sentence (b) on the other hand, Abdù is the agent/ effector of the verb's action. The sentence can be uttered by a visitor to Abdu's family, and it would be inappropriate for the visitor to use the regular daDàa Abdù bàì sàamu jaràbaawàa ba (visitor may be thought to be unconcerned or even scornful). Because of this usage of the construction, it will be referred to as the empathetic impersonal construction. On the other hand, the impersonal construction can also be used informally among friends even for highly positive events. So, a friend might say either sentence (a) or sentence (b) below to a visibly satisfied Abdu:

- (13) a. Abdù hàlàn an sàamu biyàa kôo.
 Abdu I.guess IMP-PERF obtain pay is.it.so
 'I can guess it, Abdu you have just been paid.'
- b. Abdù hàlàn kaa sàamu biyàa kôo.
 Abdu I.guess 2ms-PERF obtain pay is.it.so
 'I can guess it, Abdu you have just been paid.'

There may be subtle differences between the two sentences above (such as how much others beside Abdu are affected by the event, etc), but these are bound to vary according to the situation at hand. The main point is that we have here an agreement which does not agree with the purported subject. The impersonal PVP specifies only the person feature (third person), and not the other phi-features, which seem neutralized (masculine, feminine, and

plural NPs all can bind the impersonal PVP). It can be said that the impersonal PVP fills the syntactic argument slot inside the core, while the lexical NP bears the morphological features. A GB-type formal account which says that the phi-features of the lexical NP and those of the PVP must match, will not handle the empathetic impersonal construction.²

2.1.5.2.2 Plural pronoun constructions

The next evidence showing that the PVP fill the syntactic function of pivot concerns cases where the PVP refers to the CEP nominal and another nominal in an associative construction. Here, a singular nominal is specified at the beginning of the sentence in the CEP, and a second nominal, the semantic co-agent of the verb, is specified in an associative prepositional phrase headed by dà at the end of the sentence. In this case, the PVP, alternatively can be singular or plural without any structural rearrangement. This is illustrated below:

- (14) Abdù yaa/ sun tafi Kanòò tare dà ùbanshì.
 Abdu 3ms/ 3p.PERF go-III Kano together with fahter-of-3ms
 'Abdu went to Kano with his father.'

As it can be seen, in the sentence above, the PVP can agree with the nominal Abdù in the CEP, or with Abdù and ùbanshì 'his father', in the associative phrase. This kind of construction is referred to as the plural pronoun construction in Schwartz (1989a, 1989b). Note that both the CEP nominal and the associative nominal can be co-agent no matter whether the PVP is singular or plural. This is easily shown with verbs that semantically require two equally acting agents, as illustrated below:

- (15) Abdù yanàa/ sunàa kòokoowàa ((dà) shii) dà Aali.
 Abdu 3ms-CONT/ 3p-CONT wrestling ((with) 3ms) with Ali
 'Audu wrestling with Ali'

In the sentence above, both Ali and Abdu are necessarily agents, yet, the PVP can be singular or plural. That is, there is no difference in meaning according to whether the PVP is singular or plural. Rather both versions of (15) above contrast with the regular Abdù dà Aali sunàa kòokoowàa 'Abdu and Ali are wrestling' by the fact that here both individuals are the topic about which the comment is made. Sentence (15) on the other hand rather tells what Abdu is doing. It is clear then that the PVP in (15) fill a syntactic slot and can agree with the CEP nominal alone or with the CEP nominal and the peripheral nominal. Notice that the co-agent does not have to be expressed for the PVP to be plural. Thus, if an inquirer asks 'where is Abdu?', the speaker can answer:

- (16) Abdù sun tāfi Kanò.
 Abdu 3p.PERF go-III Kano
 'Abdu went to Kano.'

Here, the speaker, by the use of the plural pronoun, implies that Abdu went to Kano with other people. Yet, the co-agent is not expressed. This sentence is perfectly normal and can be uttered where the listener can deduce who the other participants are (i.e. Abdu's usual friends). If that is not the case, then the listener of (16) can ask: sun tāfi Kanò dà shii dà suwàa? lit: 'they-went-to Kano-with-him-with-who.pl.' 'he went to Kano with who?'

With multiple clauses, there may be some syntactic constraints. A case is illustrated below:

- (17) a. Abdù yanàa can yanàa kòokoowàa dà Aali.
 Abdu 3ms-CONT there 3ms-CONT wrestling with Ali
 'Audu is there wrestling with Ali.'
- b. Abdù yanàa can sunàa kòokoowàa dà Aali.
 Abdu 3ms-CONT there 3p-CONT wrestling with Ali
 'Audu is there wrestling with Ali.'
- c. Abdù sunàa can sunàa kòokoowàa dà Aali.
 Abdu 3p-CONT there 3p-CONT wrestling with Ali
 'Audu is there wrestling with Ali.'
- d. *Abdù sunàa can yanàa kòokoowàa dà Aali.
 Abdu 3p-CONT there 3ms-CONT wrestling with Ali
 'Audu is there wrestling with Ali.'

In the sentences of (17), the two consecutive PVPs can be singular-singular, singular-plural, plural-plural, but not plural-singular. Sentence (d) above will be grammatical only if sunàa '3p.CONT' refers to Abdu and others but excluding Ali. It is possible to have two consecutive plural-singular PVPs if the non-CEP nominal is co-agent only with the first predicate, although in general, this is quite marginal and, in these cases, it is better to shift the non-CEP nominal before the second predicate. This is illustrated below:

- (18) a. ?Abdù sunàa can yanàa kooyàa mà yâara kàràatuu.
 Abdu 3p-CONT there 3ms.CONT teach MA children reading
 'Abdu is there teaching to read to the children.'

- b. Abdù sunàa can dà yâara yanàa kooyàa masù
 Abdu 3p-CONT there with children 3ms-CONT teach MA-3ms
 kàràatuu.
 reading

'Abdu is there with the children teaching them to read.'

In the sentences above, sunàa refers to Abdu and the yâara 'children', whereas, yanàa refers only to the nominal Abdu because he is the sole agent of the verb kooyàa 'teach'. Notice that in sentence (a) above, the nominal yâara referred by the first PVP is the object of kooyàa mà 'teach to', it is not in an associative construction. In fact, in Hausa such constructions are frequent and can even involve the nominal solely referred to by the PVP. This is illustrated below:

- (19) a. Abdù yaa tattàrà yâaranshì sun tàfi goonaa.
 Abdu 3ms.PERF gather children-of-3ms 3p.PERF go-III farm
 'Abdu gathered all his children and went to the farm.'
- b. kin ji màatar Abdù yaa kòoree tà!
 2fs.PERF hear wife-of Abdu 3ms.PERF chase.away-IV 3fs
 'Have you heard it, that Abdu chased away his wife!'

In sentence (a) above, the second PVP refers to Abdu and yâaran 'children', despite the fact that the latter nominal does not appear in an associative construction, but as undergoer of the previous verb. In sentence (b), Abdu is the agent of the main verb kòoree 'chase away', yet, it appears embedded in the possessive phrase with the preposed undergoer. For this sentence to be correct, the possessive phrase must be fronted in the CEP (cf. *kin ji yaai kòori màatar Abdù; 'did you hear that Abdu chased away his wife'). The sentence in (b) above can be the first full sentence of a conversation, and it can be uttered without Abdu having been previously mentioned. Thus, the PVP does not refer to a discourse topic, but to the nominal embedded in the possessive phrase in the CEP.

There are probably other cases showing different phi-features sets as bore by the immediate preverbal lexical NP and the PVP. The facts mentioned above are however sufficient to show that between the CEP nominal and the following PVP, there is no strict and obligatory agreement of the type a GB analysis would predict. As for the relation between the CEP nominal and the PVP, it can be said that there must be only a feature-compatibility, not a perfect matching of the features. Thus, the lexical NP can be singular and the PVP plural if a co-agent is specified somewhere else in the sentence (cf. 17, 19). The PVP however cannot be singular while the CEP nominal is plural (cf. su Abdù *yaa/

sun tafi 'Abdu and others are gone', where yaa '3ms.PERF' is ungrammatical); also, the two cannot be of opposite gender. Also, regardless of the features of the CEP nominal, the PVP can be impersonal, specifying only the feature "3rd person" in the empathic impersonal constructions, as seen in (11-13). In the GB analysis, the agreement checking rules at LF will exclude these grammatical sentences as ill-formed. The feature-compatibility formulation together with the idea that the PVP is the syntactic pivot are then descriptively more adequate than the GB alternative analysis.

2.1.5.3 Hausa "it-extrapolation" construction

This subpart also brings forth arguments in favor of the pivot analysis of the PVP. We will see cases where the GB analysis is forced to posit invisible dummy subjects for Hausa in order to rescue the agreement analysis of the PVP. It is shown that an RRG account instead is simpler and can handle a wider range of phenomena.

Tuller (1986) discusses the construction involving the complex predicate yanàa dà wùyaa 'it is with difficulty'. The construction is illustrated as follows (adapted from Tuller 1986):

- (20) a. [à sàami gooròo à Poitiers] yanàa dà wùyaa.
 IMP.SUB obtain-II kolanuts at Poitiers 3ms-be with difficulty
 'It is difficult to find kolanuts in Poitiers.'
 - b. [tì yanàa dà wùyaa [à sàami gooròo à Poitiers]].
 3ms-be with difficulty IMP.SUB obtain-II kolanuts at Poitiers
 'It is difficult to find kolanuts in Poitiers.'
- (21) a. maalàmâr nan tanàa dà wùyaa.
 teacher-of there 3fs-be with difficulty
 'that teacher is hard.'
 - b. *yanàa dà wùyaa maalàmâr nan.
 3ms-be with difficulty teacher-of there
 'that teacher is hard.'

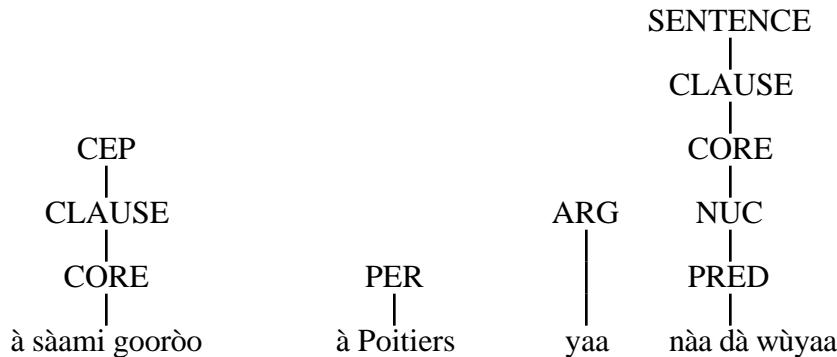
In her treatment, the complex predicate yanàa dà wùyaa assigns a theta role to a clausal or nominal subject as seen in (20a) and (21a) respectively. In (20) however, the clausal subject can be extracted as shown in (20b), in which case, a pleonastic element (an empty category, with the feature third person masculine-singular) is the subject (like "it" in English it-extrapolation sentences). That this construction assigns a theta role to the subject is shown by the inability of a nominal subject to extrapose (*21b). This means that the nominal cannot be replaced by the pleonastic "it". Below, it is shown that these empty dummies are unnecessary notions for Hausa viewed from the RRG perspective.

In the RRG analysis, both the proposition in (20a) and the nominal in (21a) are in the CEP and are referred by the PVP, the real core argument. The proposition is assigned the third person singular PVP *ya* (although for some predicate-nouns, the feminine PVP *ta* is preferred). Nominal arguments naturally agree with the PVP in gender, as seen in (21a) above (*maalàmaa* is 'fem. teacher'). The fact is that with the predicate-noun *wùyaa*, the propositional as well as nominal argument can be extraposed to the end of the sentence so long as they properly agree with the PVP in the core. This is what is happening in sentence (20b) above with a clausal argument; it is not necessarily an it-extraposition case. The shift is also exemplified below, where the nominal argument is post-posed in the RDP with the proper agreement (compare with (21b) above):

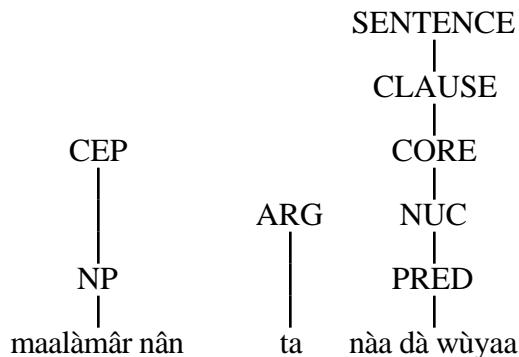
- (22) a. *tanàa dà wùyaa maalàmâr nan.*
 3fs-be with difficulty teacher-of there
 'that teacher is hard.'

This shows that the example in (21b) is ungrammatical only because it lacks the proper agreement between the PVP and the nominal it refers to. It is not due to the inability of the nominal to be replaced by a pleonastic dummy. In the RRG analysis, the sentence in (20a) and (21a) will be represented in (23a-b) respectively:

- (23) a.



- b.



As seen in the above representation, both types of argument are in the CEP. In (23a) also the prepositional phrase à Poitiers is in the periphery, modifying the CEP clause core. Because it is not tied to the function "subject", the proposition, and the PP also, can be quite freely rearranged, as seen in below:

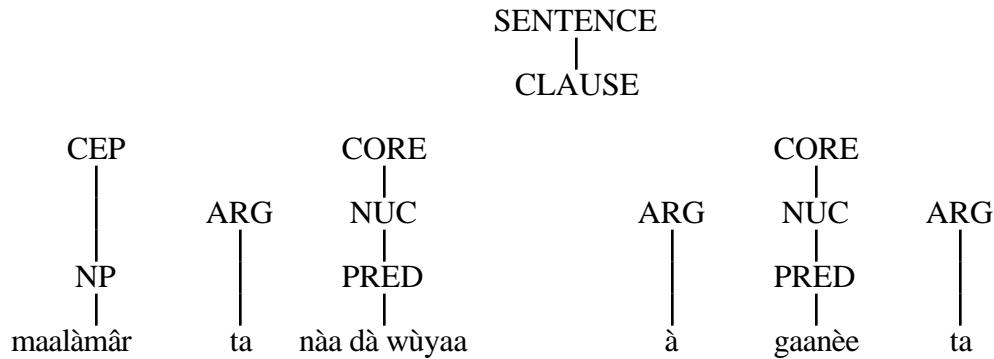
- (20) a. [à sàami gooròo] [à Poitiers] yanàa dà wùyaa.
 IMP.SUB obtain-II kolanuts at Poitiers 3ms-be with difficulty
 'to find kolanuts in Poitiers is difficult.'
- b. [à sàami gooròo] yanàa dà wùyaa [à Poitiers].
 c. [à Poitiers] yanàa dà wùyaa [à sàami gooròo].
 d. [à Poitiers] [à sàami gooròo] yanàa dà wùyaa.
 e. yanàa dà wùyaa [à sàami gooròo] [à Poitiers].
 f. yanàa dà wùyaa [à Poitiers] [à sàami gooròo].
 all:'to find kolanuts in Poitiers is difficult.'

Like the sentential argument, the nominal maalàmaa 'teacher' in the layered structure (23b) can be post-posed in the RDP. Actually, this ability of the nominal to shift, when combined with a proposition in a core coordination with the predicate nàa dà wùyaa can give rise to patterns which can be understood in terms of the LSC. This is illustrated below:

- (25) a. [maalàmâr] tanàa dà wùyaa [à gaanèe ta].
 teacher-DEF 3fs-be with difficulty IMP.SUB understand 3fs
 'The teacher is hard to understand.'
- b. *[maalàmâr] [à gaanèe ta] tanàa dà wùyaa.
 c. tanàa dà wùyaa [à gaanèe ta] [maalàmâr].
 d. tanàa dà wùyaa [maalàmâr] [à gaanèe ta].
 e. *[à gaanèe ta] [maalàmâr] tanàa dà wùyaa.
 f. *[à gaanèe ta] tanàa dà wùyaa [maalàmâr].
 all:'The teacher is hard to understand.'

For the RRG analysis, the sentence in (25a) has a CEP nominal maalàmaa, 'teacher'. The complex predicate nàa dà wùyaa is in core coordination with the proposition à gaanèe ta. These two predicates must share an argument, so, there is an obligatory coreference between maalàmâr 'teacher' and ta '3fs'. The core juncture is represented in the layered structure below:

(26)



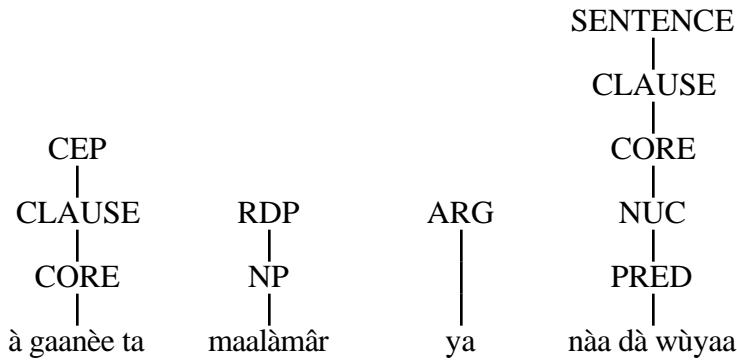
With this representation, all the sentences in (25) can be accounted for. The main fact is that the three main constituents can be rearranged so long as the core coordination is not broken. That is, à gaanèe ta should not occur before the predicate nàa dà wùyaa, as it does in the ungrammatical sentences (25b, and 25e-f). Notice that the GB analysis cannot handle the sentence in (25a). Indeed this sentence seems to have both an extraposed proposition and a "subject" nominal. So it is not clear where would the pleonastic dummy be positioned if nàa dà wùyaa is really an extraposition predicate.

On the other hand, it is possible to have the proposition à gaanèe ta maalàmâr being in the CEP, binding the PVP yaa. In this situation, all the sentences in (25) will be as good as those in (24). This is shown below:

- (27) a. [à gaanèe ta maalàmâr] yanàa dà wùyaa.
 IMP.SUB understand-IV 3fs teacher-DEF 3ms-be with difficulty
 'To understand her (the teacher) is difficult.'
- b. [maalàmâr] [à gaanèe ta] yanàa dà wùyaa.
 c. yanàa dà wùyaa [à gaanèe ta] [maalàmâr].
 d. yanàa dà wùyaa [maalàmâr] [à gaanèe ta].
 e. [maalàmâr] yanàa dà wùyaa [à gaanèe ta].
 f. [à gaanèe ta] yanàa dà wùyaa [maalàmâr].
 all: 'To understand her (the teacher) is difficult.'

One can see the reason why there is so much flexibility in (27) by considering the LSC representation of (27a) above, as shown below:

(28)



Thus, in this structure, there is no core coordination, unlike in (26) above, therefore, the proposition in the CEP can move about freely as a displaced constituent. Although the proposition is an argument of the main predicate and thus a subordinate clause, technically, the PVP is the core internal pivot argument. So, like with any other CEP argument, the proposition can be moved around, or even dropped if it can be retrieved by the context. yànàa dà wùyaa alone for example, would mean 'it/ is difficult', where the PVP refers to an understood proposition.

In conclusion, the RRG system of the layered structure of the clause allows us to account for Hausa structure more exhaustively. There is no need for pleonastic dummies as posited in the GB analysis. We have seen that there are clear cases which contradict the extraposition predicate analysis of nàa dà wùyaa. The analysis may therefore be rejected.

2.1.5.4 Hausa so-called raising construction

This subsection deals with the GB analysis of the gr3 verb kàmaatà 'fit, be ok, be appropriate'. Tuller (1986) characterizes this verb as the raising predicate in Hausa, the equivalent of English 'seem'. It too has a pleonastic subject, and, like 'seem' in English, it may not appear with a sentential subject. This is illustrated in the following (adapted from Tuller 1986:17):

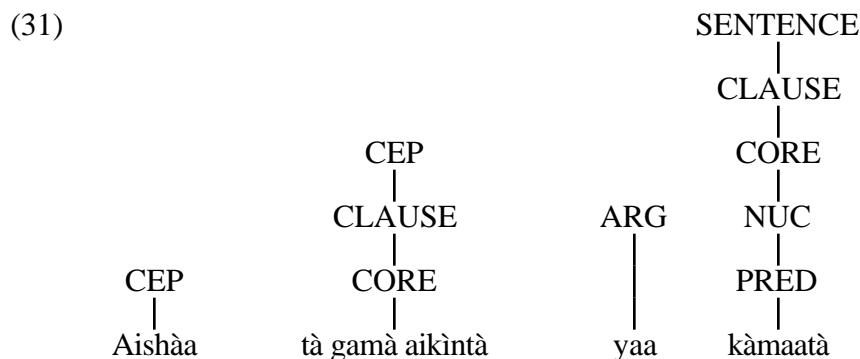
- (29) a. yaa kàmaatà [Aishàa tà gamà aikìntà].
 3ms.PERF fit-III [Aisha 3fs.SUB finish-I work-3fs]
 'It fits that Aisha finishes her work.'
- b. *[Aishàa tà gamà aikìntà] yaa kàmaatà.
 [Asha 3fs.SUB finish-I work-3fs] 3ms.PERF fit-III
 'That Aisha finishes her work fits.'
- c. *Aishàa taa kàmaatà [tì tà gamà aikìntà].
 Aisha 3fs.PERF fit-III [3ms.SUB finish-I work-3fs]
 'That Aisha finishes her work fits'. (lit: *Aisha fits to finish her work.)

In the GB analysis, in sentence (a) above, yaa kàmaatà is preceded by a theta-less position occupied at D-structure by an empty element which is third person masculine singular. That this position is theta-less is shown by the fact that no propositional subject can appear in it, as shown in the sentence (b). According to the analysis, although kàmaatà is a raising verb, raising cannot take place as seen in (29c), because Hausa has no infinitive, and the lower verb cannot drop its INFL. If there is raising, the INFL node would assign case to the trace, but kàmaatà also would assign a case to the nominal, violating case theory. The subjunctive will not make any difference because this mood/ aspect does have a tense node, but an empty one. The first problem with these points is that the analysis predicts the following sentence to be good:

- (30) *Aishàa taa kàmaatà gamà aikìntà.
 Aisha 3fs.PERF fit-III finish-I work-of-3fs
 'Aisha fits finishing her work.'

In the sentence above, the nominal Aishàa would be raised and the lower verb turned into a gerund. A gerund has no INFL node at all, therefore, it cannot assign case to the trace left by the nominal. The sentence however is ungrammatical, and one can conclude that case violation is not the proper explanation for (29c) above.

The second problem is that in my personal judgement, sentence (29b) is fully grammatical. This shows that kàmaatà can take a clausal argument in the CEP and is not a potential raising predicate. Actually, in the RRG analysis, the main feature of kàmaatà is that it is a verb which allows only propositions as arguments. The proposition Aishàa tà gamà aikìntà 'that Aisha finish her work' in (29b) can be analyzed as a CEP argument of kàmaatà 'fit', and which is referenced by the third person masculine PVP ya. The RRG layered structures corresponding to my judgement of (29b) is given below:



With this layered structure representation, it would not be surprising that other alternatives exist of expressing the sentence in (29) above. These alternatives are given below:

- (32) a. [Aishàa tà gamà aikìntà] yaa kàmaatà. (=29b)
 [Aisha 3fs.SUB finish-I work-3fs] 3ms.PERF fit-III
 'It fits that Aisha finishes her work.'
- b. yaa kàmaatà [Aishàa tà gamà aikìntà]. (=29a)
 c. yaa kàmaatà [tà gamà aikìntà Aishàa].
 d. [Aishàa] yaa kàmaatà [tà gamà aikìntà].
 e. [tà gamà aikìntà Aishàa] yaa kàmaatà.
 f. ?[tà gamà aikìntà] yaa kàmaatà [Aishàa].
 all:'That Aisha finishes her work fits.'

In (32) above, the sentences (b-f) would be versions of (29b/32a). In sentence (32b) the propositional argument is in the RDP. In the propositional argument itself, the CEP nominal Aishà can be in the RDP, as seen in (32c) and (32e). Somehow, it can also appear in the LDP of the main clause, as in (32d), but less satisfactorily in the RDP of the main clause, as shown in (32f). The sentence (32f) though is better with a marked pause before the nominal Aishà.

Although it is said that kàmaatà does not take nominal in the CEP, it is possible to have a gerund or a demonstrative there. This is illustrated below:

- (33) a. ganin Abdù yaa kàmaatà.
 seeing-of Abdu 3ms.PERF fit-III
 'Seeing Abdu is appropriate.'
- b. hakànga/ wannàn yaa kàmaatà.
 way-of-this/ this 3ms.PERF fit-III
 'This way/ this is appropriate.'

Both the gerund in sentence (a) and the demonstratives in (b) refers to understood propositions. kàmaatà itself is a gr3 verb, but it can appear in gr2 where it takes an obligatory undergoer, like all gr2 verbs.

- (34) a. tà gamà aikìntà yaa kàmàaci Aishàa.
 3fs.SUB finish-I work-of-3fs 3ms.PERF suit-II Aisha
 'That she finish her work suits Aisha.'
- b. wânnan yaa kàmàacee tà.
 that 3ms.PERF suit-II 3fs
 '(doing) that suits her.'

In above, the verb is appearing in grade 2 with Aishà or tà '3fs' as the undergoer, and with a proposition or a demonstrative in the CEP, anteceding the PVP. So, it looks like kàmaatà is a regular gr3 intransitive verb.

In conclusion, kàmaatà is not a potential raising predicate as posited in the GB analysis. The verb kàmaatà can only take propositional arguments in the CEP. However, the restriction to propositions seems to be semantic, not syntactic, as assumed in the GB analysis. Indeed, gerunds and demonstratives referring to propositions can be arguments of kàmaatà. So, the restriction barring simple nominals like Aishà from appearing in the CEP of kàmaatà is due to a lexical particularity of this verb, it is not due to case theory violation.

This section has argued for an endocentric and detached-marking analysis of Hausa vis-à-vis the pivot argument. We have seen that such an analysis is better than other competing analyses in accounting for basic Hausa facts such as the optionality of the preverbal lexical NP, the lack of a strict matching agreement between the lexical NP and the PVP, and the easiness with which certain sentences can be rearranged. The next section deals with the account of the optionality of the PVP itself.

2.2 PVP OMISSION CONDITIONS

This section discusses the issue of the omissibility of the PVP. First, It is shown that the GB and the RRG analyses fare better than the traditional analysis on the account of this omissibility. As seen in section 2.1.2, in the traditional grammars of Hausa, the reason for not considering the PVP as a subject if an NP occurs is that the PVP is useless and deletable as long as the TAM is distinct. The problem with this hypothesis is that the PVP drop is optional only, not obligatory. Also, there are aspects other than the continuous and relative continuous where the PVP and the TAM are distinct, yet the PVP omission is strictly impossible. For the GB and the RRG analyses, the persistence of the PVP even in cases where it should have dropped, is natural if the PVP is an agreement marker (GB) or a core argument (RRG).

Secondly, the GB and RRG analyses do have to account for the optionality of the PVP in some circumstances. It is claimed in this section that the omission of the PVP in aspects where it is allowed is constrained by the information status of the antecedent nominal, an information status which itself correlates with the nominal's position. The general rule is that the more topical or topicalized a nominals is, the less likely the PVP referring to it can be dropped. Highly topicalized LDP nominals do not allow PVP drop at all. CEP nominals are low in topicality and allow PVP drop unless they are pronominalized or emphasized with modal particles. PCS nominals are highly focussed and allow PVP drop even if they are pronominalized or emphasized with a modal particle. This RRG-based structural and

pragmatic account will be contrasted with a purely formal account proposed in GB terms in Tuller (1986), which I think is unnecessarily complex. First however, there are two factors which need to be excluded. These are the tense/ aspect restriction and the right morphosyntactic environment restriction. Indeed the PVP drop is possible only in certain tense/ aspects and, according to Schuh (cited in Tuller 1986), when the head of the next constituent to the PVP is overt. These two restrictions, and the GB and RRG accounts are presented next in turn.

2.2.1 TENSE/ ASPECT RESTRICTION

According to Tuller (1986), the PVP can drop in three aspect categories: the continuous, the relative continuous and the habitual. Following the traditional grammars, she states that the omission of the PVP is limited to these aspects because in other aspects, the PVP cannot be separated out of the PTAM. This statement, although true, is somewhat misleading and overlooks cases where the PVP and the TAM are distinct and, but no PVP drop is possible.

The situation in Katsinanci is that the optional omission can happen in the continuous, the relative continuous, the eventual, and, very marginally, in the habitual. PVP omission is impossible in the relative perfect and the future, all of which have distinct PVP and TAM. It also does not happen in the subjunctive where, according to Newman and Schuh (1974), the PVP appears alone in its basic form. These aspects are illustrated below respectively:

- (35) a. Abdù (ya)nàa dafà shìṅkaafaa.
 Abdu (3ms)-CONT cook-I rice
 'Audu is cooking some rice.'
- b. aikii nee Abdù (ya)kèe neemaa.
 work cop.m Abdu (3ms)-REL CONT search-II-VN
 'It is a job that Audu is searching for.'
- c. Indoo taa kwàashi baashìi koo Dìyaa (ta)kàa
 Indo 3fsp.PERF take-II loan MOD daughter 3fs-EVE
 soo armee bana.
 want marriage this.year
 'Indo took a loan in case her daughter would want to marry this year.'
- d. Abdù ?(ya)kàn nèemi aikii duk raanii.
 Abdu 3ms-HAB search-II job all dry season
 'Audu usually searchs for a job in the dry season.'

- (36) a. aikii nee yâara *(su)kà nèema.
 work be.m boys 3p-REL PERF search-II
 'It is a job that the boys searched for.'
- b. Abdù zâa *(ya) neeman aikii.
 Abdu FUT-3ms search-VN-II work
 'Abdu is going to look for a job.'
- c. sun cèe Abdù *(yà) zamnàa.
 3p.PERF say Abdu 3ms.SUB sit-I
 'They asked that Abdu sit.'

(35) illustrates the aspect categories which allow PVP drop. (35a) shows a continuous sentence, in (35b) is a relative continuous sentence, and in (35c) an eventual mood sentence. The habitual aspect in sentence (35d) is somewhat less compatible with PVP omission. This probably may have to do with the fact that the overall occurrence of this category is restricted in Katsinanci, its meaning being sometimes conveyed with the continuous aspect construction. The sentences in (36) illustrate the cases where PVP drop is strictly ruled out, despite the fact that the PVP and the TAM are distinct. In the (36a) sentence is the relative perfect aspect, in (36b) is the future tense, and in (36c) the subjunctive. Here, the traditional analysis faces some grave difficulties: if the PVP is maintained only to support the TAM, why isn't it omitted in (36), and why isn't it systematically omitted in both (35-36)? The GB and the RRG analyses do not face this question, they both have some other function for the PVP: it is the agreement marker for the GB analysis, and it is the pivot argument for the RRG analysis. The GB and RRG analyses will differ in their account of the PVP optionality in the relevant aspects.

2.2.2 SCHUH'S RIGHT ENVIRONMENT RESTRICTION

The PVP drop is influenced by both the left and the right morphosyntactic environment. The influence of the left environment is the subject of the GB and RRG accounts to be presented below. Schuh (cited in Tuller 1986:391-392) proposes that the PVP drops only when the head of the following constituent is present. This condition, known as "the right environment PVP drop restriction", is necessary but not sufficient, because the PVP drop also depends on the tense/ aspect and the left environment. The right environment restriction is illustrated below:

- (37) a. Abdù (ya)nàa gidaa yànzu.
 Abdu 3ms-be home now
 'Abdu is at home presently.'

- b. ìnaa nèe Abdù *(ya)kè yànz-u?
 where cop.m Abdu 3ms-be now-Q
 'Where is Abdu presently?'
- (38) a. aikii nee Abdù (ya)kè yîi.
 work cop.m Abdu 3ms-CONT do-VN
 'It is work that Abdu is doing.'
- b. aikii nee Abdù *(ya)kè.
 work cop.m Abdu 3ms-CONT
 'It is work that Abdu is (doing).' (lit 'It is work that Abdu is at')

In (37a), gidaa 'home' is the head of the constituent following the PTAM, and PVP drop is possible. In sentence (37b) the following constituent has no head --which questioned and fronted--, therefore, PVP drop is impossible. In (38a), yîi 'do' is the verb and the PVP can drop. If yîi 'do' is omitted, which is normally possible, then PVP drop cannot take place. Tuller (1986) hypothesizes that the TAM obligatorily cliticizes on either the PVP (on its left) or the head of the following phrase (on its right). It follows then that the PVP cannot drop if the following head is also missing. Thus, in both (37b, 38b) the PVP and the next head are missing and the TAM has no place to cliticize, hence the ungrammaticality. The next subsection presents the GB formal account of this left environment restrictions.

2.2.3 THE GB ACCOUNT OF THE PVP DROP

In those aspects where the PVP can be optional, its omission is still restricted to some precise contexts determined by the left environment of the PTAM. According to Tuller, the left environment restriction facts are so complex that it is necessary for a theory to assume two different grammars or language registers to handle everything. These facts can then be organized as follows (from Tuller 1986):

(39)	Overt lexical NP	overt local comp.	non local comp.	overt topic	zero opic
Gram. A:	Y	Y	N	N	N
Gram. B:	Y	Y	Y	Y	Y

2.2.3.1 Grammar A

For grammar A, the PVP omission is possible only if an overt lexical NP is specified, or after an overt local complementizer. Omission is impossible in all other cases as shown in the table under (34). All the cases are illustrated in below (adapted from Tuller 1986):

- (40) a. Abdù (ya)nàa dafà shìṅkaafaa.
 Abdù (3ms)-CONT cook-I rice
 'Audu is cooking some rice.'
- b. naa ga yaaròo s'[wanjdà s[*t_i* (ya)kèe
 1s.PERF see-II boy who-COMP 3ms-REL CONT
 aikii à gidan sarkii]].
 work at house-of emir
 'I saw the boy who works at the emir's house.'
- c. s'[suwàaq nee s[Aali ya cèe s'[*t_i* s[*t_i* *(su)nàa zuwàa]]]?
 3p-who cop.p Ali 3ms.REL PERF say 3p-CONT
 come-DN
 'Who did Ali say are coming?'
- d. yaaròn nan, *pro* *(ya)nàa aikii à gidan sarkii].
 boy-of there 3ms-CONT work at house-of emir
 'As for that boy, he works at the emir's house.'
- e. Q: ìnaa Aabù takèe? A: *pro* *(ta)nàa zuwàa.
 where Abu 3fs-REL.be 3fs-CONT coming
 'Where is Abu?' 'She is coming.'
- f. màalàmmajì (su)nàa tsàmmaanìn *pro* *(su;_j)nàa dà
 teachers 3p-CONT thinking-of 3ms-be with
 iikòò dà yawàa.
 power with a.lot
 'The teachers; think they; have a lot of power.'

In (40a) the omission of the PVP is possible if the lexical NP subject precedes it directly. In (40b), omission is also possible if the PVP refers to a trace properly governed by a wh-operator in the preceding complementizer. In (40c) the trace binds an operator placed in the higher, non-local COMP, and this forbids PVP dropping. In (40d-f), there is no PVP drop when the subject is *pro* and the lexical NP is an overt topic (d, f), or a discourse topic (e). To account for the data in (40), Tuller proposes a formal principle which says that in

grammar A, an empty AGR node must be identified within the minimal clause that contains it. That minimal clause is the CP or S'. So, PVP identification is local.

2.2.3.2 Grammar B

In Tuller's grammar B PVP omission is possible in all the cases as seen in the table under (39). In short, the omission for this grammar is unrestricted. However, the Grammar B is valid only for the written language, never for the spoken language. Some (adapted) examples given by Tuller (1986:395) and taken from published sources are in the following (originally, sentence (41a) is from Abraham 1959:98, sentence (41b) is cited in Jaggar 1985, and (41c) is from Imam 1980:123):

- (41) a. kiishiyaa ban haushii, anàa ganin kì (a)kàn
 co-wife giving-of anger IMP-CONT see-II 2fs IMP.HAB
 zàagi mijìi.
 insult husband
- 'You co-wife, cause of annoyance! looking at you one may
 insult one's husband!'
- b. Kalala --nàa can pro --nàa faamaa dà waashìn
 Kalala be there CONT struggle with sharpening-of
 wuKaa.
 knife
- 'Kalala is there struggling to sharpen the knife.'
- c. tōo jàma'àa, s'[wàaì] s[kukà] ganii s'[t_i s[t_i --kèe dà
 so people who 2p-REL PERF see-II REL.be with
 màataa]].
 wife
- So, people, who did you see (who) has a wife?'

Sentence (41a) is very likely a proverb or a fixed saying about co-wives in general. In the second part of the sentence, the impersonal PVP is given as optional (because it is a proverb this case will not be dealt with in the RRG account; also, in my judgement, even for a proverb, this sentence is not at all grammatical without the PVP). In sentence (41b), kalala is the subject of nàa 'be' and the PVP can be omitted. The second nàa 'be' has *pro* as subject, yet the PVP omission is still possible. (In my judgement, even for the spoken register this

sentence is good without the PVP). In sentence (41c), the lower verb kèe 'be' has a trace as subject. This trace however binds a wh-operator which is not in the local COMP, but in the higher COMP, yet, the the PVP can drop. Tuller formally accounts for the facts of grammar B by positing that grammar B has no AGR node at all (versus grammar A, which does have an AGR node, but an empty one), thus, the problem of AGR identification is just irrelevant here.

This conclusion is of course a simple stipulation. For the GB analysis, Hausa base-generates agreement features which are realized at S-structure, thus making the language a pro-drop language. So, positing cases where there is no base-generated AGR at all, or where the AGR node is base-generated empty, is very exceptional. Another problem with these explanations is that the PVP omission is always optional, and that all the sentences in (40) as well as (41) appear most naturally with the PVP. In my opinion, the facts of grammar B as well as other facts simply disconfirm Tuller grammar A AGR identification principle. Next I propose a structural-functional account of the PVP drop in terms of the RRG layered structure of the clause and its information structure theory.

2.2.4 AN RRG-BASED ACCOUNT OF THE PVP DROP

The range of the facts to be explained here is somehow wider then that which was taken into consideration in the GB account. In this part, new data is brought up and it is shown that the GB minimal clause identification principle is in fact inadequate for this new data beside the facts of grammar B. The account proposed here takes advantage of the layered structure of the clause, the idea that Hausa has an endocentric structure for pivot, and the theory of the information structure adopted in RRG. We will see that the PVP is ommissible for PCS nominals and, under some restrictions, for CEP nominals. PVPs referring to nominals in the LDP cannot be omitted.

2.2.4.1 PVP drop with CEP nominals

CEP nominals, as seen in the previous section, are the traditional lexical NP subject and the fronted undergoer argument. We have seen in chapter 1 that the fronted undergoer takes a clitic copy-pronoun which is optional if the referent is not human. CEP nominals referred to by the PVP in the core allow the PVP to optionally drop for any type of referent. In this subpart, the constraints to PVP drop which are specific to CEP nominals are presented. For example, and contrary to the PCS nominals, there is no PVP drop if the CEP nominal is modified by the emphatic particles lallee 'indeed', or when the nominal is pronominalized. Also, CEP nominals, just like focussed ones, do not allow PVP drop in more than one clauses if a potential antecedent intervenes.

2.2.4.1.1 Regular CEP nominals

Non-emphasized and non-pronominalized CEP nominals easily allow their immediate PVP to drop. This is illustrated below:

- (42) a. yâara (su)nàa jiifar kàren Indoo.
 kids 3p-CONT throw-II-DN-of dog-of Indo
 'Some kids are throwing at Indo's dog.'
- b. yâara shàKiffai (su)nàa jiifar kàren Indoo.
 kids malicious 3p-CONT throw-II-DN-of dog-of Indo
 'The malicious kids are throwing at Indo's dog.'
- c. leebùra waDàndà Abdù ya kira (su)nàa jiràa.
 laborers who-p-that Abdu 3msREL PERF call 3p-CONT waiting
 'The laborers that Abdu called are waiting.'
- d. mootàr Kanèn Abdù (ta)nàa dà faaDii sòosai.
 car-of younger brother-of Abdu 3fs-be with largeness very
 'The car of Abdu's younger sibling is very large.'

In the sentences above, a CEP nominal allows an optimal PVP drop. In sentence (42a) above, the nominal is bare, without any modifier. In (42b), a CEP nominal is followed by an adjective, in (42c) the nominal is followed by a relative clause, while in (42d) it is followed by a double possessive construction. As one see, in all the sentences, PVP omission is natural. The GB analysis too can handle all these sentences.

2.2.4.1.2 Pronominalized CEP nominals

As seen in the table under (1), Hausa has a set of independent pronouns which appear isolated (cf. ita! 'her!'), as object of certain prepositions (cf. dà ita 'with her'), and any other place where a clitic pronoun is not required. The fact is that when the CEP content is an independent pronoun, the PVP drop is impossible. This is illustrated below:

- (43) a. shii *(ya)nàa wankè mootàrshì.
 3ms 3ms-CONT wash car-of-3ms
 'He is washing his car.'
- b. nii *(i)nàa zuwàa.
 1s 1s-CONT going
 'I am going.'
- c. ita *(ta)nàa zuwàa.
 3fs 3fs-CONT going
 'she is going.'

In all the sentences above, the independent pronoun has no particular prosody to distinguish it from a CEP nominal. But as one can see, it does not tolerate PVP drop. A possible explanation for this failure to allow PVP drop may be that a CEP pronoun is more topical than a regular NP. In (43) above, the pronoun is unstressed and actually, the most common way to render the readings indicated is by leaving out the independent pronoun. And because in general topical constituent do not allow PVP drop, then it is not surprising that an unstressed pronoun should also fail to do so. The impossibility of the PVP drop is conform to the idea that the least marked form for a topic NP is as an unstressed pronoun (Lambrecht 1986, cited in Van Valin 1990d:180). In section 2.2.4.3, we will see that focussed independent pronouns do allow the omission. Notice that if the independent pronoun is taken as the subject in the GB analysis, one will have to explain why the PVP drop is impossible although the empty AGR would be identified in its minimal clause. Tuller does not cite cases involving independent pronouns such as in (43).

2.2.4.1.3 Emphasized CEP nominals

As is widely known, Hausa has a number of modal particles that can be more or less translated as 'indeed, in fact, really, etc'. Newman (1991) observed that it is customary for Hausa investigators to use modal particles in tests of constituency. So, the presence of a modal particle is taken to indicate constituent boundaries. As far as I am aware, no study has been devoted to the influence the presence of the modals may have on the sentence syntactic processes. For example, when the CEP nominal is modified by the particles, it can cease allowing PVP drop, or do so only marginally. This is illustrated below:

- (44)
- a. Abdù (ya)nàa wankè mootàrshì.
Abdu 3ms-CONT wash car-of-3ms
'Abdu is washing his car.'
 - b. Abdù **fa** (ya)nàa wankè mootàrshì.
Abdu indeed 3ms-CONT wash car-of-3ms
'Abdu is indeed washing his car.'
 - c. Abdù **dai** ?(ya)nàa wankè mootàrshì.
Abdu indeed 3ms-CONT wash car-of-3ms
'Abdu indeed is washing his car.'
 - d. Abdù **lallee** *(ya)nàa wankè mootàrshì.
Abdu in fact 3ms-CONT wash car-of-3ms
'Abdu in fact is washing his car.'

In each sentence in (44) above, an NP is followed by a modal and this has various implications for the ability of the PVP to drop. In the (b) sentence, a monosyllabic modal

has no effect on the PVP. In the (c) sentence, a heavy syllable modal renders the PVP omission less natural. Finally, in the (d) sentence, the omission is ungrammatical with the disyllabic lallee. Newman (1991) explains the fact that fa alone is allowed, by some speakers, between the verb and mà, as due to the light syllabic structure of the modal. This type of explanation cannot be applied here, because the disyllabic lallee does appear between the lexical NP and the PVP, only the PVP is no longer allowed to drop. Notice also from the examples in (42) that adjectives, relative clause, and possessive phrases can all separate the CEP nominal from the PVP, and PVP omission is still grammatical.

Hausa emphatic particles can be analyzed as some type of evidential operators which apply to the clause or the NP level. Usually, evidential in RRG apply only to propositions. The modal particles function seems to be to highlight or emphasize a nominal in its relation to the verb. This is illustrated below:

- (45) a. S1: naa ji Abdù dà Aali sun tàfi Kandò.
1s.PERF hear Abdu and Ali 3p.PERF go-III Kano
'I heard that Abdu and Ali went to Kano.'

- b. S2: Abdù lallee yaa tàfi, àmmaa bàñ
Abdu indeed 3ms.PERF go-III but NEG.PERF-1s
sanèe mâa Aali ba.
know-IV MA Ali NEG

'Abdu indeed went, but I don't know about Ali.'

- (46) a. S1: an cèe Abdù baa yàa sôn Bàlkì.
IMP.PERF say Abdu NEG.CONT 3ms love-DN-of Balki
'It is said that Abdu doesn't love Balki.'

- b. S2: aa'àa! Abdù yanàa fa sônta.
No! Abdu 3ms-CONT indeed love-DN-of-3fs
'No!, Abdu does love her.'

In (45), speaker 1 reports a fact by hearsay, that Abdu and Ali are in Kano. Speaker 2 responds by emphasizing that Abdu indeed is in Kano, but Ali may or may not be. Thus, the modal particle is not a focussing device (for a focus, speaker 2 would have replied Abdù nee kaDai ya tàfi 'It is Abdu only who went'). From the examples above, it is clear that the modals appear in contexts where the pivot is already previously referred to and hence is highly topical. In (45b), the nominal Abdu is emphasized as the topic to which the comment yaa tàfi 'he went' applies as far as speaker 2 is concerned. In (46), the emphasis is put on the verb itself. Speaker 1 reports that Abdu does not love Balki, to which speaker 2 responds

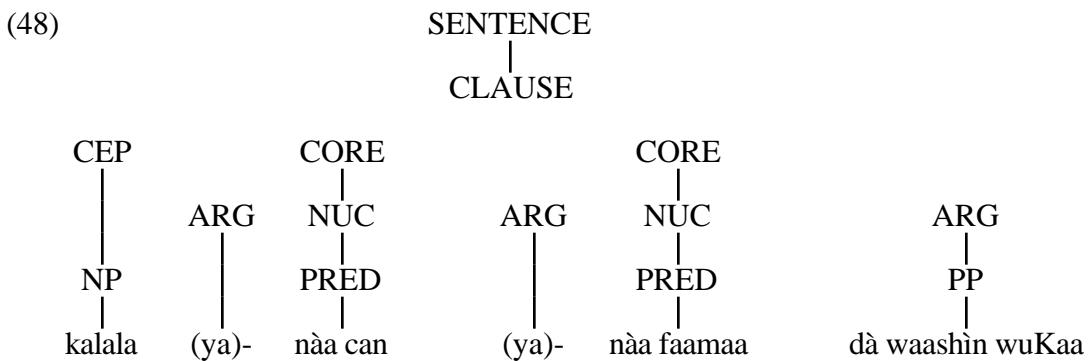
'Abdu does in fact love Balki'. Because it is more topical, the CEP nominal moves toward the most topical end of the information status spectrum and the PVP drop option is affected with particles like dai and lallee. In this respect, CEP nominal differ from PCS nominals, which also take the emphatic particles, but without any consequence for their ability to allow PVP drop.

2.2.4.1.4 Multiple PVP drop with CEP nominals

As the example in (41b) provided by Tuller shows, it is possible to have two consecutive PVPs drop while they refer to the same antecedent. This example is partially repeated below:

- (47) Kalala (ya)nàa can (ya)nàa faamaa dà waashìn wuKaa
 Kalala 3ms-be there 3ms-CONT struggle with sharpening-of knife
 'Kalala is there struggling to sharpen the knife.'

The example above violates the GB analysis local PVP identification principle, because of the fact that the second clause contains a *pro* referring to Kalala. This is why the example is thought, in the GB analysis, to be handled only by the unrestricted Grammar B (cf. section 2.2.3.2). In the RRG analysis, the sentence above can be analyzed as a case of core coordination involving the cores (ya)nàa can 'is there', and (ya)nàa faamaa 'be struggling'. This is represented in the layered structure below:



As it can be seen, there is only one CEP modifying the first core. But Kalala in the CEP is referred to by PVPs in both cores, and the nominal allows both PVPs to drop. That this construction is indeed a core coordination, and not a clause juncture, is shown by the fact that the two cores must obligatorily share an argument. This is illustrated below:

- (49) a. **Kalala** (ya)nàa can Bàlkì (ta)nàa mashì askìi.
Kalala 3ms-be there Balki 3fs-CONT MA-3ms hair-cut
'Kalala is there at Balki's house where she is cutting his hair.'
- b. ??**Kalala** (ya)nàa can Abdu nàa wankè mà Indoo rìigaa.
Kalala 3ms-be there Abdu CONT wash-IV MA Indo gown
??'Kalala is there Abdu is washing Indo's gown.'

In sentence (a) above, the two cores share the argument **Kalala**, which is in the CEP of the first core and is also referred by the pronoun undergoer of mà in the second core. In sentence (b), no argument is shared and the construction is odd. The relation expected (by hearers) to hold between the two events of the two clauses is not obvious. The GB analysis has no notion equivalent to core coordination, therefore, the grammaticality of the double PVP drop of (47) cannot be satisfactorily explained, except by the so-called unrestricted Grammar B (note that sentence (47) is fine even in spoken Hausa, and this poses a problem for the whole concept of an unrestricted Grammar B for written Hausa). In any case, the unrestricted Grammar B assumption actually makes a wrong prediction, as shown next.

As we have seen above, in the GB analysis, only the unrestricted Grammar B handles the example in (47). The GB analysis then predicts that when the locative adverbial can 'there' is replaced by a locative nominal, PVP drop would still be acceptable for Grammar B. The result however, as far as one can tell, is ungrammatical for any form of Hausa. This illustrated below:

- (50) a. Kalala (ya)nàa gidan Bàlkì *(ya)nàa faamaa dà
Kalala 3ms-be house-of Balki (3ms)-CONT struggle with
waashìn wuKaa.
sharpening-of knife
- 'Kalala is at Balki's house struggling to sharpen the knife.'
- b. Kalala (ya)nàa Daakìi *(ya)nàa faamaa dà
Kalala 3ms-be room (3ms)-CONT struggle with
waashìn wuKaa.
sharpening-of knife
- 'Kalala is in the room struggling to sharpen the knife.'

- c. Kalala (ya)nàa Dakà (ya)nàa faamaa dà
 Kalala 3ms-be in.the.room (3ms)-CONT struggle with
 waashìn wuKaa.
 sharpening-of knife

'Kalala is in the room struggling to sharpen the knife.'

- d. màalàmmajì (su)nàa tsàmmaanìn *(su_i)nàa dà ikòo dà
 teachers 3p-CONT thinking-of 3ms-be with power with
 yawàa.
 a lot

'The teachers_i think they_i have a lot of autority.'

Sentences (a-b) above have the same layered structure as sentence (47). But they involve a locative possessive phrase (in a.), and a locative nominal (in b.) instead of an adverbial, as is the case with (47). Yet, the PVP cannot drop in (50a-b) above. A possible explanation can be seen in (49a), where the nominal Bàlkì preceding the second PVP of the sentence is in fact the antecedent of that PVP, not the nominal Kalala. One can propose then that CEP nominals disallow the omission of a second PVP if a potential antecedent intervenes and presents some risk of ambiguity. That this may be true is shown by the fact that when the locative nominal Daakìi 'room' in (50b) is replaced by its corresponding locative adverbial Dakà 'in the room', then the second PVP can drop, as seen in (50c). This adverbial is not a nominal, and thus not a potential antecedent for the following PVP. Similarly, the impossibility of the PVP omission in (50d) can be explained by the intervention of the nominal tsàmmaanìi. It may seem strange that the nominal gidan Bàlkì 'Balki's home' in (50a) and Daakìi 'room' in (50b) can be potential antecedent of the following PVP, because they are complement of nàa 'be'. However, it is possible for a nominal like Bàlkì in (50a) to bind the following PVP, as seen below;

- (51) Kalala (ya)nàa gidan Bàlkì tanàa mashì askìi.
 Kalala 3ms-be house-of Balki 3fs-CONT MA-3ms hair-cut
 'Kalala is at Balki's house where she is cutting his hair.'

In the example above, the antecedent of ta '3fs' is Balki, which is a possessor in the locative phrase of the preceding core. This is understandable if the previous example (51) is compared to (19b), where a PVP can refer to a nominal embedded in a possessive phrase. Note that the second PVP is obligatory in (51), as compared to (49a) above, where Bàlkì is in the CEP of the second core and allows the following PVP to drop.

In this subpart, we have seen that regular CEP nominals allow PVP drop. However, when they are topicalized by pronominalization or emphasis, then the PVP drop is disallowed. This is consistent with the fact that highly topical LDP nominals do not allow PVP drop. This topic is dealt with next.

2.2.4.2 The LDP nominals and the PVP drop

As seen in chapter 1, LDP nominals are those nominals tagged with an agreeing independent pronoun.³ We have also seen that these nominals are highly topical. The fact is that they strictly do not allow the PVP to drop. This is illustrated below:

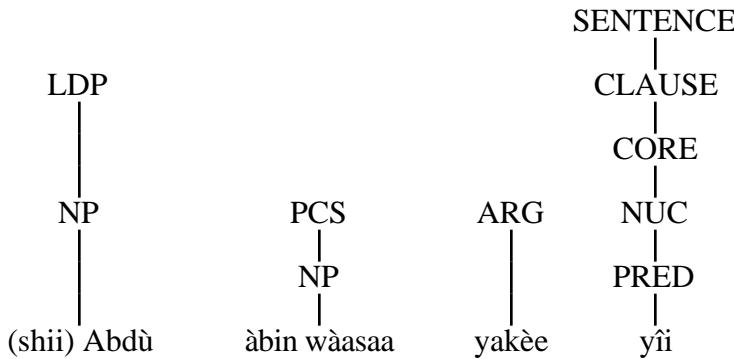
- (52) a. shii Abdù *(ya)nàa sòn Bàlki.
 3ms Abdu 3ms-CONT want-DN Balki
 'As for Abdu, he loves Balki.'
- b. shii Abdù *(ya)nàa can *(ya)nàa kàràtun Kùrù'aanìi.
 3ms Abdu 3ms-CONT there 3ms-CONT read-DN Koran
 'Abdu is there reading the Koran.'

In the sentences above, as it can be seen, PVP drop is impossible. Sentence (a) shows a simple clause, whereas sentence (b) shows a core coordination structure. Beside the pronominal tagging, there are other constructions where the sentence-initial nominal is straightforwardly rendered in English with 'as for NP'. These constructions will be considered here to set off the nominal into the LDP. Three such constructions involve the insertion of a focussed material after the initial nominal, the insertion of a main clause, and the insertion of a time adverbial. Focused material insertion is illustrated below:

- (53) a. (shii) Abdù àbin wàasaa] *(ya)kèe yîi.
 3ms Abdu thing-of play 3ms.REL CONT do-VN
 'As for Abdu, it is a toy that he is making.'
- b. [àbin wàasaa] (*shii) Abdù yakèe yîi.
 thing-of play 3ms Abdu 3ms.REL CONT do-VN
 'It is a toy that Abdu is making.'

In sentence (a), the nominal Abdu is set off into the LDP by the focussed nominal in the PCS. In this position, the nominal can optionally be tagged with a pronoun with no change in meaning. Whether there is a tag or not, from the LDP, the nominal cannot allow PVP drop, as it is indicated. Notice that in sentence (b) a nominal following the focussed material cannot take the pronominal tag because it is not in the LDP. The sentence in (53a) above can be represented as follows:

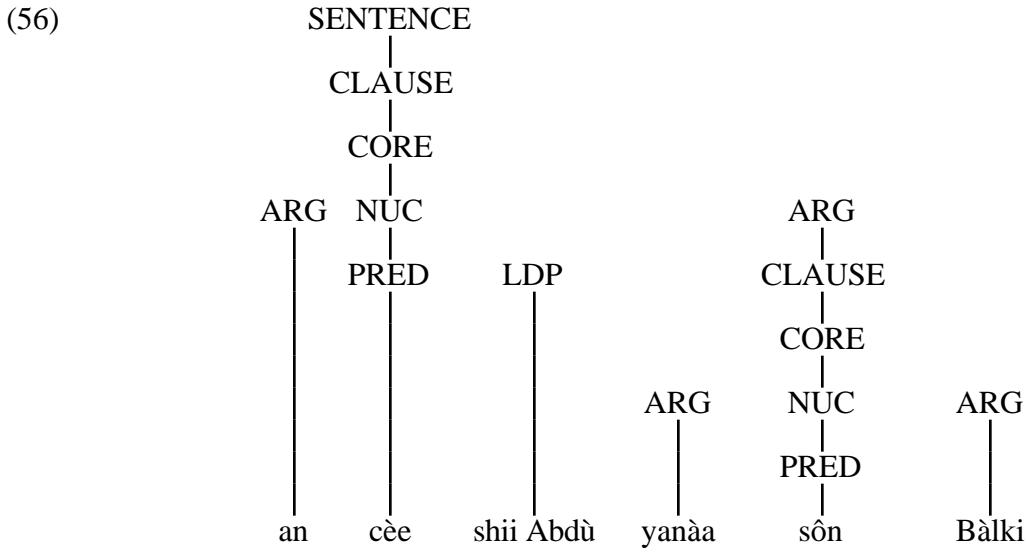
(54)



It is also possible to set off a nominal in the LDP by inserting a main clause following the nominal. This is illustrated below:

- (55) a. (shii) Abdù [an cèe [*^{(ya)nàa}] sôn Bàlkì].
 3ms Abdu IMP.PERF say 3ms-CONT want-DN Balki
 'As for Abdu, it was said that he loves Balki.'
- b. [an cèe [shii Abdù *^{(ya)nàa}] sôn Bàlkì].
 IMP.PERF say 3ms Abdu 3ms-CONT want-DN Balki
 'As for Abdu, it was said that he loves Balki.'
- c. [an cèe [Abdù (ya)nàa sôn Bàlkì]].
 IMP.PERF say Abdu 3ms-CONT want-DN Balki
 'It was said that Abdu loves Balki.'

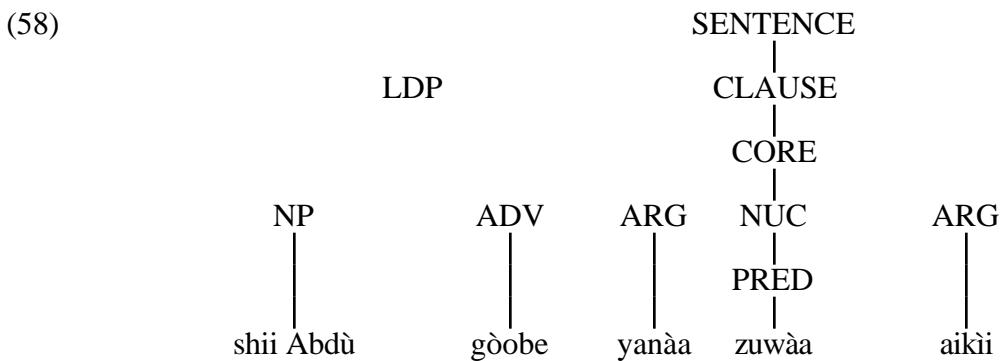
Sentence (a) above shows a nominal followed by a main clause. The nominal can take an optional pronoun tag without change in meaning; this indicates that it is in the LDP. Notice then that it cannot allow the PVP to be omitted. Contrary to the PCS, a main clause can be followed by a tagged LDP nominal, as seen in sentence (b). In sum, an LDP nominal can precede or follow a main clause depending on whether the LDP is attached to higher or lower clause node. In both cases, PVP drop is impossible. In sentence (c), the NP Abdu is a simple CEP nominal and PVP drop is possible. The sentences in (55) above all involve a clausal subordination, and (55b) can be represented as follows:



The sentences below show the behavior of a nominal separated from its PTAM by a time adverbial:

- (57) (shii) Abdù gòobe *(ya)nàa zuwàa aikìi.
 3ms Abdu tomorrow 3ms-CONT going work
 'As for Abdu, he is going to work tomorrow.'

In the sentence above, a time adverbial sets off the nominal Abdu into the LDP where it can take an optional pronominal tag. Whether it is tagged or not, the nominal cannot allow PVP drop. The fact that the nominal is in the LDP is not surprising, because in RRG, adverbials are taken to be in the LDP too. In (57) above then, both the nominal and the time adverbial are in the LDP. The sentence can be represented in the following layered structure:



In conclusion, LDP nominals are highly topical and do not allow PVP drop. In the GB account, the tagged nominals were not specifically taken into consideration. The tagged nominals as well as other types of LDP nominals would however have to fall under Grammar A. Indeed this grammar bars a non-local interpretation of the empty AGR; that is, *pro* cannot bind an empty AGR. The problem is that, in my judgement, even in writing (Grammar B), PVP drop is not acceptable with LDP nominals.

2.2.4.3 PVP drop with focussed nominals

The PCS in RRG, as seen in the previous chapter, hosts nominals and wh-words following focus-fronting, relativization, and wh-questions. PCS arguments strikingly differ from LDP nominals in that they quite freely allow PVP drop, no matter the distance between them and the PTAM. This is illustrated below with focus-fronting:

- (59) a. Abdù (nee) (ya)kè wankè mootàrshì.
Abdu cop.m 3ms-REL CONT wash car-of-3ms
'It is Abdu who is washing his car.'
- b. Abdù nee [aka cêe [(ya)kèe wankè mootàrshì]].
Abdu cop.m IMP-REL PERF say 3ms-REL CONT wash car-of-3ms
'It is Abdu who was said to be washing his car.'
- c. Abdù [aka cêe [(ya)nàa wankè mootàrshì]].
Abdu IMP-REL CONT say 3ms-CONT wash car-of-3ms
'It is Abdu who was said to be washing his car.'
- d. shii (nee) (ya)kèe wankè mootàrshì.
3ms cop.m 3ms-REL CONT wash car-of-3ms
'It is he who is washing his car.'
- e. Abdù nee lallee (ya)kèe wankè mootàrshì.
Abdu cop.m in fact 3ms-REL CONT wash car-of 3ms
'It is in fact Abdu who is washing his car.'

Sentence (a) presents a simple focus construction, with the nominal Abdù fronted in the copular clause (with nee), or in the PCS (without nee). Here, the PVP can be dropped easily. Actually, for this simple structure, the version without the PVP is better, but both ways are acceptable. In sentence (b), a main clause intervenes between the focused noun in the copular clause and the PTAM, yet PVP drop is possible. Sentence (c) also shows that a main clause does not prevent a PCS nominal from allowing the PVP drop, although it is better to retain the PVP. In sentence (d), a focused independent pronoun allows PVP to drop, and this is true whether or not the focus construction involves the copula nee. This contrasts with CEP independent pronouns that do not allow PVP drop. Also, contrary to

emphasized CEP nominals, emphasized focussed nominals still allow the PVP drop, as seen in sentence (e). Clearly, all the sentences above involve two clauses (59a, 59c-e), or even three clauses (59b), and they violate the GB minimal clause identification principle. In GB terms, the focused noun would not be in the local complementizer. These sentences are good in the spoken language, they are not restricted to the written language.

Judging the sentences becomes more difficult when full NPs that are potential antecedents intervenes between the focussed nominal and the PVP. Some of the sentences are grammatical, as one can see below:

- (60) a. naa ga yaaròo [wandà Indoo kèe
1s.PERF see-II boy who.m-that Indo REL CONT
zàton [(ya)nàa aikìi à gidan sarkii]].
thinking 3ms-REL CONT work at house-of emir
- 'I saw the boy who Indo thinks he works at the emir's house.'
- b. suwàà nee [Aali ya cèe [*(su)nàa zuwàà]]?
3p-who cop.p Ali 3ms.REL PERF say 3p-CONT come-DN
'Who did Ali say are coming?'
- c. wàà nee nèe [Aali ya cèe [(ya)nàa zuwàà]]?
who cop cop. Ali 3ms.REL PERF say 3ms-CONT come-DN
'Who did Ali say is coming?'
- d. tòò jàma'àa, wàà [kukà ganii [(ya)kèe dà
so people who 2p-REL PERF see-II (3ms)-REL.be with
màataa]]?
wife
- 'So, people, who did you see (who) has a wife?'

(60a) shows a relative pronoun allowing PVP drop despite an intervening clause with two nominals. Tuller's example (40c) repeated here in (60b) is indeed ungrammatical without the PVP, as she reports. The reason may have to do with the fact that the wh-word is modified by the plural marker su. With a fully non-specific wh-word, the PVP drop is acceptable, as seen in (60c) and (60d). According to Van Valin (1990d:198), more information on a wh-word makes the operator less focal, therefore, it is not surprising that the PVP drop is not good in (60b). Notice that in all the above sentences the presence of the PVP is strongly preferred.

However, there are cases where focused nominals behave like CEP nominals in disallowing PVP drop if another nominal intervenes before the PTAM. This is illustrated below:

- (61) a. Abdù nee [aka cêe mà Indoo [**(ya)*nàa
Abdu cop.m IMP-REL PERF say MA Indo 3ms-REL CONT

wankè mootàrshì].
wash-IV car-of-3ms

'It is Abdu who was reported to Indo to be washing his car.'

- b. Abdù nee [aka cêe matà [?*(ya)*nàa
Abdu cop.m IMP-REL PERF say MA-3fs 3ms-CONT

wankè mootàrshì].
wash-IV car-of-3ms

'It is Abdu who was reported to her to be washing his car.'

- (62) a. wàa nee nèe [Aali ya cêe mà Indoo [**(ya)*nàa
who cop cop. Ali 3ms.REL PERF say MA Indo 3ms-CONT

zuwàa]?
come-DN

'Who did Ali reported to Indo that he is coming?'

- b. wàa nee nèe [Aali ya cêe makà [?*(ya)*nàa
who cop cop. Ali 3ms.REL PERF say MA-2ms 3ms-CONT

zuwàa]?
come-DN

'Who did Ali reported to you that he is coming?'

In sentences (61a, 62a) above, PVP drop is impossible with full NPs intervening between the antecedent nominal and the embedded PTAM. In both (61-62), as seen in the (b) sentences, the PVP omission becomes acceptable, but marginal if the last non-antecedent nominal before the PVP is pronominalized. Yet, with two consecutive PVPs, the second PVP cannot drop with intervening nominals or pronouns alike. For the drop to be marginally acceptable, the NP must be replaced with an adverbial. This is illustrated below:

- (63) a. Abdù nee [kèe gidan Indoo] [*^(ya)nàa wankè
Abdu cop.m REL CONT house-of Indo 3ms-CONT wash-IV

mootàarshì].
car-of-3ms

'It is Abdu who is at Indo's house washing his car.'

b. Abdù nee [kèe gidantà] [*^(ya)nàa wankè
Abdu cop.m REL CONT house-of-3fs 3ms-CONT wash-IV

mootàarshì].
car-of-3ms

'It is Abdu who is at her house washing his car.'

c. ?Abdù nee [kèe can] [(ya)nàa wankè mootàarshì].
Abdu cop.m REL CONT there 3ms-CONT wash-IV car-of-3ms

'It is Abdu who is there washing his car.'

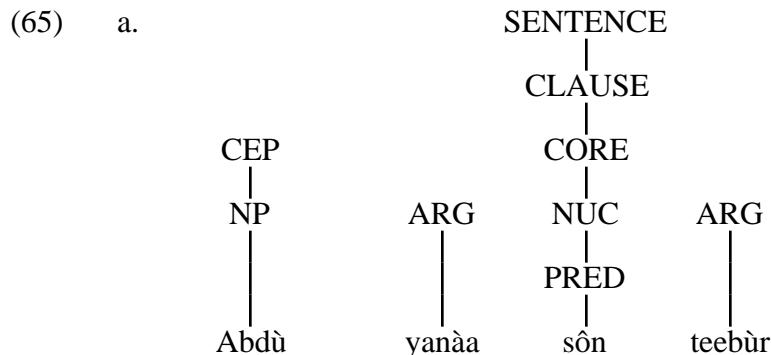
This pattern is comparable to the restriction on PVP drop for CEP nominals if other potential antecedents are present. As for the data in (61-62), it is probably the result of a more complex interaction between the restriction on the presence of potential antecedents and the highly focal status of the real antecedents. That is, in sentences with one PVP drop, potential antecedent can intervene and still the omission is possible (61-62). With two consecutive PVPs, the second PVP cannot drop if there are potential antecedents, even for focussed nominals (cf. examples 63a-b).

In conclusion, in this section, we have seen that PVP drop is a patterned phenomenon and it is not as chaotic as the GB analysis presents it. If one distinguishes the RRG positions of CEP, LDP, and PCS, then an unified account can be given without splitting the grammar of the language. The general rule is that the more topical a nominal is, the less it allows PVP drop. In this regard, CEP nominals are significant. When they are not modified they allow PVP drop. But if they are emphasized or pronominalized, and thus added more topicality, PVP drop becomes impossible. LDP nominals are by definition highly topicalized and they do not allow PVP drop. Focussed nominals have the most unrestricted pattern of PVP omission. Even if they are emphasized or pronominalized, PVP drop is still possible.

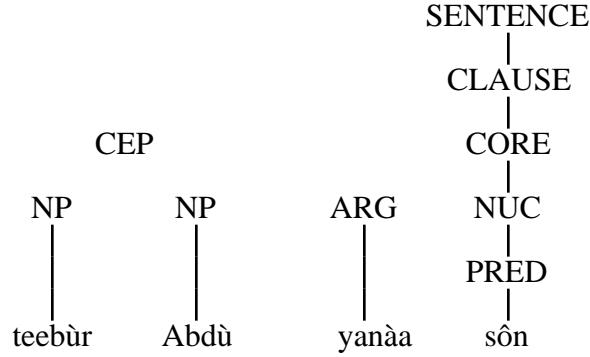
One issue so far not addressed is the status of the lexical NP when the PVP is not present. There are many possible answers here but only one is suggested in the following. The suggestion is that when the PVP drops, the lexical NP structurally remains in the CEP. In this case, the core would have no argument node at all for the pivot. The structure where

the core lacks an ARG node is a structure independently needed in RRG to handle wh-constructions and preposed focus nominals. Wh-words and focussed nominals are indeed structurally in the PCS (or for Hausa in the copular clause also) and not under the ARG node. Similarly, when the undergoer is fronted in the CEP, for non-human referents, the clitic copy pronoun is optional (cf. discussion of (57) in chapter 1) while the undergoer nominal obviously remains in the CEP, preverbally. In this case too, the core would not have an ARG node for the undergoer. The three cases are illustrated below where the sentences in (64a-d) are represented by the LSC diagrams in (65a-d) respectively:

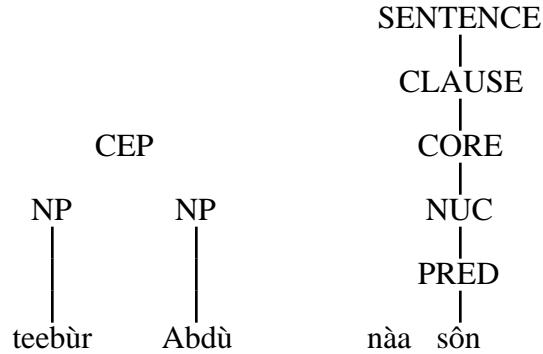
- (64) a. Abdù yanàa sòn teebùr.
 Abdu 3ms-CONT want-DN-of teebùr
 'Abdu wants the table.'
- b. teebùr Abdù yanàa sôo.
 teebùr Abdu 3ms-CONT want-DN
 'As for the table, Abdu wants [it].'
- c. teebùr Abdù --nàa sôo.
 teebùr Abdu --CONT want-DN
 'As for the table, Abdu wants [it].'
- d. wàa --kèe sòn teebùr?
 who --REL CONT want-DN-of table
 'Who wants the table?'



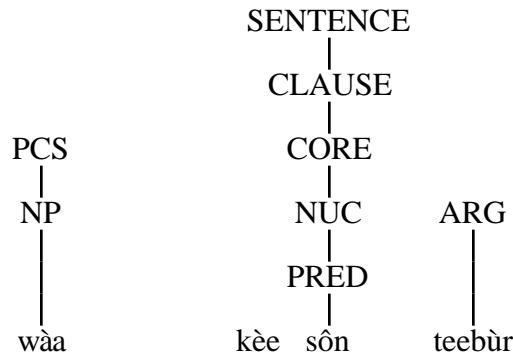
b.



c.



d.



Sentence (64a) has both the actor and the undergoer realized as core arguments, ya '3ms' and teebùr 'table' respectively, as represented in (65a). Only the nominal Abdù is in the CEP. In sentence (64b) the undergoer teebùr 'table' is fronted as a topic in the CEP where it appears with the nominal Abdù. The undergoer has no copy pronoun, therefore, the core has only one ARG node, that over the pivot ya '3ms'. (64c) shows the PVP drop, and one can assume that the core now has no ARG node at all. There is a difference though between teebùr and Abdù in the CEP of (65c). The undergoer teebùr can be omitted, while the actor Abdù is obligatory (cf. Abdù nàa sôo 'Abdu wants (s.th.)' and not *nàa sôo). That is, if there is PVP drop, the CEP nominal becomes obligatory and act as some sort of pivot

although it is not in the core. A similar situation obtains in the question construction of (64d) as represented in (65d), where the PVP is dropped, leaving the wh-word as the sole expression of the actor argument, and yet, the wh-word is not in the core (in RRG theory, only in situ wh-words are arguments in the core, cf. Van Valin 1992). There may be some prosodic indications that indeed the nominal Abdù in (64c) is not an argument in the core. Copular clauses never take the PVP, instead, a lexical NP (or an independent pronoun) is the core pivot argument. In these constructions however, the copula nee/ cee always takes the tone opposite to the last tone of the pivot argument. Thus one has teebùr nee 'it is a table', but kundii nèe 'it is a book'. There is no prosodic interaction between the CEP nominal such as Abdù in (64c) and the following aspect marker nàa (which is also a copula elsewhere). According to Newman and Schuh (1974), the tense/ aspect marker has the effect of raising the tone of the preceding PVP. With Abdù and nàa in (64c), there is no influence in either way. One can make the generalization then that Hausa (except in nee/ cee copular clauses) accepts no lexical NP as core pivot argument. There is either a pivot PVP, or no ARG node at all. This generalization becomes motivated once one considers the fact that in chapter 6, it is argued that the verb in Hausa becomes a verbal noun if it is not followed by a nominal argument. In this context then, whether or not there is a lexical NP in the CEP, once a verb is not followed by an undergoer, then in fact it has no nominal core argument and it can turn into a verbal noun.

Conclusion to chapter 2

This chapter dealt with the overall structure of simple sentences in Hausa. It was shown that the preverbal lexical NP is in fact a topic nominal in the CEP, and that the real core argument, or pivot, is the PVP. Arguments in support of this analysis include the fact that the PVP, together with the tense/ aspect marking, is a free word, and the fact that the PVP does not have to agree in all lexical features with the purported lexical "subject". Instead, all that is required is a feature compatibility where the PVP can be less specified than its antecedent. This chapter also explored the conditions of the PVP drop. It was shown that it is the information status of the nominals which constrains the PVP drop. The more topical a nominal is, the less likely it is to allow PVP drop. This simple functional account contrasts with a formal account couched in GB terms and which involves an exceptional split of the grammar of the language, while still failing to handle all the facts. The remainder of this work is devoted to the verbal system, beginning with the summary of the current conception of the grade system in the next chapter.

Notes to chapter 2

1 There are some commentaries one can make about the paradigms in (1). The potential and the future use the same negative morpheme bà...ba as the perfect, but unlike the perfect, their PTAM is not affected (cf. negative perfect: bà tà jee Kanò ba 'she did not go to Kano'; negative potential: Abdù bà yâa jee kâasuwaa ba 'Abdu is not going to the marked'). The negative continuous takes only one pre-PTAM bâa (cf. bâa ya zuwâa gidaa 'he is not going home') or its Standard Hausa version baa (cf. baa yâa zuwâa gidaa 'he is not going home'). The habitual and the eventual are negated with the morpheme bàa...ba (cf. bâa nikân jee can ba 'I seldom go there', koo bâa nikâa tardâa shi ba 'in case I do not find him'). The subjunctive is negated with kadâ, placed at the beginning of the clause (cf. kadâ teebûr yâ faaDì 'lest the table falls'). The subjunctive negator usually occurs in a shortened form kâr or kâC, where "C" assimilates to the next consonant. In the affirmative, Katsinanci has two future forms, for example zâa ka and zaa kâ 'FUT-2ms', whereas the negative future tends to admit only zaa kâ, which is also the only form one finds in Standard Hausa (cf. Katsinanci: aa'âa! bà zaa kâ jee can ba, but ?aa'âa! bà zâa ka zuwâa can ba, both 'no! you will not go there'). zâa ka-type forms are followed by a verbal noun (cf. zuwâa 'going' in previous example), while zaa kâ-type forms accept the verb only. Also, all aspects, but not the affirmative perfect, accept an alternate third person masculine singular PVP shi/ shì in lieu of ya/ yâ (cf. yanâa zuwâa/ shinâa zuwâa, both 'he is coming'). In addition to the categories above, Hausa has a distinctive imperative form --which is also sporadically used in narratives-- for the second person singular. The imperative however has no PVP. In the regular form, and when no argument follows, the verb takes the characteristic ...(L)H tone pattern (cf. rùugaa! 'run!', Dan yaarò rùugaa 'then the little boy ran'). With the second person plural, the subjunctive is used as imperative --or again in narratives-- (cf. kù koomâa ('you pl.) go back!', yâara kù koomâawarkù 'then the children went back').

2 Regular CEP nominals bind the impersonal PVP in a straightforward way. Highly topicalized LDP nominals with a pronoun tag are just acceptable with the impersonal construction. But the focus-fronted nominals as well as independent pronouns cannot appear in the empathetic construction. This is illustrated below:

- (i) a. shii Abdù bà ?â/ shì sàamu jarâbaawâa ba.
 (3ms) Abdu NEG.PERF IMP/ 3ms obtain-II exam NEG
 'As for Abdu, he did not pass his exam.'
- b. Abdù nee *akèe/ yakèe wankè mootârshì.
 Abdu cop.m IMP-REL CONT/ 3ms-REL CONT wash car-of-3ms
 'It is Abdu who is washing his car.'
- c. shii *an/ yaa sàamu jarâbaawâa.
 3ms IMP.PERF/ 3ms.PERF obtain-II exam
 'He passed his exam.'

3 This tagging is different from the plural marker su (related to the third person plural pronoun) and the plural yâ (probably related to the third person masculine singular). su can accompany human referents (names, pronouns, titles, etc.) or even pets (or tale characters) to give a variety of meanings on context:

- (i) a. su Bâlki 'Balki' or 'Balki and others' or 'Balki and her likes'
 b. su kuu '(sg.) you' or 'you VIPs' or 'you (pl.)'
 c. su sarkii 'the emir' or 'the emir and dignitaries'
 d. su maalâm 'the teacher' or 'the teacher and others'

yà on the other hand modifies pronouns or nouns already modified by su:

- (ii) a. yà muu (yà muu) 'the us' or 'us and our likes'
 b. yà suu (yà suu) 'the they' or 'they and their likes'
 c. yà su Bàlkì 'the Balki's' or 'Balki and her likes'

Both yà and su do not put a nominal into the LDP.

Chapter 3

PREVIOUS HAUSA VERB STUDIES

3.0 INTRODUCTION

This and the next two chapters are devoted to the study of the verbal system of Hausa. The verb is central in Hausa studies and this is reflected in the fact that at least three systems of verb classification have been proposed. In Hausa, the tense/ aspect marking is separate from the verb, as seen in the previous chapter. However, the verb's ending inflects in as many as fifteen or so different forms. Some of the forms add a particular meaning connotation to the verb or change the verb's valence. Other forms on the other hand seem to be conditioned by the following syntactic environment and do not alter the verb's meaning. It is the first type of forms that are the main focus of the three systems of classification, the syntactically conditioned forms being taken as uncontroversial.

The aim of this chapter is to present the three classifications and show how some of them are inadequate. The first system to be reviewed is Parsons' (1960) Grade system which posits seven morpho-syntactic and semantic classes, but leaves out a number of verbs. The second system is that proposed by Newman (1973) and which comprises four basic phonological classes and a number of derived classes. The last classification is proposed by Furniss (1981) who, expanding an idea from Newman (1973), claims that the Hausa verbal system is made up of basic classes and a number of hidden or overt derived classes. There are four sections in the chapter, the first three of which are devoted to the three proposals from Parsons (1960), Newman (1973) and Furniss (1981). Section 3.4 presents a modification of the Furniss system. Using Furniss' assumptions and methods, an attempt is made to push the logic of his system at its extreme. It is shown that the system does not work and should be rejected for a different approach to the Hausa verb. This new approach is detailed in chapters 4 and 5.

3.1 PARSONS' GRADE SYSTEM

According to Parsons (1960, 1962, 1971-72), there exist in Hausa seven verbal grades, each characterized by a tonal pattern, a verbal ending, and some semantic and syntactic correlates. Where it is relevant, the verb can alternatively assume an A-form with no undergoer following, a B-form with a pronominal undergoer, a C-form with other kinds of undergoer (for example a nominal object), and a D-form with a dative object. The grades and their various forms are given below:

(1) The Grade System.

Grade	tone	A-form	B-form	C-form	D-form
1	HL	-aa	-aa	-a	-aa
2	LH	-aa	-ee	-i	gr1, gr5
3	LH	-a			gr1, gr4, gr5
4	HL	-ee	-ee	-e	-ee
5	HH	-as/r	-ar da/shee	-ar da	-am...da
6	HH	-oo	-oo	-oo	-oo
7	LH	-u			gr5

For Parsons, ideally, any neutral verbal base should operate all of the grades and the relevant forms. However, the general provision is made that semantic and syntactic factors can preclude a given verb from operating certain grades. An ideal case is illustrated in (2) below with the neutral lexical base nun-, 'to ripen':

(2) nun- 'to ripen'.

- a. gr1: sun nunà lèemuu. (C-form)
3p.PERF ripen-I lemon
'They ripened the lemon.'
- b. gr2: sun nùni lèemuu. (C-form)
3p.PERF ripen-II lemon
'They ripened some/ a lot of lemon.'
'They ripened lemon.'
- c. gr3: lèemuu yaa nùna. (A-form)
lemon 3ms.PERF ripen-III
'The lemon ripened.'
- d. gr4: sun nunè lèemuu. (C-form)
3p.PERF ripen-IV lemon
'They completely ripened the lemon.'
- e. gr5: sun nunar dà lèemuu. (C-form)
3p.PERF ripen V lemon
'They ripened all that lemon.'
'They ripened the lemon.'
- f. gr6: sun nunoo lèemuu. (C-form)
3p.PERF ripen-VI lemon
'They ripened lemon and came back.'
- g. gr7: lèemuu yaa nùnu. (A-form)
lemon 3ms.PERF ripen-VII
'The lemon is well ripened.'

As for the syntactic properties of the grades, gr1, gr4, gr5, and gr6 contain both transitive and intransitive verbs. Grade2 is entirely transitive, while gr3 and gr7 are all intransitive. So, valence does not seem to be a defining factor for most grades.

Semantically, the situation is more complex and Parsons is not elaborate on this point for all the grades. Grade 1, gr2, and gr3 are considered to be basic. From them, any of the secondary grades (gr4, gr5) or the tertiary grades (gr6, gr7) can be derived. However, if a verb operates both gr1 and gr2, the gr1 form is considered to be neutral or basic in meaning. The gr2 form is assumed to have some kind of partitive reading, although this is problematic, as illustrated in the first reading of (2b) above. Nonetheless, other pairs of gr1 and gr2 forms exhibit different semantic relationships or, sometimes, they exhibit no apparent one. For Parsons (1962:250) gr2 is multifunctional and its exact meaning depends on the basic semantics of a given verb. Grade3 has no particular semantic connotation but all of its verbs are intransitive and it is considered to express an autonomous process, as shown in (2c). In gr4, the verb's action is completely done or undergone. Grade 5 is thought by many authors to add a causative meaning to a verb, although this is not true in all cases as seen in (2) above. For Parsons himself, gr5 expresses the notion of "riddance/ disposal", where the pivot's referent gets rid of the referent of the undergoer. Grade 6 expresses the ventive where a movement of the action is directed toward the speaker. Grade 7 is the Hausa passive form, and is also thought by many (including Parsons) to emphasize the complete undergoing of an action by the intransitive pivot. While it is still the basis for understanding Hausa verbs, the grade system has many weak points as noted by critics.

One of these weakness is the simple fact that the system does not account for all Hausa verbs. Excluded from the grades are at least three types of verbs which are not really exceptions because they form coherent and patterned classes (Newman 1973). The first type is made up of HH tone-patterned transitive and intransitive verbs ending in /a/. Some examples are given below:

- (3) HH-a verbs unaccounted for in Parsons' system:
- a. Buuya 'hide'
 - b. girma 'grow up'
 - c. suuma 'faint'
 - d. tsiira 'escape'
 - e. kiraan 'call' (tr.)
 - f. rigyaa 'precede' (tr.)
 - g. biyaa 'pay' (tr.)

Monosyllabic verbs are another significant group originally excluded from the grade system. However, Parsons (1971-72) later distributed them among the gr1 and gr2 in a way

Newman (1973) found arbitrary and theoretically inconsistent with the system's notion of grade-neutral verbal bases. Some examples of these monosyllabic forms are given below:

(4) Monosyllabic unaccounted for in Parsons (1960):

a.	jaa	'pull'
b.	shaa	'drink'
c.	yaa	'come'
d.	yaा	'drop'
e.	bàa	'give'
f.	saà, sanyà	'put'
g.	kaa	'knock down'
h.	Ki	'refuse'
i.	ci	'eat'
j.	ji	'hear, feel'
k.	bi	'follow, pass through'
l.	fi	'surpass'
m.	yi	'do'
n.	i/ iyà	'be able'
o.	ceè	'say'
p.	jee	'go'
q.	zoo	'come'
r.	hau	'climb'
s.	kau	'move aside'
t.	buu	'knock down'

Other irregular verbs also unaccounted for are the intransitive HL verbs ending in /i/. The seven most cited are given below (Newman 1973, Furniss 1981):

(5) Intransitive HL-i unaccounted for in Parsons (1960):

a.	Baacì	'spoil, degenerate'
b.	faaDì	'fall'
c.	gudù	'run, escape, move'
d.	taashì	'leave, stand up'
e.	haifù	'give birth'
f.	wunì, yinì	'spend the day'
g.	mutù	'die'
h.	Batà	'get lost'

Also, as seen previously, Parsons organizes the grades into the primary grades (gr1, gr2, gr3), the secondary grades (gr4, gr5) and the tertiary grades (gr6, gr7). According to Parsons, there is a morphosyntactic and semantic relation between the three levels, whereas any form appearing in the tertiary grades is derived from one of the primary or secondary grades. And any form appearing in the secondary grades is derived from one of the primary grades. Gouffé (1962) particularly proposes an extreme version of these hierarchical constraints. The problem however, as noted by Parsons himself, is that some secondary and tertiary grades have exclusive verbs that do not operate a primary grade (see

for examples (54), (56), and (89-91) below). There is an even more problematic fact against Parsons' hierarchical system and the classification of gr5 as a secondary grade. Although he seems to accept that some verbs may occur exclusively in non-primary grades, Parsons (1962) claims that "no grade form of the verb can derive its meaning, either inclusively or exclusively, [...] from a grade that does not rank above it --either at one or two steps remove-- in the gradational hierarchy." (p.257). Gouffé however documents gr5 forms which have conflated and behave morphosyntactically like gr1 verbs. Thus, a gr5 form such as sayar dà 'sell' can conflate and take the gr1-characteristic HL-a morphology saidà 'sell'. This type of violation of Parsons' hierarchical constraints is very extensive, as it will be seen in the section 5.2 on the gr5. Parsons' answer to this problem is that the gr5 forms are simply undergoing an insignificant process of accretion. In this dissertation, gr5 is analyzed as a syntactic grade, which can be reanalyzed back into one of the true morphological grades, including the primary grades.

Finally, in Parsons' system, the verbal forms with the -ike morphology were not integrated into the grades. For Parsons, a form such as kaamìkè 'catch all and come' is just the gr4 form kaamè 'catch all' infix with the morpheme -ik-. The -ike forms will be shown to pattern in ways which suggest that they constitute a grade, and in this work they are in fact classed as the "grade 8". Thus, although the Grade system is still the best Hausa verb classification so far proposed, it has some problems which will be addressed later on.

3.2 NEWMAN'S PHONOLOGICAL CLASSES

In face of the inadequacies of Parsons' system, Newman (1973) proposes another system based on six basic classes and a set of four 'extensions'. The system is designed to account for all verbs without exceptions. The basic premises are that, contrary to Parsons' three basic grades (gr1, gr2, and gr3), Newman's six basic "phonological" classes have no semantic correlates. They are arbitrary phonological classes defined solely by their tone pattern and final vowel. There are three tone patterns and two final vowels that combine freely to produce six phonological classes:

(6) Newman's Phonological Classes:

Tone	Vowel
H	^{-a} jaa 'pull'
HL	⁻ⁱ kaamà 'catch'
LH	^{-u} fita 'go out'

As indicated above, Newman's basic forms are H-a, HL-a, LH-a, H-i, HL-i, and LH-i. As there is no basic HH tone pattern, Newman accommodates the intransitive HH-a verbs in (3a-d) by deriving them from a HL pattern by a phonological rule elsewhere motivated in Hausa. Another assumption of this classification is that there are no neutral verbal bases, all verbs are entered into the lexicon with their tones and final vowel already specified. This assumption is necessary because, according to Newman, there are unexplained gaps in the grades operation of some verbs. Thus, for Newman, the gr1 verbs in (7) below cannot operate gr2 while the gr2 and gr3 verbs in (8) cannot operate gr1:

(7) gr1 verbs not operating gr2:

- a. Keerà 'forge'
- b. gamà 'finish'
- c. huurà 'light (fire)'
- d. dafà 'cook'
- e. zaunà 'sit'
- f. kaamà 'catch'

(8) gr2 and gr3 verbs not operating gr1:

- a. nèemi 'search'
- b. suuma 'faint'
- c. cèeci 'rescue'
- d. fita 'go out'
- e. Bira 'jump'

Rather than explaining these gaps by some semantic, pragmatic, or syntactic incompatibility, Newman posits that verbs are lexically assigned to particular classes simply by virtue of their shape. Newman then introduced the concept of "extension" which, when optionally applied to a verb of one of the above six classes, alters its meaning. These extensions basically correspond to Parsons' secondary and tertiary grades (gr4 to gr7). So, for Newman, these are the only grades which have some semantics associated with them. One consequence of positing tone- and vowel-specified lexical entries is that no verb can simultaneously belong to more than one of the basic six classes. This of course seems problematic in view of the fact that many verbs can operate more than one basic grade/phonological class (as in (2)). Newman explains this fact by assuming the existence of hidden extensions that happen to have by accident the same form as some of the basic grades or phonological classes. So, in his framework, the verb nùna is a basic LH-a (gr3). Its gr1 form (nunà) is derived by the hidden applicative HL-a extension. The derived form is, in Newman's words, structurally different and should be distinguished from true basic HL-a (such as dafà in 7d). Newman contends that historically, basic and basic look-alike forms were distinct: the applicative merged with basic HL-a only after an unknown

consonant in the applicative suffix disappeared. His analysis of the forms can be represented as follows:

(9)	shapes	underlying structure	surface structure
	applicative: basic HL-a:	nùna + Cà dafà	nunà dafà

Later, Furniss (1981) follows Newman's lead and posits other hidden extensions merged with basic shapes.

3.3 FURNISS' BASIC SHAPES AND EXTENSIONS

Furniss (1981) follows Newman (1973) and takes for granted the fact that Hausa has basic and hidden extensions that are not formally distinct. Using a distributional method (presented in section 3.4 below), he concludes that verbs come lexicalized in one of the following four basic morphological "shapes":

- (10) Furniss' four basic shapes:
- a. HL-a (tr. and intr.)
 - b. LH-i (tr.)
 - c. LH-a (intr.)
 - d. HL-e (intr., also includes seven HL-i verbs)

Furniss is the first to propose that the HL-e is basic. Parsons and Newman both considered it to be the derived totality gr4. A HL-i group of seven intransitive verbs was ignored by Parsons, but was introduced in Newman (1973) as a phonological class. Furniss considers them as archaic forms and variants of the HL-e shape, as indicated in (10d).

Beside these basic forms, Furniss proposes five hidden extensions which are morphologically non-distinct from the basic shapes. These extensions are given below (the shapes are adapted to reflect long vs. short vowel):

- (11) Furniss' five derived hidden shapes
- a. HL-a applicative (Newman 1973)
 - b. HL-aa metaphorical
 - c. LH-i partitive
 - d. HL-ee intransitive/ reflexive
 - e. HL-e totality

The applicative and metaphorical extensions are fused with the basic HL-a shape, while the partitive is fused with the basic LH-i. The totality extension (11e) is peculiar in that, according to Furniss, it is a derived form (Parson's gr4) which so far has masked a basic

form (intransitive HL-ee --10d above) and a derived form (HL-e intransitive/ reflexive --11d). Thus, Parsons' gr4 is partitioned into three different but morphologically similar shapes. In Furniss (1981), the existence of morphologically distinctive extensions corresponding to Parson's gr5, gr6, and gr7 was assumed but not discussed.

In the next section, Furniss' methods and assumptions are adopted momentarily to set up a "Revised" Furniss system. The aim of this undertaking is to show that the system arrived at is not a viable system of Hausa verb classification.

3.4 REVISED FURNISS SYSTEM

The aim of this section is to present a view of the verbal system which is an extension of the Furniss system. His assumptions and methods are used, but by considering more data and making more fine-grained distinction, the revised system obtained contains more basic and derived classes. For example, Furniss' work is limited to Hausa disyllabic verbs, to the exclusion of monosyllabic and polysyllabic verbs. These latter two types of verbs will be treated here. The overt extensions, which were not discussed by Furniss, are taken into consideration here. Other changes involve partitioning a basic shape into two different ones, and dropping one hidden extension altogether. In this revised Furniss system, it is claimed that one can distinguish five basic shapes, four hidden extensions, and four overt extensions.

- (12) Five basic shapes
 - a. HL-a(a) (tr. and intr.)
 - b. LH-i (tr.)
 - c. LH-a (intr.)
 - d. HL-ee (intr.)
 - e. HL-i (intr.)
- (13) Four hidden derived shapes
 - a. HL-a applicative (tr.)
 - b. HL-aa metaphorical (intr.)
 - c. LH-i partitive (tr.)
 - d. HL-e(e) totality (tr. and intr.)
- (14) Four overtly derived shapes
 - a. HH-ar dà causative and efferential (tr., = Parsons' gr 5)
 - b. HH-oo ventive (tr. and intr., = gr 6)
 - c. LH-u passive (intr., = gr 7)
 - d. HLL-ike(e) totality + ventive (tr. and intr., Parsons 1972)

In (12), we have one more basic shape than in (10) because of the splitting of Furniss' basic HL-ee into the distinctive HL-ee and HL-i shapes. In (13) we have one less hidden shape than in (11) because, as will be shown later, Furniss' hidden intransitive and reflexive HL-e

extension is unnecessary. Its semantics clearly suggests that it is the totality extension of intransitive verbs. The notation of the final vowels is based on the citation forms recommended in Newman (1973). Intransitive verbs of any HL-a pattern in reality end in /-aa/, thus, they are represented as HL-aa (cf. 12a and 13b). Transitive verbs of HL-a pattern end in /-a/ before a noun undergoer. Newman argues that this pre-noun form should be the citation form, consequently, transitive HL-a verbs are represented simply as HL-a (cf. 12a and 13a). When the undergoer is preposed, the transitive HL-a verbs too end in /-aa/. This is known as their A-form (Parsons 1960) and is illustrated below:

- (15) a. Abdù yaa kaamà tumkìyaa (à) goonaa.
 Abdu 3ms.PERF seize-I sheep (at) field
 'Abdu grabbed a sheep in the field.'
- b. tumkìyaa cèe Abdù ya kaamà (à) goonaa.
 sheep cop.f Abdu 3ms.REL PERF seize-I (at) field
 'It is a sheep that Abdu grabbed in the field.'

For Newman, the verb form in sentence (b) above is derived by a vowel lengthening rule from the form in sentence (a), the citation form. Verbs of HL-e pattern work in the same way. They have their intransitives ending in /-ee/ and their undergoer-followed transitives ending in /-e/. Hence, I represent the former as HL-ee (see 12d) and the latter as HL-e (see 13d, which also contains intransitives). All verbs of LH-i pattern, assumed to be transitive, end in a short /i/ when followed by an undergoer.(cf 12b and 13c). If the undergoer is preposed, they end in /-aa/ as seen below:

- (16) a. Abdù yaa nèemi aikii (à) can.
 Abdu 3ms.PERF look-II work (at) there
 'Abdu looked for a job there.'
- b. aikii, Abdù yaa nèemaa (à) can.
 job, Abdu 3ms.PERF look-II (at) there
 'A job? Abdu did look for one there.'

Again, for Newman (1973) nèemaa in (16b) is derived from nèemi in (16a). All verbs of LH-a pattern end in a short /a/ although they are intransitive (see 12c). Similarly, passive verbs end in a short /u/ (14c). The HH-oo verbs (in 14b) doe not vary and end in /oo/ whether they are transitive or intransitive. HLL-ike(e) verbs are much like the HL-e(e) in (13d). The basic shapes and the hidden or overt extensions are presented next.

3.4.1 BASIC SHAPES

In Parsons' system, verbal bases are represented in the lexicon as abstract roots, unspecified for any particular grade. These verbal bases are realized in a given grade where they acquire that grade's morphosyntax and semantics. So, Parsons' classification is based on the morphology, the syntax and semantics of the verbs. In Newman (1973), the six basic phonological forms are mechanically derived from the combination of three tone patterns (HL, LH, and H for monosyllabic verbs) and two final vowels (-i and -a). Semantics does not play a role in determining a basic form in Newman's system. Furniss' approach can be characterized as a distributional approach. It consists in seeking verbs which operate only one shape and none other. Any shape that has such exclusive verbs is then established as basic because there exists no other shape from which it could be derived. This approach is adopted in building the revised Furniss system. Later however, it will be shown that if the distributional method is applied blindly, all shapes will be basic, including the overtly derived shapes.

3.4.1.1 Basic HL-a(a) shape

The basic HL-a(a) shape consists of intransitive HL-aa and transitive HL-aa. These two subclasses are treated below separately.

3.4.1.1.1 Basic HL-aa Shape

This shape consists of HL-aa intransitive verbs. It contains verbs that do not appear in other non-overtly derived shapes. An example of an exclusive verb of the HL-aa shape is given below:

- (17) An exclusive verb: tankàa 'reply'.
- a. *tankà (no HL-a tr.)
 - b. *tànki (no LH-i tr.)
 - c. *tànka (no LH-a itr.)
 - d. *tankèè (no HL-e itr.)

Thus, a verb like tankàa does not transitivize in the applicative, it does not take the partitive nor the totality extensions. Thus, the problem of excluding these hidden extensions as potential basic forms does not arise, and the verb is straightforwardly assigned to the basic HL-aa shape. However, exclusive verbs can appear with the overt extensions:

- (18) Abdù yaa tankoo mà Indoo.
Abdu 3ms.PERF reply-VI MA Indo
'Abdu replied to Indo and came.'

Other verbs exclusive to basic HL-aa include:

- (19) a. ruugàa 'run away'
 b. koomàa 'return'
 c. gaanàa 'meet'
 d. raamàa 'compensate'
 e. tsayàa 'stop'
 f. gusàa 'move slightly'
 g. murmùsaa 'smile'
 h. gangàraa 'roll'
 i. Koosàa 'mature'
 j. durKùsaa 'kneel'

Although none of the above verbs appears in a hidden extension, they do appear with the overt derived shapes. Thus, a verb is exclusive to a basic shape only with regard to basic look-alike shapes. Most verbs in the HL-aa shape do operate a hidden shape such as the applicative. Some examples are:

- (20) Non-exclusive HL-aa verbs:
 a. gittàa 'cross in front'
 b. zamnàa 'sit'
 c. mootsàa 'move'
 d. kwantàa 'lie'
 e. juuyàa 'rotate, turn'
 f. matsàa 'approach'
 g. faaDàa 'fall into, collapse down'
 h. biyàa 'stop by'
 i. rantsàa 'swear'
 j. Kaaràa 'augment'
 i. karkàtaa 'bend'

All these verbs can be used transitively. There are many patterns of transitivization. With motion to stance verbs, the intransitive pivot is an animate which controls the action. In the (transitive) applicative HL-a, the pivot stays the same and the undergoer is a place (like 'chair' or 'bed'). This is illustrated below, with a basic HL-aa in sentence (a), the applicative HL-a in (b):

- (21) a. yaàra sun zamnàa (à) kujèerar maalàm.
 children 3p.PERF sit-I (on) chair-of teacher
 'The children sat on the teacher's chair.'
- b. yaàra sun zamnà kujèerar maalàm.
 children 3p.PERF sit-I chair-of teacher
 'The children sat on the teacher's chair.'

With motion verbs, the intransitive pivot can be a human, an animal or an animated thing. In the applicative, all these types of entities become object of direct causation. This is illustrated below with the basic HL-aa in sentence (a), the applicative in (b):

- (22) a. yaa gittàa/ mootsàa/ juuyàa/ karkàtaa.
 3ms.PERF cross-I/ move-I/ rotated-I / bend-I
 'He/it crossed in front/ moved/ rotated/ bent.'
- b. Indoo taa gittà yaaròo/ mootsà yaaròo/ juuyà
 Indo 3fs.PERF cross-I child/ move-I child/ turn over-I
 yaaròo/ karkàtà yaaròo.
 child/ bend-I child
- 'Indo put the child accross/ moved the child/ turned the child/ bent the child.'

Beside the polysyllabic verbs like those seen above, one may include in this shape the monosyllabic verb *já*, 'pull', which has a disyllabic HL-aa alternate, at least in the western dialects:

- (23) a. aikìi yaa jaa/ jaayàa.
 work 3ms.PERF pull/ pull-I
 'The work has progressed.'
- b. ruwaa sun jaayàa.
 water 3p.PERF pull-I
 'The water (flood) has withdrawn.'

Finally, some verbs seem to be derived from nouns, and because sometimes they appear in no other shape, they have to be considered as basic HL-aa. Some of these verbs are:

- (24) Basic HL-aa verbs derived from nouns:
- KooKàrtaa 'make an effort' (< KòoKarii, 'effort')
 - magàntaa 'speak' (< màganàa, 'speaking')
 - yaawàtaa 'wander' (< yaawòo, 'wandering')
 - hamzàrtaa 'hurry' (< hamzarii, 'hurry')

Although the stems of the verbs in (24) also appear in nouns, inside the grade system, they operate only the HL-aa shape. They are then exclusive in the bounds of the verbal system.

So, using the distributional method, the basic HL-aa intransitive shape is established. Next, it is shown that this shape has a transitive version, the basic HL-a shape.

3.4.1.1.2 Basic HL -a shape

This shape is made up of transitive verbs, and like all basic classes, it contains verbs that are exclusive to it. Some examples are given below:

- (25) verbs exclusive to basic HL-a (tr.)

- | | | |
|----|--------|------------|
| a. | soomà | 'begin' |
| b. | Doorà | 'stack' |
| c. | faarà | 'begin' |
| d. | rasà | 'lack' |
| e. | reenà | 'despise' |
| f. | loodà | 'load' |
| g. | tsoomà | 'soak' |
| h. | dingà | 'continue' |

These exclusive verbs do appear intransitively in the shape HL-aa but unlike true intransitives, they always have a deleted or an understood undergoer argument:

Some non-exclusive verbs of this shape appear intransitively in a HL-aa shape but with a different meaning that, according to Furniss, is metaphorically related to the basic meaning. Some examples are in the following:

- (27) Basic HL-a:
 a. gyaarà 'repair'
 b. shubkà 'sow'
 c. swaaBà 'mash'
 d. tabkà 'overdo'

HL-aa metaphorical extension:
 gyaaràà 'give a cash back'
 shubkàà 'be gone'
 swaaBàà 'miss each other'
 tabkàà 'be gone'

An overwhelming majority of the members of this class can appear in the LH-i shape with a partitive or pejorative meaning, or in the HL-e shape with an emphasis on the completeness of the verb's action. Some of these verbs are represented below:

- (28) Basic HL-a verbs: derived hidden shapes:
- | | |
|-----------------------|---------------------|
| a. tiiKà 'throw down' | tiikì 'drink a lot' |
| b. taarà 'gather' | taare 'gather all' |
| c. shaafà 'rub' | shàafi 'rub a bit' |
| d. saarà 'cut' | sàari 'cut off' |
| e. tabkà overdo' | tàbki 'drink a lot' |
| f. liikà 'stick' | liikè 'close shut' |

Apparently, verbs of this shape do not undergo the HL-a applicative extension, that is, there are no morphologically identical doublets of HL-a verbs with the same meaning but with different types of undergoer. When two types of participants (say a patient and a benefactive) alternate as undergoers of a HL-a verb, the non-patient undergoer appears with the mà applicative. This is illustrated below:

- (29) a. sun gyaarà mootar Abdù dà kílêe.
 3p.PERF repair-I car-of Abdu with wrench
 'They repaired Abdu's car with a wrench.'
- b. sun gyaaràà mà Abdù mootàa dà kílêe.
 3p.PERF repair-I MA Abdu car with wrench
 'They repaired Abdu his car with a wrench.'
- c. *sun gyaarà Abdù mootàa dà kílêe.
 3p.PERF repair Abdu car with wrench
 'They repaired Abdu his car with a wrench.'
- d. *sun gyaarà kílêe (à) mootar Abdù.
 3p.PERF repair wrench (on) car Abdu
 'They repaired Abdu's car with a wrench.'

As seen in (c-d) above, the basic HL-a verbs cannot appear with certain types of undergoers such as possessors, instrumentals, benefactives, and locatives. If sentences like (c-d) were possible, then this would have been a stronger case for positing a diachronically overt, but now hidden *-Cà applicative suffix, as proposed first in Newman (1973). The evidence on which Newman relies still leaves the possibility that the basic HL-a and the applicative HL-a constitute one and the same shape.

A huge number of HL-a are derived from regular nouns, adverbs, and adjectives. These verbs too may have to be considered basic because they operate no other basic-like shape. Some examples are in the following:

- (30) Basic HL-a verbs derived from nouns:
- | | |
|--------------|---|
| a. Karyàtà | 'disavow (s.o.)' (< Karyaa, 'a lie') |
| b. lahàntà | 'damage' (< lahànii, 'damage') |
| c. laimàntà | 'humidify' (< laimàa, 'humidity') |
| d. misàltà | 'give an example' (< misaalii, 'example') |
| e. waiwàitì | 'report with caution' (< wai, an evidential) |
| f. maràità | 'orphan' (< màraayàa, 'an orphan') |
| g. sheelàntà | 'proclaim' (< shèela, 'announcement') |
| h. tallàtà | 'advertise' (< tälla, 'advertisement') |
| i. ramgwàmtà | 'reduce price' (< ramgwamèe, 'price break') |
| j. tiilàsà | 'force' (< tiilàs, 'obligatorily') |
| k. tsabtàtà | 'clean' (< tsabtàa, 'cleanliness') |
| l. tsawàità | 'elongate' (< tsawoo, length') |
| m. yawàità | 'augment' (< yawàa, 'quantity') |
| n. zurfàafà | 'deepen' (< zurfii 'depth' or zùrfàafàa 'deep') |
| o. kusàntà | 'bring close' (< kusa, 'near-ness') |
| p. kwaDàità | 'stir envy in' (< kwàDai, 'envy') |

There is evidence for including in the basic HL-a shape the monosyllabic verbs *ji* 'hear, feel', *Ki* 'refuse' which were considered by Parsons as irregular and kept outside the grade system. They have disyllabic HL-a A-form alternates, at least in the western dialects of Hausa (see also Wolff 1984):

- (31) a. Abdù yaa ji/ *jiyà miryàa. (C-form)
 Abdu 3ms.PERF hear/ hear voice
 'Abdu heard a voice.'
- b. Abdù yaa ji/ jiyàa. (A-form)
 Abdu 3ms.PERF hear/ hear-I
 'Abdù heard (sth.).'

In the above data, the short form of the verb can appear both as C-form before a noun undergoer and as A-form when no undergoer follows. The long form can appear only as A-form. The verb *Ki* works in the same way.

In conclusion, HL-aa and HL-a shapes are attested basic classes in this revised system. Both contain exclusive verbs that cannot be derived from other classes. Most of their verbs however can also operate hidden derived shapes with an alteration of the basic meaning.

3.4.1.2 Basic LH -i shape

This shape contains only transitive verbs and is one of the most frequent classes. It has a noticeable subclass of verbs that may be characterized as "impact" verbs, and which Parsons (1971-72) call the "projective-applicative" class of verb. Some examples are given below:

(32) LH-i projective-applicative verbs:

- a. bùgi 'hit, beat'
- b. bànsì 'hit, impact'
- c. kwàntsàmi 'hit a hard blow'
- d. jèefi 'throw at'
- e. hàlbi 'shoot at'
- f. càri 'stick in'
- g. màari 'slap'
- h. sòoki 'pierce'

Typically, these verbs appear with a target or location as undergoer and an instrument in a prepositional phrase. Almost all of them have a doublet appearing in the HL-a applicative with the instrument as undergoer, and the target or location in a prepositional phrase:

- (33) a. Abdù yaa bànsì iccèe dà mootàa.
 Abdu 3ms.PERF hit-II tree with car
 'Abdu hit a tree with the car.'
- b. Abdù yaa bankà mootàa à iccèe.
 Abdu 3ms.PERF ram-I car at tree
 'Abdu rammed the car into a tree.'

In the basic vs. derived shapes theory, the LH-i verbs are considered as basic and the HL-a as derived by the applicative extension. Exclusive verbs of the LH-i shape include the following:

(34) Exclusive LH-i verbs:

- a. cèeci 'rescue'
- b. swàaci 'steal'
- c. tsinci 'pick up'
- d. iyàakàci 'limit'
- e. kàlli, kàllàci 'look at'
- f. nùfi, nùfàaci 'head on '
- g. hàlarcì 'visit'
- n. hàri 'raid'
- i. màamàyi 'take by surprise'
- j. tárki 'engage in'
- k. tsàni 'hate'
- l. tsimàayi 'wait for'
- m. zòolàyi 'tease'
- n. kiyàayi 'protect from (god)'
- o. kwàikwàyi 'imitate'

Another set of verbs are relatable to regular nouns, adverbs, or adjectives, and may also have to be considered as basic LH-i. These verbs include:

- (35) Basic LH-i verbs derived from nouns:
- a. kùsànci 'approach' (< kusa 'be near')
 - b. sàmmàaci 'curse' (< sammù 'curse')
 - c. wàsàlcí 'vowel a text' (< wasàllii 'arabic diacritic mark')
 - d. zàmbàci 'abuse' (< zàmboo 'verbal abuse')
 - e. zìyàrci 'visit' (< zìyaaràa 'visit')
 - f. sàllàaci 'pray for (< the dead)' (sallàa 'prayer')
 - g. gàyayàci 'invite to work' (< gàyaa 'work invitation')
 - h. gàafàrci 'pardon' (< gaafaràa 'pardon')
 - i. gìdànci 'house' (< gidaa house')
 - j. fùskànci 'confront' (< fuskàa 'face')

The verbs in (34-35) above establish the LH-i shape as basic. Indeed, they cannot be derived from any other shape.

A set of three irregular HH-aa transitive verbs: jiraa 'wait for', kiraa 'call', ríggyaa 'precede', are included in the basic HL-a shape by Furniss (1981:p116) on the basis of the trisyllabic A-Forms jiraayàa, kiraayàa, ríggyaayàa. However, and as noted in Wolff (1984, note 8), these trisyllabic forms are characteristic of the LH-i shape. Furthermore, in the western dialects, all three verbs have alternate trisyllabic LLH-i forms, as illustrated below (see also Pilsczcikowa 1969:54):

- (36) a. taa kiraa/ kíràayi Abdù.(C-form)
 3fs.PERF call/ call-II Abdu.
 'She called Abdu.'
- b. taa jiraa kí/ jíràayee kí awàa biyu.(B-form)
 3fs.PERF wait 2fs/ wait-II 2fs hour two
 'She waited for you for two hours.'
- c. Abdù nee sukà ríggyaa/ ríggyaayàa. (A-form)
 Abdu cop.m 3p-REL PERF precede/ precede-II
 'It is Abdu that they preceded.'

As it can be seen, the short and long forms have the same meaning. All three verbs in their long form assume the syntactic Forms that are characteristic of LH-i (gr2) verbs. The verb biyyaa, 'pay', shares the HH-aa tone pattern and the VN formation pattern with the above three verbs. However, it has no alternate trisyllabic forms, so, its classification as a basic LH-i is less certain.

The verbs bar 'let, abandon', san 'know', sàamu 'obtain', sàki 'release', and fàDi 'tell' can all be considered as basic LH-i as suggested by Furniss. This is straightforward for the last two while an adjustment is necessary (a change from -i to -u) for sàamu 'obtain'. What unites the five verbs is that they exclusively use their derived nominal form as their A-form, in any tense/ aspect such as the perfect. This is illustrated below:

- (37) bà kà san bà àbindà sukà sanìi/ barìi/
 NEG 2ms know NEG thing-that 3p-REL PERF know/ let/
 saamùu/ sakìi/ faDìi.
 obtain/ release/ tell

'You don't know what they know/ have left/ obtained/ released/ told.'

There are a few other irregular or semi-irregular LH-i verbs using an idiosyncratic A-form. This feature of the irregular verbs will be brought up again in chapter 6.

Three monosyllabic verbs: fi 'surpass', ci 'eat', and shaa 'drink' can be accommodated in basic LH-i shape as well. These have received various other treatments by investigators, but again, in the western dialects, they have LH-i alternates:

- (38) a. sun ci/ ciyi masàraa, kuma sun shaa/ shàyi giyàa.
 3p.PERF eat/ eat -II corn and 3p.PERF drink/ drink-II beer
 'They ate corn and drank beer.'

- b. sunàa cîn/ ciyar masàraa, kuma sunàa shân/ shayar
 3p-CONT eat/ eat -II corn and 3p-CONT drink/ drink-II
 giyàa.
 beer

'They are eating corn and drinking beer.'

- c. abindà ya fi/ fiyee tà nee
 thing-that 3ms.REL PERF surpass/ surpass-II 3fs cop.m
 sukèe sôo.
 3p-REL CONT want

'It is something better than it that they want.'

As seen in the data above, there is no change in meaning between the short forms and their alternate long ones. Therefore, the verbs really belong to the same basic LH-i shape, not the hidden LH-i partitive shape.

It can be noted that there are no doublets of LH-i verbs where one would be basic LH-i and the other LH-i partitive. To express a partitive meaning for a basic LH-i verb, a stem reduplication strategy is used as seen in:

- (39) a. sun nèemi mùtùn goomàa waDàndà sukà Bacèe
 3p.PERF search-II people ten 3p-that 3p-REL PERF lose-IV
 à hàmaadàa.
 in desert

'They searched the ten people who were lost in the desert.'
 *'They more or less searched for the ten people who were lost in the desert.'

- b. sun nànnèemi mùtùn goomàa waDàndà sukà
 3p.PERF REDUP-search-II people ten 3p-that 3p-REL PERF
 Bacèe à hàmaadàa.
 lose-IV in desert

'They more or less searched for the ten people who were lost in the desert.'

The hypothesis proposed by Furniss that there exists a diachronically overt but now hidden partitive suffix is thus not supported. The hypothesis predicts the existence of LH-i verbs which would be ambiguous between basic and partitive meaning. So, it is not excluded that the basic LH-i and the partitive LH-i verbs constitute the same shape.

3.4.1.3 Basic LH-a shape

So far, this shape is the only one that matches one of Parsons' grades, the grade 3. It is made up of intransitive verbs that traditionally are said to describe autonomous processes and events (Parsons 1960). Examples of verbs for this shape are as follows:

- (40) Basic LH-a shape verbs:
- a. fita 'go out'
 - b. ìsa 'be sufficient'
 - c. ìsa 'arrive'
 - d. Bira 'jump (animal)'
 - e. shìga 'enter'
 - f. dìra 'land (bird)'
 - g. tòma 'spring up'
 - h. dìga 'drip'
 - i. zùba 'fall (liquid)'
 - j. cìka 'be full'
 - k. nùna 'be ripe'

l.	tàttarà	'bundle one's energy'
m.	hùsatà	'be angry'
n.	rìkità	'be entangled'
o.	bàlagà	'be adolescent'
p.	shìriyà	'go away'
q.	hàKurà	'be patient'
r.	bùwaayà	'be intractable'
s.	hìra	'take off (bird)'
t.	wàhalà	'go through hardship'

A set of HH-aa intransitive can also be accommodated in this shape.

(41) Basic LH-a irregular HH-a verbs:

a.	Buuya	'go hiding'
b.	girma	'grow up'
c.	suuma	'faint'
d.	tsiira	'escape, be safe'
e.	tuuba	'be sorry'
f.	kwaana, kwan	'spend the night'
g.	Kaara	'scream'
h.	tsuufa	'be old'
i.	Kaura	'move (residency)'
j.	farga, fàrga	'realize'

According to Newman (1973), a simple phonological rule accounts for the HH tone pattern. Most of the HH pattern verbs have a heavy first syllable, CVV or CVC, and this is why they have their initial tone raised. However, as noted by Newman himself, there are exceptions in both ways. Some light initial syllable verbs, at least two, have the HH tone pattern:

(42) HH-a exceptions to Newman's tone raising rule:

a.	kusa	'be near (completion)'
b.	zama	'become'

The list of heavy first syllable verbs with a initial low tone is more extensive and includes the following verbs:

(43) LH-a exceptions to Newman's tone raising rule:

a.	sàbka	'land, step down, arrive (date)'
b.	yàrda	'agree'
c.	lùura	'realize'
d.	Bùlla	'appear, come out'
e.	shìiDa	'come down'
f.	farga, fàrga	'realize'

Also, many trisyllabic verbs with a heavy first syllable do not have a raised initial tone:

(44) Trisyllabic exceptions to Newman's tone raising rule:

- a. dànganà 'be patient'
- b. tàbbatà 'be certain, true'
- c. bàyyanà 'be known, revealed'
- d. kùmburà 'be swollen'
- e. kùskurà 'take a risk, dare'
- f. shèekarà 'pass a year'
- g. fàskarà 'be intractable'
- h. hàllakà, hálakà 'perish (person)'
- i. dòogarà 'lean'
- j. gàagará 'be intractable'
- k. firgità 'be stressed, be shocked'
- l. gíigità 'be confused'
- m. bàñKarà 'be arched'

A number of verbs are relatable to regular nouns, adjectives, and adverbs, and can be considered basic LH-a. Some examples are:

(45) Basic LH-a derived from nouns:

- a. tsòoratà 'be frightened' (tsòoroo, 'fear')
- b. wùyaatà 'be difficult' (wùyaa, 'pain')
- c. zàma(a)nà 'come to be' (zamaa, 'becoming')
- d. gàskantà 'be true' (gaskiyaa, 'truth')
- e. kùmyatà 'be ashamed' (kumyàa, 'shame')

Two irregular verbs of LH-i shape are generally included into the basic LH-a shape (Parsons 1971-72:96, Newman 1979:224, Wolff 1984) based on the fact that they are shortened forms of trisyllabic verbs. These trisyllabic forms are reconstructed as LHL-a as seen below:

- (46) a. tafi 'go' from *täfiyà
b. gáji 'be tired' from *gájiyà

The long forms are not totally extinct as usually assumed. With gáji, only the long form is used in gr5, the expected short form is impossible:

- (47) a. Abdù yaa gajiyar dà shaanuu.
Abdu 3ms.PERF tire V cows
'Abdu tired the bulls.'
- b. *Abdù yaa gajar dà shaanuu.
Abdu 3ms.PERF tire V cows
'Abdu tired the bulls.'

The LH-a shape is taken to be used only as basic, that is, there is no derived LH-a form. Consequently, no one so far has posited a hidden LH-a extension. There are many verbs exclusive to this shape, that do not appear in any of the hidden shapes. Some examples are:

(48) Exclusive LH-a shape verbs:

- a. bàlagà 'be adolescent'
- b. shìriyà 'go away'
- c. suuma 'faint'
- d. tuuba 'be sorry'
- e. kwaana, kwan 'spend the night'
- f. Kaara 'scream'
- g. Kaura 'move (residency)'
- h. farga, farga 'realize'
- i. wàhalà 'go through hardship'
- j. tàfi 'go'
- k. gàji 'be tired'

A number of verbs take the transitive and intransitive forms of the HL-e(e) totality shape, with the meaning of thorough undergoing or completion of the process or action. Some examples are:

(49) Derived HL-e(e) from basic LH-a:

- a. ficcèe 'sneak out' (< fita 'go out')
- b. shigèe 'sneak in' (< shiga 'enter')
- c. Birèe 'jump off' (< Bìra 'jump')
- d. zamèe 'turn into, metamorphose' (< zama 'become')
- e. sabkè 'bring down, host' (< sàbka 'get down, land')
- f. shiiDè 'bring down' (< shìiDa 'get down')
- g. Booyè 'hide' (< Buuyaa 'hide')
- h. ishè, iskè 'find (on arrival)' (< ìsa 'arrive')

It can be noted that the verbs in (e-h) involve more than a simple totality extension suffixation. They also become transitive, acquiring a new undergoer. The problem with this is that none of (e-h) verbs has a HL-a applicative form from which to derive the transitive HL-e. Thus, the derivation below is unwarranted:

	basic LH-a	applicative HL-a	totality HL-e
	sàbka	*sabkà	sabkè

So, one is forced to conclude that the totality extension can also function as an applicative by itself. This is in agreement with Newman's (1983) observation that most verbal extensions also function as transitivizers.

A group of LH-a motion verbs actually assume the intransitive HL-aa shape with an obligatory locative argument. The corresponding basic LH-a does not require such locative argument:

- (51) a. tntabraa taa dra/ hra/ tma.
 pigeon 3fs.PERF land-III/ fly-III/ jump-III
 'The pigeon landed/ took off/ jumped.'
- b. tntabraa taa dira  reeshe/ hira Dak/ tuma
 pigeon 3fs.PERF land-I on branch/ fly-I inside/ jump-I
 bisa shgifa.
 on house
- 'The pigeon rested on a branch/ flew inside/ jumped on the roof.'

The locative nominal in sentences like (b) is required unless it is understood or obvious from the context. No system yet accounts for this type of contrast. Furniss does posit an intransitive HL-aa hidden extension, but its meaning is "metaphorical" and it applies only to detransitivize transitive verbs. So, apparently, just as we have a transitive HL-a applicative fused with basic transitive HL-a, we also have an *intransitive* HL-aa hidden applicative fused with the basic intransitive HL-aa and which applies to intransitive verbs to licence not an undergoer, but an oblique locative.

Most intransitive LH-a verbs can be transitivized in the applicative HL-a shape. The pivot of the basic intransitive becomes the undergoer in the HL-a applicative. With some verbs, in addition to the undergoer, a locative argument is obligatory. Some examples are in the following:

- | | |
|--------------------------|---------------------------|
| (52) Basic LH-a verbs: | Derived HL-a applicative: |
| a. Dga 'drip' | Dig 'drip (sth) into' |
| b. zba 'overflow' | zub 'pour' |
| c. Blla 'appear out' | Bull 'pitch to, assign' |
| d. dgar 'lean against' | doogr 'lay against' |
| e. hsaat 'be angry' | husaat 'anger' |
| f. cka 'be full' | cik 'fill' |
| g. firgit 'be afraid' | firgt 'shock' |

Verbs in (a-d) require two object arguments, an undergoer and an oblique locative. The corresponding intransitive LH-a does not require the specification of a locative. The remaining verbs in (e-g) require only an undergoer argument.

Other LH-a verbs assume the partitive LH-i shape. It should be noted though, that the semantics of the derived forms is not partitive. Rather, an undergoer argument is simply added and the intransitive pivot remains pivot of the transitive form:

(53) Basic LH-a:	Derived LH-i verbs:
a. ìsa 'be sufficient'	ìshi 'suffice'
b. shìga 'enter'	shìgi 'enter (into s.th.)'
c. hùsaatà 'be angry'	hùsàaci 'be angry at'
d. bùwaayà 'be intractable'	bùwàayi 'be intractable for'
e. fàskarà 'be intractable'	fàskàri 'be intractable for'
f. girma 'grown'	gìrmì 'be older than'
g. tsuufa 'get old'	tsòofi 'be senior to'
h. tsòoratà 'be afraid'	tsòoràci 'fear'

Except for (c) and (h), these verbs do not appear in the applicative HL-a. Thus, they are not partitive of underlying HL-a applicative verbs. So, apparently, the LH-i hidden extension too can function not only as a partitive suffix, but also as a simple applicative extension (or a transitivizer in Newman's term).

3.4.1.4 Basic HL-ee shape

Before Furniss (1981), all verbs of HL-e(e) shape were considered as derived totality gr4. According to Furniss, there are a number of verbs which appear only in the HL-ee shape (HL-e in his notation) and thus, cannot be said to be derived from another shape. Some examples are in the following:

(54) Exclusive intransitive HL-ee shape verbs:	
a. tsanèe	'become dry'
b. rantsèe	'swear'
c. dunDèe	'be overcast'
d. laayèe	'lie low, disappear'
e. arcèe	'go further'
f. Kwarèe	'be expert'
g. warkèe	'be cured'
h. kaucèe	'eschew'
i. kubcèe	'wrestle away'
j. raamèe	'be thin'
k. Darèe	'jump up on'
l. goodèe	'thank'
m. mulmùjee	'recover (fr. sickness)'

By positing this shape as basic, Furniss, without noting it, made it the only basic shape to have a clear and consistent semantic connotation. Indeed, all verbs of the HL-e(e) shape, whether transitive or intransitive, basic or derived, have the totality meaning implied. So, for

example, tsanèè 'become dry' cannot apply to something that is not dry, nor can warkèè 'be cured' apply to an individual not completely cured.

Furniss (1981) also discusses an extension he calls the "intransitive and reflexive" extension. When it is used on a transitive verb, the latter becomes intransitive with a reflexive meaning. Its form is HL-ee (HL-e in his notation), which makes it look like the basic HL-ee or the totality HL-e(e) shape. Some examples of its operation are given in the following:

(55)	Basic HL-a transitive:	Derived HL-ee itr./ reflexive
	a. daatà 'compare to'	daacèè 'suit, fit'
	b. waatsà 'scatter (sth.)'	waatsèè 'be scattered'
	c. narkà 'melt (sth.)'	narkèè 'melt'
	d. karyà 'break (sth.)'	karyèè 'break'
	e. dusà 'render blunt'	dushèè 'be blunt'
	f. kafà 'erect, stick'	kafèè 'be stuck'

The problem is that here too, the derived forms have a totality meaning. In this revised system, one can consider the above verbs to be basic HL-ee (with the totality semantics) which can derive HL-a applicative forms. So, the intransitive/ reflexive extension can be entirely done away with, even in the bound of the revised Furniss system.

Furniss considers the basic HL-ee shape to be entirely made up of intransitive verbs. This characterization is not uncontroversial. Some of the exclusive HL-ee verbs have transitive counterparts as seen below:

(56)	Exclusive intransitive and transitive HL-e(e)verbs:	
	a. wucèè 'pass'	wucè 'surpass, overtake'
	b. daurèè 'be patient'	daurè 'tolerate'
	c. Kurèè 'be stretched'	Kurè 'outstretch, surpass'
	d. swaakèè 'change'	swaakè 'change'
	e. Kagèè 'be jammed'	Kagè 'jam'
	f. moorèè 'enjoy'	moorè 'take advantage of'
	g. tubkèè 'be uprooted'	tubkè 'uproot'
	h. tuuBèè 'undress'	tuuBè 'undress (child, shirt)'
	i. keeBèè 'be aside'	keeBè 'put aside'
	j. waayèè 'be enlightened'	waayè 'enlighten'
	k. zaamèè 'glide-stop'	zaamè 'glide-stop (a horse)'
	l. gwaljèè 'have bruises'	gwalje 'bruise (leg)'
	m. Kaarèè 'be finshed'	Kaarè 'finish'
	n. kwancèè 'be loose'	kwancè 'untie'
	n. banyèè 'be loose'	banyè 'untie, unpack'

There is however, no exclusive transitive only HL-e verb, thus, one can still say that the basic shape is all intransitive, and that some verbs can appear transitively. For Furniss, the transitive verbs developed after the basic HL-ee shape ceased to be distinctive and merged

with the totality extension which happens to contain HL-e transitive verbs. Thus, the transitive verbs above arose by some kind of analogy with transitive HL-e totality. This explanation is clearly ad hoc. If one applies Furniss' method blindly, one can only posit another hidden HL-e applicative extension to account for the verb pairs in (56). Again, as with the basic HL-ee intransitive verbs in (54), both the basic intransitive and their transitive forms above in (56) imply the completeness of the action or process. So, in fact, Furniss' basic HL-ee, his derived intransitive/ reflexive HL-ee, his derived HL-e(e) totality, and the derived HL-ee applicative, all four, may constitute one and the same shape.

3.4.1.5 Basic HL-i shape

This is the most limited shape in the verbal system, comprising only seven intransitive verbs. The list usually given is as follow (Newman 1973, Furniss 1981):

- (57) Basic HL -i shape (intransitive):
- a. Baaci 'spoil, degenerate'
 - b. faaDì 'fall'
 - c. gudù 'run, escape, move'
 - d. taashì 'leave, stand up, fly'
 - e. haifù 'give birth'
 - f. wunì, yinì 'spend the day'
 - g. mutù 'die'

They have received various treatments. Parsons thought they are irregular and left them outside his grade system altogether. Newman assigned them to one of his phonological class, the HL-i class. Furniss on the other hand thinks they are a subclass of the basic intransitive HL-ee shape. So, for Furniss there is no separate basic HL-i shape. However, as seen above, any HL-e(e) verb, basic or derived, has a totality semantics. This is not the case for HL-i verbs. In fact, three of them can appear in the HL-e(e) shape with the expected totality connotation added:

- (58) Derived HL-ee verbs from basic HL-i itr. verbs:
- a. Baacèe 'completely rotten' (< Baaci 'degenerate')
 - b. gujèe 'run off (liquid)' (< gudù 'escape')
 - c. macèe 'die swiftly' (< mutù 'die')

Four verbs in the HL-i shape can assume the HL-a applicative shape:

- (59) Derived HL-a applicative verbs from basic HL-i itr. verbs:
- a. Baatà 'spoil (sth.)' (< Baaci 'degenerate')
 - b. faaDà 'attack' (< faaDì 'fall')
 - c. taasà 'get off (s.o.)' (< taashì 'leave, stand up')

The above verbs are all transitive. Among the seven verbs in (57) above, two can appear in the HL-aa shape where they require an oblique locative argument:

- (60) Derived HL-aa verbs from basic HL-i itr. verbs:
- a. faaDàa 'fall into' (< faaDì 'fall')
 - b. gudàa 'drip, fall into (liquid)' (< gudù 'run escape')

Also, two other verbs can appear in the HL-aa shape identified in Furniss (1981) as the hidden metaphorical extension (it is different from the previous HL-aa shape which is more like an intransitive applicative (see discussion of (65) below). The two derived metaphorical verbs are:

- (61) Derived HL-aa metaph. verbs from basic HL-i itr. verbs:
- a. Baatàa 'shun (each other)' (< Baacì 'degenerate')
 - b. taasàa 'grow up' (< taashì 'leave, stand up')

Finally, three verbs can assume the LH-i shape:

- (62) Derived LH-i verbs from basic HL-i itr. verbs:
- a. Bàaci 'insult' (< Baacì 'degenerate')
 - b. gùji 'run from' ((< gudù 'run escape')
 - c. hàifi 'give birth to' (< haifù 'give birth')

This LH-i extension seems to function only as an applicative, turning intransitive verbs into transitive ones. It does not have a partitive meaning. So, and contrary to Furniss analysis, the seven HL-i verbs cannot be merged into the HL-ee class. The latter has a distinctive form and a distinctive semantic connotation. Therefore, applying Furniss' own methods, the HL-i verbs should constitute a separate basic class.¹ The next subsection deals with the hidden extensions.

3.4.2 THE "HIDDEN" EXTENSIONS

In Newman's phonological classes system, a verb can only belong to one basic shape. A problematic issue then is how to treat what appears to be two or more basic forms of the same verb. To solve this problem, Newman and Furniss assume a set of hidden extensions (suffixes) which, historically, came to be reduced and confused with basic shapes.

According to Newman, these hidden extensions can be applied not only to any shape, but also to the basic shape with which they are confused, resulting in a morphologically vacuous application. In what follows, I again adopt Furniss' methods and use the notions of

applicative, partitive, metaphorical, and totality extension. As in the previous subsection, problems with the hidden extensions system are underlined, and some changes are made. The main change here consists in the dropping of Furniss' HL-e Intransitive/ Reflexive hidden extension (see discussion of (55) above).

3.4.2.1 The HL-a applicative extension

The first mention of an applicative affix for Hausa is in Newman (1973) in relation to gr2 verbs pre-dative form and transitive and intransitive pairs of gr1 verbs. The contrast between some gr2 verbs and their pre-dative forms is illustrated in the following:

- (63) a. Abdù yaa fàDi màganàa à gàban sarkii.
 Abdu 3ms.PERF tell-II matter at front-of emir
 'Abdu told the matter before the emir.'
- b. Abdù yaa faDàa mà sarkii màganàa.
 Abdu 3ms.PERF tell MA emir matter
 'Abdu told the emir the matter.'

According to Newman (1973, 1991), because gr2 verbs (as well as gr 3 and gr 7) cannot directly appear before mà, they must suffix the applicative -(.)à (<*Cà) in order to do so. Thus, faDàa 'tell' in sentence (b) above is a gr2 verb bearing the HL-a applicative triggered by the presence of mà+NP. It looks like a basic HL-a gr1 verb only by accident, after the deletion of its original consonant. Another case that lead Newman to the hidden applicative extension hypothesis can be illustrated as follows:

- (64) a. tàfiyàa taa faasàa.
 trip 3fs.PERF be cancel-I
 'The trip is cancelled.'
- b. Abdù yaa faasà tàfiyàa.
 Abdu 3ms.PERF cancel-I trip
 'Abdu cancelled the trip.'

Newman contends that the transitive verb in (b) is derived by the affixation of the applicative -(.)à. Strictly speaking, this is where the applicative affix is really hidden, because, save the difference in final vowel length, the basic intransitive and the derived transitive are morphologically the same. Because of the fact that in this case an intransitive verb is turned transitive, Newman (1983) alternatively calls the suffix -(.)à an applicative or a transitivizer.

The HL-a applicative does not have a particular semantic connotation (like the totality extension for example). It seems to only add a new argument to the basic verb. There are actually up to three patterns of derivation from a basic form to the HL-a applicative. In the

first pattern, the applied verb stays intransitive but requires an oblique argument, overt or understood. This is most frequent with basic LH-a, HL-ee and HL-i intransitive verbs. An example is given below:

- (65) a. Abdù yaa faaDì.
 Abdu 3ms.PERF fall-III
 'Abdu felt.'
- b. Abdù yaa faadàa ruwa.
 Abdu 3ms.PERF fall-I in.water
 'Abdu felt into the water.'

The contrast between a basic form and its derived HL-aa form involves a difference in the verb's focus. For example, the basic faaDì 'fall' focuses on the event of falling itself. The applied form specifies a location which can be affected or is relevant in some other way.

In the second pattern, an undergoer is added to the basic intransitive. For basic HL-aa intransitive, depending on the nature of the verb, the intransitive pivot may become the new undergoer (motion verbs) or it may be the pivot of the transitive verb (motion to stance):

- (66) Derived HL-a tr. applicative verbs from basic itr. verbs:
- a. mootsà 'move (sth.)' (< mootsàa 'move')
 - b. juuyà 'turn over' (< juuyàa 'rotate')
 - c. karkàtà 'tilt (sth.)' (< karkàtaa 'tilt')
 - d. zamnà 'sit on' (< zamnàa 'sit')
 - e. kwantà 'lie on' (< kwantàa 'lie')
 - f. raatsà 'cross' (< raatsèe 'loiter')

In the third pattern, both an undergoer and an obligatory oblique argument are added. This happens mostly with basic LH-a intransitive transfer verbs as illustrated below (see also (52) above):

- (67) Derived HL-a applicative verbs from basic LH-a itr. verbs:
- a. Digà 'drip (sth.)' (< Diga 'drip')
 - b. zubà 'pour' (< zùba 'fall (liquid)')
 - c. Bullà 'pitch to, assign' (< Bùlla 'appear, come out')

As with HL-aa motion verbs, the intransitive pivot becomes the undergoer in the applicative.

The above three patterns of conversion to applicative are also valid where the applicative applies to an already transitive verb. Thus, a transitive verb, generally from basic LH-i can turn into the HL-a applicative shape, have the same undergoer but require an oblique argument in addition. This is illustrated in the following:

- (68) a. Abdù yaa àiki yaarònki (à kàasuwaa).
 Abdu 3ms.PERF send-II boy-of-2fs (at market)
 'Abdu sent your boy (to the market).'
- b. Abdù yaa aikà yaarònki *(à makarantaa).
 Abdu 3ms.PERF send-I boy-of-2fs at school
 'Abdu sent your boy at school.'
- (69) a. Abdù yaa túnkùDi Indoo (*à ruwaa).
 Abdu 3ms.PERF bump-II Indo (in water)
 'Abdu bumped into Indo.'
- b. Abdù yaa túnkùDà Indoo *(à ruwaa).
 Abdu 3ms.PERF push Indo (in water)
 'Abdu pushed Indo into the water.'

As shown in the sentences above, the undergoer does not change from the basic verb to the HL-a applicative verb. What changes is the requirement of an oblique locative argument. In (68a) the locative is optional. In (69a) it is impossible (the sentence can be grammatical if the bumping occurred while both people are in water). In all (b) sentences however, the oblique argument is obligatory.

The second pattern, where a new undergoer is added, also occurs with transitive verbs. This is illustrated with the LH-i gr2 verbs. For these gr2 verbs, the applicative brings a new undergoer nominal than the one in the basic form:

- (70) a. maalàm yaa fùskànci gabàs.
 teacher 3ms.PERF face-II east
 'The teacher faced toward east'
- b. maalàm yaa fuskàntà Dàalìbbai gabàs.
 teacher 3ms.PERF face-I students east
 'The teacher made the student face east.'

The problem with these examples is that it not clear which shape is basic, the HL-a or the LH-i.

The third pattern adds a new undergoer and at the same time requires an oblique argument. This is most characteristic of LH-i gr2 impact verbs. The basic transitive LH-i form has an undergoer and can take an optional instrumental in an associative phrase. In the applicative, the instrumental is the undergoer and the former undergoer appears in an obligatory locative phrase. An example is as follows:

- (71) a. Abdù yaa bànnki iccèe (dà mootàa).
 Abdu 3ms.PERF hit-II tree with car
 'Abdu hit a tree with the car.'

- b. Abdù yaa bankà mootàa *(à iccèe).
 Abdù 3ms.PERF ram-I car at tree
 'Abdu rammed the car into a tree.'

With at least one impact verb however, the applicative form does not require a locative (see also Parsons 1962):

- (72) yaa halbà bindigà (à tsakar tàaroo).
 3ms.PERF shoot-I gun (at middle-of crowd)
 'He fired a gun (in the middle of a crowd).'

In conclusion, the HL-a applicative comes at least in three varieties. One adds an oblique argument only to transitive or intransitive verb. The other adds an undergoer to both transitive and intransitive verbs. The last HL-a adds both an undergoer and an oblique argument.

3.4.2.2 The HL-aa metaphorical extension

The second hidden extension proposed by Furniss, the metaphorical extension, is also marked by the pattern HL-aa. This makes it morphologically similar to both the applicative HL-a extension and the basic HL-a(a) shape. According to Furniss, the metaphorical extension applies to transitive verbs (basic as well as extended forms) to derive intransitives. The meaning of the resulting intransitive is metaphorically related to that of the base transitive verb. This can be compared to English resultative metaphoricals. The remoteness of the derived meaning depends on the particular verb. Some examples are given in the following:

- (73) HL-a metaphorical from basic HL-a transitive verbs:
 a. gyaaràa 'lower price' (< gyaarà 'repair')
 b. shubkàa 'be gone out' (< shubkà 'sow')
 c. swaaBàa 'miss each other' (< swaaBà 'break (promise)')
- (74) HL-a metaphorical from HL-a applicative verbs:
 a. halbàa 'be gone, dead' (< halbà 'shoot')
 b. bugàa 'be rotten' (< bugà 'hit')
 c. Baatàa 'shun each other, feud' (< Baatà 'spoil')
 d. faaDàa 'collapse' (< faaDà 'fall on s.o., attack')

The metaphorical intransitive is a true intransitive verb, there is no understood or deleted "object" argument.

3.4.2.3 The LH-i partitive/ pejorative extension

Furniss' third hidden extension is called the 'partitive/ pejorative'. The shape of this extension is LH-i which makes it identical to the basic transitive LH-i shape (or gr 2). As we have seen earlier in the discussion of (62), this shape can function as a simple transitivizing applicative. It applies to basic HL-aa, LH-a, HL-ee and HL-i verbs. Some examples of this usage are below:

- (75) LH-i partitive verbs from basic HL-aa verbs:
 - a. hàngi 'look far at' (< hangàa 'look ahead')
 - b. Kòoshi 'be replete' (< Koosàa 'be ripe, grown up')
 - c. lallàBi 'mellow' (< lallàBaa 'go slowly')
 - d. bi 'pass by, follow' (< biyàa 'stop by')
- (76) LH-i partitive verbs from basic LH-a verbs:
 - a. girmi 'be older than' (< girmaa 'grow up')
 - b. fàskàri 'be intractable to' (< fàskarà 'be intractable')
 - c. tsòofi 'be senior to' (< tsuufa 'be old')
- (77) LH-i partitive verbs from basic HL-ee verbs:
 - a. Kwàari 'abuse, strangle' (< kwaarèe 'choke')
- (78). LH-i partitive verbs from basic HL-i verbs:
 - a. gùji 'run from' (< gudù 'run, escape')
 - b. tàashi 'get off s.o.' (< taashì 'stand up, leave')
 - c. hàifi 'bear' (< haifù 'give birth')

The monosyllabic bi 'pass by, follow', has an alternate LH-i A-form shape, thus, it can be considered as derived LH-i from HL-aa biyàa 'stop by'. This alternation is shown below:

- (79) Abdù nee sukà bi/ bìya.
Abdu cop.m 3p-REL PERF follow/ follow-II
'It is Abdu that they followed.'

It should be noted that neither characterization of the HL-i extension as partitive or pejorative can apply to the derivations above. Thus, they have to be considered only as applied forms.

With HL-a transitive verbs (basic or derived applicative), the derivation into LH-i more often leads to some semantic change. Thus, a large subclass of HL-a verbs contrast with LH-i verbs in the direction of a real or notional movement of the action described by the verb. With the HL-a verbs, the movement is away from the pivot's referent (or neutral), with the HL-i forms, the movement is toward the pivot's referent. Some illustrative cases are in the following:

(80) HL-a and LH-i directional contrast:	
a. yankà 'cut'	yànki 'cut off'
b. Kilgà 'count'	Kilgi 'count off'
c. kwalfà 'dump (liquid)'	kwàlfi 'take (liquid)'
d. karyà 'break'	kàryi 'break off'
e. shaafà '(apply (paint)'	shàafi 'rub off'
f. twaatsà 'squeeze in'	twàatsi 'squeeze off (liquid)'
g. amsà 'respond'	àmshi 'take (from hand)'
h. Dâukà 'raise (hand)'	Dàuki 'take away'
i. saarà, daatsà 'cut'	sàari, dàatsi 'cut off'
j. sayàa (mà) 'buy for'	sàyi 'buy'
k. Duurà 'fill into'	Dùuri 'fill and carry'
l. gumtsà 'keep in mouth'	gùmtsi 'take in mouth'
m. aunà 'weight'	àuni 'weight and take'
n. yaaDà 'spread (butter)'	yàaDi 'skim off'

Again, these verbs do not necessarily have a partitive or pejorative semantics. Here, the LH-i shape mainly emphasizes that the pivot's referent carried or appropriated the part or whole of the object acted upon. The only problem with positing a derivation from some basic shape into the LH-i shape is that there are exclusive LH-i shape verbs that also seem to emphasize the carrying away of the undergoer's referent or its part by the pivot's referent. Here is a partial list:

(81) Basic LH-i "carrying away" verbs:	
a. wàbci, Kwàaci	'snatch'
b. wàrci, sàbci	'snatch'
c. riidi, fiigi	'snatch'
d. tsìnci	'find (lost item)'
e. zàaBi	'choose select'
f. kwàashi	'take a lot'
g. ròoKi	'ask for, ask from s.o.'
h. sàamu	'obtain'

These are basic exclusive LH-i verbs, yet they show a semantic connotation similar to the derived LH-i verbs.

Another contrast between HL-a and LH-i involves the shifting of the verb's action from an inanimate undergoer to a human undergoer. Some examples are:

(82) HL-a and LH-i inanimate undergoer to human undergoer shift:	
a. swàaBi	'disobey' (< swaaBà 'break (promise), mash')
b. tùuKi	'enrage' (< tuuKà 'stir, drive')
c. dàami	'bother' (< daamà 'stir')
d. gàmi	'suit, fit' (< gamà 'join, finish')

Here, one may posit a basic HL-a and a derived LH-i, although again, there is no partitive semantics. These derived verbs however, can be characterized as pejorative in that their basic HL-a sense is metaphorically applied to humans. Other possible pejoratively applied HL-a verbs include:

- (83) HL-a and LH-i pejorative contrast:
- a. jùuyi 'copy' (< juuyà 'turn over')
 - b. kòori 'chase away' (< koorà 'drive')
 - c. dùubi 'look at' (< duubà 'inspect')

In (a), jùuyi 'copy', can be conceived as a metaphor of the HL-a verb. With the other two verbs, the HL-a sense seems to be watered down in the LH-i shape. Thus, koorà implies a precise motion path from a starting to an end point. The LH-i shape focuses only on the starting point. For the verbs in (c), a difference in the intensity, and, perhaps, the duration of the action is involved. This last contrast verges on the plain-partitive distinction, but still, the actions described are different actions and do not have a true partitive relation.

The plain vs. partitive contrast is the most elusive contrast between HL-a and HL-i forms. In my intuition, gr2 HL-i shape is not at all systematically used to mark a partitive contrast. The only partitive-like function of the HL-i shape is dependent on the lexical semantics of the verb. As seen in (80) above, removal or transfer verbs are mostly in HL-i shape. With verbs such as yàngki 'cut off', Dèbi 'take some', etc, the action indeed applies only to a part of the undergoer. So, the HL-i shape probably has no "partitive" meaning on its own, as assumed by many authors.

Finally, there also exist a number of corresponding HL-a and LH-i verbs that differ so much in their basic meaning that they are treated as homonyms in the literature. So, they must be treated as basic in their respective shape. Here are some examples from Newman (1973):

- (84) Unrelated HL-a and LH-i verbs:
- | | |
|--------------------------|------------------|
| a. reenà 'belittle' | rèeni 'baby sit' |
| b. sheeKà 'winnow' | shèeKi 'sniff' |
| c. yaafà 'cover, spread' | yàafi 'forgive' |

In conclusion, the partitive or pejorative functions are only few among the many functions of the LH-i extension. It can be used as an applicative to derive transitive verbs from intransitive ones. The fact that some derived LH-i verbs seem to share the same semantic connotation as some exclusive (basic) LH-i verbs is rather a problem for the basic-derived hypothesis.

3.4.2.4 The HL-e(e) totality extension

The totality extension most of the time adds the meaning of thoroughness to the verb action. This thoroughness can refer to the intensity of the verbs action per see or, in some instances, it may also refer to the quantity of the undergoer involved. These two cases are illustrated below:

- (85) a. mahàlbaa sun dannè bàreewaa.
hunters 3p.PERF pin down-IV deer
'The hunters completely pinned down a deer.'
- b. kàazaa taa dannè KwayàaKwayintà.
hen 3fs.PERF pin down-IV eggs-of-3fs
'The hen covered all of its eggs.'

The totality extension applies to most shapes, basic or derived. Some examples of its operations are given below:

- (86) Derived HL-e(e) totality extension:
- | | |
|-----------------------|------------------------------|
| a. cìka 'become full' | cikèe 'be full completely' |
| b. cikà 'fill' | cikè 'fill up' |
| c. sàyi 'buy' | sayè 'buy up' |
| d. zurmàa 'collapse' | zurmèe 'collapse completely' |
| e. tsíira 'escape' | tseerèe 'escape clean away' |

As we have seen in the discussion of (54-55), this extension share the totality semantics with the basic HL-ee and the derived intransitive/ reflexive HL-ee shape. Because of this remarkable semantic unity, one can consider all three shapes to constitute a unique shape and drop Furniss' derived intransitive/ reflexive HL-ee shape.

3.4.3 SHORTCOMINGS OF THE HIDDEN EXTENSIONS APPROACH

This subsection summarizes the various problems that the shapes system faces. As seen from the subsections above, when Furniss' methods are applied to the extreme, the resulting system becomes impractical and misses many generalizations. For example, to account for all the apparent derivations, one will have to posit a multitude of hidden extensions, each fused with some basic shape. So, if one chooses to, one can discriminate the following basic and hidden derived shapes:

(87) Basic shapes:

- a. HL-a(a)
- b. LH-i
- c. LH-a
- d. HL-e(e)
- e. HL-i

(88) Hidden derived shapes:

- a. HL-a transitive applicative
- b. HL-aa intransitive applicative
- c. HL-aa intransitive metaphorical
- d. LH-i transitive partitive
- e. LH-i transitive applicative
- f. LH-i transitive metaphorical
- g. HL-e(e) totality
- h. HL-e transitive applicative

The fact that most of the shapes can function as applicative was already noticed by Newman (1973). Nonetheless, he hypothesizes only the HL-a shape as being an applicative. Probably, even in a system like Furniss', one can conflate all similar derived shapes into one extension. Thus, HL-a undergoer-licensing applicative and HL-aa oblique-licensing applicative would be conflated into a single applicative which can be transitive or intransitive. Similarly, LH-i transitive applicative can be conflated with LH-i partitive, and HL-e applicative conflated with HL-e(e) totality. However, doing so will be against the insight of seeing morphologically similar but functionally different shapes as having merged their hitherto distinct forms. Also, these types of conflations will open the door for merging hidden derived shapes and similar basic shapes as one. That is, if one conflates LH-i partitive and LH-i applicative, it will be difficult to show that there is less difference between them than say, between the partitive and the basic LH-i. So, one can conflate all three as well. But then, the entire basic vs. derived shape system will collapse.

Finally, even the overtly derived shapes have exclusive verbs (verbs not appearing in basic or hidden shapes). So, if one blindly applies the method of exclusive verbs to determine basic shapes, most of the overtly derived shapes (Parsons secondary and tertiary grades), will have to be considered as basic. Some of the exclusive verbs are given below (a reference indicates that the form is specifically given as exclusive by the source):

(89) Exclusive HH-ar dà (gr5):

- | | |
|------------------------|------------------------------|
| a. yasar dà, yaddà | 'lose, throw away' |
| b. awaitar/ ayautar dà | 'make use of' (Parsons 1962) |
| c. wanzar (also gr7) | 'remain over' (Parsons 1962) |

(90) Exclusive HH-oo (gr6):

- | | |
|-------------|--|
| a. daawoo | 'come back' (Parsons 1962, Newman 1973) ² |
| b. farfaDoo | 'recover fr.unconsciousness (Wright 1988) |
| c. zamantoo | 'come to be' |
| d. gabaatoo | 'come, advance here' |

(91) Exclusive LH-u (gr7, passive):

- | | |
|----------|-------------------|
| a. jittu | 'fit one another' |
|----------|-------------------|

The above verbs are truly exclusive and are a problem for Furniss' methodology. One will have to posit that the overtly derived shapes are also basic. Alternatively, one can view these verbs as a few insignificant exceptions in the overall picture. For example, they could have become exclusive only when their basic counterparts ceased to be used. Such a hypothesis however, will reveal a weakness of the technique: many verbs which are classed as basic only because they do not appear in any other shape may not be truly basic. In the end, there is no way of knowing if an exclusive verb is exclusive because it is basic or because its basic counterpart is no longer in use.

CONCLUSION TO CHAPTER 3

This chapter was devoted to the review of the current conception of the Hausa verbal system. Each proposal was shown to have some problems. In particular, a revised Furniss system was shown to be not viable as a classification system because it leads to a number of ad hoc basic and hidden derived shapes. In my opinion, the notion of hidden extensions can be done away with. The central assumption of the next chapter is that all shapes that are similar constitute one and a single shape; they are not composites of different shapes accidentally merged, as contended by Newman. Such a position takes away one's ability to relate verbs that operate many apparently basic shapes, which is the reason behind the hidden extensions hypothesis. This is why in the next chapters, the grades are approached both from a semantic and morphosyntactic perspectives. The grades are organized as shown in the following hierarchy:

(92) a. Morphological grades:

- Grade 1
- Grade 2
- Grade 3

b. Special semantic feature grades

- Grade 8
- Grade 4
- Grade 6

c. Passive grade (morphosyntactic)

Grade 7

d. Syntactic grades:

Grade 5 (Gerund+dà)

Grade 9 (Gerund+mà)

In (92a), gr1, gr2, and gr3 are termed "morphological". They contrast between each other in the number of possible syntactic arguments their verbs can take. Grade 1 allows all possible configurations. Grade 2 verbs are strictly monotransitive, while gr3 verbs are strictly intransitive. These grades will be more specifically characterized in terms of the Dowty/Vendler aspectual classes, a system of verb classification adopted in RRG. The grades in (92b) are termed "special semantic feature" grades because they add a particular semantic feature to verbs from the grades in (92a). Grade 7 in (92c) is the Hausa passive and is termed "morphosyntactic". Finally, in (92d), gr5 and gr9 are characterized as "syntactic" because they are a combination of two separate predicates (cf. chapter 5).

The morphological model adopted to handle the grades relationships (or derivation) is the template- or schema-based morphological model developed in Bybee and Slobin (1982), Bybee and Moder (1983). The schema model is an output-oriented model where a derived form can exist independently from its basic form. In this perspective, one does not need to posit an existing stem and affix in order to explain a derived form. The relevance of this approach is more clearly outlined in section 4.6 in the next chapter.

Notes to chapter 3

¹ The HL-i shape is definitely not a subclass of the HL-ee shape. In fact, it has more affinity with the gr3 LH-a forms, in that both are intransitive and have no special semantics beyond the basic sense of the verb. Following R.M. Newman (1990:xviii), the HL-i verbs will in this thesis be assimilated to gr3 verbs.

² Both Parsons and Newman give this verb as exclusive to gr6, which I believe is true for most speakers. However, Pilszczikowa (1969) cites a gr2 form dàawàyi 'return s.where' and a gr5 form daawayar 'return s.thing' with an informant from Niger.

Chapter 4

MORPHOLOGICAL GRADES

4.0 INTRODUCTION

Rejecting Newman's and Furniss' assumptions and methods, I explore here an alternative approach where all morphologically similar forms belong to a unitary grade. For example, all LH-i forms are simply gr2, which itself is not a composite of accidentally merged shapes. In this chapter, gr1, gr2, and gr3 are characterized in terms of the Logical Structures of their verbs. Grade 1 is shown to have no restriction on the possible LSs and aspectual classes it can have. Grade 2 on the other hand is restricted in that the LSs of its verbs must contain only two argument positions. However, gr2 is unrestricted as to what aspectual class is possible, although achievement verbs are most frequent. It will be shown that the gr2 marker LH-i has no particular connotational semantics of its own; connotational contrast with gr1 arises only out of the combination of verb's basic meaning and the restricted LS. So, there is no point either in looking for a purely semantic generalization for gr2, or in listing the gr2 semantic classes, as an end in themselves. Grade 3 has its LSs limited to one argument and is overwhelmingly made up of achievement verbs. Grade 8, gr4, gr6 markers do have a particular semantics feature. However, they are assumed not to alter the verb's LS or modify the linking from semantics to syntax (when compared to the corresponding gr1, gr2, or gr3 verb, if any). Grade 7 too does not involve an alteration of the verb's LS. However, one must distinguish two types of gr7. One can be characterized as a foregrounding and backgrounding passive. This passive gr7, like all passives in RRG, is handled by the pragmatically motivated marked pivot assignment to the undergoer argument. The second gr7 is a semantic grade which adds an "intensive" semantic feature to a limited number of gr3, intransitive verbs. It functions like gr8, gr4 and gr6.

Later in this chapter, a non-rule based model of derivational morphology is shown to easily account for the distribution of the verbs in the grades, as it does for other areas of Hausa morphology. This view is different from that of Parsons, who assumes that abstract verbal roots combine with tones and vowel suffixes to derive the grades (Parsons 1960:10).

The chapter proceeds as follows. Section 4.1 presents the adaptation of Dowty's tests for membership in the aspectual classes. The determination of the aspectual classes is needed in order to identify the thematic relations that a verb takes. So, contrary to recent argument structure approaches to the grades where thematic relations labels are arbitrarily assigned, here, the relations will be derived from their positions in independently motivated Logical Structures. The second section treats the LSs of verbs in gr1. Section 4.3 focuses on the operations on LSs and the linking processes found in gr2 and gr3. Section 4.4 examines the

semantics of gr4, gr8, and gr6. Section 4.5 is devoted to the study of gr7. The last section, section 4.6, applies the schema model of derivational morphology to the grades (except gr5 and gr9).

4.1 ASPECTUAL CLASSES AND THEMATIC RELATIONS

This section provides tests to classify Hausa verbs among the aspectual classes of State, Activity, Achievement, and Accomplishment verbs. These four classes have been argued for in Vendler (1967), and Dowty (1979). The present work is based on the classification found in Van Valin (1992), where achievement verbs are further subdivided into punctual and durative. In the Dowty-Vendler system, the various classes are characterized by their inherent aspectual properties. Membership in the four classes is systematically determined by a series of tests adapted for each particular language. These tests are based on universal characteristics of the classes. Thus for example, the lack of a resultative reading with activity verbs is an inherent, universal characteristic of this class. However, the way to probe this property of activity verbs may vary from language to language. This is due to the fact that languages differ in the availability of devices relevant to the testing of a given class property. Section 4.1.1 studies the continuous aspect. Sections 4.1.2 to 4.1.5 deal with state, achievement, activity and accomplishment verbs respectively.

4.1.1 THE CONTINUOUS

The continuous aspect is an important device for sorting out state and punctual achievement verbs from other classes (Van Valin 1992). State and punctual achievement verbs cannot appear in the continuous, while activity, accomplishment and durative achievement verbs can.

In Katsinanci, the continuous aspect comes in two forms. One form is the regular continuous familiar to Hausa scholars. It is formed with the auxiliary nàa/ kèe 'be' which is followed by the gerundive form of the verb or the derived nominal in gr2, gr3, and gr7. This form, nàa+GER, can express three senses. Depending on the verb used, the construction can express an on-going action, a habitual action, or a near future desired or intended action (intentive). Some examples of these possible readings are given below:

- (1) a. yâara sunàa wankè raagunàa.
 children 3p-CONT clean-IV rams
 'The children are cleaning the rams.'
- b. à nannìya nèe mutàanee sukèe tàaruwa kulum.
 at here cop.m people 3p-REL CONT gather-DN everyday
 'It is here where people gather everyday.'

- c. nii maa inàa zuwàa Kanò.
 1s too 1s-CONT go-DN Kano
 'Me too I will go to Kano.'
 'Me too I want to go to Kano.'
 'Me too I usually go to Kano.'

Of these examples, only (1a) has an on-going action reading and can be said to be truly in the continuous aspect. Thus, if a verb appears in the construction nàa+GER, that does not automatically make it a continuous verb. Sentence (b) has a habitual reading reinforced by the time adverbial kullum 'everyday'. Sentence (c) on the other hand is three ways ambiguous. In the first reading it expresses an intent, in the second it expresses a desire, and in the third, it describes a habitual action. Thus, the forms are clearly ambiguous, and indeed, in the Western dialects, the continuous reading is often formally distinguished with a second continuous form, as seen next.

The second continuous form consists in the addition of the preposition gà 'at' --or even the words cikin 'inside of' and tsakar 'in the middle of-- to the regular continuous form, following the nàa. This second form expresses only an on-going action. Verbs behave differently with regard to the two continuous forms: some take neither, some take the regular form only, while others take both forms. The first type includes verbs in the following (examples use singular count nouns as arguments):

(2). Verbs taking neither continuous form: *nàa+(Prep)+GER:

- a. san 'know':
 *Shinàa (gà) sanìn Abdù.
 3ms-CONT at know-II-DN Abdu
 *'He is knowing Abdu.'
- b. azà 'believe':
 *Shinàa (gà) azà munàa zôowaa.
 3ms-CONT at posit-I 1p-CONT come-VI-VN
 *'He is believing we are coming.'
- c. kàmàci 'be appropriate':
 *Abindà ka yi yanàa (gà) kàmaatàrka.
 thing.that 2ms.REL PERF do 3ms-CONT at fitting-of-2ms
 'What you did is appropriate for you.'
- d. tsòofi 'be senior to':
 *Abdù yanàa (gà) tsuufar Indoo.
 Abdu 3ms-CONT at be.old-III-VN Indo
 *'Abdu is being senior to Indo.'
- e. gìrmi 'be older':
 *Abdù yanàa (gà) girmar Indoo.
 Abdu 3ms-CONT at grow-II-VN Indo
 *'Abdu is being older than Indo.'

- f. datà 'equal':
- *Abdù yanàa (gà) datà Aali tsawoo.
 Abdù 3ms-CONT at equal-I Ali height
 *'Abdu is equaling Ali in height.'

It can be said that the verbs above do not appear in the continuous aspect. They can also be said to not take the other meanings associated with nàa+GER, that is, the habitual and the intentive. That this is true is suggested by the fact when these verbs are used with the regular habitual aspect or future tense, the result is ungrammatical. This is illustrated below:¹

- (3) a. *yakàn sanìn Abdù/ amsàr.
 3ms.HAB know-II-DN Abdù/ response
 'He usually knows *Abdu/ the answer.'
- b. *yakàn girmi Indoo.
 3ms.HAB grow-II Indo
 *'He usually is older than Indo.'
- c. nii maa nîi girmi Indoo.
 1s too 1s.POT grow-II Indo
 'Me too I am probably older than Indo.'
 NOT: *'Me too I will be older than Indo.'
- d. *Abdù zâa ya azà kunàa zuwàa góobe.
 Abdù FUT-3ms posit-I 2p-CONT come-VN tomorrow
 'Abdu will believe that you are coming.'

In (a), a habitual reading with the same recurrent cognition argument, Abdù, is not possible. In this case, the cognizer knows in a permanent manner. It is only when the cognition argument is different at each instance of sanìi 'know', that the habitual reading is possible. In (b) too the habitual reading is impossible with the same comparative/ locative argument. (c) is a sentence in the potential aspect (a type of future category in its real usage). A true future reading is impossible. That is, if one is not already older than somebody, then that state of affair will never obtain. However, the sentence is grammatical with the second reading where the potentiality exists of nii 'me' being older than Indoo if the comparison should ever be made. This failure to appear in the habitual and future is reminiscent of the fact, discussed in Dowty (1979:56), that state verbs, in English, do not have a habitual reading in simple present tense. So, for now, the verbs in (2) will be considered as examples of state verbs pending more tests. Other verbs which pattern similarly are given below:

(4) More examples of verbs not taking nàa+GER:

- a. Darà 'surpass'
- b. Karàmcee 'be undersized'
- c. halbàa 'be gone'
- d. iyà 'be expert in'
- e. gáji 'be tired'

A second category of Hausa verbs can only appear with the nàa+GER construction. They cannot take the form with gà. Examples are as follows:

(5) Verbs with nàa+GER only.

- a. ji 'feel, hear':

Shinàa (*gà) jin màganàa Dakà.
3ms-CONT at hear-DN talk inside.room
'He usually perceives voices in the room.'
'He is perceiving voices in the room.'

- b. saamù 'obtain, find'

Bàlkì tanàa (*gà) saamùn wasiiKooKii dàgà
Balki 3fs-CONT at obtain-II-DN letters from

Kasàashen Tuurai.
countries-of Europe

'Balki usually receives letters from Europe.'

- c. gaanè 'understand':

Shinàa (*gà) gaanè ajìi.
3ms-CONT at understand-IV course
'He usually understands the course.'

- d. ga 'see':

Shinàa (*gà) ganii sa'ad dà sukà tseerèe
3ms-CONT at see-II-DN time that 3p-REL PERF escape-IV
'He could see them while they escaped.'

- e. zamnà 'sit down':

Abdù yanàa (*gà) zamnàawaa kèe nan sai yâara
Abdu 3ms-CONT at sit-I-VN REL.be there then children

sukà isoo.
3p-REL PERF arrive-VI

'Abdu just had a seat when the children arrived.'

- f. kwantà 'lie down':

Abdù yanàa (*gà) kwantàawaa kée nan sai
Abdu 3ms-CONT at lie-I-VN REL.be there then

akà bugoo wayàa.
IMP-REL PERF hit-VI wire

'Abdu has just lay down on bed when the telephone rang.'

It is worth noticing that none of the examples in (5a-f) have an on-going action reading. They are understood as describing habitual/ iterative actions, or even completed actions. Thus, in the first reading of (a), a habitual action is described. In the second meaning, one can still argue that the perception is iterative, and that a situation is described where the hearer hears voices intermittently. If the continuous is intented, probably speakers would rather use the verb sàuràari 'listen'. The verbs in (5) above will be considered punctual achievement verbs for the moment, pending more testing. Other verbs which pattern like those in (5) include:

- (6) More examples of verbs taking nàa+GER only:

- a. ruugàa 'run away, escape'
- b. bar 'abandon, stop (action)'
- c. taashì 'stand up'
- d. tèfi 'depart'
- e. faasà 'renounce'
- f. fâhimbà 'understand'
- g. fahamoo 'remember'
- h. farga 'realize'
- i. swaaBàa 'miss one another'

Finally, there are verbs that take both continuous forms, and therefore can potentially express a continuous reading. Some examples are as follows:

- (7) Verbs taking both continuous forms: nàa+(Prep)+GER:

- a. kàlli 'look at, watch':

shinàa (gà) kallon maKèerii.
3ms-CONT at look-DN blacksmith
'He is watching the blacksmith.'

- b. sàuràari 'listen':

shinàa (gà) sàuraarà reediyòo.
3ms-CONT at listen-DN radio
'He is listening to the radio.'

- c. lùura 'attend, consider':

Abdù yanàa (gà) lùuraa dà shi.
Abdu 3ms-CONT at attending with 3ms
'Abdu is attending to him (the child).'

- d. cikà 'fill sth.':
 Abdù shinaà (ga) cikà tùuluu.
 Abdu 3ms-CONT at fill-I pot
 'Abdu is filling the pot.'
- e. diibi 'look at, search':
 Indoo tanàa (gà) diibìn abikkiyàr gàabartà
 Indo 3fs-CONT at surveilling friend-of rivalry-of-3fs
 'Indo is monitoring her rival.'
- f. mootsàa 'move':
 maciijii yanàa (gà) mootsàawaa.
 snake 3ms-CONT at move-I-VN
 'The snake is moving.'

These sentences are as continuous as their English translations. This is actually the default reading when gà is not inserted. It is possible to interpret the sentences as describing a habitual action, but not an intentive or future action. To express the future, one uses the appropriate future tense construction. However, when the optional gà is selected, the continuous reading is the only one available. From now on, only verbs taking the optional gà in their continuous will be considered as able to appear with the true continuous aspect.² I will consider the verbs in (7) above to include activity, accomplishment and durative achievement verbs to be differentiated in later sections. These are indeed the classes which are predicted to appear with the continuous in Van Valin (1992). Other verbs that can take the continuous are given below:

- (8) More examples of verbs taking nàa+gà+GER:
- a. mootsà 'move sth.'
 - b. bugì 'hit (wall)'
 - c. bugà 'hit (fist)'
 - d. cìka 'fill'
 - e. koorà 'drive'
 - f. kòori 'chase'
 - g. kira 'call'
 - h. fàDi 'tell'
 - i. fita 'go out'
 - j. narkèe 'melt'
 - k. rooshèe 'disintegrate'
 - l. tsanèe 'dry'
 - m. raatsèe 'deflect'
 - n. tankàa 'reply'
 - o. kùlāa 'attend'
 - p. gaanàa 'meet'
 - q. mutù 'die'

4.1.2 STATE VERBS

In this section, the state verbs seen in (2) above are tested to fully ascertain their membership. State verbs are chiefly characterized by their unbounded temporal aspect in that they do not imply a beginning or an end to the state. State verbs describe continuous, enduring states of affairs. The condition is not prone to an immediate change. This is why state verbs are considered non-dynamic. One test used to show this property is the dynamic adverbs test. State verbs should not be able to occur with dynamic adverbs, or even with simple pace adverbs, and this is the case for the verbs in (2). Dynamic and pace adverbs in Hausa include words like: dà hamzarii 'rapidly', à hankàlii 'carefully', nandànan 'quickly' dà Karfii 'vigorously', sànnu sànnu 'slowly' (the first two require animate pivots) We notice that verbs in (2) do not appear with these adverbs, as seen below:

(9) Dynamic and pace adverbs test:

- a. san 'know':
 *yaa san Abdù dà hamzarii/ dà Karfii.
 3ms.PERF know-II Abdu with rapidity/ with force
 *'He knows Abdu rapidly/ vigorously.'
- b. tsòofi 'be senior':
 *Abdù yaa tsòofi Indoo à hankàlii.
 Abdu 3ms.PERF be.old-II Indo at carefulness
 *'Abdu is senior to Indo carefully.'

In (a), a state verb san 'know' cannot be modified by a pace adverb (dà hamzarii 'rapidly') or a dynamic adverb (dà Karfii 'vigorously'). In (b), another state verb tsòofi 'be older' cannot occur with a pace adverb. This property of state verbs (failing both dynamic and pace adverbs) sets them apart from punctual achievement verbs which, as we will see, do take pace adverbs but not dynamic adverbs. In principle, activity and accomplishment verbs take both types of adverbs.

Another characteristic of state verbs is that they are not volitional and thus, cannot appear in the imperative or other agentive contexts such as the construction 'force X to Verb' (Vendler 1967). The verbs in (2) fail the agentive contexts, as seen below:

(10) Agentive contexts tests:

- a. *Azà munàa zuwàa yànzu!
 posit 1p-CONT go-VN now
 *'Believe that we are coming now!'
- b. *An sâa shi sanìn Abdù.
 IMP.PERF put 3ms know-DN Abdu
 *'He was forced to know Abdu.'

- c. *Dàtà Abdù tsawoo!
 equal-I Abdu height
 *'Be equal to Abdu in height!'
- d. *An tìlásaa shi tsuufan Indoo.
 IMP.PERF force-I 3ms be.old-DN Indo
 *'He was forced to be senior to Indo.'

In sentences (a-b), two cognition state verbs cannot be ordered or forced. In (c-d) similarly, two equational state verbs cannot be commanded or forced. We will later see that all the other classes can be volitional.

A final property which brings together state and activity verbs is their inability to derive a "Stative" form. What in Hausa linguistics is called Stative, are forms derived with the ...LH tone pattern and a termination -e. They are functionally similar to adverbs. Their exact syntactic category is unclear however, and Parsons (1960:9) calls them the "verbal adverbial nouns of state"! Some usages are illustrated below:

- (11) a. taa ìskè yaaròò rìKe gà Abdù.
 3fs.PERF find-IV child held by Abdu
 'She found the child being held by Abdu.'
- b. taa ìskè Abdù rìKe dà yaaròò.
 3fs.PERF find-IV Abdu held with child
 'She found Abdu holding the child.'
- c. jirgin ruwaa yaa isoo kàrkàce.
 vessel-of water 3ms.PERF arrive-VI tilted
 'The boat arrived tilted.'
- d. zôwaa rìKe/ isòowaa kàrkàce
 come-VI-VN held/ arrive-VI-VN tilted
 'coming while held/ arriving in a tilted manner'
- (cf.):
- e. yaaròò rìKKaKee/ yaarinyàa rìKaKKaa
 boy held.ms/ girl held.fs
 'boy (that is) held/ girl (that is) held'

In sentences (a-b), although the Stative rìKe 'held' modifies the preceding nominals, it is not really an adjective as one can see by its ability to directly follow the verb as seen in (c) with kàrkàce 'tilted'. Also, as seen in (d), it can appear with the verb alone. Corresponding derived participles have another form as seen in (e). These are the forms which are functionally similar to regular adjectives; they display the same syntactic behavior and agree in number and gender with the modified nominal, as adjectives do. The Statives are invariable and do not pattern like adjectives. In this work I will consider them as equivalent to adverbs. The

contrast between sentences (a) and (b) shows that the Stative can be used to describe its notional agent or patient. Our concern now though is that state verbs, like activity verbs, cannot derive the Stative forms. This is illustrated below for state verbs:

- (12) a. *Zuwàmmù yanàa àje gà Abdù.
 come-DN-of-1p 3ms-CONT believed on Abdu
 'Our arrival is believed by Abdu.'
- b. *Abdù yaa zâmnaa àje dà zuwàmmù.
 Abdu 3ms.PERF sit-I believing with come-DN-of-1p
 'Abdu sat believing in our arrival.'

As one can see, despite the good English translations, state verbs cannot derive the Stative. For the moment one can assume that if the purpose of the stativization process is to derive a stem which lacks temporal boundaries, then the process has no justification with state and activity verbs. Indeed, state and activity verbs have in common the fact that they have no inherent temporal boundaries. So, this may be one more test sensitive to the temporal property of the aspectual classes.

Because they cannot bear continuous aspect, the state verbs in (2) are already differentiated from durative achievement, activity and accomplishment verbs. They are also differentiated from punctual achievement which do take pace adverbs and appear in the imperative or the 'force X to Verb' construction. State verbs also fail to undergo the stative derivation, a fact which is at least consistent with their already unbounded temporal aspect. Thus, for now, the above tests seem sufficient to isolate state verbs in Hausa.

4.1.3 ACHIEVEMENT VERBS

Achievement verbs involve an inchoative component. This is formally captured by Dowty who represents them as a state predicate modified by the operator BECOME. They introduce a condition at a time before which the condition was not true. As suggested in Dowty (1979), some achievement verbs code the cessation of the relevant condition, thus, after a given moment, the condition is no longer true. So, achievement verbs like 'realize' and 'forget' are inverse of one another in that 'realize' codes the coming of a condition (come to know) and 'forget' the cessation of that same condition (come to not know). Thus, contrary to state verbs, achievement verbs have a temporal boundary. One previously ambiguous issue was whether achievement verbs are dynamic or not. For Vendler, they are not dynamic and behave like state verbs. For Dowty, the combination achievement verbs plus dynamic adverbs is just odd. However, in Van Valin (1992), achievement verbs are characterized with activity and accomplishment verbs as involving some change in the state or condition

described by the verb. The three classes code a happening as opposed to state verbs. In this sense, they have some kind of dynamicity which can be tested with pace adverbs like 'slowly'. However, properly speaking, achievement verbs are still not dynamic and cannot occur with true dynamic adverbs like 'vigorously'. Also, in this subpart, the classification of achievement verbs into punctual and durative is adopted (cf. Van Valin 1992). The subsection first presents a type of achievement verbs, which incorporate activity predicates instead of state predicates. Then, the differences between the two types of achievement verbs and the differences between achievement verbs and other classes are explored respectively.

4.1.3.1 Inchoative activity verbs

Talmy (1985) proposes that, in various languages, stance predicates like 'stand', 'lie', 'sit', can be lexicalized as statives or inchoatives (motion to stance). In fact, as it will be seen below, most Hausa stance verbs are best analyzed as motion to stance punctual achievement verbs. However, in Hausa, the inchoative lexicalization also applies to verbs which in other languages would be activity verbs. Most motion verbs such as ruugà 'run away, escape', lallàBaa 'walk slowly', tàfi 'depart, go', function as punctual inchoative verbs. Because they are inchoative, these verbs have to be analyzed as achievement verbs with an incorporated motion activity predicate. This is illustrated below with ruugà 'run away' and its linking diagram:

- (13) a. Abdù yaa ruugàa.
 Abdu 3ms.PERF run.away-I
 GRP
 MR A
 TR th
 BECOME run' (y)
 'Abdu run away.'

So, ruugàa is an achievement verb, and is not the exact correspondent of the English activity verb 'run'. It translates rather as 'start running'. The problem here is that the verb has an incorporated predicate with a single theme argument. Normally, only activity verbs have a theme as single argument. So, one is lead to the conclusion that the incorporated predicate is an activity predicate. With ruugàa 'run away', the theme would enter into the activity of running.

Three facts can be mentioned that support the analysis of the verbs above as punctual achievement, despite the fact that they incorporate a durative activity predicate. The first fact is that the inchoative activity verbs do not appear in the continuous. This is illustrated below:

- (14) a. *naa ga yâara sunâa ruugâawaa (makarantaa).
 1s.PERF see children 3p-CONT run-I-VN school
 'I saw the children running (for school).'
- b. *naa ga Indoo tanâa tàfiyâa (gidaa).
 1s.PERF see Indo 3fs-CONT go-III-VN (home)
 'I saw Indo going home.'
- c. ??Abdù yanâa rayâawaa.
 Abdu 3ms-CONT dance-I-VN
 'Abdu is dancing.'

This failure of the inchoative activity verbs distinguishes them from durative achievement and plain activity verbs with which the continuous is possible (see relevant sections below). In fact, a central test for activity verbs happens to involve the continuous aspect (cf. the 'X V+ing => X V+ed' test in section 4.1.3.3.5) and therefore, it does not apply to the inchoative activity verbs. The second fact pointing to the punctual aspect of the inchoative activity verbs is that the use of these verbs in the perfect aspect does not exclude that in real life the action is still ongoing. Thus, someone can be described as 'having run' while the speaker can still see the runner running. This feature of inchoative activity verbs can be formalized as the 'X V+ed compatible with X in state of V+ing' test. Durative achievement verbs cannot pass this test; for example, darmâa taa narkèe 'the lead melted' usually excludes the possibility that the lead is half-way melted. Similarly, the sentence taa sâurâari reediyò 'she listened to the radio' (with an activity verb) excludes that in real life the listener is still listening to the radio. Finally, the inchoative activity verbs fail to appear as complement of 'stop' (cf. *yaa dainâ ruugâawaa 'he stoppped running'; the sentence is marginally acceptable as 'he stopped his habit of running'). This feature indeed also characterizes the punctual achievement verbs, but not the durative achievement or the activity verbs.

As seen in chapter 1, motion activity verbs in English can become accomplishment verbs when a locative argument is specified for them (cf. Dowty 1979:60-62, Van Valin 1992). Thus, with the activity verb 'run', one can say 'John ran for an hour', but not 'John ran in an hour'. With the accomplishment 'run' on the other hand, 'John ran to the park in an hour' is possible but 'John ran to the park for an hour' may only mean he stayed in park for an hour (cf. Van Valin 1992). In Hausa, the adjunction of a locative argument does not change the verb's aspectual class. For example, as seen in (14) above, the locative nominals makarantaa 'school' and gidaa 'home' appear with the inchoative activity verb and still the continuous aspect is impossible. Moreover, even with the locative specified, the Hausa verb for 'run' is odd with the equivalent of 'in an hour'. To get the reading equivalent to the accomplishment 'run', one has to use other constructions with the locative. This is illustrated below:

- (15) a. ??Abdù yaa ruugàa gidaa cikin awàa gùdaa.
 Abdu 3ms.PERF run-I home inside-of hour one
 'Abdu ran home in an hour.'
- b. Abdù yaa ruugàa shâa gidaa cikin awàa gùdaa.
 Abdu 3ms.PERF run-I up.to home inside-of hour one
 'Abdu ran home in an hour.'
- c. Abdù yaa ruugàa yaa kai gidaa cikin
 Abdu 3ms.PERF run-I 3ms.PERF reach home inside-of
 awàa gùdaa.
 hour one
 'Abdu ran and reached home in an hour.'
- d. Abdù yaa ruugàa yaa nùfi gidaa.
 Abdu 3ms.PERF run-I 3ms.PERF head-II home
 ?'Abdu ran (and) he headed home.'

The sentence in the (a) example shows that ruugàa 'run' is still a punctual achievement verb and is not compatible the result state reading associated with the adverb cikin awàa gùdaa 'in an hour'. In this sense, sentence (a) is similar to sentence (d) where the locative is only a direction toward which the motion proceeds. In the (a-b) sentences on the other hand, the locative gidaa 'home' is introduced by the predicate shâa 'at, up to' or appears in a second clause here yaa kai 'he reached'. Both the predicate shâa and the clause in (c) emphasize gidaa 'home' as the final destination, and this warrants the result state reading with the adverb.³

In conclusion, most Hausa motion verbs are inchoative activity verbs, which emphasize the beginning of the activity. Throughout this chapter, these verbs will be considered simply as punctual achievement verbs.

4.1.3.2 Punctual vs. durative achievement verbs

Punctual achievement verbs in Hausa include those verbs seen in (5) most of which correspond to prototypical punctual achievement verbs in English. The punctual/ durative distinction is used in Van Valin (1991) among others, to account for the fact that some achievement verbs, like state verbs, do not appear with the continuous aspect, while others do. Punctual verbs describe happenings of short duration, for example 'shatter', and do not lend themselves to expression in the continuous aspect. This sets them apart from durative achievement as well as activity and some accomplishment verbs. We have already see in (5)

some punctual achievement verbs which cannot appear in the continuous with gà. Some more examples are provided below:

- (16) a. *Tùuluu yanàa gà fashèewaa.
pot 3ms-CONT at break-IV-VN
'The pot is breaking.'

b. *Indoo tanàa gà ìsaa Maraadi.
Indo 3fs-CONT at arrive-III-VN Maradi
'Indo is arriving in Maradi.'

c. *Aali yanàa gà zaamaa dòodoo.
Ali 3ms-CONT at become-III dragon
'Ali is becoming a dragon.'

d. *yâara sunàa gà tunàawaa dà tsoofon kàakansù.
children 3p-CONT at remember-I-VN with old grandpa
'The children are remembering their old grandpa.'

Like the verbs in (5), the verbs in (16) above cannot appear with the construction nàa+ga+GER. In sentence (a), the verb for 'break', expresses an instantaneous punctual event, which happens too fast to be framed in a continuous perspective. In English, the sentence is acceptable as seen in the translation. However, such sentences usually describe the very beginning of the event, or even the early indications that the event is going to happen. So, they are not really in the continuous. In Hausa, the equivalent of the English sentence in (a) would contain the verb for 'begin': tùuluu yaa faarà fashèewaa 'the pot is about to break.' As suggested in Van Valin (1992), a true continuous with punctual verbs is possible only in the exceptional situation where one observes something breaking in a slow motion. Durative achievement do not have this restriction. Because the described event spans a significant period, it is possible to express it in the continuous aspect. Some examples of durative achievement verbs are given below:

- (17) a. Jàkkii nàa gà mutuwàa.
 donkey CONT at die-DN
 'The donkey is dying.'

b. tÙulun BÙlki yanàa gà cìkaa.
 pot-of Balki 3ms-CONT at fill.up-III-VN
 'Balki's pot is filling up.'

c. Darmàa tanàa gà narkèewaa.
 lead 3fs-CONT at melt-IV-VN
 'The lead is melting.'

- d. Rìigaa tanàa gà tsanèewaa.
gown 3fs-CONT at dry-IV-VN
'The gown is drying.'
- e. cikìn Aali yanàa gà kùmburàa.
belly-of Ali 3ms-CONT at balloon-III-VN
'Ali's stomach is ballooning.'
- f. macijii yanàa gà naDèewaa.
snake 3ms-CONT at coil-IV-VN
'The snake is coiling.'

The achievement verbs above (mostly from gr3 and gr4) each describe a complex event spanning some time. The use of the continuous aspect is fine, as one can see.

Another distinguishing test between punctual and durative achievement verbs is the ability to appear as complement of 'stop'. Because the events described by punctual verbs are instantaneous, they are not ordinarily subject to a suspension. So, punctual achievement verbs may not appear as complement of the verb 'stop'. Durative events on the other hand are progressive, and can conceivably be suspended before completion. So, one would predict durative verbs to appear as complement of 'stop', and in Hausa this is indeed the case as illustrated below:

- (18) a. *yaa dainà gaanèewaa/ fargaa/
3ms.PERF stop-I understand-IV-VN/ realize-III-VN/
lùuraa.
notice-III-VN
'*He stopped understanding/ realizing/ noticing.'
- b. *yaa dainà zamnàawaa/ taashìi/ juuyàawaa.
3ms.PERF stop-I sit-I-VN/ rise-DN/ turn.over-I-VN
'*He stopped sitting down/ standing up/ turning over.'
- c. *yaa dainà ruugàawaa/ tseerèewaa/ tafiyàa.
3ms.PERF stop-I run.away-I-VN/ escape-IV-VN/ leave-DN
'*He stopped taking off/ escaping/ departing.'
- (19) a. Tùuluu yaa dainà cìkaa.
pot 3ms.PERF stop-I fill-III-VN
'The pot has stopped filling up (half way).'
- b. Darmàa taa dainà narkèewaa.
lead 3fs.PERF stop-I melt-IV-VN
'The lead has stopped melting.'

- c. Rìigaa taa dainà tsanèewaa.
gown 3fs.PERF stop-I dry-IV-VN
'The gown has stopped drying.'
- d. yaa dainà kòoyoo.
3ms.PERF stop-I learn-DN
'He has stopped learning.'

One can notice a parallel between Hausa and English in (18-19) above; in both languages, the punctual verbs in (18) cannot be complement of 'stop'. Also, as predicted, in both languages durative achievement can be argument of 'stop', as seen in (19). It should be noted that the punctual achievement verbs in (18) are marginally acceptable as argument of 'stop' in another reading. Thus, if someone no longer sits every morning at some place, then one has 'stopped' sitting there. The sentences are only marginally acceptable because even this habitual reading is usually expressed with the verb bar 'forgo, abandon', followed, preferably, by the derived nominal of the verb, if one exists. This is illustrated below:

- (20) yaa bar zamaa/ *zamnàawaa à nân.
3ms stop-II sit-DN/ sit-I-VN at here
'He no longer sits here.' or 'He no longer lives here.'

In conclusion, we have seen that punctual achievement verbs fail to appear as complement of 'stop' and also fail to appear in the continuous aspect. On the other hand, durative achievement verbs can both be argument of 'stop' and appear in the continuous. These facts further support the distinction between the punctual and durative subclasses as proposed in Van Valin (1991, 1992) and others.

4.1.3.3 Achievement verbs vs. other classes

In this subpart, the achievement verbs will be shown to have many properties in common which will help us distinguish them from the other classes. Beside the fact that they can appear in the habitual, achievement verbs differ from state verbs in that they can take pace adverbs, they can occur in the imperative and other agentive contexts, and they can derive Stative forms. Achievement verbs differ from both activity and accomplishment verbs in that they are not dynamic. Also, unlike activity verbs, achievement verbs fail the test 'V+ing implies V+ed'. And unlike accomplishment verbs, achievement verbs do not appear as complement of 'finish'

4.1.3.3.1 Pace adverbs

The ability to occur with pace adverbs characterizes all but the state verbs class which does not code a happening. Both punctual and durative achievement verbs do code a change and can be modified by pace adverbs or ideophones, as seen below:

- (21) a. taa taashì zumut!/ zamnàa gwaràm !
 3fs.PERF rise-III zumut/ sit-I gwaràm
 'She sprang up quick/ sat clumsily (boom!).'
- b. Indoo taa durKùsaà sànnu sànnu ajè tùulun ruwaa.
 Indo 3fs.PERF knee-I slowly put.down-IV pot-of water
 'Indo kneeled down slowly to deposit the water pot.'
- c. dà akà Dirkoo kibiyàa sai àma'aa sukà
 when IMP-REL PERF shoot-VI arrow then people 3p-REL PERF
 duddùuKee nandànan.
 REDUP-bent-IV quickly
 'When an arrow was shot, everyone kneeled down quickly.'
- d. yaa fanfàraa dà gudùu wàje.
 3ms.PERF sprint-I with running out
 'He sprang out fast.'
- (22) a. Jàkkii ya mutù nadànan.
 donkey 3ms.REL PERF die quickly
 'The donkey died quick.'
- b. tùulun Bàlkì yanàa dà nàwar cìkaa.
 pot-of Balki 3ms-CONT with slowness-of fill.up-III-VN
 'Balki's pot is slow to fill up.'
- c. Darmàa tanàa gà narkèewaa sànnu sànnu.
 lead 3fs-CONT at melt-IV-VN slowly
 'The lead is slowly melting.'
- d. Abdù yà gàji dà noomaa nadànan.
 Abdu 3ms.REL PERF tire with hoeing quickly
 'Abdu got tired of hoeing quickly.'

In (21) are punctual motion to stance verbs which can successfully be modified by adverbs and ideophones denoting speed. Similarly, in (22) durative achievement verbs can appear with the same type of adverbs. Not all punctual achievement verbs can appear with the pace adverbs. Below are sentences where the punctual verb do appear with the adverb, but it not the event proper which is changed:

- (23) a. Abdu yaa gaanèe/ farga/ fahamoo sànnu sànnu.
 Abdu 3ms.PERF understand-IV/ realize-III/ remember-VI slowly
 'Abdu understood/ realized/ remembered slowly.'
- b. yaa rasà ùbaa/ tardà ùbaa/ bar ùbaa nandànan
 3ms.PERF lost-I father/ find-I father/ left-II father quickly
 'He lost/ found/ left his father quickly.'
- d. yaa gamà/ Kaarè/ dainà/ tsaidà/ aikìi nandànan.
 3ms.PERF finish-I/ finish-IV/ stop-I/ stop-I work quickly
 'He finished/ finished/ stopped/ stopped working quickly.'

In all the cases above the punctual achievement verbs do take the adverbs, but the meaning is not the same as previously in (21). There, the adverbs modifies the event of the verb itself.

In (23) above on the other hand, the adverbs specify the length of time before the event proper took place.

4.1.3.3.2 Agentive contexts

Contrary to state verbs, achievement verbs can be ordered or be forced. This is illustrated below:

- (24) a. tàashi!
 IMPER-rise-III
 'Stand up!'
- b. Abdù yaa tiilàsaa mà Aali taashì dàgà kujèeraa.
 Abdu 3ms.PERF force-I MA Ali rise-III-DN from chair
 'Abdu forced Ali to stand up off the chair.'
- (25) a. mùtu in dan muu!
 IMPER-die if for 1p
 'Die if you will, we don't care.'
- b. Abdù yaa tiilàsaa mà Aali fitaa wàje.
 Abdu 3ms.PERF force-I MA Ali get.out-III-DN out
 'Abdu forced Ali to get out.'

In (24a) the punctual verb taashì 'stand up' appears in the imperative and, in (24b) it appears as complement of tiilàsà 'force'. Similarly, in (25), two durative verbs also appear in the imperative in (25a), and as complement of 'force' in (25b).

4.1.3.3 Stative test

Achievement verbs are also distinguished from state verbs in that the former can derive Stative forms. This property, as seen in section 4.1.2, does not characterize state and activity verbs. Examples of achievement verbs Statives are in the following:

- (26) a. Indoo taa taashì tsàye.
 Indo 3fs.PERF rise-III stopped
 'Indo stood up.'
 lit.: 'Indo rose up stopped.'
- b. sùrùkkanshì sunàa zànzàmne Koofàa Abdù
 in.laws-of-3ms 3p-CONT REDUPsat gate Abdu
 ya wucèe bâa koo ìnaa kwaanankù.
 3ms.REL PERF pass-IV NEG even where day-of-2p
- 'His in laws were sitting at the entrance, but Abdu passed his way without even a "how are you today".'
- (27) a. Tuuluu yaa cìka cìke.
 pot 3ms.PERF fill.up-III filled up
 'The pot filled up (full).'
- b. mun ïskè jaakii màce.
 1p.PERF find-IV donkey dead
 'We found the donkey dead.'

In (26), punctual achievement appear in their Stative forms successfully, as do the durative verbs in (27). It is quite frequent for some Statives to just follow their regular verb as in (27a) above, to give a sense of completeness to the event. So, mutù màce (lit.: die dead) is 'really die'; zamnàa zàmne is 'sit comfortably' etc. As one may expect, not every achievement verb can derive a Stative: dainà 'stop', *dàine; gamàa 'finish', *gàme; gaanè 'understand', *gàane; fahamoo 'remember', *fahàme; farga 'realize', *fàrge; lùura 'notice', *lùure etc.

So, there are many tests that help discriminate state verbs from achievement verbs. State verbs do not occur in the construction nàa+GER, they cannot occur with pace adverbs and do not derive Stative forms. Achievement verbs pass all these tests. Next, achievement verbs will be differentiated from activity and accomplishment verbs.

4.1.3.4 Dynamic adverbs

As seen previously, achievement verbs describe a change of state and can be modified by pace adverbs. However, according to Vendler (1967), achievement verbs cannot occur with dynamic adverbs such 'vigorously'. Recall from chapter one that achievement verbs are

inherently state verbs modified by the operator BECOME. Thus, they do not have a dynamic component in their LS (keeping aside for now the inchoative activity). This contrasts them with activity and accomplishment verbs. Examples of achievement verbs with dynamic adverbs are in the following:

- (28) a. *Abdù yaa fita wàje dà Karfii.
 Abdu 3ms.PERF go.out-III out with force
 *'Abdu went out vigorously.'
- b. *Dàalìbbai sun zamnàa kùjèerunsù dà Karfii.
 pupils 3p.PERF sit-I chairs-of-3p with force
 *'The pupils sat on their chairs vigorously.'
- (29) a. *jaakii yaa macèe dà Karfii.
 donkey 3ms.PERF die-IV with force
 *'The donkey died vigorously.'
- b. *tùuluu yaa cìka dà Karfii.
 pot 3ms.PERF fill.up-III with force
 *'The pot filled up vigorously.'

As we can see, neither the punctual verbs in (28) nor the durative verbs in (29) can occur with a dynamic adverb. The facts are also parallel in English, which is not surprising because the properties tested are universal.

4.1.3.3.5 V+ing ==> V+ed test

According to Vendler, achievement are change of state, consequently, they must lead to a certain result, either bringing about a new condition (inchoative) or ending a previous one. The V+ing ==> V+ed test can probe the resultative reading property for achievement verbs, which can appear in the continuous aspect. The test therefore, does not apply to state and punctual achievement verbs. The prediction is that durative achievement verbs in the continuous aspect do not entail that a result has obtained. And this is indeed the case as seen below:

- (30) V+ing > V+ed:
- a. yanàa cìkaa. > yaa cìka.
 3ms-CONT fill.up-III-DN 3ms.PERF fill.up-III
 'It is filling up.' 'It is filled up.'
- b. yanàa narkèewaa. > yaa narkèe.
 3ms-CONT melt-IV-VN 3ms.PERF melt-IV
 'It is melting.' 'It is melted.'

- | | |
|--|---|
| c. yanàa rooshèewaa.
3ms-CONT break.apart-IV-VN
'It is breaking apart.' | > yaa rooshèe.
3ms.PERF break.apart-IV
'It broke apart.' |
| d. yanàa tsanèewaa.
3ms-CONT dry-IV-VN
'It is drying.' | > yaa tsanèe.
3ms.PERF dry-IV
'It dried.' |

So, durative achievement verbs in the continuous do not entail that they have achieved a result state. The facts of English in above are also parallel. Later, we will see that activity verbs, which are not resultative, do pass the entailment test.

4.1.3.3.6 Complement of 'finish'

According to Dowty (1979:59) achievement verbs, contrary to accomplishment verbs, do not occur as complement of the verb "finish". This appear to be true for punctual achievement verbs in Hausa as shown below:

(31) Punctual achievement verbs and 'finish':

- a. *yaa gamà gaanèewaa/ fargaa/ lùuraa.
3ms.PERF finish-I understand-IV-VN/ realize-III-DN/ notice-III-DN
'*He finished understanding/ realizing/ noticing.'
- b. *yaa gamà zamnàawaa/ taashìi/ juuyàawaa.
3ms.PERF finish-I sit.I-VN/ rise-DN/ turn-I-VN
'*He finished sitting down/ standing up/ (re)turning.'
- c. *yaa Kaarè ruugàawaa/ tseerèewaa/ tafiyàa.
3ms.PERF finish-IV run.away-I-VN/ escape-IV-VN/ depart-DN
'*He finished running away/ escaping/ departing.'
- d. *yaa Kaarè barìi/ saamùu.
3ms.PERF finish-IV let-II-DN/ obtain-II-DN
'*He finished letting/ obtaining.'

Notice that zamnàa 'sit', taashìi 'stand up', and juuyàa 'turn' can be complement of 'finish' if one is describing the careful movements of, for example, an elderly person (for whom standing up may not be instantaneous). The other verbs which can only be punctual are indeed incompatible with 'finish'. The facts with durative achievement verbs are not as clear cut. Here, the sentences are not ungrammatical, but they are odd because the subordination under 'finish' appears as redundant and is equivalent to the non-subordinated form. This is illustrated below:

- (32) Durative achievement verbs and 'finish':
- a. ?Tùuluu yaa gamà cìkaa. (= yaa cìkaa)
pot 3ms.PERF finish-I fill.up-III-DN
'The pot finished filling up.'
 - b. ?Darmàa taa gamà narkèewaa. (= taa narkèe)
lead 3fs.PERF finish-I melt-IV-VN
'The lead finished melting.'
 - c. ?Rìigaa taa gamà tsanèewaa. (= taa tsanèe)
gown 3fs.PERF finish-I dry-IV-VN
'The gown finished drying.'
 - d. ?yaa gamà kòoyoo. (= yaa kòoyaa)
3ms.PERF finish-I learn-DN
'He finished learning.' (= he learned)

Because the sentences in (32) above are not felicitous, one can conclude that achievement verbs indeed do not appear as complement of 'finish'. This test is relevant especially because it separates all other classes from the accomplishment verbs, which do appear satisfactorily as argument of 'finish'.

4.1.3.4 Perception verbs as achievement verbs

In the Dowty/ Vendler system, perception verbs in English, such as 'see', 'hear', do not have a unique classification. In Hausa, perception verbs such as ganii 'see' and ji 'hear' can be considered inchoative and punctual. As seen in (5), in Hausa they can appear in the construction nàa+GER with a habitual or frequentative reading. By this property, they are different from state verbs. However, like state verbs, they cannot occur with pace adverbs or derive Statives, as seen below:

- (33) a. *Abdù yaa ganee tà/ jii tà nandànan.
Abdu 3ms.PERF see-II 3fs/ hear 3fs quickly
*'Abdu saw her/ heard her quickly.'
- b. *gàne/ *jìye
'seen, seing/' heard, hearing'

So, perception verbs have an ambiguous membership. In Dowty (1979:66), they are classified as both state and achievement verbs. The ambiguity may stem from the fact that perception verbs like 'see', 'hear', 'feel', are acts that can be consciously varied, on the one hand. On the other hand, they are states that are continuous until willfully interrupted (Wilkins, p.c.). So, these verbs have both the aspectual properties of states and achievement verbs. This may account for their ambiguity in Hausa as well.

4.1.4. ACTIVITY VERBS

As seen in the sections above, activity verbs do not end in a result state. They have no inherent temporal boundaries implied. The consequence of this is that at any temporal point in the situation, the described action has already been performed. One can ascertain this property with the "V+ing ==> V+ed" test.

4.1.4.1 V+ing ==> V+ed test

Of all the aspectual classes that occur in the continuous, only activity verbs can accept the entailment. This is illustrated below:

(34). V+ing ==> V+ed:

- | | | |
|--|-----|--|
| a. tanàà kallon Abdù.
3fs-CONT look-DN Abdu
'She is looking at Abdu.' | ==> | taa kàlli Abdù.
3fs.PERF look-II Abdu
'She looked at Abdu.' |
| b. tanàà sàuràaren reediyòo.
3fs-CONT listen-DN radio
'She is listening to the radio.' | ==> | taa sàuràari reediyòo.
3fs.PERF listen-II radio
'She listened to the radio.' |
| c. tanàà kiràñ Abdù.
3fs-CONT call-DN Abdu
'She is calling Abdu.' | ==> | taa kirañ Abdù.
3fs.PERF call Abdu
'She called Abdu.' |
| d. yanàà tankàà mà Indoo.
3ms-CONT reply-I MA Indo
'He is replying to Indo.' | ==> | yaa tankàà mà Indoo.
3ms.PERF reply-I MA Indo
'He replied to Indo.' |
| e. taayàà nàà juuyàawaa.
tire CONT rotate-I-VN
'The wheel is rotating.' | ==> | taayàà taa juuyàa.
tire 3fs.PERF rotate-I
'The wheel rotated.' |

4.1.4.2 Stative forms derivation

Another test which may tap into the unbounded temporal aspect of activity verbs is the fact that they cannot derive Stative forms. Thus, none of the verbs above has a corresponding Stative: *kàlle 'looking, looked'; *sàuràare 'listening, listened'; *kìre; 'calling, called'; *tànke 'replying, replied (to)', *juuyè 'rotating, being rotated'. Notice that juuyè exists in the accomplishment sense of something having been rotated to face a new direction, not in the sense that it is still rotating. All the other forms simply do not exist. Because activity verbs have no result state, it is not surprising that they fail to derive the Stative forms, whose function is in fact to express result state.

4.1.4.3 Complement of 'finish' and 'stop'

Because they do not have a resultative reading, actions described by activity verbs cannot be 'finished'. Hence, activity verbs cannot be complement of 'finish'. On the other hand, activity verbs are not punctual, so, they can be 'suspended' and this shown by the fact that the verbs can be complement of 'stop'. These points are illustrated below:

- (35) *taa Kaarè mootsàawaa/ tankàawaa/ juuyàawaa.
3fs.PERF finish-IV move-I-VN/ reply-I-VN/ rotate-I-VN
'She finished moving/ replying/ rotating.'

- (36) a. taa dainà sàuràaren reediyòo.
3fs.PERF stop-I listen-DN radio
'She stopped listening to the radio.'
- b. taa dainà lùuraa da yaàra.
3fs.PERF stop-I attend-III with children
'She stopped attending to the children.'

4.1.4.4 Dynamic adverbs and agentive contexts

For Vendler (1967) and, to some extent, Dowty (1979), only activity and accomplishment verbs can be dynamic. This property is evidenced by the fact that the two classes can appear with dynamic adverbs and in agentive contexts. This is illustrated with activity verbs below:

- (37) a. taa juuyàa dà Karfii.
3ms.PERF rotate-I with force
'She rotated vigorously.'
- b. kùlaa manì dà yâaran nan kàn ìn
attend-I MA-1s with children-of there before 1s.SUB
daawoo!
come.back
'Please, attend to these children till I come back.'
- c. soojojjii sun sàa dàalìbai sù kàlli raanaa.
soldiers 3p.PERF put-I students 3p.SUB look-II sun
'The soldiers forced the students to stare at the sun.'

In sentence (a) above, an activity verb appears with a dynamic adverb. Note that many activity verbs, because of their lexical meaning would not be able to take dynamic adverbs.

This is the case for kàlli 'look', lùura/ kùla 'attend to', and sàauràri 'listen'. Sentences (b-c) respectively show that activity verbs can appear in the imperative or as complement of 'force'.

Many potential verbs, especially activity verbs, are not realized in Hausa because some events are expressed by a much used construction: nàa+NP 'be [doing] NP' in the continuous (or yi+NP 'do NP' in other aspects). In some cases only the nàa+NP construction is possible, as illustrated below:

- (38) a. yanàa kwaanaa.
 3ms-CONT sleep
 'He is sleeping.' lit: 'he is (doing/ at) sleep'
- b. yanàa hiira.
 3ms-CONT conversation
 'He is conversing.' lit: 'he is (doing/ at) conversation'
- c. yanàa wàasaa.
 3ms-CONT play
 'He is playing.' lit: 'he is (doing/ at) play'
- d. yanàa aikìi.
 3ms-CONT work
 'He is working.' lit: 'he is (doing/ at) work'

It is also possible to have the DN yìi 'do' following nàa (yanàa yìn wàasaa 'he is doing play'). In other non-continuous tense/ aspects all the constructions above appear with yi 'do' alone (yaa yi aikìi 'he worked', --lit: 'he did work'). The fact is that Hausa has no verb corresponding to the NPs in (38). In other cases a verbal form is possible in non-continuous tense/ aspects, but not in the continuous. This is illustrated below:

- (39) a. yanàa rawaa./ yaa rayàa.
 3ms-CONT dance/ 3ms-PERF dance-I-
 'He is dancing./' 'He danced.'
- b. yanàa kuukaa./ yaa kookàa
 3ms-CONT cry/ 3ms.PERF cry-I
 'He is crying./' 'He cried.'

In the sentences in (39) above, nàa is followed by a regular noun rawaa 'dance' and kuukaa 'cry' in (a-b) respectively. The gerund form cannot be substituted to the noun (*yanàa kookàawaa 'he is crying'), although this gerund does exist elsewhere (inaa shi inaa kookawaa 'it is impossible for him to shed a tear'). The reason why the verbs rayàa 'dance'

and kookàa 'cry' fail to appear in the continuous is that they are inchoative activity, not plain activity verbs. To express the activity sense, one has to use the nàa+NP construction.⁴

In conclusion, activity verbs in Hausa behave as predicted by the Dowty-Vendler system. Probably, the activity class of verbs is very restricted in Hausa. Indeed, prototypical activity verbs in other languages are lexicalized as inchoative verbs in Hausa.

4.1.5 ACCOMPLISHMENT VERBS

The most distinctive property of accomplishment verbs in Dowty's system is that they have an inherent causative meaning. Thus, accomplishment verbs have no less than two arguments, the causer and the causee. This is formally represented in their LS by the operator CAUSE connecting an activity verb and an achievement or activity verb (Van Valin 1992). The corresponding achievement verbs would usually have one less argument: the causer. It is frequent for accomplishment verbs to exhibit a morphological marking distinguishing them from the achievement base verb. This is the case for some accomplishment verbs in Hausa:

- | | |
|---|--|
| (40) a. Abdù yaa cikà tìuluu.
Abdu 3ms.PERF fill.up-I pot
'Abdu filled up the pot.' | (cf. tìuluu yaa cìka.)
(pot 3ms.PERF fill.up-III)
(the pot filled up.) |
| b. yaa narkà darmàa.
3ms.PERF melt-I lead
'He melted the lead.' | (cf. darmàa taa narkèe.)
(lead 3fs.PERF melt-IV)
(The lead melted.) |
| c. yaa taadà yaaròo.
3ms.PERF raise-I child
'He stood up the child.' | (cf. yaaròo yaa taashì.)
(child 3ms.PERF stand up)
(The child stood up.) |
| d. yaa fiddà yâara.
3ms.PERF go.out-I children
'He took the chidren out.' | (cf. yâara sun fita.)
(children 3p.PERF go.out)
(The children went out.) |

In sentence (a) above, the accomplishment verb cikà is a gr1 verb, while the achievement verb cìka is gr3. In sentence (b), the accomplishment verb narkà 'melt' is gr1, but a gr4 form narkè 'melt (s.th.) completely' exists also. The achievement verb however can only be gr4, there is no verb *narkàa '(s.th.) melt' (gr1 does have other achievement verbs). In (c), the accomplishment verb is a reanalyzed gr1 (containing the incorporated gr5 marker dà). The achievement verb is a gr3 verb taashì 'stan up'. A related gr1 accomplishment verb also exists which is used with inanimate causee, taayà 'raise (in a vertical position)'. Sentence (d) also contains a reanalyzed gr1 accomplishment verbs, with a gr3 achievement correspondent. This type of relationship between existing accomplishment and achievement

verbs lends credit to the hypothesis that accomplishment verbs LS into an activity and a achievement predicates. There are also accomplishment verbs, for which no achievement correspondents exist:

- (41) accomplishment verbs unrelated to any achievement verb:
- a. Keerà 'forge'
 - b. ginà 'build'
 - c. zaanà 'draw (s.th.)'
 - d. gyaarà 'repair'
 - e. swaaBà 'mash'
 - f. dakà 'grind'

The verbs above are always transitive. However, their 'direct object', the thing created, repaired or mashed, never appears as 'subject' except in the gr7 passive. Thus, there are no existing achievement correspondents.

4.1.5.1 V+ing ==> V+ed test

Accomplishment, in contrast to activity verbs, do end in a result state. They have a terminal point which has to be reached before the action can be considered accomplished. So, predictably, they fail the "V+ing ==> V+ed" test. This is illustrated below:

- (42)
- | | | |
|---|---|--|
| a. yanàa cikà tùuluu.
3ms-CONT fill.up-I pot
'He is filling up the pot.' | > | yaa cikà tùuluu.
3ms.PERF fill.up-I pot
'He filled up the pot.' |
| b. yanàa narkà darmàa.
3ms-CONT melt-I lead
'He is melting the lead.' | > | yaa narkà darmàa.
3ms.PERF melt-I lead
'He melted the lead.' |
| c. tanàa taadà yaaròo.
3fs-CONT raise-I child
'She putting the child up.' | > | taa taadà yaaròo.
3fs.PERF raise-I child
'She stood up the child.' |

There are iterative accomplishment verbs which do pass the entailment test, as seen below:

- (43)
- | | | |
|--|-----|---|
| a. tanàa bugar ginìi.
3fs-CONT hit-II-VN wall
'She is hitting the wall.' | ==> | taa bügi ginìi.
3fs.PERF hit-II wall
'She hit the wall.' |
| b. tanàa bugà damtsèe.
3fs-CONT hit-I-VN fist
'She is hitting her fist.' | ==> | taa bugà damtsèe.
3fs.PERF hit-I fist
'She hit her fist.' |

The sentences above involve more than one instance of hitting. So, at any point in the situation, hitting has occurred, hence the truth of the entailment. Otherwise, only activity verbs truly pass the V+ing ==> V+ed test.

4.1.5.2 Dynamic adverbs and agentive contexts

Accomplishment verbs incorporate in their LS an activity verb, which are dynamic. One would then predict that accomplishment verbs too would be dynamic, and this is the case. Like activity, accomplishment verbs can appear with dynamic adverbs, in the imperative, or as complement of the verb 'force'. This is illustrated below:

- (44) a. yaa swaaBà dooyàa dà Karfii.
 3ms.PERF mash-I yam with force
 'He mashed the yam vigorously.'
- b. nàrkee manì darmàr nan!
 IMPER.melt-IV MA-1s lead-of there
 'Melt that lead for me, please!'
- c. An tilàsaa su cikà tuulunàa.
 IMP.PERF force-I 3p fill.up-I pots
 'They were forced to fill up the pots.'

The accomplishment and activity classes are the only real dynamic classes.

4.1.5.3 Statives

Accomplishment verbs can derive Statives forms. Some of these Statives forms are fine both when either the causer or the causee argument is modified by the Stative. Other forms are fine only when the causee is modified. Still some patterns exactly in the reverse, that is they occur only when modifying the causer. These cases are illustrated below:

- (45) a. sun ga Bàlki gòoye dà Dìyaa.⁵
 3p.PERF see-II Balki carrying.on.back with daughter
 'They saw Balki carrying her daughter on her back.'
- b. sun ga Dìyar Bàlki gòoye.
 3p.PERF see-II daughter-of Balki carried.on.back
 'They saw Balki's daughter carried on back.'
- (46) a. *sun ga Bàlki nàrkee dà darmàa.
 3p.PERF see-II Balki melting with lead
 'They saw Balki melting the lead.'

- b. sun ìskè darmàa à nàrke.
 3p.PERF find-IV lead at melted
 'They found the lead melted.'
- (47) a. sun ga Bàlki tanàa Dàuke dà Dìyartà.
 3p.PERF see-II Balki 3fs-CONT carrying with daughter-of-3fs
 'They saw Balki carrying her daughter.'
- b. *sun ga Dìyar Bàlki tanàa Dàuke.
 3p.PERF see-II daughter-of Balki 3fs.CONT carried
 'They saw Balki's daughter being carried.'

In (45) is a verb whose Stative form can apply to the causer (a) or to the causee (b). In (46), only the causee can be modified, as seen in (46b). Finally in (47), only the causer is modified by the Stative (47a). Usually, the causer is modified with 'carrying' verbs such as 'grasp', 'wear', 'swallow', 'hold...'. I have no hint on why (47b) is ungrammatical. Not surprisingly, many accomplishment verbs would not derive any Stative at all: Keerà 'forge', *Kèere; canzà 'change', *cànde, etc. Notice that the Stative can appear without restriction in apposition, as in (45). Also without restriction, the Stative can appear following a continuous PTAM, as seen in (47a). Lastly, the Stative can be introduced by the preposition à, as in (46b), but only with a causee modified.

4.1.5.4 Complement of 'finish' and 'stop'

The "finish/ stop" complement test was proposed in Dowty to isolate accomplishment verbs from other classes. According to Dowty, this class has the distinctive feature of being able to appear as complement of both "finish" and "stop". However, in Hausa at least, this seems to be most applicable to morphologically unrelated accomplishment verbs. This is illustrated below:

- (48) a. taa dainà/ Kaarè swaaBà dooyàa.
 3fs.PERF stop-I/ finish-IV mash-I yam
 'She stopped/ finished mashing yams.'
- b. yaa dainà/ Kaarè gyaarà móotôo.
 3ms.PERF stop-I/ finish-IV repair-I motorcycle
 'He stopped/ finished repairing the motorcycle.'
- c. yaa dainà/ Kaarè ginà gidaa.
 3fs.PERF stop-I/ finish-IV build-I house
 'He stopped/ finished building the house.'

As seen above, underived accomplishment verbs are fine as complement of 'finish'. Accomplishment verbs related to punctual achievement verbs are not compatible with 'stop' or 'finish'. This is illustrated below:

- (49) a. ?taa dainà/ Kaarè jeefà KunKuu à riijìyaa.
 3fs.PERF stop-I/ finish-IV throw-I stone in well
 ?'She stopped/ finished throwing the stone into the well.'
- b. ?taa daina/ Kaarè kiifà fàrantìi.
 3fs.PERF stop-I/ finish-IV turn.over-I plate
 ?'She stopped/ finished turning over the plate.'

In both sentences (a-b) above, a punctual achievement base is not satisfactory with 'stop' or 'finish'. This restriction is similar to that shown in (31) for punctual achievement verbs. If they incorporate a durative achievement verbs, accomplishment verbs can appear with 'stop' and 'finish'. This is illustrated below:

- (50) a. yaa dainà/ Kaarè cikà tùuluu.
 3fs.PERF stop-I/ finish-IV fill.up-I pot
 'He stopped/ finished filling up the pot.'
- b. yaa dainà/ Kaarè narkà darmàa.
 3fs.PERF stop-I/ finish-IV melt-I lead
 'He stopped/ finished melting the lead.'

In (50) above, the sentences are grammatical despite the fact that the accomplishment verbs are derived. This becomes natural if one considers the fact that the incorporated achievement verbs cika 'fill up' and narkèe 'melt' are durative achievement. Durative achievement verbs as seen in (19) can appear as complement of 'stop', so, their corresponding accomplishment verbs can do that as well. The problem is the grammaticality of 'finish'. In (32) we saw that durative achievement verbs are odd with 'finish', because they entail the non-subordinated sentence. However, the corresponding accomplishment verbs are fine, as seen in (50) above, although they also entail the non-subordinated version (cf. 'he finished filling up the pot' and 'he filled up the pot'). A speculation here is that the ability to appear as argument of 'finish' has to do both with temporal aspect of the verb and agentivity. Temporal aspect explains why 'he finished filling up the pot' is good but not 'she finished throwing the stone into the well.' Agentivity explains why 'he finished melting the lead' is fine but not 'the lead finished melting'.

That the temporal aspect of their incorporated achievement verbs is determining the behavior of accomplishment verbs is also seen with respect to the continuous. It is believed

that accomplishment verbs can generally appear in the continuous, unlike state verbs for example. However, the continuous sentences below may not be quite natural:

- (51) a. ?She is throwing the stone into the well.
 b. *She is turning over your plate.
 c. *She is dropping her coffee mug (from hand).

In the sentences above, the continuous cannot describe the true event, which is punctual. The sentences may be grammatical if the continuous refers to the time before the event proper takes place. Even in this reading though sentences (b-c) seem bad.

In conclusion, not all accomplishment verbs can be complement of 'stop/ finish', or appear in the continuous, contrary to the claims in Dowty (1979). Accomplishment verbs containing a punctual achievement cannot occur with 'stop/ finish', nor do they occur in the continuous. Those containing a durative achievement verb can do both. If only for the sake of controlling all the variables in the testing procedure, one may distinguish two types of accomplishment verbs, the punctual accomplishment and the durative accomplishment subclasses.

The tests necessary in Hausa to distinguish the aspectual classes can be summarized in the following table:

(52) Table of Properties:

	States	P. Achiev.	D. Achiev.	Activ.	P. Accpl.	D. Accpl.
Continuous	NO	NO	YES	YES	NO	YES
Pace Adverbs	NO	YES	YES	YES	YES	YES
Imperative	NO	YES	YES	YES	YES	YES
Dyn. Adverbs	NO	NO	NO	YES	YES	YES
Stative	NO	YES	YES	NO	YES	YES
V+ing=>V+ed	dna	dna	NO	YES	dna	NO
Finish	NO	NO	NO	NO	NO	YES
Stop	NO	NO	YES	YES	NO	YES
Causative	NO	NO	NO	NO	YES	YES

note: P = punctual, D = durative, dna = do not apply

4.2 Grade 1

Grade 1 is the class of all forms marked HL-a(a) such as the basic HL-a(a), the HL-a(a) applicative, and the HL-aa metaphorical. Parsons (1971-72), in trying to account for the grades contrast, already conceived the gr1 as basic or neutral in many respects, when compared to the other grades. In this work, gr1 is characterized as follows: in terms of particular semantic feature, gr1 is neutral in that the occurrences of the HL-a(a) marker do

not consistently add a semantic feature to verbal forms. In this respect, gr1 contrasts with the totality and ventive senses of gr4 and gr6 respectively. In terms of Logical Structure, here too the HL-a(a) morphology cannot be given a unique characterization because all aspectual classes occur in all possible configurations. Grade 1 then contrasts with gr2 and gr3 where the LSs are limited to two place and one place respectively. This is clearly seen on the surface syntax where a gr1 form can be a one-, a two-, or a three-place predicate. Some examples are in the following:

- (53) a. Abdù yaa zamnà ((à) kujèerar maalàm).
 Abdu 3ms.PERF sit-I ((on) chair-of teacher)
 'Abdu sat on the teacher's chair.'
- b. Abdù yaa zamnà kujèerar maalàm.
 Abdu 3ms.PERF sit-I chair-of teacher
 'Abdu sat on the teacher's chair.' lit: Abdu sat the teacher's chair'
- c. manòomaa sun kimtsà hatsii à rùmbunàa.
 farmers 3p.PERF store-I millet in lofts
 'The farmers stored their millet in lofts.'

In sentence (a), we have a syntactically intransitive verb followed by an optional locative PP. In (b) is a transitive verb with two direct core arguments. Finally, some verbs like kimtsà 'store' in (c), naturally require a theme argument as well as a locative indirect argument. This verb belongs to the 'put'-type class verbs, which are ordinarily three-place predicates. In what follows, gr1 is approached in terms of its Logical Structures. First, the isolate forms of the four aspectual classes are explored. Then forms of different aspectual classes that are related in some way are also exemplified.

4.2.1 ISOLATE GRADE 1 VERBS

In this subpart, independent lexical forms of various aspectual classes are presented with their LS and their linking scheme in illustrative sentences. Isolate verbs are verbs that have only one possible LS gr1-internally, and hence generally tend to occur in the same syntactic environment in gr1. Below, we will see that gr1 has isolate forms as instances of all four aspectual classes of state, achievement, activity, and accomplishment verbs.

4.2.1.1 State verbs

In gr1, one finds isolated stems which, by the tests in section 4.1, belong to the state verbs class. Some examples already seen in (2) and (4) above are given below with their LS:

- (54) a. datà: **equal'** (x, y) x=locative, y=theme
 b. Darà: **surpass'** (x, y) x=locative, y=theme

The verbs above are equational state verbs, where one entity 'x' (the locative) is compared to another entity 'y' (the theme). These verbs are then similar to the equational state verb 'is' in 'Bob is a lawyer'. The particularity of these verbs is that their theme argument can be complex. Thus, Darà above seems to optionally take a third argument. This is illustrated below:

- (55) a. Indoo taa Darà Abdù ((*à) tsawoo).
 Indo 3fs.PERF surpass-I Abdu ((in) height)
 'Indo is taller than Abdu.'
 b. Indoo taa Darà (Abdù) (*à) tsawoo.
 Indo 3fs.PERF surpass-I (Abdu) (in) height
 'Indo is taller (than Abdu).'

Examples (a-b) above, give the basic constructions, with either tsawoo 'height' or Abdù ommissible if they are recoverable from discourse. In both cases, a preposition before tsawoo 'height' is ungrammatical. The problem is that state LSs do not occur with three arguments. A possible analysis then is to view the whole phrase Abdù tsawoo as a complex argument in the position of the state verb's LS. The linking for sentence (a) will be as follows:

- (56) Indoo taa Darà Abdù tsawoo.
 GR P
 MR A U
 TR loc th
 surpass' (x, [have' (y, height)])

In the diagram above, the locative relation is linked to the (A)ctor macrorole which is in turn linked to (P)ivot and to the PVP referring to Indoo. The second argument in the LS of Darà 'surpass' is complex and reflects the predicative relationship between Abdù and tsawoo 'height'. Indeed, this relation can be expressed in an independent construction such as Abdù yanàa dà tsawoo 'Abdu has (some) height' (which alternates with the regular Abdù doogoo nèe 'Abdu is tall'). So, Abdù yanàa dà tsawoo 'Abdu has (some) height' can be represented as **have'** (Abdu, height). Syntactically however, in (56) Abdù alone is the undergoer argument of the verb when both nominal Abdù and tsawoo are present. That this is likely is shown by the fact that the two nominals behave differently when placed in focus-fronting, as illustrate below:

- (57) a. Abdù nee Indoo ta Daràa tsawoo.
 Abdu cop.m Indo 3fs.REL PERF surpass-I height
 'It is Abdu that Indo surpasses in height.'
- b. *(à) tsawoo nèe Indoo ta Darà Abdù.
 in height cop.m Indo 3fs.REL PERF surpass-I Abdu
 'It is in height that Indo surpasses Abdu.'
 (Note: parentheses ungrammatical)

In sentence (a) above, Abdù is fronted and the verb appears in its A-form (with along vowel), which shows that the following nominal tsawoo 'height' is not an undergoer. In sentence (b), when tsawoo is fronted, it requires an obligatory preposition. Moreover, the verb stays in its C-form (with a short vowel) followed by the undergoer Abdù. When Abdù is omitted as a discourse given, then the nominal tsawoo can be an undergoer (for example, in (57b), the verb would still be in its C-form if Abdù is omitted). Notice that in the diagram under (56), the macrorole assignment follows the default principles where the locative outranks the theme in linking to actor (cf. Van Valin (1992) and chapter 1, table under (34)).

4.2.1.2 Achievement verbs

Grade1 also has isolate punctual and durative achievement verbs. The example below illustrates an achievement verb with an embedded condition state verb and its linking diagram:

- (58) gwaabaà taa Koosàa.
 guava 3fs.PERF ripe-I
 GR P
 MR U
 TR pat
 BECOME ripened' (x)
 'The guava ripened.'

Koosàa 'ripen' is a durative achievement verb made up of a state predicate modified by the operator BECOME. The state predicate is a condition state with a single argument, hence a patient. This characterization derives from the definition of thematic relations seen in chapter 1 (also Van Valin 1992). Koosàa is not a simple state verb because it can occur with the continuous gà (gwaabàa tanàa gà Koosàawaa 'the guava is ripening'). Because it is a patient, the single argument relates to the undergoer macrorole (not to actor), and this is argued for in Van Valin (1992).

There are also in gr1, achievement verbs that incorporate locational state verbs or activity verbs with two arguments. These are illustrated below:

- (59) a. Indoo taa durKùsaā bisà tàabarmaa.
 Indo 3fs.PERF kneel-I on mat
 GRP
 MR A
 TR loc th
 BECOME **be-on'** (x, y)
 'Indo kneeled on the mat.'
- b. Indoo taa koomàa gidaa.
 Indo 3fs.PERF return-I home
 GRP
 MR A
 TR loc th
 BECOME **go back'** (x, y)
 'Indo returned home.'

The example in (a) above shows a punctual motion to stance verb and the LS has a locative state predicate with a theme actor and a locative argument. The verb in example (b) is an inchoative activity motion verb with an actor theme and a locative argument. Both verbs have two arguments but they have only one macrorole, an undergoer for durKùsaā 'kneel' in (a) and an actor for koomàa 'go back' in (b). That the verb durKùsaā 'kneel' is an achievement (and not a simple state verb) is shown by the fact that it can appear in the habitual (sukàn fa durKùsaā Kasà sù gaidà sarkii 'they indeed usually kneel on the ground to greet the emir'), but it is not an activity either because the verb implies a result state, a feature which does not characterize activity verbs. The verb koomàa is not a state verb because it can appear in the imperative or the habitual (cf. the imperative kòomaa! 'return!'). koomàa however, despite its being a motion verb, cannot be taken as a simple activity because it is not felicitous in the continuous. For example, one would use the perfect sentence gàa ya can yaa koomàa (yaa yi) gidaa 'there he is, returning toward home', rather than the continuous *gàa ya can yanàa koomàawaa (yaa yi) gidaa 'there he is, returning home'. The ability to appear in the continuous is one of the defining properties of regular activity verbs, as seen previously.

4.2.1.3 Activity verbs

Examples of isolate activity verbs are also found in gr1. Some cases already shown in section 4.1.4 are represented in the following linking diagram:

- (60) a. Abdù yaa tankàa.
 Abdu 3ms.PERF reply-I
 GRP
 MR A
 TR eff
 reply' (x)
 'Abdu replied.'

- b. Indoo anàa sàuràaren reediyòo.
 Indo IMP-CONT listen-II-DN radio
 GRP
 MR A U
 TR agt exp loc
 DO (x, [hear' (x, y)])
 'Indo is listening to the radio.'

In the example (a) above, tankàa 'reply' is an uncontrolled non-motion activity verb.

Therefore, the verb has an effector as its argument (see the table in (x) in chapter 1 for the assignment of the thematic relations to LS positions). In example (b), we have a controlled activity verb with two argument positions. The first argument is an agent and the second is a locative. Dowty (1979:110-121) cites perception verbs as being one of the groups of verbs where the activity verbs differ from the state or achievement verbs only by the presence of the operator DO, which represents agentivity. Thus, 'see', 'hear', 'feel', and 'smell' are stative verbs and are decomposed as **predicate'** (x,y). Verbs like 'listen to', 'watch', 'feel (volitional)', and 'smell (volitional)' are agentive activity and are decomposed as DO (x,[**predicate'** (x,y)]). In this decomposition, the stative predicate appears embedded as the second argument of the operator DO. Similarly in Hausa, one can indeed represent verbs like sàuràari 'listen', kàlli 'wacth', DanDànà 'taste' as agentive activity with the agentive operator DO, as shown in (56b) above. In the linking from semantics to morphosyntax, the agent is by default the actor, which is linked to the pivot function. The locative argument links to the undergoer macrorole.

4.2.1.4 Accomplishment verbs

Grade 1 also has isolate accomplishment verbs such as illustrated below:

- (61) a. Indoo taa gyaarà kèekentà.
 Indo 3fs.PERF repair-I bike-of-3fs
 GRP
 MR A U
 TR eff pat
 [do' (x)] CAUSE [BECOME repaired' (y)]
 'Indo repaired her bike.'
- b. Indoo taa rabà kàbuushèe biyu.
 Indo 3fs.PERF divide-I pumpkin two
 'Indo divided the pumpkin in halves.'

- (62) a. Indoo taa Doorà kollàayentà à kantàa.
 Indo 3fs.PERF stack-I containers-of-3fs on shelves
 GRP
 MR A U
 TR eff loc th
 [do' (x)] CAUSE [BECOME be-at' (y, z)]
 'Indo stacked her containers on the shelves.'

b. Indoo taa liiKà hootunàa à ginìi.
 Indo 3ms.PERF stick-I pictures on wall
 'Indo fixed some pictures on the wall.'

As seen in section 4.1, an accomplishment verb is made up of an activity predicate combined by the operator CAUSE to an achievement predicate (the activity predicate can be the generic **do'**, as shown in (61a)). The effector of the activity predicate is the causer of the state or position of the patient or theme referent. In (61) above, there are two accomplishment verbs each with an embedded condition state predicate, hence the relation of the inner argument is patient, as seen in the linking diagram in (61a). In (62) on the other hand, the inner state predicate is locational, with a theme and a locative arguments. This is represented in the diagram in (62a).

In this subpart, we saw that gr1 contains verbs from all the aspectual classes which are isolate, hence not derivable in any way from other forms. So, each class can exist independently, that is, although the achievement and accomplishment classes have complex derived LSs, one does not need to have the embedded predicates occurring on their own in the actual lexicon. Next, we will see the various relationships that can exist between two related gr1 forms.

4.2.2 RELATED GRADE 1 VERBS

This subsection explores related doublets (or triplets) of gr1 verbs. Three types of relationship are possible between any two given forms. First, the two forms can differ in that the same argument appears as an indirect core argument with one form, but as a direct core argument with the other form. This type of relation is characterized as an operation on the linking from semantics to morphosyntax. In the two other types of relation, the two verbs differ in their transitivity. This can happen in two ways. The transitive form can have an otherwise non-macrorole argument linked to the undergoer macrorole. It is also possible for the transitive form to have an extra argument (not present at all in the intransitive form) which links to the undergoer macrorole. These three types of operations are examined next.

4.2.2.1 Operations on linking to morphosyntax

In Hausa, there is a phenomenon widely observed, whereas the preposition marking a locative nominal is dropped, without any apparent change to the syntactic status of the locative NP (for example, the bare locative NP does not trigger the C-form of the verb). In RRG, this preposition drop can be analyzed as an operation on linking from semantics to morphosyntax. With one form of the verb, an LS locative argument links to an indirect core position, which is the default linking pattern. With the other form, the locative links to a direct core position, in a marked morphosyntactic linking pattern. In neither case is the locative argument an undergoer. The relationship is illustrated below:

- (63) a. Abdù yaa zamnàà à kujèerar maalàm.
 Abdu 3ms.PERF sit-I on chair-of teacher
 'Abdu sat on the teacher's chair.'
- b. Abdù yaa zamnàà kujèerar maalàm.
 Abdu 3ms.PERF sit-I chair-of teacher
 'Abdu sat on the teacher's chair.'

The achievement verb zamnàà 'sit' in sentence (a) has a locative argument linking to the indirect core position with the preposition à. It is very frequent (and stylistically better) for a preposition to fail to occur, as shown in the (b) sentence. This happens with the locative prepositions à, gà, bisà, cikin, etc (the drop does not happen with the associative dà; also, even for the locative prepositions there are some restrictions, which will not be pursued here). The claim here is that when the drop occurs, the locative argument directly links to a core argument position, yet it has no macrorole status. Zamnàà in (63a-b) can be linked to syntax as shown below in (64-65) respectively:

- (64) a. Abdù yaa zamnàà à **kujèerar** maalàm.
 GR P
 MR A
 TR loc th
 BECOME sit' (x, y)
- (65) a. Abdù yaa zamnàà **kujèerar** maalàm.
 GR P
 MR A
 TR loc th
 BECOME sit' (x, y)

Clearly, these two verbs have the same LS. In both cases we have a punctual achievement verb with two LS arguments. There is no need to list both verbs separately in the lexicon. The rule relating them is morphosyntactic and it can be stated as follows:

- (66) A locative argument links to an indirect core position in the default case. In the marked case it links to direct core position.

That the PP construction is the basic linking scheme is shown by the fact that the preposition cannot be dropped when the locative phrase is focus fronted, as illustrated below:

- (67) *(à) kujèeraa nèe Abdù ya zamnàa.
on chair cop.m Abdu 3ms.REL PERF sit-I
'It is on a chair that Abdu sat.'

As it can be seen, in the focus-fronting construction the alternation is restricted in favor of the PP construction (In Hausa, "phrases" and propositions tend to take the masculine/default gender; so, it is possible to have kujèeraa cèe Abdù ya zamnàa 'It is on a chair that Abdu sat', with gender agreement between the copula and kujèeraa 'chair'; but this simply is the focus-fronting construction of the transitive sentence Abdù yaa zamnà Kujèeraa 'Abdu sat [on] the chair'). There is some syntactic evidence that the preposition-marked locative nominal does not have the same properties as the bare locative nominal. With many strictly intransitive verbs, it is possible to have an applied nominal with mà. When a locative follows mà+NP, it must be introduced by the word cikin 'inside of', as seen below:

- (68) a. sun koomàa (cikin) Daakìn Indoo.
3p.PERF return-I inside-of room-of Indo
'They returned inside Indo's room.'
- b. sun koomàa mà Indoo *(cikin) Daakìi.
3p.PERF return-I MA Indo inside-of room
'They invaded Indo's room.'

In sentence (a) above, the word cikin 'inside of' is optional with the locative nominal. In (b), when the locative nominal is preceded by an applied nominal, then the word cikin is obligatory. The preposition bisà 'on' works the same way (cf. yâara sun koomàa (bisà) gadontà, but yâara sun koomàa mata *(bisa) gadoo, both: 'the children returned to her bed'). It can be said that in (68b), the possessor nominal's becoming a direct core argument prevents the locative nominal itself from doing the same. The examples in (68) should not be confused with cases such as sun shigam mà Indoo Daakìi 'they entered Indo's room', or sun tafoo mà Indoo gidaa 'they come back home to Indo', sentences which can be related to the gr2 transitive verbs shìgi 'enter (s.th)' and tàfi 'go (s.th.)' (cf. sun shìgi Daakìi 'they entered the room'; Kanòò kài yaa tàfee tà 'as for Kano, he indeed went [it]').

A possibly related phenomenon to the preposition drop is observed in Bantu languages such as Kinyarwanda, where a locative nominal can lose its preposition without necessarily becoming an undergoer, such that it cannot passivize for example (cf. Kimenyi 1978, cited in Van Valin 1992).⁶

4.2.2.2 Operations on linking to macroroles

This subpart illustrates the relationship between two gr1 verbs that differ in transitivity. The basic form has only one macrorole and one simple core argument. With the second form, the simple direct core argument is assigned a macrorole status. An example is given below:

- (69) a. Abdù yaa zamnàa (à) kujèerar maalàm.
 Abdu 3ms.PERF sit-I (on) chair-of teacher
 'Abdu sat on the teacher's chair.'
- b. Abdù yaa zamnà (*à) kujèerar maalàm.
 Abdu 3ms.PERF sit-I on chair-of teacher
 'Abdu sat on the teacher's chair.'

Sentence (a) above presents again the achievement verb zamnàa 'sit' appearing with a locative argument optionally introduced by the preposition à. Whether the preposition is present or not, the verb appears in the A-form of the grade system, with a long vowel. In sentence (b) on the other hand, the verb is in its C-form --with a short vowel-- indicative of an undergoer presence (see section 6.1.4.1). The preposition here is impossible. The two forms are equivalent, but not entirely interchangeable. The verb zamnà can be linked to syntax in the following way:

- (70) a. Abdù yaa zamnà kujèerar maalàm.
 GR P
 MR A U
 TR loc th
 BECOME sit' (x, y)

In the diagram above, zamnà 'sit' has an actor (the theme) and an undergoer (the locative). As undergoer, the locative here is understood as affected. To emphasize the fact that a chair sat on is particular and relevant (such as the teacher's chair for example), the verb zamnà is most appropriate, although zamnàa too can be used. However, to emphasize the fact that someone has found some place to sit, then only the intransitive zamnàa is fine. Thus, in real life, a sentence such as yaa zamnàa tàabarmaa may mean 'he (visitor) opted for a mat' and imply something like: 'do not bother bringing a chair'. A sentence such as Abdù yaa zamnà

tàabarmaa 'Abdu sat on the mat' usually implies something special, for example if it is known that Abdu has mud on him. So, zamnà cannot be used if there is no possibility of an effect on the referent of the locative argument.

A further evidence for the undergoer status of the locative argument of zamnà is the fact that a causative implication can be obtained with zamnà, but not zamnàa. This is illustrated below:

- (71) a. ??Abdù yaa zamnàa kujèeraa taa karèe.
 Abdu 3ms.PERF sit-I chair 3fs.PERF break-VI
 'Abdu sat on the chair and it broke.'
- b. Abdù yaa zamnà kujèeraa taa karèe.
 Abdu 3ms.PERF sit-I chair 3fs.PERF break-VI
 'Abdu sat on the chair and it broke.'
- c. kujèeraa (cèe) Abdù ya zamnàa.
 chair cop.f Abdu 3ms.REL PERF sit-I
 'It is a chair that Abdu sat [on].'

In sentence (a) above, with the verb zamnàa 'sit', an outcome for the chair is odd and the sentence is anomalous (it would be as if the two events of sitting and breaking are not causally related, but only temporally related, which is strange). On the other hand, in sentence (b), with the transitive zamnà, the construction is fine, with the two events understood as related. Thus, hearers do not expect a consequence for the chair with zamnàa, but they do so with zamnà. Note also that in sentence (c), when the nominal kujèeraa is fronted, the copula cèe agrees with it in gender, and this shows that it is an undergoer nominal that is fronted, not a locative phrase, as it is the case with sentence (67) above (the transitive zamnà becomes zamnàa in fronting constructions for reason given in section 6.1.4.1).

There are also some syntactic and pragmatic restrictions, showing that the affectedness status of the locative is essential with zamnà, as illustrated below:

- (72) a. Abdù yaa zamnàa/ *zamnà kujèera.
 Abdu 3ms.PERF sit-I/ sit-I on.chair
 'Abdu sat on the chair.'
- b. Abdù yaa kwantàa/ *kwantà gado. (cf. gadoo 'bed')
 Abdu 3ms.PERF lie-I/ lie-I on.bed
 'Abdu lay on bed.'
- (73) a. Abdù yaa zamnàa/ *zamnà Maraadaawaa.
 Abdu 3ms.PERF sit-I/ sit-I Maradawa district
 'Abdu settled in Maradawa district.'

- b. Abdù yaa kwantàa/ *kwantà raariyaa.
 Abdu 3ms.PERF lie-I/ lie-I street
 'Abdu lay in the street.'

In (72), zamnà 'sit' and kwantà 'lie' cannot appear before place adverbial such as kujèera 'on chair' and gado 'on bed'. Also, the two verbs cannot appear with locative nominals (such as 'town', 'street', 'district') whose referents are not likely to be conceived of as affected, as seen in (73).

In conclusion, two gr1 forms can differ only in that the same argument is undergoer with one form, but a simple core argument with the other form. The undergoer triggers the C-form of the verb and behaves as an affected nominal. The two forms then are related by a lexical rule statable as:

- (74) Link a non-macrorole argument to the undergoer macrorole if it is an affected argument.

With this rule, only one form needs to be listed in the lexicon. So, both verbs are achievement verbs, and in this respect they are not distinguished by the aspectual classes tests in (52). The rule in (74) itself is very restricted and beside zamnà, I know of only two other gr1 verb pairs displaying the contrast: kwantàa/ kwantà 'lie'; faaDàa 'fall into', faaDà 'attack'. Most other verbs use the gr9 construction to mark an argument as affected.

4.2.2.3 Operations on Logical Structure

The relation involving a difference in the LS structure or content is the most common found among doublets of gr1 verbs. Typically, a transitive form has an undergoer which is not present at all with the intransitive form. The relation can be cast as an operation on the LS, where the LS is extended from one form to another. The operation essentially handles Newman's gr1-internal applicative HL-à affixation cases, so, most often, an achievement verb corresponds to an accomplishment verb. This is illustrated below:

- (75) a. Abdù yaa gittàa gàban masàllàataa.
 Abdu 3ms.PERF cross-I before-of people.praying
 'Abdu crossed in front of people praying.'
- b. Abdù yaa gittà sàndaa Koofà garkarshì.
 Abdu 3ms.PERF cross-I stick in.front.of garden-of-3ms
 'Abdu put a stick across the entrance of his garden.'
- (76) a. iccèe yaa kaamàa.
 plant 3ms.PERF take.hold-I
 'The plant took hold.'

- b. Indoo taa kaamà kiifii.
 Indo 3fs.PERF catch-I fish
 'Indo caught some fish.'

In (75a) above, gittàa is a durative achievement verb, embedding an activity predicate with Abdù as the effector argument and masàllàataa as the locative. In (75b), the accomplishment verb now has Abdù as the theme, sàndaa as the theme, and Koofà garkartà as the locative argument. Sentence (76a) presents one of the gr1 forms termed by Furniss as the metaphorical HL-aa shape. Here, it is a punctual achievement verb with an embedded condition state predicate. Thus iccèe 'plant' is a patient. In (76b), kaamà is a punctual accomplishment verb with Indoo as the effector and kiifii 'fish' as patient. The verbs gittàa 'cross' in (75a) and gittà 'cross' in (75b) are linked to syntax as seen below in (77a-b) respectively:

- (77) a. Abdù yaa gittàa gàban masàllàataa.
 GR P
 MR A
 TR th loc
 BECOME cross' (x, y)
- b. Abdù yaa gittà sàndaa Koofà garkarshì.
 GR P
 MR A U
 TR eff loc th
 [do' (x)] CAUSE [BECOME be-at' (y, z)]

Notice how the lexical-semantics of the verbs is different. The durative achievement in (a) denotes an accomplished action of crossing, hence, it embeds an activity motion predicate. gittàa indeed can be differentiated from both plain activity verbs and accomplishment verbs. A sentence such as yanàa gittàawaa gàban masàllàataa 'he is crossing before the praying people' does not imply yaa gittàa gàban masàllàataa 'he crossed before the praying people'. The verb requires a result state (having completely crossed). gittàa cannot satisfactorily be paraphrased by a causative construction. In (b), the accomplishment verb gittà 'put across' ultimately embeds a locational state predicate. The sentence can be successfully paraphrased as Abdù yaa sàa sàndaa à gícee Koofàa garkarshì 'Abdu put a stick across the entrance of his garden'. Because of the unpredictability of the meaning derivation, and the fact that they have different LSSs, gittàa 'cross' and gittà 'put across' can be considered as related by a lexical rule.

In conclusion to this section on gr1, the survey has shown that all aspectual classes are represented by isolate verbs. We have also exemplified three types of related forms. The

first type involve a contrast in linking of arguments to morphosyntax. An indirect core argument in one form becomes a core argument with the other form. The two other types of related forms involve a difference in transitivity. In the operation on the linking to macroroles, the transitive form has as its undergoer an argument which is a simple core argument with the intransitive form. Finally, two related gr1 forms can also differ in the structure of their LS. In the example provided above, the transitive form has an undergoer which the intransitive form totally lacks. As it can be seen, gr1 is a heterogenous grade. It cannot be characterized in a particular way, other than that it is a neutral grade. On the other hand, gr2 and gr3, can be given particular characterizations, as we see next.

4.3 INTERGRADE OPERATIONS

This section explores the contrast between gr2 and gr3 verbs on the one hand, and gr1 verbs on the other hand. It is shown that gr2 is made up of verbs with no more than two arguments in their LS. As for gr3, it is overwhelmingly made up of achievement verbs, usually with one argument in the LS.

4.3.1 GRADE 2

Grade 2, on the surface, exhibits a striking regularity: all of its verbs are strictly syntactic monotransitive verbs.⁷ However, problems arise when one tries to capture the motivating factor, semantic or else, behind the syntactic regularity. On this point, in the opinion of many Hausaists (Parsons 1954, 1971-72, Abrahams 1959, Lukas 1964, Pilszczikowa 1969, Newman 1973:328n34), any attempt at globally characterizing the semantics of gr2 is doomed to failure. All the above authors proposed a number of lexico-semantic subclasses for gr2, after giving up the search for a unified account. Abraham (1959) sets up twenty gr2 classes. Parsons (1954, in Pilszczikowa 1969) has twelve classes, and Pilszczikowa (1969) has six groups with over forty subclasses. The problem with these approaches is that most of the classes found in gr2 can also be found in other grades, particularly in gr1. Also, there seems to be no limit to the number of the lexico-semantic classes that can appear in gr2, as long as there is no underlying constraining principle. Two recent proposals however claim to have found such principle.

Gouffé (1988) is the first to question the utility of setting up the lexico-semantic classes. He proposes a global multitiered classification for the grades, a classification which embeds three types of oppositions, two of which concern the verb valence and the grades' semantics. The third opposition, which concerns us most, is that of diathesis or voice. According to Gouffé, the function of gr2, gr3, and gr7 is to express the internal diathesis or middle voice. The three grades have the following features indicative of internal diathesis: a) the subject is

the locus of the process described by the verb, that is, "le sujet est intérieur au procès dont il est l'agent" (Benveniste 1966, in Gouffé 1988:36); b) the subject "effectue en s'affectant" (Benveniste 1966) in the sense that the agent expects a gain or some consequences for himself from the modification imposed on the patient; c) the internal diathesis is incompatible with a third argument, hence, the failure of gr2, gr3, and gr7 to take a dative with mà+NP. There are problems with all three points.

The subject as locus of the verb's process may be true for the intransitive gr3 and gr7, but not for all gr2 verbs. Gouffé himself provides no examples to illustrate his claims. However, a couple of cognition state verbs such as tsòoràci 'be afraid of', hùsàaci 'be angry at' can indeed be conceived as describing an event internal to the subject. But the majority of gr2 verbs cannot be so conceived. Thus, in sunàa jiifàr shèeDân 'they are throwing at Satan' the action is certainly taking place outside the subject. Gouffé's second point seems to concern gr2 only, as gr3 and gr7 are intransitive and have no patient DO (in his framework). However, the agent's being affected by its action is certainly not a characteristic of gr2 only. Thus, in gr2 yaa kòori sâa 'he chased away the bull' and gr1 yaa koorà sâa 'he drove the bull along', the subject seems to be no more affected in g2 than in gr1 (see also Tuller 1990a,b, Sweats 1989). It is true that some gr1/ gr2 contrasts (arà 'lend', àri 'borrow') are comparable to the Indo-European voice contrast (Sanskrit yajati 'he-priest carries out a sacrifice', yajate 'he offers a sacrifice (for his own sake)'). However, these contrasts involve only a fraction of gr1 and gr2 verbs (these verbs constitute just one of the many gr2 subclasses). Finally, below in chapter 5, it is shown that all grades can syntactically combine with gr5 dà+NP and gr9 mà+NP; so, Gouffé's third point too is invalid.

The second proposal is from Tuller (1990b). She first gives a semantic analysis of gr2, followed by a syntactic generalization in terms of argument structure. She shows that Gouffé's characterization of gr2 as involving a benefactive subject is only half the story. According to her, "grade 2 verbs seem to involve two major classes: verbs in which the action is directed toward the [subject] (which thus have a felicitous translation with a benefactive reflexive) and verbs in which the action is not directed toward the [subject], but toward the object, [...]. In both cases, the action of the verb seems to imply a direction--a GOAL." (p.26) For Tuller, the abstract predicate -i (gr2) assigns the thematic role GOAL to either the subject or the object (as is the case in theories other than RRG, this relation is put forth as primitive). The -i predicate is a particle c-commanded by V (the lexical, primary verb) and heads a "small clause" whose (internal) "subject" is the nominal assigned the GOAL relation. On the surface, the small clause subject can be the subject or the object of the lexical, primary verb, thus giving the two major classes of gr2 (direction to subject vs.

direction to object). With the gr2 action directed toward the surface object the structure below obtains (diagrams (78-80) are readaptation of GB-type trees from Tuller 1990b):

(78)	NPINFL	vp[V s[NP PRT (PP)]]
	Aali yaa	bùgi yaaròo -i dà duutsèe
	Ali 3ms.PERF	hit-II boy with stone
	'Ali hit the boy with a stone.'	

In the diagram above, the lexical verb takes as complement the small clause headed by the PRT (particle) -i (gr2). Inside the small clause, the subject is yaaròo 'boy'. The predicate -i can also have an optional PP complement in the small clause, as seen above.

There are also some gr2 verbs such as tsòoràci 'fear', which Tuller considers to be "unaccusative" gr2 and for which she proposes the following structure:

(79)	NP INFL	vp[V s[NP PRT NP]]
	Aali i yaa	tsòoràci t_i -i zaakookii
	Ali 3ms.PERF	fear-II lions
	'Ali fears the lions.'	

Here, the "action" of 'fear' is oriented to Aali, so, he is the GOAL subject of the predicate -i in the small clause. Because the primary verb is unaccusative, the GOAL subject of -i has to move to the external subject position to receive case from INFL. So, it leaves a trace in the subject position of the small clause. zaakookii 'lions' is treated as a simple complement of -i. In short, the action here is directed toward the lower subject which also happens to be the higher subject by unaccusative advancement. So, tsòoràci 'fear' falls in the category of verbs with an action directed toward the object.

For gr2 verbs where the action is directed toward the higher subject, Tuller invokes the notion of PRO and proposes the following structure:

(80)	NP INFL	vp[V [NP s[NP PRT]]]
	Aali i yaa	àri mootàa PRO _i -i
	Ali 3ms.PERF	borrow-II car
	'Ali borrowed a car.'	

Following Baker (1985), Tuller assumes that a given theta role must always be assigned to the same syntactic position. Thus, the subject of the particle -i must be in the small clause. However, no movement is possible from the inner subject position to the higher subject position. So, Tuller posits that the inner subject is PRO, an "abstract reflexive", coreferenced with the higher agent subject, as seen in (80) above.

There are problems with the details of the analysis as well as the central claim. The central claim is that the gr2 particle -i assigns a GOAL theta role. Yet, arguments that are intuitively GOAL are certainly not limited to gr2. Thus, a sentence such as Indoo taa surBà ruwaa 'Indo sipped some water' clearly contains a type of goal, Indoo. So, the GOAL function of gr2 does not isolate it from other grades. More problematic is the stretching of the notion of GOAL to apply even to cognizers such as the subject of 'fear' and other cognition verbs. Note that overall, even GB-internally, the proposed structures seem very ad hoc. There is no independent evidence adduced to justify them.

Finally, the real purpose behind Tuller's analysis is to account for the fact that gr2 verbs are incompatible with gr9. Indeed, she also analyzes gr9 as involving a small clause, V-mà [NP NP], and claims that two small clauses cannot cooccur, hence the incompatibility between gr9 and gr2 (and gr 3 and gr7). In chapter 5 however, it is shown that every grade can cooccur with gr9, a fact which should obviate the need for hypotheses geared toward explaining the incompatibility.

Below, the Logical Structures of gr2 verbs are analyzed. It is shown that gr2 contains all of the aspectual classes of state, achievement, activity, and accomplishment verbs, which implies it has the various thematic relations found in LSs. The verbs' classes are determined with the tests seen in section 4.1. It is also shown however that the gr2 verbs are limited to two core argument positions. Based on the contrasts between gr1, gr3 on the one hand and gr2 on the other hand, this subsection suggests that the overall function of gr2 is to select a unique argument for the verb beside the pivot. The claim is that the selected argument is understood as a "figure" or as a "ground" in the sense of Talmy (1985). Talmy (1985:129) defines the theme as the salient entity that is moved or located, while the ground is the reference with respect to which the figure is moved or located in a motion or location event. Grade 2 then can be functionally conceived of as a highly contrastive construction where either one of the figure or ground argument is underlined as the undergoer of the verb's action, while the other potential co-argument is left unspecified or expressed as an optional peripheral adjunct, or else linked to another argument in the verb's LS, usually the actor. This argument-selection process contrasts gr2 against gr1 where verbs can have both figure and ground arguments, or they can appear with neither. Grade 2 also contrast with gr3, which is intransitive, in which case the gr2 verb seems to have an added argument in its LS. Or else, the gr2 verbs link to the undergoer macrorole an argument which is a simple core argument with the corresponding intransitive form. So, in examining related verbs across the grades, it can be seen that gr2 fulfills its argument-selection function in a variety of ways, depending on the verb considered.

The investigation will proceed using the gr2 lexico-semantic classes found in the literature as well as new ones, all set up only for reasons of convenience. The gr2 LSs in eleven lexico-semantic subgroups are explored next.

4.3.1.1 Subgroup 1: the "send away" verbs

This subgroup is one of four which, as observed by Parsons, contrasts three-place gr1 verbs with two-place gr2 verbs, and are the basis for the restricted valence hypothesis of Tuller (1990b). Some members of this subgroup are àiki 'send (s.o. away in commission)' and kòori 'chase away'. An optional locative is possible with àiki, but less so with kòori. In gr1, both verbs require an overt or a clearly understood locative argument. The proposal here is that the gr1 versions are accomplishment verbs with an effector, a theme , and a locative arguments. The gr2 versions are accomplishment verbs with an effector and a theme only as core arguments. The aikà/ àiki contrast is illustrated below:

Here, the difference between the gr1 form in sentence (a) above and the gr2 form in sentence (b) is that the punctual accomplishment verb in gr1 embeds a locational state predicate with a theme and locative arguments that are obligatory core arguments. On the other hand, the punctual accomplishment verb in gr2 embeds a locational state verb with a theme only as core argument. The locative argument position is not realized as a core argument and this is shown by the optionality of kàasuwaa 'market' in sentence (b). This analysis seems to be consistent with the semantics and pragmatics associated with the above sentences. In sentence (a), the location where Indoo is sent is of prime relevance.⁸ Here, the theme can be animate or inanimate. In sentence (b), the relevant fact is the whereabouts of Indoo, where Indoo is sent is not important. In particular, the verb's selectional restrictions allow only humans conscious enough to be commissioned. In short, the locative

argument is pragmatically irrelevant, and the focus is on the theme alone. So, the present analysis assumes that locative argument of the gr2 verb is unlike the locative argument of a gr1 verb. The gr2 locative phrase is not only optional, but it has a different syntactic behavior than the obligatory locative phrase of a gr1 verb. This can be seen in the fact that the locative can follow a purposive clause in gr2, but in gr1 the sentence is odd with the purposive clause followed by the locative argument. This is illustrated below:

- (82) a. Abdù yaa aìki Indoo [tà sayoo mài
 Abdu 3ms.PERF send-II Indo [3fs.SUB buy-VI MA-3ms

fùree] kàasuwaa.
 flower] market

'Abdu sent Indo to buy him flowers at the market.'

- b. ?Abdù yaa aikà yâranchì [sù kòoyi
 Abdu 3ms.PERF send-I children-of-3ms [3p.SUB learn-II

kàràatuu] kanòo.
 study] Kano

'Abdu sent his children to study in Kano.'

The sentence in (b) above is usually rendered as Abdù yaa aikà yâaranchì Kanòo sù kòoyi kàràatuu. With the gr2 verb in (a), the locative can follow or precede the purposive clause with an equal grammaticality. Notice also that the subject, contrary to Gouffé's claims, is no more affected or beneficiary in one grade than in the other. Similarly, in gr1, the "GOAL" seems to be the locative 'market'. In gr2 however, that GOAL is irrelevant or non-essential. There is no reason why one would say (as Tuller does) that Indoo in (81a) is GOAL while it is clearly the entity moving to a location.

4.3.1.2 Subgroup 2: the "projective-applicative" verbs

Another contrast between gr1 and gr2 is illustrated by the impact verbs (or Parsons' projective-applicative class). Members of this subgroup include: halbà 'shoot (arrow)', hàlbi 'shoot at'; jeefà 'throw', jèefi 'throw at'; bugà 'hit against', bùgi 'hit'; gwabrà 'hit against', gwàbri 'hit'; bankà ram (s.th.) into', bànnki 'bump into'; etc. With these verbs too, the gr1 form has an obligatorily specified locative argument, but the gr2 form has no such locative. The difference with the subgroups seen above is that here, a shift of the undergoer argument is also involved. In gr1, the theme argument is the undergoer, but it is an instrumental in a PP in gr2 (if expressed at all). As for the locative argument, it appears as an obligatory indirect

core argument in gr1, but in gr2, in a marked macrorole assignment pattern, it becomes the undergoer. The analysis proposed here is that in gr1, we have an accomplishment verb with an effector, a theme, and a locative as obligatory core arguments. In gr2 on the other hand, we have an accomplishment verb with an effector and a locative only as the specified arguments of the embedded state predicate. This analysis is similar to that proposed for the subgroup 1 above, only here, it is the theme position that is demoted in gr2. Also, with gr2 the possibility exists for the theme to refer to the same entity as the effector. The bankà/ bánki forms are illustrated below:

In sentence (a), Indoo is the effector, mootàa 'car' is the theme and undergoer argument, while iccèe 'tree' is the locative, which is required. In sentence (b) with the gr2 verb, iccèe 'tree' is now the undergoer and mootàa 'car' is expressed as an optional peripheral adjunct. With gr2, the theme argument is no longer in the core of the clause, contrary to the theme of a gr1 verb. Here then, gr2 serves to emphasize the locative argument as the affected argument. This shows that gr2 can select either the ground or the figure argument (as is the case in the subgroup 1). Note also that if no peripheral theme argument is mentioned, the theme can refer to the same entity as the effector. In this case, as seen in sentence (c), the two roles are linked to the actor macrorole.

4.3.1.3 Subgroup 3: the "relational" verbs

This subgroup was identified by Parsons as the "relational" class. Here too a locative argument is obligatory in gr1 but not in gr2. This is similar to the previous subgroup in that the non-macrorole locative nominal of gr1 is expressed as the undergoer in gr2. In gr1, the theme is distinct from the sentence pivot, but in gr2, the pivot is understood to also be the theme. The proposed analysis is that the gr1 form is an accomplishment verb with a locational state predicate containing two arguments, the theme and the locative. On the other hand, with the gr2 form, the theme position in the LS is not linked to the morphosyntax. Instead, the theme position is linked to the role of the actor/ effector. This is illustrated below with kusàntà / kùsànci 'approach':

In (a), sarkin yaaKii 'war chief' is the effector in the accomplishment verb, the nominal ründunaa 'army' is the theme while Zazzàu is the locative. In (b), with the gr2 form, the theme argument is specified but it is linked to sarkin yaaKii 'war chief', which is still the effector, while Zazzàu is the locative.

4.3.1.4 Subgroup 4: the "transactional" verbs

The transactional subgroup, identified by Parsons, is similar to the subgroup 1 in that the same argument is the undergoer in gr1 and in gr2. Again the surface difference is that in gr1 a specified location is obligatory, but not in gr2. Members of this subgroup include: sayaà (mà) 'buy (s.th. for s.o.)', sayı 'buy' ('sell' is gr5 sayar dà); Duurà 'fill (s.th.) in', Dùuri 'fill (s.th.) in (and carry)'; arà 'lend', arı 'borrow'; etc. The analysis of this subgroup is that the gr1 forms are accomplishment verbs, while the gr2 forms are also accomplishment verbs, but where a locative argument is lacking, is expressed as a peripheral argument, or is linked to another argument in the LS. The contrast arà/ arı is illustrated below:

- (85) a. *taa arà kèekentà gà Abdù. 9
 3fs.PERF lend-I bike-of-3fs at Abdu
 GR P
 MR A U
 TR eff loc th
 [do' (x)] CAUSE [BECOME have' (y, z)]
 'She lent her bike to Abdu.'

b. taa àri kèekee.
 3fs.PERF lend-II bike
 GR P
 MR A U
 TR eff loc th
 [do' (x)] CAUSE [BECOME have' (y, z)]
 'She borrowed a bike.'

In diagram (a) above, the effector taa 'she', brings it about that the theme argument kèekentà 'her bike' is with Abdù, the locative. In diagram (b), there are also three arguments, the effector, the theme, and the locative. The locative is however linked to the actor/ effector. Note that the contrast in sentences such as those in (85) is the basis of Gouffé's (1988) proposal that the subject is affected in gr2. In the analysis proposed here, the sense that the actor's referent possesses the undergoer's referent does not follow from the gr2 marker itself, but it obtains from the combination of the semantics of this class of verbs plus the gr2 argument-selection processes. The interaction seems to revolve around the fact that when a demoted argument is not peripherally expressed, then the effector can be understood as playing the role of the unexpressed argument. Thus, in (84b), sarkin yaaKìi 'chief of war' is the notional theme, coming near the location. In (85b) above, the actor/ effector Indoo is also the notional locative/ beneficiary argument. These interpretations depend on the syntactic environment (expression of a peripheral argument or not) and on the semantics of the verb (with àiki 'send' in (81b) the effector cannot in any way be reinterpreted as the locative). Because the linking of the unexpressed locative/ beneficiary argument to the "subject" is only one of many possibilities, one cannot generalize this function to the gr2 morpheme itself. Indeed, it is perfectly normal to say a sentence such as Indoo taa aram mà Dantà kèekee 'Indo borrowed a bike for her son, where properly speaking, Indo is not the beneficiary of the action but her son (cf. the expanded LS of arà/ àri in note 9).

The verb sayàa (mà) 'buy (s.th. for s.o.)', sàyi 'buy' can be analyzed like arà/ àri 'lend/borrow'. The gr1 form contains in the core all the three argument of the accomplishment LS, while the gr2 form has the locative argument unexpressed. This is illustrated below:

- (86) a. Indoo taa sayàa mà Abdù bàalôô.
 Indo 3fs.PERF buy-I MA Abdu ball
 GRP
 MR A U
 TR eff loc th
 [do' (x)] CAUSE [BECOME have' (y, z)]
 'She bought Abdu a ball.'

b. Indoo taa säyi bàalôô.
 Indo 3fs.PERF buy-II ball
 GRP
 MR A U
 TR eff loc th
 [do' (x)] CAUSE [BECOME have' (y, z)]
 'Indo bought a ball.'

c. Indoo taa sayar dà bàalôô.
 Indo 3fs.PERF sell V ball
 GRP
 MR A U
 TR eff loc th
 [do' (x)] CAUSE [BECOME NOT have' (y, z)]
 'Indo sold a ball.'

The sentence in (a) above has an obligatory marked undergoer choice rule, where the animate locative Abdù appears with mà (cf. chapter 5). The effector is Indoo, bàalôo 'ball' is the theme, here a simple core argument (cf. chapter 5). In gr2, the locative position is linked to the effector which is interpreted as the beneficiary of the action (that is, unless another beneficiary is specified in the periphery as it is possible, as in Indoo taa sayì bàalôo sabòodà yâarantà 'Indo bought a ball for the sake of her children'). In sentence (c), we have the gr5 form of the verb sayar dà 'sell'. One must assume that the adjunction of gr5 dà relates to the BECOME NOT **have**' portion of the LS of the verb 'buy', which specifies that the seller is no longer in possession of the goods sold (i.e. the "efferential" function of gr5, as seen in section 5.2.5). In this sense, the effector, if context permits, can be interpreted as the source/locative (the cancelled locative can be someone else as in taa sayar dàa mà Abdù bàalôo 'she sold Abdu's ball'). The gr5 arar dà 'lend (s.th.) away' can have a similar representation (here too one may assume that V+dà is a lexical process which is expressed syntactically --cf. Dowty 1979 and Van Valin 1992 for the distinction between lexical and syntactic phenomenon vs. lexical and syntactic rules; and in fact, in Katsinanci, 'sell' is usually expressed by the conflated and reanalyzed form saidà (mà) 'sell to' or 'sell to the detriment/benefit of'; cf. also the expanded LS for 'buy/ sell' in (ii), note 9).

With the preceding verbs, we saw cases where the locative argument can be understood as a goal/ recipient. There are many gr2 verbs, many of which do not have a corresponding

gr1 form, that primarily involve the removal of a theme from an unspecified source/ location. Some examples are given below:

- (87) 'snatching' verbs:
- | | |
|------------------|----------------------|
| a. tsàami | 'take out of liquid' |
| b. wàbci, Kwàaci | 'snatch' |
| c. wàrci, sàbci | 'snatch' |
| d. riidi, fiigi | 'snatch' |

All these verbs have the LS: [do' (x)] CAUSE [BECOME NOT be-at'] (\emptyset , z), where the locative argument is zero. Indeed, the verbs above emphasize that a source/ location was depived of something, but the verbs do not allow the expression of the source/ location. Thus, one cannot satisfactorily say ??Indoo taa Kwàaci/ wàarci/ riidi albèe dàgà Abdù 'Indo snatched the wallet from Abdu', but instead, one must use a possessive construction or the gr9 V+mà construction (cf. taa riidi albèn Abdù, taa riidam mà Abdù albèe, both 'she snatched Abdu's wallet'). Because the locative argument is not expressed, the verbs' LS is assumed to have a cancelled (zero) locative argument. The next subpart deals with the "partitive" verbs, where the source/ locative argument is a whole from which a part is removed.

4.3.1.5 Subgroup 5: the "partitive" verbs

This subgroup differs from the preceding one in two ways. First, the gr1 verbs do not have a locative argument. They are syntactically monotransitive like the gr2 verbs. Secondly, the gr2 verbs express not a possession, but a partitive removal. Typically, the gr1 form does not necessarily entail any transfer of the undergoer's referent after the action. In gr2, part of the undergoer's referent is understood to be carried away or appropriated by the actor's referent. The subgroup includes the following verbs:

- (88) Verbs with a partitive sense in gr2:
- | | |
|------------------------|------------------------------|
| a. aunà 'measure' | àuni 'measure off and carry' |
| b. Kilgà 'count' | Kìlgì 'count and take' |
| c. karyà 'break' | kàryi 'break off' |
| d. saarà, daatsà 'cut' | sàari, dàatsi 'cut off' |
| e. yankà 'cut' | yàngki 'cut off some' |
| f. (no gr1 form) | Dèebi 'take some' |

In (88) above, both gr1 and gr2 forms are strictly transitive. However, only the gr2 forms have a partitive semantics, as reflected in the English gloss with 'cut off some' in example (e). Also, it is usually understood that the effector's referent carries away the part taken off. For this reason, many authors (including Gouffé 1988, Tuller 1990b, Bature 1991) also

associate a reflexive sense with gr2 verbs. It is claimed here that there is no need to specifically assign the gr2 morpheme a partitive function on the one hand; or a reflexive function on the other hand.

The partitive feature is due to the basic semantics of the verb, whose locative argument is the whole of the undergoer (a mass, matter, etc), not a place or a container. This is exemplified in the diagrams below for yankà 'cut' and yàngki 'cut off' (for the full LS of the verb 'cut' see (iii), note 9):

As shown in (89a), the gr1 form is taken as an accomplishment verb, with a condition state predicate taking a patient argument. Also, the gr1 form has no implication whether or not Abdù took the whole or part of the meat. The gr2 verb in (89b) is also an accomplishment verb, but it has a locational state predicate. The state predicate has two positions, a cancelled locative argument and a theme. The particularity of the (cancelled) locative argument is that it is the whole of the undergoer argument. yànki 'cut' is a removal verb, as indicated by the presence of the operator NOT in the LS. However, the removal is from the mass of something, not out of a container, therefore, the theme can only be a part of the whole in question, hence the **be-part-of** predicate in the LS. Thus, the partitive feature is dependent on the verb. Here too, gr2 is only fulfilling its function of selecting one argument, the figure or the ground. With yànki 'cut off', usually it is the ground (the whole) which is not selected, so that the undergoer refers to the part which is cut and taken (it is possible sometimes to specify the locative peripherally, as in Abdù yaa yànki antà dàgà/ gà ràagon Aali 'Abdu cut off a liver from/ from Ali's ram').

In short, one cannot associate the partitive semantics with the gr2 morpheme. Such approach clearly would encounter problems with verbs of other subgroups for which there is no partitive reading. The approach would also have problems with the very verbs of the

present subgroup when the locative (the whole, the ground), as it is possible, is selected as the undergoer. This is illustrated below:

- (90) a. wan'ìn ràagòn nee Abdù ya yànkaa.
 that ram cop.m Abdu 3ms.REL PERF cut-II
 'It is that ram that Abdu cut (some meat from).'
 (while pointing to an incomplete carcass)
- b. Abdù yaa yànki ràagon Aali.
 Abdu 3ms.PERF cut-II ram-of Ali
 'Abdu cut (off some meat from) Ali's ram.'

Now the LS of yànki 'cut into', as used in (90) above can be: [**do'** (x)] CAUSE [BECOME NOT **be-part-of'** (y, Ø)]. In this LS, the argument cancelled is the theme (the part, the figure), and the locative is selected. Pragmatically, all the focus is on the incomplete roast sheep, and the part taken is not expressed at all, yet the sentences do have some partitive sense. For the accounts taking gr2 as a partitive grade, there would be some need to postulate that the partitive semantics is present even when the partitive morpheme -i is followed by the whole as the undergoer. The LS representation on the other hand captures the relevant generalization that gr2 selects one or the other argument, and this does not affect the inherent partitive semantics of the verb. Note also that both LSs in (89) are part of a more expanded unitary LS, as given 9n (iii) note 9, so that in fact, both gr1 and gr2 verbs have the same LS but differ in their linking to morphosyntax.

There is even a more troublesome problem for the partitive gr2 analyses. As seen in (89) above, the gr1 form of the partitive verbs are syntactically monotransitive, they do not take an obligatory locative argument. Thus, gr2 yànki 'cut off' (or 'cut into'), with three positions in its LS has no corresponding gr1 verb which would also have three arguments in its LS. The closest three-place gr1 counterpart to yànki 'cut off' may have to be daDà 'add', where the effector's referent adds a part (theme) to a whole (locative). This is illustrated below:

- (91) dàDà wannàn gooròn à gooròn dà na baa
 add-I this kolanut to kolanut that 1s.REL PERF give
 kà Dàazu .
 2ms while.ago

'Add this kolanut to the kolanut I gave you last time.'

The verb daDà 'add' can be represented as [**do'** (x)] CAUSE [BECOME **be-part-of'** (y, z)] with all the arguments realized. Clearly, in its usage, this verb is "partitive" to the same extent as gr2 yànki 'cut off'. The difference here is that the part is added, not removed.¹⁰

Another claim of this subpart is that neither the partitive gr2 verbs nor the gr2 itself are inherently associated with a reflexive sense where the effector is the beneficiary of the action. As we have seen for the preceding subgroup, the effector is interpreted as locative/beneficiary only if no other beneficiary adjunct is specified. This is indicated here by the fact that the LS representation does not even contain the **have'** predicate. There are other gr2 verbs which do embed the **have'** predicate, and they can be shown to behave differently from the partitive verbs. Thus, with the real possession verb, a counterfactual construction is fine, but such construction is odd with the partitive verbs. This is illustrated below:

- (92) a. Indoo taa sàamu kuDii **àammaa** taa bàa Aishà.
 Indo 3fs.PERF obtain-II money but 3fs.PERF give Aisha
 'Indo got some money but gave it away to Aisha.'
- b. mafaucii yaa yàngki naamàa (**??àammaa**) yaa bàa
 butcher 3ms.PERF cut-II meat (but) 3ms.PERF give
 Indoo.
 Indo
 'The butcher cut off some meat ??but/ and gave it to Indo.'

With a true gr2 possession verb as in (92a), the effector's referent is assumed to keep the result of the action for his own use. So, in this context, a counterfactual construction is appropriate. A verb like sàamu 'obtain' can be represented as an achievement verb with the LS: BECOME **have'** (x, y), where the locative is the actor and the theme the undergoer (there do exist gr2 verbs without argument cancellation). In the gr2 sentence in (92b), the counterfactual construction is very odd. The sentence is fine without the conjunction àammaa 'but'. The possessor/ beneficiary status of the effector's referent is secondary or contingent with the partitive verbs, it is not a property inherent to them or to the gr2 morpheme.

In conclusion, the analyses of gr2 as a partitive grade or a reflexive grade should be done away with. We have seen above that the partitive semantics is due to the basic lexical meaning of the verb, while the reflexive sense depends only on a contingent interpretation.

4.3.1.6 Subgroup 6: the "look afar" verbs

With this subgroup starts a new type of gr1/ gr2 contrast. Here, the gr1 forms are syntactically intransitive, while the gr2 forms are transitive. Typically, with the 'look afar' verbs, the gr1 is followed by a locative nominal which is marked as a non-macrorole direct core argument. The gr2 verb on the other hand is followed by a nominal which is marked as the undergoer argument. One contrast is illustrated below:

- (93) a. yaa hangà gusùm.
 3ms.PERF look-I south
 GR P
 MR A
 TR agt exp th
 BECOME [DO (x, [see' (x, y)])]
 'He looked toward the south.'
- b. yaa hàngi Abdù.
 3ms.PERF see.afar-II Abdu
 GR P
 MR A U
 TR exp th
 see' (x, y)
 'He sighted Abdu.'

There is a basic semantic difference between the two verbs above. The gr1 hangà translates as 'look far toward (a certain direction)'. The verb incorporates an agentive perception predicate DO (x, [see' (x, y)]) with an agent/ effector and a theme argument. However, it is not an activity verb, but it is a punctual achievement verb, where the activity predicate is modified by the operator BECOME, as indicated in (93a). That the gr1 verb in (a) is not a plain activity verb is shown by the fact that it cannot appear with the continuous gà (*yanà gà hangàawa gusùm 'he is looking far toward the south'); it is not a plain state verb either because its action can be ordered (hangaa gusùm! 'look toward the south!'). In sentence (b), the gr2 verb in its regular usage means 'see afar' and is a perception verb, ambiguous between a simple state verb and an activity verb. For example, it cannot satisfactorily appear with the continuous gà (*Aali nàa gà hàngen Abdù 'Ali is sighting Abdu'), nor can it appear in the imperative (*hàngi Abdù! *'look far at Abdu!'). This shows that it is a state verb. On the other hand, the following two question sentences in the perfect and the continuous seem to be equally acceptable: mì sukà hangaa? 'what did they see?' and mì sukèe hàngee? 'what are they looking at?'. Thus, the verb can also be used as an agentive activity verb with the LS: DO (x, [see' (x, y)]).

The two verbs in (93) above also differ among them in that with the gr1 form, the theme gusùm 'south' is not a macrorole argument (it does not trigger the C-form of the verb). In the gr2 sentence, the theme Abdù is the undergoer. Neither verb can take an adjunct (*taa hangàa gusùm dan Abdù 'she looked south for Abdu'). Contrary to the situation in the preceding subgroups, here, the gr2 form does not have a cancelled position. This fact in itself is not a problem for the functional generalization that gr2 select either a figure or a ground as undergoer, because the gr2 does select an undergoer. My analysis of (93) above is that the gr1 form take a space or a physical background as a theme-argument. This

theme-argument realizes as a simple core argument, in a marked morphosyntactic linking. The gr2 on the other hand takes a specific object or a point in space as its theme-argument. This theme is linked to the undergoer macrorole, as it should be in the default way. So, it seems as if the gr2 form in (93b) is the basic form, from which the gr1 form is derived by an operation on the linking to macroroles and morphosyntax. In this analysis, the theme referent of Abdù in (93b) is selected against the background where he stands. That this is likely is shown by the fact that points in space are ungrammatical with the gr1 form (although large spaces can occur with gr2 verbs). This is illustrated below:

- (94) a. *taa hangà/ hangàa Abdù.
 3fs.PERF look-I/ look-I Abdu
 '?'
- b. taa hàngi gusùm.
 3fs.PERF look-II south
 'She looked toward the south.'

Thus, nominals like Abdù cannot appear following the gr1 form (whether as undergoer or as simple core argument), as indicated in the example (a) above. Sentence (b) shows that entities like 'south' can be taken as figure and appear with the gr2 form as the object of the sighting. However, the analysis is supported by the fact that although gusùm 'south' can appear in gr2, it cannot do so when a point in space is also specified as an object of sighting in the same sentence. This is illustrated below:

- (95) a. taa hangàa gusùm taa tsìnkàayi Abdù.
 3fs.PERF look-I south 3fs.PERF sight-II Abdu
 'She looked toward the south and saw Abdu.'
- b. *taa hàngi gusùm taa tsìnkàayi Abdù.
 3fs.PERF look-II south 3fs.PERF sight-II Abdu
 'She looked toward the south and saw Abdu.'
 (cf. *She sighted the south and saw Abdu.)

In (a), hangàa 'look toward' can occur without clash with the gr2 verb tsìnkàayi 'look afar' (a verb with no gr1 form, in Katsinanci at least). Pragmatically, the sentence is fine. Sentence (b) shows that both verbs cannot be in gr2; the sentence would be odd pragmatically. Indeed this amounts to saying that the experiencer's referent is sighting both gusùm 'south' and the referent of Abdù at the same time. This clash is understandable if one conceives gusùm as the ground and Abdu as the figure. In (b) then, the experiencer would be relating to both ground and figure as figures. Notice that gusùm 'south' can be a figure too, that is, the 'object' of sighting, as seen in (94b).

There is one verb of the present subgroup which shows a contrast both gr1 internally and with a gr2 form. This verb is illustrated below:

- (96) a. sun diibàa Dakà sunàa neeman zoobè.
 3p.PERF search-I in.room 3p-CONT search-II-DN ring
 GR P
 MR A
 TR eff loc
 search' (x, y)
 'They searched the room, looking for the ring.'
- b. yaa diibà injin kin mootàr.
 3ms.PERF examine-I engine-DEF of car-DEF
 GR P
 MR A
 TR eff loc
 [search' (x, y)] CAUSE [BECOME examined' (y)]
 'He examined the car's engine.'
- c. yaa dìibi injin kin mootàr.
 3ms.PERF look-II engine-DEF of car-DEF
 GR P
 MR A U
 TR eff loc
 search' (x, y) [+MR]
 'He looked (glanced) at the car's engine.'

These verbs are very different in meaning and respond differently to the tests of the aspectual classes. Sentence (a) above shows an intransitive gr1 form with a long final vowel (it has no understood undergoer). This intransitive verb diibàa 'search' can appear with the continuous gà, and the continuous aspect entails that the action is performed at any point in time (Indà sukèe diibàawaa 'where they are searching' entails indà sukà diibàa 'where they searched'). This verb is different from hangà 'look (direction)' in (93a), which does not pass the activity verbs tests. Sentence (b) shows another gr1 form which pass the accomplishment verb test. It can appear as complement of 'stop' and 'finish' (yaa gamà/ dainà diibà injii 'he finished/ stopped examining the engine'). The two verbs diibàa 'search' and diibà 'examine' are a pair of an activity and accomplishment verbs to be related by a lexical rule. The gr2 form in sentence (c) has the same LS as the verb in sentence (a). Only in (c), the LS has the specification [+MR] which indicates that the verb is transitive and has one more macrorole. One can propose that the gr2 form in sentence (c) selects the theme injin 'engin' as the undergoer figure argument, while the supposed but unexpressed ground argument is the background space.

4.3.1.7 Subgroup 7: the "emotional" verbs

This and the remaining subgroups are not easily accommodated in the analysis of gr2 as a figure/ ground argument selection construction. Therefore, no claim will be made in this regard, other than to stress the fact that the majority of gr2 verbs occur in the previous subgroup. So, the exceptional subgroups become less significant as an exception. The presentation of the remaining subgroups will give their lexical decompositon and the processes relating the forms.

Examples of the emotional verbs class include: gr1 fusàatà 'anger', gr2 fùsàaci 'be angry at', gr3 fusatà; gr1 tsooràtà 'frighten', gr2 tsòoràci 'fear', gr3 tsòoratà; gr1 kwaDàità 'still envy to', gr2 kwàDàici 'desire', gr3 kwàDaità 'become envious'; gr2 soo 'want'; gr2 tsàni 'hate'; gr2 tsàrgi 'despise'; gr2 Kàbnàci 'love'. An example for these verbs is illustrated below:

- (97) a. Zaakìi yaa tsooràtà Abdù.
 lion 3ms.PERF frighten-I Abdu
 GR P
 MR A U
 TR eff exp th
 [do' (x)] CAUSE [BECOME fear' (y, x)]
 'The lion frightened Abdu.'
- b. Abdù yaa tsòoràci zaakìi.
 Abdu 3ms.PERF fear-II lion
 GRP
 MR A U
 TR exp th
 fear' (x, y)
 'Abdu fears the lion.'
- c. Abdù yaa tsòoratà.
 Abdu 3ms.PERF be afraid-III
 GRP
 MR A
 TR exp
 BECOME fear' (x, Ø)
 'Abdu got afraid.'

The gr1 form in (a) is an accomplishment verb, with an embedded cognition state predicate. The nominal zaakìi 'lion' is the effector and the theme (stimulus), while Abdù is the experiencer. For this sentence to be felicitous, the lion has to do something which then causes Abdu to be afraid. In diagram (b) however, the gr2 form is a simple cognition state verb. Here, it is not necessary that the lion make any move for the sentence to be pragmatically correct, hence, the lion is a simple theme/ stimulus. That the gr2 form is indeed a state verb is shown by the fact that it cannot occur in the habitual construction (*Abdù yakàn tsòoràci zaakìi ??'Abdu is usually afraid of the lion'), and it cannot appear in

the imperative, nor can it appear with pace adverbs (**tsòoràci zaakii!* 'fear the lion!', **Abdù yaa tsòoràci zaakii dà hamzarii* *'Abdu fears the lion rapidly'). Finally, diagram (c) presents the gr3 form, which is an achievement verb. Indeed it can appear in the habitual (*yaaròo yakàn tsòoratà in ya ga zaakii* 'the child does get afraid if he sees a lion') and can take pace adverbs (*ya tsòoratà nan dà nan* 'he got afraid quickly'). The LS of this verb embeds the same cognition state verb in diagram (b), only the theme role is cancelled.

4.3.1.8 Subgroup 8: the "pejorative" verbs.

This group, identified throughout the literature, seems to involve a metaphorical extension from the gr1 usage to the gr2 usage. Typically, the gr1 form is concrete and takes inanimate referents as undergoers. The gr2 form on the other hand is figurative and takes animate referents as undergoers. With some verbs a non-passive gr7 form is also possible. The verb dàami 'bother' is an example of such verbs and it is illustrated below:

The gr1 form in (a) above is the concrete form and is analyzed as an accomplishment verb (it can be an activity verb too in a non-resultative reading). The gr2 verb in (b) is a punctual accomplishment verb with taa 'she' as effector and theme/ stimulus, and Abdù as an experiencer. The verb does not appear in the continuous at all (*tanàa gà daamar Abdù 'she is bothering Abdu'). On the other hand, it is not a state verb because it appears in the imperative and the habitual (jee kì dàami Abdù, bàa nii ba 'go bother Abdu, not me!', takàn

dàami Abdù 'she usually bothers Abdu'). It can easily be paraphrased with a causative construction (taa sàa Abdù yaa dàamu 'she caused Abdu to feel annoyed'. The gr7 verb in (c) is simply the achievement predicate seen in the LS of the gr2 verb. The difference here is that the gr7 verb takes only one direct core argument, hence, Indoo appears as an optional oblique argument. Notice that the gr7 verb is not the regular passive gr7, otherwise Indoo would be marked as a backgrounded actor, with the preposition gà. Also, the true passive gr7 forms, when they appear in the continuous, have a "potentiality" reading, not a continuous reading, as seen in: naamàa nàa yànduwaa gà Abdù 'the meat can be cut by Abdu'. But dàamu, as is the case for all "intensive" gr7 forms, can appear in the continuous with a true continuous or a habitual reading, as seen in: *Abdù yanàa dàamuwaan dà Indoo 'Abdu is usually annoyed at Indo (cf. also section 4.5.3).

Other pejorative verbs have only a gr1 and a gr2 form. The verbs tuuKà 'stir, drive' and tuuKi 'enrage' are illustrated below:

Like daamàa 'stir' in (98a), tuuKà 'stir' in (99a) is an accomplishment verb which can also be an activity verb in a non-resultative reading. The gr2 form in (99b) is an accomplishment verb where màganàa 'matter' is the effector and the theme/ stimulus, while Abdù is the experiencer. This verb can occur in the continuous (ya yi zàmnee zancee nàa tuuKaa tài 'he sat while the matter was enraging him'). It is not an activity verb because a result state is clearly obtained. Also, one can find a causative paraphrase such as: màganàa taa sàa Abdù yaa yi fushii 'the matter caused Abdu to be angry'.

4.3.1.9 Subgroup 9: the "wait/ motion" verbs

The "wait/ motion" subgroup contrasts syntactically intransitive gr1 verbs with transitive gr2 verbs. Three example verbs can be: gr1 daakàtaa 'stop, wait', gr2 dàakàci 'wait for'; gr1

lallàBaa 'walk slowly', gr2 lallàBi 'mellow, handle with care'. A third verb jìri 'wait for' appear only in gr2. The verbs daakàtaa and dàakàci are illustrated below:

- (100) a. ma'ákàtaa sun daakàtà aikii.
 wokers 3ms.PERF stop-I work
 GR P
 MR A U
 TR eff th
 BECOME stop' (x, y)
 'The wokers stopped the work.'
- b. ma'ákàtaa sun daakàtaa (dà aikii).
 wokers 3ms.PERF stop-I (with work)
 GRP
 MR A
 TR eff th
 BECOME stop' (x, y)
 'The workers stopped the work.'
- c. sun daakàtaa (don Abdù).
 3p.PERF stop-I (for Abdu)
 GR P
 MR A
 TR eff th
 BECOME wait' (x, y)
 'They waited (for Abdu).'
- d. sun dàakàci Abdù.
 3p.PERF wait-II Abdu
 GR P
 MR A U
 TR eff th
 BECOME wait' (x, y)
 'They waited for Abdu.'

All four verbs in (100) above are given as punctual achievement embedding an activity verb. However, there are two distinct usages. The first usage involves the sense of 'stop (doing s.th.)' and concerns the gr1 form in examples (100a-b) above. Sentence (100a) has an effector and theme which link to actor and undergoer roles respectively. In sentence (100b) it is suggested that the theme position is not linked to a macrorole and that the activity that is stopped is expressed as an optional adjunct. The second usage has the sense of 'wait' and concerns the sentences in (100c-d). Here too the verb has a effector and a theme, but the theme refers to a person or other entity. In the gr1 form in sentence (100c), the theme position is not linked to a macrorole and the argument is optionally specified in the periphery. The gr2 form in (100d) has both an effector and a theme arguments realized and linked to the actor and undergoer role respectively. As suggested above, all four verbs are

punctual achievement verbs. They cannot appear with the continuous gà (gr1: *yanàa gà daakàtaawàa 'he is waiting', gr2: *yanàa dàakatàr Abdù 'he is waiting Abdu). The perfect forms instead are used to describe someone still waiting, which shows that the verbs are lexicalized as inchoative. They are not state verbs because they appear in the imperative, and the habitual (gr2: dàakàtàrsu! 'wait for them!'; gr1: yakàn daakàtaa in an tàmbàyeeshì 'he usually waits/ stops if asked').

4.3.1.10 Subgroup 10: the "intractable" and "fit" verbs

This subgroup and the following one contrast gr3 and gr2 verbs. They do not appear in gr1. An example is illustrated below:

- (101) a. Aikìi yaa fàskarà.
 work 3ms.PERF be.intractable-III
 GRP A
 MR th
 TR BECOME intractable' (x, Ø)
 'The work is intractable.'
- b. Aikìi yaa fàskàri Abdù.
 work 3ms.PERF be intractable-II Abdu
 GRP A U
 MR loc th
 TR BECOME intractable' (x, y)
 'The work is intractable to Abdu.'

No adjunct can follow the gr3 verb in example (a) above, but, the work is always understood to be difficult for somebody. I assume that the verb is a punctual achievement, embedding a locational state verb. The theme argument would be aikìi 'work' while the locative position is cancelled. This gr3 form indeed does not take the continuous gà (*aikìi nàa gà fàskaràa 'the work is being intractable'). It does not appear with the imperative (*fàskarà in ganii! 'be rebellious if you can!'), but it can be found used in the habitual (kai kân goonaa kàn fàskarà 'finishing up hoeing a field sector usually is intractable'). This distinguishes the form in (101a) from state verbs. The gr2 form in (101b) also is a punctual achievement verb and cannot occur with the continuous gà (*yaaròo nàa fàskaràr Indoo 'the boy is being rebellious to Indo'). To express the continuous sense, the perfect form is used as well (jaakii yaa fàskàree shì 'he is struggling with the donkey'). On the other hand, the gr2 form in (b) accepts the imperative and the habitual (fàskàràn ni in ganii! 'be rebellious to me if you can'; kai kân goonaa yakàn fàskaràr sù 'finishing up hoeing a field sector usually fails them'). With the gr2 form, both locative and theme argument are realized and linked to actor and

undergoer roles respectively. Other verbs showing the same contrast are: ìsa 'be sufficient', ìshi 'be sufficient for (s.o.)'; kàmaatà/ cànccatà 'fit', kàmàaci/ cànccànci 'fit (s.o.)'; bùwaayà/ gàagarà 'be intractable', bùwàayi/ gàagàri 'be intractable (for s.o.)'.

4.3.1.11 Subgroup 11: the "grow up" verbs

This subgroup contrasts gr3 verbs such as girma 'grow up', tsuufa 'be old', haifù 'give birth' to their corresponding gr2. The gr3 form is usually an achievement verb, and the gr2 form a state verb. This is illustrated below:

- (102) a. Abdù yaa girma.
 Abdu 3ms.PERF grow-III
 GRP
 MR U
 TR pat
 BECOME **grown'** (x)
 'Abdu is grown.'
- b. Abdù yaa gìrmi Indoo.
 Abdu 3ms.PERF be older-II Indo
 GR P
 MR A U
 TR loc th
 surpass' (x, [have' (y, age)])
 'Abdu is older than Indo.

The verb in (a) does not take any adjunct. It can occur with pace adverbs and can be complement of stop (yanàà girmaa sànnu sànnu 'he is growing up slowly'; yaa dainà girma 'it stopped getting bigger'). It is then a durative achievement verb with an embedded state predicate and a patient argument. The gr2 form gìrmi in (b) is an equational state with a locative and a theme arguments. Note that the second argument in the LS is a possession state verb where it is specified that Indoo has a given number of years, which is surpassed by Abdu. So, the gr3 verb and the gr2 verb do not have a similar LS.

At this point, the major gr2 lexico-semantic classes found in the literature are reviewed. We have seen that gr2 always has an LS that contains two realized core arguments only. We have also seen that gr2 contains all the aspectual classes but that it is overwhelmingly made up of accomplishment verbs. So, of all the fourteen gr2 verbs represented in this subsection, eight are analyzed as accomplishment, three are state verbs, two are achievement verbs, and only one is an activity verb. It was also claimed that the general function of gr2 is to select the figure or the ground argument as the sole direct core argument beside the pivot of the verb. Both figure and ground cannot appear as normal LS arguments linked to morpho-syntax. To achieve this function, gr2 seems to involve many processes when contrasted

with the other grades. By far the most frequent process is that where an argument is demoted from core to peripheral status. When the locative (ground) argument is selected, gr2 selection process is accompanied by a marked undergoer choice, where the locative is linked to the undergoer macrorole over the theme (cf. the Actor>Undergoer hierarchy in section 1.4.3, discussion of (34)). Indeed, cross-linguistically, gr2 is close to the phenomenon of marked undergoer choice in English, which accounts for the 'spray/ load' contrast (cf. Foley and Van Valin 1984:56-63, Van Valin 1992). A similar observation is also made in Tuller (1990b), who reports that Dutch speakers of Hausa usually translate gr2 with the 'be-verb' construction ('sprinkle poison on plants' vs. 'BEsprinkle plants with poison'). It was also noted that not all subgroups clearly support the generalization proposed about gr2. However, the exceptions are very limited because the verbs of the unaccounted for subgroups are few as compared to the accounted for subgroups which make up the majority of gr2 verbs.

4.3.2 GRADE 3 (and the HL-i forms)

As seen in the previous chapter, gr3 is made up of the regular LH-a verbs (LHL-a for trisyllabic verbs) as well as the irregular HH-a and the seven HL-i verbs. All these verbs have in common the fact that they are syntactically intransitive and may contrast with transitive gr1 or gr2 verbs. Grade 3 has in many works been characterized as the "autonomous" grade (Parsons 1971-72, Gouffé 1962). The term autonomous refers to the fact that in gr3 the "subject" alone undergoes the verb's action or state, and no agent is implied or understood. In a more recent theoretical account, Tuller (1990a, also 1990b) formalizes this idea and claims that gr3 (and gr7) are unaccusative grades. With a gr3 verb then, a deep direct object does not receive case and have to move to subject position. She represents a gr3 verb as follows:

(103)	gaskiyaāj	taa	bàyyanà	tì .
	truth	3fs.PERF	reveal-III	
'The truth revealed itself.'				

Tuller, it should be noted, gives no principled way of determining what an unaccusative verb is. They include, according to her, "verbs expressing a change in state or position, existential verbs, and verbs of appearance and disappearance, where the subject is the entity which undergoes the change or which is affected by the action of the verbs." (p.10) By contrast, according to her again, unergative verbs include verbs of communication, performance, bodily functions such as 'talk', 'sing', and 'laugh'. Otherwise, Tuller provides no systematic Hausa-internal tests to ascertain her categorizations. The fact is that many gr3 verbs are

intuitively more like unergative than unaccusative, and this leads Tuller to state that some unaccusative verbs take an agent. Some examples are (from Tuller 1990a): Dùngumà 'start off in group', Kaura 'emigrate', bàzamà 'run away', dìra 'swoop down', fita 'go out', ìsa 'reach, arrive at; be sufficient', sàuka 'descend, come down, be lodged, arrive', shiga 'enter', tùma 'jump', zàaburà 'spring up, leap up'. All these verbs, according to her, have an agent, but an agent which is affected. Therefore, she continues, the verbs are unaccusative.

In Van Valin (1990c), it is shown that in Italian, Georgian and Achenese, the split between unergative and unaccusative is based on semantic rather than syntactic criteria. For example, in Italian, the unaccusative, avere-selecting verbs, are all activity verbs. On the other hand, the verbs selecting the auxiliary essere are state, achievement, or accomplishment verbs. This account not only handles all the fact addressed by the syntactic accounts, but it also explains cases which are problematic for the syntactic accounts (cf. Van Valin 1990c).

This subsection claims that gr3 verbs are all achievement verbs. For reasons of convenience, the grade is divided into three subgroups, and it is shown to contain achievement verbs by using the tests of aspectual class membership given in (52) above. It should be noted that gr3 does not have the exclusivity of the achievement verbs. We have seen for example that gr1 and gr2 contain all the classes. Therefore, one can only assume that gr3 has specialized into marking the achievement class of verbs.

4.3.2.1 Subgroup 1: motion verbs

This subgroup includes motion verbs such as gudù 'run away', tàfi 'depart', shìriyà 'leave, go'. These verbs are inchoative (achievement) motion verbs. They are not activity verbs because they cannot appear with the continuous gà (*yanàa gà gudù 'he is running away'). Their DNs can appear in the nàa+NP construction, but with a different meaning (yanàa tàfiyàa 'he is walking/ he can walk/ NOT: 'he is departing'; yanàa gudùu 'he is running/ jogging/ NOT: 'he is running away'). That these nàa+NP constructions involves a DN and not the verbs themselves is shown by the fact that in the non-continuous, the verb yi 'do' has to be used (yaa yi gudùu/ tàfiyàa 'he ran/ walked', lit: 'he did running/ walking'). In short, in Hausa there is no true activity predicate for 'run/ walk'. shìriyà does not even appear in the nàa+NP construction. The verbs above cannot be state verbs because they can appear in the imperative (gùdu! 'escape!, get off my way!'). I consider these verbs to be punctual achievement verbs with an embedded activity predicate. The linking diagram for gudù is presented below:

- (104) Abdù yaa gudù.
 Abdu 3ms.PERF run-III
 GRP
 MR A
 TR th
 BECOME run' (y)
 'Abdu run away.'

As it can be seen, the inchoative verb embeds an activity predicate with one argument, which is necessarily a theme. There are other motion verbs however which have an obligatory locative argument. Such verbs are shìga 'enter in', ìsa 'arrive at' which are also punctual achievement verbs but with an embedded locational state verb. The linking diagram for shìga is illustrated below:

- (105) Abdù yaa shìga cikin fagee.
 Abdu 3ms.PERF enter-III in arena
 GRP
 MR A
 TR loc th
 BECOME be-in' (x, y)
 'Abdu entered the arena.'

There are also motion verbs that describe vertical motion path such dìra 'swoop down', sàbka 'descend, land', faaDì 'fall', hìra 'fly, be airborne'. These are al punctual achievement verbs with and embedded locational state predicate with a theme argument and a cancelled locative argument position. hìra and sàbka are illustrated below:

- (106) a. tsuntsuu yaa hìra.
 bird 3ms.PERF fly.up-III
 GRP
 MR A
 TR th
 BECOME be-up' (Ø, x)
 'The bird flew up.'
- b. jirgii yaa sàbka.
 plane 3ms.PERF land-III
 GRP
 MR A
 TR th
 BECOME be-down' (Ø, x)
 'The plane landed.'

These verbs do not admit a locative complement, except faaDì which optionally takes one. In this regard, they contrast with their corresponding gr1 which require or easily allow a

locative argument (yaa hiràa/ diràa iccèe 'it flew up/ stepped on the tree'; Abdù yaa Bullàa MaraDi 'Abdu went to Maradi'; Indoo taa faaDàa ruwa 'Indo felt into the water'). These too are achievement verbs with embedded locational state predicates where all argument positions are filled.

4.3.2.2 Subgroup 2: cognition/ attitude verbs

Included in this subclass are cognition verbs such as lùura 'attend, realize', fàrga 'realize', hàsalà 'become angry', fusatà 'become angry', gìigiità 'become confused' fírgítà 'become frightened', tsòoratà 'become afraid', kùmyatà 'feel shame'; and attitude verbs such as dànganà/ hàkurà 'forgo, become patient', yàrda 'agree', kùskurà 'take a risk'. These verbs are punctual achievement verbs. They never appear with a locative argument, and can then be represented as incorporating a simple condition state predicate with a patient argument. The diagram for hàsalà is given below:

(107)	Abdù	yaa	hàsalà.
	Abdu	3ms.PERF	be.angry-III
GRP			
MR		U	
TR		pat	
BECOME	be.angry'	(x)	
	'Abdu	got angry.'	

That these verbs are not simple state verbs is shown by the fact that they can appear with the habitual (Abdù yakàn hàsalà in an taBà kèekenshì 'Abdu does get angry when his bike is touched'). Of the above twelve verbs, only five operate gr1, where the pivot of gr3 becomes a simple macrorole argument in gr1 (gr3: dookìi yaa fírgítà 'the horse became frightened'; and gr1: sun fírgítà dookìi 'they frightened the horse'). This is a classic case of an accomplishment verb derivation from an achievement verb

4.3.2.3 Subgroup 3: condition verbs

This subclass contains verbs that describe the condition in which the pivot is. Examples are cíka 'become full', Baacì 'become damaged, spoiled', nùna 'ripen', wàhalà 'suffer', jìKa 'become soaked', gàji 'become tired', bàlagà 'become adolescent'. All of them are durative achievement with an embedded condition state predicate and a patient argument. Not one among these verbs has a locative argument in its LS. the verb cíka 'be full' is diagrammed below:

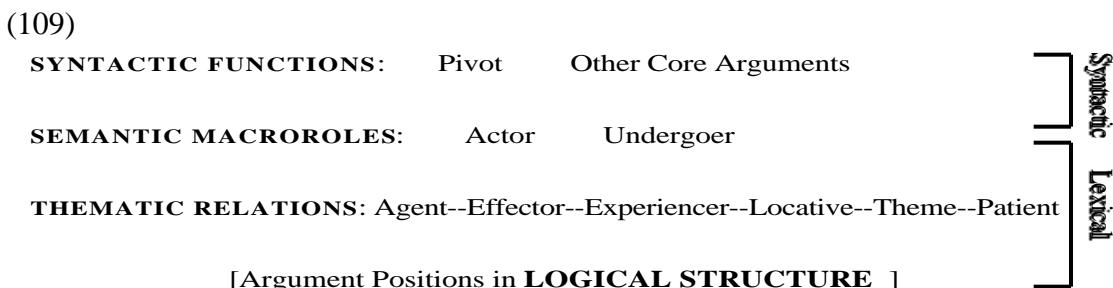
(108)	Tùulun	Indoo	yaa	cìka.
	pot-of	Indo	3ms.PERF	be.full-III
GR	P			
MR		U		
TR		pat		
BECOME	be-full'	(z)		
	'The pot filled up.'			

All these verbs are achievement verbs. This is shown by the fact that they can appear with the continuous gà (tùuluu nàa gà cikaa 'the pot is filling up'). So, they can't be simple state verbs. They are also distinct from activity in that they end in a result state. Seven of the examples above also operate gr1, where the gr3 pivot is a simple undergoer argument. The gr1 forms are thus accomplishment, where a causer brings about in the patient the condition or state described by the verb.

In conclusion, gr3, in terms of aspectual classes, is the most homogeneous of the primary grades. It is overwhelmingly made up of achievement verbs. In fact in this investigation, no gr3 verb is found that is not an achievement verb.

This section presented an analysis of gr2 and gr3 verbs in terms of their LS and membership in the aspectual classes. Grade 1 is a neutral grade and contains all the classes. Grade 2 is mostly contains accomplishment verbs although achievement and a few state and activity verbs are also found. Also, gr2 was characterized as having the pragmatic function of selecting an obligatory undergoer argument which can be understood as the figure (theme) or the ground (location). If both arguments are appear in the LS, one must be cancelled. Grade 3 contains achievement verbs only.

The forms that appear in more than one grade can be related by various processes such as argument cancellation, marked undergoer choice linking, marked morphosyntactic linking, and extension of the LS. These processes are associated with the steps in the RRG linking from semantics to syntax (cf.section 1.4 under (26)). These processes can be parted into lexical vs. syntactic processes, according to the diagram below:



Any process involving the LS (extension of LS, argument cancellation) or the linking to macrorole (marked undergoer choice) is a lexical process. Processes having to do with the linking from macrorole to syntactic functions are syntactic. From this diagram then, it can be seen that RRG has only one semantic representation (the "lexical" part) and one syntactic representation (the "syntactic" part). The steps in the linking diagram under (26) in section 1.4 should not be taken as "levels" related by transformations. The syntax has only one representation, the actual surface structure. As for the steps in the lexical part of the diagram, according to Van Valin (1992), "...each step involves interpreting the structure in question, not manipulating or transforming it in any way. The argument position in LS are interpreted to yield the thematic relations of the arguments, and then these are assigned macrorole status (or not)...". According to Van Valin (1992), the step of the macrorole assignment is not a distinct level of representation, but the accumulation of more semantic information about the arguments.

The next section deals with the grades which add to verbs non-LS semantic features such as intensity of action and deictic center.

4.4 GRADES WITH SPECIAL SEMANTIC FEATURES

In the previous section, gr1, gr2 and gr3 were analyzed in terms of operations on the linking from semantics to syntax. We have seen that (save for some epiphenomenal effects) the basic lexical meaning of verbs is not systematically affected. That is, bankà mootàà à iccèè 'ram the car into the tree' and bànnki iccèè dà mootàà 'hit the tree with a car' can describe the same event, the difference being only that of perspective. With gr4, gr8, and gr6, the basic lexical meaning is affected, and what is added is a completive or totality sense with gr4, a 'ventive' sense with gr6, and both a completive and a ventive sense with gr8. In this section, only gr6 is explored in detail. Grade 4 has a quite predictable semantics, as seen in the previous chapter, so, it will not be treated here at all. It is also shown that the analysis of gr6 applies to gr8, so, gr8 will have only a brief introduction. As for gr6, the idea is developed that it adds a deictic center which can relate to the verb's action if the verb has an inherent path specification, otherwise, the deictic center relates to one of the arguments of the verb, and not to the verb's action. This represents a departure from the traditional idea that gr6 expresses 'action toward the speaker'. Grade 6 is studied next, followed by a sketch of gr8.

4.4.1 GRADE 6

This subsection reviews the current proposals about gr6 semantics and puts forth an alternative. It is shown for example, contrary to earlier analyses, that gr6 does not mark the

subject as a benefactive, nor does it add a PATH-GOAL argument to the verb. An adequate approach to gr6 needs to distinguish between narrative and non-narrative discourse. In non-narrative discourse, with gr6, the place of speech is a potential (not obligatory) deictic center. In narrative discourse, the place of speech cannot be the deictic center marked by gr6. The term "deictic center" here is taken to refer to a location central in the discourse and which is coded by the gr6 marker. Grade 6 is then a spatial deixis morpheme marking movement or orientation to the actual place of speech or the central location in a story. The morpheme is also sporadically used as a temporal deixis marker as we will be below. In both narrative and non-narrative discourse, various particular meanings on the verb are obtained depending on the verb's basic semantics. Below, the previous approaches are presented, followed by the alternative analysis.

4.4.1.1 Previous analyses

According to Parsons (1971-72), gr6, in its normal use, has an "adessive" meaning. In this sense, the subject's referent appropriates the results of the verb's action directed from some place else. For Parsons, gr6 also emphasizes the subject's permanent retention and usage of the DO's referent or results of the action. The following examples are cited by Parsons to support his analysis (with structure gloss added):

- (110) a. ya Daukoo littaafii.
 3ms.REL PERF take-VI book
 'He picked up a book (to read himself).'
- b. naa sayoo mootàa.
 1s.PERF buy-VI car
 'I have bought myself a car.'
- c. ta Deeboo ruwaa ta shaa.
 3fs.REL PERF take-VI water 3fs.REL PERF drink
 'She drew herself some water and drank.'
- d. ta Dèebi ruwaa ta baa shì.
 3fs.REL PERF take-II water 3fs.REL PERF give 3ms
 'She drew some water and gave it to him.'

It seems then that for Parsons, gr6 has a dative usage where the subject's referent is the beneficiary of the verb's action. This account however is very partial, because there are many cases where a dative reading is not warranted. So, another tradition in Hausa studies considers gr6 as the "ventive" grade, where the verb's action implies some kind of movement toward the speaker. For example, in Wright (1988:1), it is said that gr6 "...denotes in very general terms action toward the speaker or the results of the activity carried out elsewhere

whose results are brought to the speaker." This is exemplified below (examples not from Wright):

- (111) a. sa'är dà ya wucèe Dàazu yaa diiboo
 when 3ms.REL PERF pass-IV a while 3ms.PERF look-VI

à nân.
 at here

'He looked toward here while passing by a moment ago.'

- b. taa jeefoo masù fàrantì.
 3fs.PERF throw-VI MA-3p plate
 'She threw a plate to/at them.'

Newman (1983) tries to integrate these two conceptualizations and proposes that all grades have two components: a directional and a notional or grammatical component. Grade 6 is assigned "hither" as directional function (=ventive) and "benefactive" as notional function. This attempt however is likely to lead nowhere because, as we will see below, the benefactive usage of gr6 is, at best, an epiphenomenon.

4.4.1.2 Grade 6 as a deictic center marker

From the data in (110) and (111) above, it seems necessary to distinguish the context of narrative discourse and that of non-narrative discourse. In both narrative and regular discourse, gr6 functions as a deictic marker referencing a relevant place (in the discourse or the discourse context) and a path to that place.

In non-narrative discourse, the potentiality exists for the coded deictic center (DC) to be the actual place of speech. This potentiality is always realized when there exists an independent deictic marker such as nân 'here', nan 'there (near addressee)', cân 'there (visible)', and can 'there (invisible)' (below, we will see that the notion of "place of speech" is relative and can be compatible with the remotest "there").¹¹ Thus, in (111a), which contains the adverbial nân 'here', the deictic center is obligatorily identified as the place of speech. In (111b) however, there is no other deictic marker and the place of speech may or may not be the DC coded by the gr6. So, actually the sentence in (111b) is ambiguous as shown below:

- (112) taa jeefoo masù fàrantì. (= 111b)
 3fs.PERF throw-VI MA-3p plate
 'She threw a plate to/at them [no connection with here].'
 'She threw a plate to/at them here.'

In the first reading, the DC is different from the place of speech, while in the second reading, they are the same. With an adverbial, the sentence becomes unambiguous as is the case with (111a).

When the DC is the place of speech, the speaker is not excluded from being the originator of the action directed toward the place of speech. This is illustrated below:

- (113) a. naa zoo nàn kawài dan ìn gaidàa ki.
 1s.PERF go-VI here only for 1s.SUBJ greet-I 2fs
 'I came here only to greet you.'
- b. aikàu naa aikoo makù (dà) kuDii jiyàa.
 indeed 1s.PERF send-VI MA-2p (with) money yesterday
 'I did send you money (here) yesterday.'
- c. zân aikoo makù wàsiiKàa in na koomàa
 FUT-1s send-VI MA-2p letter if 1s.REL PERF return-I
 Ingìla.
 England
 'I will send you a letter here if I return to England.'
- d. Sa'är dà nikèe wucèewaa Dàazu naa diiboo
 when 1s.REL CONT pass-IV-VN a.while 1s.PERF look-VI
 nannìya.
 here
 'I looked toward here while passing by a moment ago.'

In sentence (a), the pivot is the theme. Here, the pivot's referent moved to the place of speech. In (b) the theme is 'money'. Although the speaker is the sender of the money, gr6 usage is warranted if the speaker acts and subsequently moves to the place where the theme is sent. Sentence (c) is similar to (b), only here, the speaker anticipates sending a letter to the place of speech. Finally, sentence (d), involves no theme at all. Here, it is the action of the speaker which was oriented toward the place of speech. The phenomenon of the speaker as originator of the action is actually normal if the moment of the action and the moment of speech are dissociated. Similar facts are reported for the Abaza language in Allen 1956 (cited in Anderson and Keenan 1985).

Notice that in all the sentences in (113), the actions are not really directed at the speaker, nor is the speaker a benefactive. So, the usual characterization of gr6 as a grade expressing 'action toward the speaker' is just inaccurate.

In a clearly marked narrative setting (a tale for example), the actual place of speech is certainly not coded as the DC for verbs in the story (unless one is telling past events witnessed in one's present location). Thus, a narrative sentence (such as (110a) and (110c) from Parsons above) does not have an obvious DC if it is taken out of context. The most likely DC available is the pivot's referent, and that may be why Parsons interprets the pivots of (110a) and (110c) as benefactive. I think that gr6 in narrative texts codes a DC which is one of the places in the story. This place will be like an anchor point that a character occupies, leaves, or arrives at. Some examples are in:

- (114) a. sarkii ya shìga gidaa ya yi sallàa,
emir 3ms.REL PERF enter-III house 3ms.REL PERF do prayer
yànnan ya fitoo faadàrshì.
then 3ms.REL PERF get.out-VI court-of-3ms.

'The emir went in, prayed and then came back to his court.'

- b. yaarinyàa ta tìfi rwàafii ta Deeboo
girl 3fs.REL PERF went-III lake 3fs.REL PERF take-VI
ruwaa ta kaawoo masù.
water 3fs.REL PERF bring-VI MA-3p

'The girl went to the lake, got some water and brought it to them.'

In (a), faadà 'court' is the central place around which the described events and the participants are evolving. Similarly, in (b) the DC is the place occupied by the referent 'them', a place which is also anchor point for the referent of 'girl'. As one can see, neither pivot in sentence (a) or (b) is a benefactive, and the verbs have no relation with the actual place of story-telling.

In all kinds of discourse, the notion of DC is always relative. For example, when the DC is the place of speech, the scale of the place of speech varies from the speaker's precise location to a city, a country, a continent, etc, so long as a distinct external source for the action can be conceived. Thus, strictly speaking, the place of speech is the place conceived of as where the speaker is located, no matter its size. This is illustrated below:

- (115) Kasàashen Tuurai sun aikoo wàKillansù sù
 countries-of Europe 3p.PERF send-VI envoys-of-3p 3p.SUBJ
 zìyàrcee mù à nân Kandò/ Nàajeeriyàa/ Afirikà.
 visit-II 1p at here Kano/ Nigeria/ Africa.

'The European countries sent their envoys to visit us here in Kano/ Nigeria/ Africa.'

In the same order of phenomenon, some gr6 usages involve three places, the origin, the real goal of the action and the DC place of speech. Generally, one should be able to spatially associate the latter two places as opposed to the source of the action. So, the DC can be either on the path or a bit aside, in this latter case, it should be relatively closer to the goal of the action. This is shown below:

- (116) an taadoo shì dàgà Yàmâi zuwàa Dàmagàram.
 IMP.PERF rise-VI 3ms from Niamey up.to Zinder
 'He was reassigned from Niamey to Zinder.'

This sentence can be said if the speaker is located, for example, in Maradi or Agades. Niamey (Niger capital) is at the extreme west, Zinder in the east, with Maradi on the path Niamey-Zinder, and Agades north of Zinder, out of the path. Another way to account for these three-place gr6 is to conceive the DC as a flexible space which can expand or retract depending on the proximity of the source of the action. So, the source can be represented as (nearly) a point outside a bigger surface, the DC. Then any particular point in the DC surface can be the real goal of the action.

Finally, Wright (1988) notes the existence of metaphorical usages of gr6. Some examples are given below (from Wright, with tones, length, and bracketed structure glosses added):

- (117) a. wannàn maakòo mài gabaatoowàa
 [this week POSS-3s come-VI-VN]
 this week owner of coming forward
 'next week'
- b. mun taadoo sunankà à cikin hiira.
 [1p.PERF rise-VI name-of-2ms at inside-of chat]
 'We brought up your name in a conversation.'

According to Wright, in sentence (a), a time path is coded with next week as time-origin and the present as time-goal. In sentence (b), still according to Wright, the occasion of the

conversation is used as a deictic center. The next subpart examines the modification that gr6 does on a verb.

4.4.1.3 Grade 6 and the verb's semantics

Having seen some usages of gr6, we can now turn and see what exactly is being added to a verb in gr6. Using Jackendoff's (1983) approach to the conceptual structure of prepositions, Wright (1988) first proposes that "the basic notion of the -o morpheme is that of physical movement, represented formally by a path argument of some sort." More specifically, Wright claims that gr6 morpheme adds a goal-path to verbs. With verbs that already have some inherent path, gr6, if necessary, changes that path to the goal-path TYPE. As for verbs that do not lexicalize a path, Wright states "a very large group of grade six verbs do not have PATH as arguments associated with the verbal base [non-gr6 from]. In these cases, a bounded PATH (PATH and GOAL) is appended to give the result of the activity." In this subpart, it is shown that Wright's generalization cannot account for all the data. An alternative is proposed which is based on the distinction between verbs with inherent path vs. verbs without inherent path (as in Wright) and the distinction between orientation of action vs. orientation of participants. It is claimed that gr6 simply defines a DC which relates, depending on the type of verb, to the verb's action or to the verb's participants. There is no need to assume that any path is changed or added and, actually, doing so can be simply wrong in some cases.

4.4.1.3.1 Verbs with an inherent path

With verbs that lexicalize some kind of path, the semantics of gr6 can relate the DC to the verb's action or to a participant. In one case, the verb's action is directed toward the DC, in the other case, the DC relates to a verbal argument, not the action itself. The discussion in this section though will be limited to the case of action orientation.

With verbs that lexicalize a goal-path, gr6 simply identifies the goal of the verb's action with the DC (or a point in it). This is illustrated below:

- (118) a. yaa maidà gadàajee Maraadi. (--->|)
3ms.PERF return-I beds Maradi
'He returned the beds in Maradi.'
- b. yaa maidoo gadàajee nân Maraadi. (--->|)
3ms.PERF return-VI beds here Maradi
'He returned the beds here in Maradi.'

In (a), the speaker himself cannot be in Maradi, and no particular place is marked as DC. In (b), Maradi is marked as DC and, it is also interpreted as containing the place of speech (cf. the adverbial nân 'here'). The only difference then between the two sentences is that in (b) the verb's inherent locative-goal is marked as the DC; it is a more central place in the present discourse than it is in sentence (a). Maradi is not a double goal (or an 'indeterminate' goal, as Wright claims).

When a verb lexicalizes a source-path, according to Wright, gr6 adds a goal to transform the verb into a goal-path verb. However, this is in appearance only, and the specification of a goal for the verb's action is quite independent from gr6 marking. Consider the following sentences:

- (119) a. yaa bar San Diego.
 3ms.PERF leave-II San Diego
 'He left San Diego.'
- b. yaa baroo San Diego.
 3ms.PERF leave-VI San Diego
 'He left San Diego.'

In (a), no DC is marked and also no goal is specified for the pivot's referent. In (b), strictly speaking, the marked DC does not have to be the goal also. For example, (and assuming a non-narrative discourse), the pivot's referent can be understood as heading toward the place of speech, but he does not need to reach or to ever reach the place of speech. This is illustrated below:

- (120) a. yaa baroo San Diego yaa koomàa/ koomoo
 3ms.PERF leave-VI SD 3ms.PERF return-I/ return-VI
 Los Angeles.
 LA
 'He left San Diego and relocated in Los Angeles.'
 NOT: 'He left San Diego and relocated here in Los Angeles.'
- b. yaa baroo San Diego yaa *koomàa/ koomoo
 3ms.PERF leave-VI SD 3ms.PERF return-I/ return-VI
 nân (Los Angeles).
 here (LA)
 'He left San Diego and relocated here in Los Angeles.'

The crucial sentence here is (a). In this sentence, although the DC (with gr6 form) can be the place of speech, the speaker cannot be located in Los Angeles, the goal of pivot's referent (and this why a non-gr6 form is also possible). For the speaker to be understood as being in Los Angeles, Los Angeles must be modified or replaced by nân 'here' as shown in (b), where only a gr6 form is possible.¹² Sentence (a) can be uttered if the speaker is in San Francisco for example. So, the DC and the goal, as already discussed above (under (116)), need not be identical. In fact, a DC can be marked without necessarily a goal being added to the verb. Thus, in (119b) yaa baroo San Diego 'he left San Diego', the goal is not at all specified (if it is not understood to be the place of speech itself). Only the DC is unambiguously specified. The DC here can be equated to the areas between San Diego up to and beyond San Francisco (assuming speaker is in San Francisco). It is in the DC setting now that a goal can be independently added. Notice that syntactically, the inherent source-path verb cannot be added a goal argument directly. Instead, a different predicate (here 'relocate') must be supplied with the goal. This shows that the DC and the goal are two different notions and that gr6 cannot be said to add a goal-path to verbs. Sentence (120a), with speaker assumed in San Francisco, is diagrammed below:

(121)

SD	LA	SF
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4.4.1.3.2 Verbs without an inherent path

As said above, in gr6, verbs with an inherent path can "project" their action toward the DC, or one of their arguments can relate to the DC, for example, by coming toward the DC after the action. This is illustrated with the sentence (111b), which is actually more ambiguous than indicated in (112):

- (122) taa jeefoo masù farantì. (= 111b, 112)
 3fs.PERF throw-VI MA-3p plate
 'She threw a plate to/at them [no connection with here].'
 'She threw a plate to/at them here.'
 'She (went) threw a plate to/at them and she came here.'
 'She threw a plate to/at them and they came here.'

The first reading differs from the other in that it involves a DC which does not contain the place of speech. The other three readings have to do with the place of speech. In the first and the second readings, it is the action of the verb which is directed toward the DC, not the participants. Thus, in the second reading, the speaker may be standing near the targeted people when the plate was thrown. In the third and fourth reading the verb's participant (not the verb's action) are related to the DC. This relationship involves the movement of participants to the DC, after the action.

The contrast action- vs. participant-orientation holds only for verbs with an inherent path. For verbs without an inherent path, only the participants can relate to the DC, not the action. This is one distinction, as far as I know, which has not been explicitly made in gr6 studies. Some gr6 verbs without inherent path are given below (examples and glosses from Wright):

- (123) a. duuboo 'come after having looked and found information'
 b. Kilgoo 'come after having counted, with the information'
 c. karyoo 'come after having broken s.th., bringing it with you'

The verb in (a) duuboo here means 'look up' and has no inherent path. It is clear from the translation that the verb's action have no direct relationship to the DC. In each case, only the participants are moved to the DC. If the verb is really appended a goal-path, then (as with inherent goal-path verbs) the verb's action ought to be able to relate to the DC. This is however impossible, as shown below:

- (124) a. yaa Kilgoo.
 3ms.PERF count-VI
 'He counted (something, somewhere) and came here.'
 NOT: 'He counted (something) here (from where he stands).'
 NOT: '?He counted his way up here.'
- b. yaa ciyoo.
 3ms.PERF eat-VI
 'He ate (something, somewhere) and came here.'
 NOT: 'He ate while coming here.'
 NOT: 'He ate facing here.'
 NOT: *'He ate his way up here.'

The sentences above have only one possible sense (assuming DC is place of speech). In the acceptable readings, a participant in the verb's action relates to the DC. Because gr6 does not add a goal-path, the verb's action itself cannot be projected to the DC. That indeed these verbs have no goal-path is seen by the fact that quite reasonable senses cannot obtain because they require an inherent path. So, for example 'yaa diiboo mù' 'he looked toward us' is fine because the activity of looking has an inherent path. So, notice how one cannot say

yaa Kilgoo mù meaning 'he counted us here (from where he stands)', although this describes a banal situation. The reason for this is that (gr1) Kilgà 'count' has no path and cannot be added one by gr6. Similarly, the verb ci 'eat' and its gr6 form in (b) have no goal-path and some ordinary usages cannot obtain. The equivalent of the English glosses preceded by 'NOT' would require constructions where the verbs above are not marked by gr6: yaa Kilgà dàgà can 'he counted (something here) from there'; yaa tahoo nàn yanàa cîn àbinci 'he came here while eating food'; yaa juuyoo nàn yanàa cîj àbinci 'he faced here while eating food'.

With verbs lacking an inherent path, the interpretation of gr6 relies heavily on the verb's basic semantics and context of use. Thus, it is noted in Wright (1988) that some gr6 verbs are well beyond the meaning of the simple base verb (non-gr6 form). Some decompositions are given below:

(125) neemoo (from Wright 1988):

- a. to go somewhere
- b. to look around for something
- c. to find that thing
- d. to bring that something back with you

(126) gayoo/ faDoo 'tell'

- a. to leave for the sole purpose of informing someone
- b. to tell the information to that someone
- c. to come back.

In the examples above, the gr6 marker seems to conflate sometimes up to two full predicates in addition to the main verb. So, in (a), the predicates 'go' and 'bring' are embedded in the gr6 form neemoo. In (b) however, the predicate 'bring' is not obvious, but the decomposition is no less complex. For example, as one can see, gr6 here entails not simply leaving, but leaving for the express purpose of carrying the information and nothing else. This is illustrated below:

(127)	jiyà	sun	jee	sàyen	faatuu	MaraaDi.	Harkàu
	yesterday	3p.PERF	go	buy-DN	skins	Maradi.	indeed
	sun	gayàà/	*gayoo	mà	Abdù	anàa	neeman
	3p.PERF	tell-I/	tell-VI	MA	Abdu	IMP-CONT	seach-DN
	shì	nannìyà.					
	3ms	here					

'Yesterday they went to buy some skins in Maradi. And they also told Abdu that he is sought after, here.'

This interpretation is clearly idiosyncratic and does not need to be specified as a basic sense of gr6. Similarly, one does not need to specify, in characterizing gr6, that 'the results of the action are brought' to the DC. This will follow from the specification that participants may relate to the DC. The results of the verb's action are also participants, so, the predicate 'bring' in the decomposition in (a) above does not need to be independently specified. The predicate 'go' too does not always obtain, and should not be part of the basic characterization.

In conclusion, the basic characterization of gr6 -oo is that it marks the existence of a DC for the discourse or the story. In regular discourse, the DC may be the actual place of speech. In narrative discourse, the DC cannot be the place of speech. We have seen that the deictic center is flexible and depends on the proximity of the place/ source of action. The basic function of gr6 is only the specification of a DC, all other semantic effects are function of the verb's basic semantics and discourse or real world factors.

4.4.2. GRADE 8

Grade 8 is usually referred to not as a grade but as a verb-modifying directional infix -ik- (or -ikk-, -ak-, Parsons 1971-72, Newman 1977, Caron 1987). It is only in this work that arguments are put forth for considering it as a grade (see section 4.6 on the morphology of the grades). Grade 8 occurs mostly in Western dialects particularly in Katsinanci and Adiranci (Caron 1987). Apparently, it is not common in Standard Hausa (Parsons 1971-72). The infix -ik- is usually thought of as a directional morpheme where the action is directed toward the speaker, much like with gr6. The particularity of gr8 vis-à-vis gr6 is that gr8 always cooccurs with another grade termination, essentially gr4, but also gr6 and gr5 (in Adiranci, Caron 1987). Some examples of gr8 in Katsinanci (occurring with gr4) are given below:

- (128) a. Abdù yaa jaayìkè iccèe dàgà goonaa.
 Abdu 3ms.PERF pull-VIII wood from field
 'Abdu pulled the log up to here from the field.'
- b. Abdù yaa tooyìkè cìyaawàr goonaa.
 Abdu 3ms.PERF burn-VIII hay-of field
 'Abdu burned the hay in his field and came back.'

c.	zoomoo	ya	kwaashìkee	làabaariì	ya
	hare	3ms.REL PERF	take-VIII	news	3ms.REL PERF
	kaawoo	mà	zaakìi.		
	bring-VI	MA	lion		

'The hare gathered the news and came to inform the king-lion.'

As one can see, in (a) the verb's action extends to the DC, which may or may not be the place of speech. In (b), only the argument of the verb relates to the DC, not the verb's action. Finally, in a piece of story, the deictic center is necessarily different from the place of speech. Thus gr8 exhibits all the functions seen with gr6.

This section presented the grades that add a semantic feature to verb. We have seen that all the verbs in either of gr4, gr6, and gr8 carry the semantic feature of the grade in question. Beside these grades however, there are a limited LH-u gr7 forms which add an intensity semantic feature to intransitive gr3 verbs. This special semantic feature "grade" should be distinguished from the true passive gr7, although the two have always been merged in Hausa studies. They are the topic of the next section.

4.5 MORPHOSYNTACTIC AND INTENSITY GRADE 7

This section claims that there are two different HL-u gr7 morphemes. One morpheme functions just as does gr4 HL-e(e) for example. It adds the semantic feature of intensity to the verb. Like gr4 or gr6, I assume that it does not change the verb's LS and does not entail any linking rearrangement when compared to the basic verb (if any). The other LH-u gr7 morpheme is the real passive in Hausa. This morpheme does not add the intensity semantics to the verb, contrary to prevalent beliefs. From the RRG perspective, the function of this passive gr7 is to foreground the undergoer to the pragmatic pivot position, with a concomitant backgrounding of the actor. This operation is syntactic, and yields structures which are analyzed in RRG as involving a 'marked pivot assignment'.

In the first subsection, previous works on passive are reviewed. Then the syntactic gr7 and the special semantic feature gr7 are argued for.

4.5.1 PREVIOUS APPROACHES

Grade 7 has always been recognized as having two functions. On the one hand it is the passive marker, turning transitive verbs into intransitive verbs where the transitive object becomes subject (Robinson 1897:46-47, Abraham 1959:47, in Jaggar 1988:387). All these authors and specifically Parsons (1971-72:77), emphasize gr7's "sustentative" meaning, where the intransitive subject has completely undergone or is capable of fully undergoing

the action of the verb. Most authors also note the existence of "passive" verbs for which there is no corresponding transitive bases. Parsons considered such verbs as simple intransitive with a reflexive sense. In most works (except in Jaggar 1988), these intransitive verbs are considered as residual among the regular passive forms

The most extensive works on gr7 are in Jaggar (1981b, 1988) and Caron (1988). Jaggar (1988:388) proposes a general semantic characterization of gr7 in terms of what he calls "subject-affectedness", where "the surface subject is itself affected by the verbalized (grade 7) action." This characterization allows him to distinguish and account for three types of passive gr7: the patient-oriented, the agent-oriented, and the experiencer-oriented passives.¹³ In the patient-oriented type, the subject corresponds to the DO of the transitive form of the verb. The derivation is highly restricted however, and Jaggar proposes that it is a lexical, not a sentence level derivation. An example (adapted from Jaggar 1988:392) is in the following:

- (129) a. sukà faarà gyaarà gidaa...
 3p-REL PERF begin-I repair-I house
 'They began to repair the house...'
- b. dà gidaa ya gyàaru...
 when house 3ms.REL PERF repair-VII
 '...when the house was repaired...'

In the agent-oriented passive, the subject is not understood as patient, nor does it necessarily correspond to the DO of the transitive base. Here, the subject-agent is consciously controlling the action but he is also affected. Some examples are given below (adapted from Jaggar 1988:396):

- (130) a. yaa Kaarà kuDii.
 3ms.PERF increase-I money
 'He has increased the offer.'
- b. yaa Kàaru (dà wàayon zaman duuniyàa).
 3ms.PERF increase-VII (with guile-of living-of world)
 'He has really increased/ benefitted (in the ways of the world).'
- (131) a. taa tsayàa.
 3ms.PERF stand/ stop-I
 'She stood (up)' 'She stopped.'
- b. taa tsàyu.
 3fs.PERF stand-VII
 'She stood (up) for a long time.'

In (130) is a transitive verb. Sentence (130a) shows the active gr1 form with an actor pivot yaa 'he' and and undergoer, kuDii 'money'. In (130b), is the passive gr7 form, however, instead of a patient as subject, we have, according to Jaggar, an agent instead. It is noted that many such verbs do allow the patient also as passive subject. Thus, they will have both agent-oriented and patient-oriented forms. (131a) shows an intransitive gr1 verb with an agent taa 'she'. (131b) on the other hand, shows the gr7 passive verb with the same type of agent as pivot. So, the agent-oriented passive actually does not require an existing transitive base verb. In this category are also classified verbs that Parsons termed "associative-dissociative" such as: jèeru 'line up', ràbu, 'separate', tàaru 'gather (crowd)', hàDu/ gàmu 'join', sàadu 'meet'.

In the third type of passive, the experiencer-oriented passive, the subject is an experiencer, an animate entity capable of undergoing a sensory action or state, but without necessarily controlling the action. This type is illustrated below (from Jaggar 1988:404):

- (132) a. Muusaa yaa gàji.
 Musa 3ms.PERF tire-III
 'Musa is tired.'
- b. Muusaa yaa gàjìyu.
 Musa 3ms.PERF tire-VII
 'Musa is dog-tired.'

In (a), an intransitive gr3 verb appears with a pivot Musa, which is not an agent but rather an experiencer which has no control over the verb's process. In (b), the same pivot appears with the verb in gr7. According to Jaggar, the switch to gr7 induces an affected subject interpretation. So, apparently, in Jaggar's analysis, Musa in (a) is not affected, but it is so only in (b) with gr7. This is problematic, as we will see below.

For Jaggar, all three types of passives can indeed fall under the general characterization that their subject is an "affected subject". Given the fact that there exist intransitive gr4, and gr3 verbs, Jaggar wonders what is the relationship between these forms and the gr7. The problem is illustrated below (examples and English glosses from Jaggar 1988:401; the bracketed English glosses are added):

- (133) a. rìigaa taa jìKa.
 gown 3fs.PERF soak-III
 'The gown became wet/ got wet.'
 ['The gown reaches the point of soaking.]

- b. rìigaa taa jiKèe.
gown 3fs.PERF be.wet-IV
'The gown became/ got soaked.'
['The gown became wet (accidentally).']
- c. rìigaa taa jìKu.
gown 3fs.PERF soak-VII
'The gown was soaked (by someone).'

For Jaggar, the gr4 sentence in (b) does not necessarily entail an external agent. This gr4 then he calls "lexical-intransitive". Sentence (c) however, according to him, is preferably understood as having an agentive reading, and Jaggar termed these forms "passive-intransitive". It is presumably derived from the active gr1 form yaa jiKà rìigaa 'he soaked the gown'. Despite providing the sentence in (a), Jaggar says nothing about it, but, it too does not entail an agentive reading.

There are essentially two problems with Jaggar's analysis positing three types of passive. First, the general characterization common to all passives is that they have an affected subject. This affectedness happens to be very unequal. Some verbs, notably the semantically transitive ones, have a passive pivot which is thoroughly affected. Thus, in naamàa yaa yàñku 'the meat is cut', the pivot undergoes a definite change of state. How would this affectedness compare to that in Abdù yaa ràbu dà Aali 'Abdu parted/ separated from Ali' or màasu dawaakii sun rùfu baayammù 'the horsemen closed in behind us'? In this latter example it seems that muu 'us' is the most affected entity, not 'horsemen'. The second problem is that the characterization of all gr7 as affected subject does not explain anything because there are similar affected subject in other grades, particularly in gr3. Thus, despite Jaggar's claim to the contrary, in both sentences of (132), Musa, the pivot, is affected in the sense that he is undergoing a process.

Tuller (1990a) actually attempts to capture this shared subject-affectedness between gr7 and gr3. As already seen in section 4.3.2, she analyzes both gr3 and gr7 as the unaccusative grades. Thus, she would represent a gr3 and a gr7 form as follows:

- (134) a. giiwaaj taa mutù tì
elephant 3fs.PERF die-III
'The elephant is dead.'
- b. giiwaaj taa kàsu tì
elephant 3fs.PERF kill-VII
'The elephant is killed.'

In her analysis, both verbs above have a direct object which originates in its proper position, but has to move to the external position to receive case there. The problem for this analysis is that, as shown in Parsons (1971-72:78n), Caron (1988:76), and Bature (1991), gr7 verbs can appear with an agentive phrase. Also, one can get gr7 forms of ditransitive verbs and intransitive verbs. These points are illustrated below:¹⁴

- (135) a. giwaa taa yàñku gà mahàlbaa.
 elephant 3fs.PERF slit.throat-VII at hunters
 'The elephant is killed by the hunters.'
- b. ùnguwar nàn baa tà zàmnuwaan gà Abdù.
 district this NEG 3fs.CONT live-VII-DN at Abdu
 'Abdu cannot live in this district.'
- c. Amiirù baa zaa yà ròoKu kuDii ba yàñzu.
 Amiru NEG FUT-3ms ask-VII money NEG now
 'Amiru cannot be asked to give some money now.'
- (adapted from Bature 1991:109)

The verb in sentence (a) above is clearly agentive and is semantically transitive with two distinct arguments. It does not involve an unaccusative advancement or one would confuse passive and unaccusative forms. The verb in sentence (b) is derivable only from a sentence that is itself intransitive. As shown in (142) below, one cannot have *Abdù yaa zamnà ùnguwar nàn, but only Abdù yaa zamnàa (à) ùnguwar nàn 'Abdu lived in this district', where the locative ùnguwaan 'district' cannot be a "direct object" but an oblique nominal with a optional preposition. Similarly, in the sentence (135c), the verb still case-marks a "direct object" while at the same time it carries the passive morphology. So, Tuller's analysis of gr7 as an unaccusative advancement grade can be rejected as well.

The remainder of this section argues for two types of gr7 forms. The first forms are passive forms where an undergoer is marked as pivot over the actor. The second forms are lexico-semantic forms which do not involve any syntactic rearrangement. However, they do add the meaning of completeness to the verb.

4.5.2 THE PASSIVE HL-u

In this subpart, the gr7 forms corresponding to Jaggar's patient-oriented passive are analyzed. First, it is shown that they do not necessarily entail the idea of intensity. Then, in a second subsection, the standard RRG analysis of passive is applied to these gr7 forms.

4.5.2.1 The lack of intensity sense in passive forms

In this analysis, a prime distinction between non-passive and passive gr7 forms is the fact that only the non-passive forms carries an intensity semantic feature. This claim departs from current views, which assume that gr7 detransitivizes a verb with a concomitant addition of the intensity sense. The claim is illustrated in the data below:

- (136) a. Abdù yaa yankà naamàn ràaKumii.
 Abdù 3ms.PERF cut-I meat-of camel
 'Abdu made a cut in the camel's meat.'
 'Abdu divided the camel's meat.'
- b. Abdù yaa yàngki naamàn ràaKumii.
 Abdù 3ms.PERF cut-II meat-of camel
 'Abdu cut off (a piece of) the camel's meat.'
- c. naamàn ràaKumii yaa yàngku.
 meat-of camel 3ms.PERF cut-VII
 'The camel's meat is made a cut into.'
 'The camel's meat is divided.'
 'The camel's meat is cut off.'

In sentence (a), the gr1 form has two readings. In one, a partial cut is made in the meat. The second reading however, can be considered intensive in that the meat is now completely divided. In (b), the gr2 form has only one reading. Here too, the action is certainly completely done. Sentence (c) contains the gr7 forms which is three-way ambiguous. It carries all the interpretations found in gr1 and gr2. It implies no more intensity or completeness than the non-passive forms. That the gr7 form does not entail the completeness is also shown by its ability to cooccur with adverbs denying the intensive semantics. This is illustrated below:

- (137) a. naamàn ràaKumii yaa yàngku Dan kiimàa.
 meat-of camel 3ms.PERF cut-VII little little
 'The camel's meat is slightly cut into.'
 'The camel's meat is cut off by a bit.'
- b. naamàn ràaKumii yaa yàngku àmmaa kàDannà/ bàa
 meat-of camel 3ms.PERF cut-VII but little/ NEG
 Kwarai ba.
 much NEG
 'The camel's meat is cut into but slightly.'
 'The camel's meat is cut off but not by much.'

As one can see, passive gr7 is compatible with "quantitative" adverbs expressing lack of intensity or completeness. There is no hidden dimension in these examples to which the intensity semantics would apply. For example, the sentences do not entail that there is a huge meat chunk cut, that there were many little cuts, or that many agents made a slight cut.

Also inconsistent with the alleged "sustentative" meaning of passive gr7 is the fact that patient-oriented forms do occur in the continuous aspect but with a potentiality reading.

This is illustrated below (adapted from Jaggar 1988:394):

- (138) a. zoobèn baa yàa sàatuwaa.
ring-DEF NEG 3ms.CONT steal-VII
'The ring cannot be stolen.'
*'"The ring cannot be stolen completely.'
- b. wannàn àl'amàrii baa yàa Bòoyuwaa.
this matter NEG 3ms.CONT hide-VII
'This matter cannot be concealed.'

Examples such as these are usually interpreted as signaling that the patient has the potentiality of undergoing the verb's action completely (Parsons 1971-72). Note how sentence (a) is particularly incompatible with an added completeness semantic feature. One can conclude therefore that the gr7 forms of transitive verbs are the result of a morpho-syntactic operation, and do not involve an added intensity semantic feature. The next section applies the RRG analysis of passive to gr7.

4.5.2.2 Grade 7 as a case of marked pivot assignment

As pointed out by Jaggar, the patient-oriented forms (and only these forms) satisfy Keenan (1985) criteria for "basic passive". They most often appear without an agent expressed, they have an existing transitive verb correspondent in other grades, and this transitive verb (usually) takes an agent and a patient as arguments. From the RRG perspective, passive gr7 is a classic case of marked pivot assignment. In RRG, accusative languages assign the pivot function to macrorole following the hierarchy of Actor>Undergoer. Thus, when both actor and undergoer are present, in the default case, the actor is the pivot. In passive constructions, a marked assignment pattern occurs where the undergoer is assigned the pivot function and the actor is either expressed in an oblique phrase or left out altogether. Hausa, an accusative language, has both the default and the marked pivot assignment, as seen below:

- (139) a. Abdù yaa yankà naamàn ràaKumii.
 Abdu 3ms.PERF cut-I meat-of camel
 GRP
 MR A U
 TR eff pat
 [do' (x)] CAUSE [BECOME cut' (y)]
 'Abdu cut the camel's meat.'

b. naamàn ràaKumii yaa yàngku (gà Abdù).
 meat-of camel 3ms.PERF cut-VII (at Abdu)
 GRP P
 MR A U
 TR eff pat
 [do' (x)] CAUSE [BECOME cut' (y)]
 'The camel's meat is cut (by Abdu).'

As seen in the diagrams, the only difference between the active in (a) and the passive in (b) is that the passive has the pivot function assigned to the undergoer. According to Foley and Van Valin (1984), Van Valin (1992), the marked linking reflects a pragmatically motivated foregrounding and back-grounding of the undergoer and the actor respectively. In the foregrounding phase, an undergoer is promoted to more visibility and topic-hood in the sentence. Usually, but not always, this foregrounding of the undergoer is concomitant with the backgrounding of the actor. Because the operation is pragmatically motivated, the LS of the verb is unaffected; so, passive is a morphosyntactic, not a lexical operation. Thus, the restrictions on passivization are function of the discourse pragmatics and the semantics of the verb. It will be assumed here that prototypically transitive sentences (cf. Hopper and Thompson 1980), can passivize more easily than sentences which are semantically low in transitivity. Foley and Van Valin (1984:378n6) suggests that agentive accomplishment verbs are the highest verbs in transitivity. The main semantic feature of these accomplishment verbs is that they have an agent/ effector and a patient arguments. Transitive verbs that select intermediary semantic relations such as experiencer, locative and theme, would have less transitivity and would passivize less easily. So, not surprisingly, many transitive verbs in Hausa will not appear in gr7. This is illustrated below:

- (140) a. *Abdù yaa sànu gà Aali.
 Abdu 3ms.PERF know-VII by Ali
 'Abdu is known to Ali.'

b. Abdù yaa gànú.
 Abdu 3ms.PERF see-VII
 'Abdu is found.'

- c. Aali yaa ga wùyaa.
Ali 3ms.PERF see-II suffering
'Ali suffered.' lit: 'Ali saw suffering'
- d. *wùyaa taa gànū.
suffering 3fs.PERF see-VII
'suffering is seen/ found/ experienced.'

As it can be seen, passivization in Hausa is not automatic, but constrained by pragmatic factors. In (a) above, in Hausa at least, the undergoer Abdù cannot be foregrounded to topichood with the verb san 'know', but it can in (b) with ga 'see'. Sentence (c) shows the nominal wùyaa 'suffering' as undergoer of ga 'see'. This type of undergoer however cannot be foregrounded apparently for pragmatic reasons, as seen in (d).

As discussed in Foley and Van Valin (1984) and Keenan (1985), sometimes, arguments that are not undergoer in the default construction can nonetheless be foregrounded to pivothood. This type of passive also exists with gr7 forms, as illustrated below:

- (141)
- a. Abdù yaa zamnàà (à) kujèerâr.
Abdu 3ms.PERF sit-I (on) chair-DEF
'Abdu sat on the chair.'
 - b. Abdù yaa zamnà kujèerâr.
Abdu 3ms.PERF sit-I chair-DEF
'Abdu sat on the chair.'
 - c. kujèeraa taa zàmnu.
chair 3fs.PERF sit-VII
'The chair is sat on.'

In sentence (a-b), the locative argument kujèerâi 'the chair' appears as an indirect core argument and as an undergoer argument respectively (see section 4.2). Sentence (c) shows that this locative can be fore-grounded to pivot. This however is not particularly surprising because 'chair' here behaves like regular undergoers. It is not always so, however, and some apparently non-undergoer nominal can appear as gr7 pivots. This is illustrated below:

- (142)
- a. Abdù yaa zamnàà ùnguwar nàn.
Abdu 3ms.PERF live-I district this
'Abdu lived in this district.'
 - b. *Abdù yaa zamnà ùnguwar nàn.
Abdu 3ms.PERF live-I district this
'Abdu lived in this district.'

- c. ùnguwar nàn baa tà zàmnuwaa gà Abdù.
 district this NEG 3fs.CONT live-VII-DN at Abdu
 'Abdu cannot live in this district.'

In (a), the locative nominal is not an undergoer, as shown by the verb's A-form termination (see section 6.1.4.1). Unlike nominals such as 'chair', ùnguwa 'district' does not have the option of linking to undergoer macrorole, as seen in (b). Yet, as (c) shows, it can be foregrounded to be a gr7 pivot. Clearly then a non-macrorole argument can be a passive pivot. This phenomenon has been documented in a few languages such as Icelandic (cf. Van Valin 1992).

In conclusion, gr7 passive (or Jaggar's patient-oriented gr7) involves the foregrounding to pivothood of a default or marked undergoer. In all cases, the operation is pragmatically motivated and not automatic. The next section deals with the non-passive gr7 forms.

4.5.3 THE INTENSIVE GRADE 7 FORMS

The HL-u intensity morpheme occurs on forms which Jaggar characterized as the agent- or experiencer-oriented gr7. It is not the first time that these gr7 forms have been singled out. For Parsons, they are simple intransitive verbs. For Jaggar (1981b), they are a "degenerate" passive. More systematically, Caron (1988) sets up two types of gr7 forms, the real passives (of transitive verbs), and what he calls the "deponent" verbs, or middle (gr7 of intransitive bases). None of the above authors however assigned to them their specific intensity semantic function to the non-passive gr7 forms. Thus for example, Caron (1988:80) assimilates them to gr3 forms.

The basic claim here is that these forms are not passive at all and, particularly, they do not involve a marked pivot assignment. That is, in the non-gr7 form (if any), the pivot is the same nominal which is also pivot in the corresponding gr7 form. This is represented for the pair tsayàa/ tsàyu 'stand' in the diagrams below:

- (143) a. taa tsayàa.
 3fs.PERF stop-I
 GR P
 MR A
 TR th
 BECOME NOT move' (x)
 'She stopped/ waited/ stood.' 15

- b. taa tsàyu.
 3fs.PERF stop-VII
 GR P
 MR A
 TR th
 BECOME NOT move' (x)
 'She waited/ stood for a long time.'

Both verbs are achievement verbs, embedding an activity predicate with a theme argument. They have the same LS and the same linking patterns as shown above. The only difference is that the gr7 form in (b) has an added semantic feature of intensity (here, the pivot's referent stood a very long time). Otherwise, in absolute terms, the referents of both pivots are affected by their undergoing a process. Because there is no agent implied, the intensive gr7 forms cannot take an agentive "by phrase" (cf. *yaarinyàa taa tsàyu gà Abdù 'the girl is made to stand very long by Abdu').

The function of gr7 morphology here is similar to that of gr4 or gr6 for example. That this function is indeed crucial is shown by the fact that all of Jaggar's agent-oriented gr7 forms are incompatible with modifiers contradicting the idea of intensity or completeness. This is illustrated below:

- (144) a. *yaarinyàa taa tsàyu Dan kiimàa.
 girl 3fs.PERF wait-VII little little
 'The girl stood for a little time.'
- b. *Daalibii yaa kàràntu àmmaa bàà Kwarai ba.
 student 3ms.PERF read-VII but NEG much NEG
 '*the student is well read but not by much.'
- c. *Indoo taa zàmnu kàDan.
 Indo 3fs.PERF sit-VII little
 'Indo sat a bit.'

In (144), the intensive gr7 form cannot be modified by Dan kiimàa 'little' in (a), or by bàà Kwarai ba 'not by much' in (b), or kàDan 'little', in (c). Crucially, one can notice how the corresponding non-gr7 intransitive verbs can be easily modified by the adverbs incompatible with gr7. This is illustrated below:

- (145) a. Indoo taa zamnàa/ tsayàa kàdan.
 Indo 3fs.PERF sit-I/ wait-I little
 'Indo sat/ waited for a little time.'
- b. sun karàa/ *kàru Dan kàDannà.
 3p.PERF clash-I/ clash-VII very little
 'They clashed a bit.'

- c. yaa Dan wàdaatà/ *wàdàatu hakànan dai.
 3ms.PERF little prosper-III/ prosper-VII more.or.less
 'He prospered, more or less/ kind of.'

In sentence (a) above, the gr1 verbs zamnàa 'sit' and tsayàa 'stop, wait' are modified by 'a little time'. In (b), gr1 karàa 'clash' is modified by 'a bit', and, again, its gr7 form kàru is shown to be ungrammatical in the same context. Similarly in (c), the gr3 wàdaatà 'prosper' cooccur with 'more or less', but not its gr7 correspondent. So, contrary to Caron's conclusion, the non-passive gr7 are not just simple deponent verbs, which can be assimilated to gr3, as he suggests.

If the function of non-passive gr7 is to mark the intensity semantics, one may wonder what is the relationship between the intensive forms and intransitive gr4 forms, which also are marked a completive/ totality feature. The fact is that most verbs that take the intensive gr7 crucially do not have a corresponding *intransitive* gr4 form. This is shown below for a number of verbs (-ee signals gr4 intransitivity):

- (146) No gr4 forms corresponding to intensive gr7 verbs:

	gr7	gr4
a. himmantà 'strive' (gr3)	himmàntu	*himmàncee
b. karàa 'clash' (gr1)	kàru	*karèe
c. wàdaatà 'prosper' (gr3)	wàdàatu	*wadàacee
d. tsayàa 'wait, stop' (gr1)	tsàyu	*tsayèe
e. tàfi 'depart, go' (gr3)	tàfiyu	*tafiyee
f. kàrantà 'be well read' (gr3)	kàràntu	*karàncee
g. dàidaítà 'agree' (gr3)	dàidàitu	*daidàicee
h. zamnàa 'sit' (gr1)	zàmnu	*zamnée
i. kàmaatà 'fit' (gr3)	kàmàatu	*kamàacee
j.	wànzu 'remain over'	*wanjèe
k. fàtsamà 'scatter' (gr30)	fàtsàmu	*fantsàmee

These facts are consistent with the idea that the agent-oriented gr7 forms have a regular intensive semantics, contrary to the patient-oriented forms. For some reason (see a suggestion below), a few verbs (left column) turn to gr7 for their intensive semantics, instead of operating the totality gr4. There are indeed only a handful of them (those above are taken from Parsons 1962 and Jaggar 1988, except (i)).

As one may expect, some transitive verbs operate both the passive and the intensive gr7. So, with animate arguments, it is sometimes not easy to distinguish the two usages. An example cited by Jaggar is waatsà 'scatter, spread', which can take a human undergoer, a concrete inanimate undergoer, and a more or less abstract undergoer referent. This is illustrated below:

- (147) a. Abdù yaa waatsà jàma'aa.
 Abdu 3ms.PERF disperse-I people
 'Abdu dispersed the people (by force or command).'
 NOT: 'Abdu spread the people all over.'
- b. Abdù yaa waatsà masàraa/ làabaarì.
 Abdu 3ms.PERF disperse-I corn/ news
 'Abdu spread the corn/ the news all over.'

In (a), with jàma'aa 'people' only the 'disperse' sense can obtain. The 'spread all over' sense is not possible. With the inanimate undergoers, on the other hand, the 'spread all over' sense is the right one. In its achievement form, the verb can occur with human and concrete inanimate undergoers as pivot, but not with the abstract referent undergoer. This is illustrated below:

- (148) a. jàma'aa sun waatsèe.
 people 3p.PERF disperse-IV
 'The people dispersed (went home).'
 NOT: 'The people spread all over the place.'
- b. masàara taa waatsèe.
 corn 3fs.PERF spread-IV
 'The corn spread out all over.'
 NOT: 'the corn disappeared.'
- c. *làabaarii yaa waatsèe.
 news 3ms.PERF spread-IV
 'The news spread.'

Here in (a), the people scattering are understood to do the action on their own, no external agency is implied. Still, only the 'disperse' sense is acceptable, not the 'spread all over' sense. Similarly, in (b) no agency is implied; the corn can spill out of a container and spread all over. With 'news' (with this verb at least), the non-agentive usage is impossible, as seen in the ungrammaticality of (c). Now, the verb can also appear in gr7 with all types of undergoer referents. However, it is only with the human referent that we get both readings of passive gr7 (from the transitive verb in (147a) with 'disperse' sense) and intensive gr7 (with the 'spread all over' sense). This is illustrated below:

- (149) a. jàma'aa sun wàatsu.
 people 3p.PERF disperse/ spread-VII
 'The people were dispersed (went home).' (passive gr7)
 'The people spread all over the place.' (intensive gr7)

- b. masàara taa wàatsu.
 corn 3fs.PERF spread-VII
 'The corn is spread all over.' (passive gr7)
- c. làabaarii yaa wàatsu.
 news 3ms.PERF spread-VII
 'The news is spread all over.' (passive gr7)

With the human undergoer in (a), the gr7 form, contrary to the transitive verb, corresponds to two different basic lexical semantics. In one reading, the people are understood to have been dispersed, or chased away forcibly or by command. The meaning clearly implies a causative agent, and is the passive correspondent of the transitive verb seen in (147a) above. In the second reading, the people have spread to occupy an area all over, and no agentive causation is implied. Notice that this sense of 'spread all over' is not available in any other grade (cf. the reading preceded by 'NOT' in (147a) and (148a) above). This usage is the intensive gr7. (to have an agentive reading, the causative construction with the verb sâa 'put' must be used: yaa sàa jàma'àa sun wàatsu 'he made the people spread out'). On the other hand, with inanimate referents, the 'spread all over' reading is necessarily agentive. So, this usage is the passive gr7. It cannot be the intensive gr7. Instead, for the intensive sense, the gr4 is used (cf. 148b).

This is only one example of how intricate a particular case may get. But it is still possible to separate the two types of gr7. Most verbs which operate both gr7 forms and which need to be separated out, correspond to Jaggar's 'experiencer-oriented' gr7 and appear both as transitive and intransitive. Some examples from Jaggar (1988:404) are: bùgu 'be good and drunk' (intensive)/ 'be hit' (passive); ràbu 'separate, divorce'/ 'be divided'; jèjjèeru 'line up'/ 'be aligned'; gòogu 'have experience'/ 'be polished'; bàzu 'spread all over'/ 'be dispersed'; ràsu 'die'/ 'be lost'; mòotsu 'have emotional arousal'/ 'be stirred (food)'; kàDu 'be shocked'/ 'be shaken (milk)'; hàDu 'meet'/ 'be mixed (flours)'.

Another marked difference between true passive and intensive gr7 concerns the type of reading they take when they appear with the continuous nàa. True passive verbs usually do not have a continuous reading of a process being undergone. Instead, as seen above, the construction is assumed only to indicate a potentiality that the passive pivot can be made to undergo the verb's action. Intensive gr7 verbs on the other hand take a true continuous reading with nàa. The two cases are illustrated below:

- (150) a. naamàn ràaKumii yanàa yànkúwaa.
 meat-of camel 3ms-CONT cut-VII-VN
 'The camel meat can be cut.'
 NOT: 'The camel's meat is being cut.'

- b. àshee giwaa tanàa kàsuwaa!
 so elephant 3fs-CONT kill-VII-VN
 'So an elephant can be killed!'
- c. ?gàa giwaa tanàa kàsuwaa!
 here.is elephant 3fs-CONT kill-VII-VN
 'Here is an elephant being killed!'
- (151) a. Abdù yanàa dàamuwaa dà Indoo.
 Abdu 3ms-CONT stir-VII-VN with Indo
 'Abdu is being annoyed at Indo.'
 NOT: 'Abdu can be annoyed at Indo.'
- b. mutàanee sunàa tàaruwaa.
 people 3p-CONT gather-VII-VN
 'The people are gathering.'
- c. su Aali sunàa ràbuwaa/ hàDuwaa sai...
 3p Ali 3p-CONT separate-VII-VN/ join-VII-VN when
 'Ali and others have just separated/ just come together when ...'

Example (150a), presents the true passive continuous construction and only the potentiality sense is possible, as indicated. In (150b) the speaker is seeing the event of an elephant being killed, yet the sense of the nàa construction is still the potentiality reading, especially because of the expletive àshee 'so it is true that...'. When the presentational gà 'here is' is used, as in (150c), it is difficult, in my judgement, not to assign the true continuous sense to the sentence. So, probably in special contexts like (151c), the passive forms can take a continuous reading too. Also, as noted in Jaggar (1981b), the intensive gr7 forms do take a true continuous reading, and never the potentiality reading. In (151a), Abdu is truly annoyed at Indo and the potentiality reading is impossible, as indicated. The situation is similar in sentences (151b-c). In (151c) however, the sense is not quite that of the continuous but instead, we have the "have just + Verb" sense. Without the temporal sai 'when', the sentence would be ambiguous between the continuous (or "have just+Verb") sense and the potentiality sense (cf. su Aali sunàa ràbuwaa 'Ali and others have just separated' or 'Ali and his friends can be made to stop seeing one another'. This ambiguity stems from the fact that ràbu can be a true passive 'be separated' or it can be an intensive gr7 'part company'.

One may wonder why the passive gr7 and the intensive gr7 came to have the same form and are both syntactically intransitive. A tentative suggestion is that this was due to the class of verbs with an ambiguous gr7 form. Indeed, if a transitive verb has both types of gr7 forms, the two forms will have in common the fact that the actor argument is not expressed (or is in the periphery for the true passive). Because the intensive gr7 has no agentive

implication at all, one can assume that the agentive part of the accomplishment LS is cancelled, in effect giving an achievement LS. Some intensive gr7 LSs are given below:

- (152) a. gòogu 'be experienced' (<googà 'polish (s.th.)')
[BECOME **polished**' (x)]
- b. bàzu 'spread all over' (<bazà 'spread (s.th.)')
[BECOME **dispersed**' (x)]
- c. mòotsu 'be aroused' (<mootsà 'stir, move (s.th.)')
[BECOME **stirred**' (x)]

In this perspective, the gr7 HL-u morphology would mark the morphosyntactic demotion of the actor (passive) or the cancellation of the agentive portion of the LS (intensive). Still, one would have to posit that a few intransitive gr3 verbs (without an accomplishment LS) were attracted and form their intensive form with the gr7. This is the case of the verbs in (146) above.

This section presented a new analysis of gr7. Using compatibility tests, it was shown that some gr7 forms have an obligatory 'intensive' semantics while others do not. The latter forms are analyzed as typical morphosyntactic passive constructions. These forms are handled by the RRG notion of marked pivot assignment, where, in an accusative language, the pivot function is assigned to the undergoer instead of the actor. This marked assignment is pragmatically motivated to foreground the undergoer to pivothood. The gr7 forms that have an intensive reading are not passive at all. They do not have an agentive reading, and have corresponding non-intensive intransitive forms. This usage of gr7 is very limited though, because most verbs use gr4 for their completive reading.

4.6 GRADE MORPHOLOGY

This section address the nature of the grades' derivational patterns. We have seen in the sections above that, by their function (changing the verb's LS or its linking pattern for gr2 and gr3; adding a semantic feature for gr8, gr4, gr6, and intensive gr7), the grades can be considered as lexical classes. Here, it is shown that this position is consistent with the way grades are "derived" from other grades, the nature of their phonological cue, and the distribution of verbs among the grades.

First, a morphological model is adopted which does not assume stems and affixes to derive individual members of a given grade. This model, the "schema" model (Bybee and Slobin 1982), will also be illustrated in an area independent of the verbal system, the plural formation. Then, the following subsection details the advantages of the schema model over

the one assumed under the basic shapes and hidden extensions hypothesis of Newman and Furniss. Finally, the patterns of intergrade derivation are explored, and it is shown that these patterns have derivational rather than inflectional properties.

4.6.1 THE SCHEMA MODEL

The traditional Item and Arrangement (Hockett 1954) and Item and Process (Matthews 1974) models of morphology can be considered as input-oriented where a stem and an affix are combined to derive a new category. However, Bybee and Slobin (1982) show that there is more in a derived form than just a stem, an affix, and some phonological processes. They notice that the irregular English past tense has subclasses where the past tense forms look alike despite dissimilar present tense stems. Bybee and Slobin, following Zager (1980), hypothesized that an innovative past tense form is arrived at not by a stem-affix combination, but by matching of the new form to other established past tense forms. The process is thus output-oriented. Similarly, a form is recognized as past tense by the degree of its resemblance to a prototypical past tense form (Bybee and Moder 1983). Bybee and Moder (1983:255) set up the concept of schema as "a generalization about the shape of a lexical item of a certain category." Schemas are thus classes of words, with shared phonological properties and associated with some meaning. Approaches similar to that of Bybee and Slobin have been applied to German plural (Köpcke 1988), and Hausa plural (Haspelmath 1987, Abdoulaye 1987, Lobben 1992).

It turns out that the notion of schema is very useful in Hausa. Haspelmath (1987) shows for example that schemas are important not only to achieve psychological reality (as intended in Bybee and Slobin), but also for the basic description of plurals in Hausa. Traditionally, plural formation in Hausa is considered complex or even unpredictable. Thus, Tuller (1982a) presents a formalization with eleven classes of rules and a substantial number of unaccounted for forms. So, Haspelmath (based on Kraft and Kraft 1973) proposes seven schemas, prototypically organized to allow for subschema variation. In Abdoulaye (1987), it is shown how plural forms are in fact cast into quite rigid morphological templates. A simple illustrative case can be the template with the prototypical cue: HLHH-aCii. This means that each plural form is four syllables long, the last two syllables containing /a/ and /ii/. Some examples are below:

(153) A plural template:

- | | |
|------------------------|----------------------------|
| a. Kwai (egg) | KwayàaKwayii |
| b. kaayaa (goods) | kaayàyyakii (lot of goods) |
| c. sàlkaa (water skin) | saléekanii |
| d. buukala (some fish) | buukàlkali |
| e. tarwaDa (catfish) | tarèewaDii |
| f. (no singular) | filàafili (paddles) |

As it can be seen, to always arrive at the schema specifications, various singular forms seem to be subjected to as many processes as necessary.

4.6.2 THE GRADES AS SCHEMAS

The grades morphology is probably simpler than that of plural formation. For example, in (153) above it is not easy to specify what the suffix is that is added to singulars to derive plurals. For the grades, the suffixes are simple to set up and the verbal forms are predictable in most cases. I claim however, that the schema approach is still useful here and can address other problems that are intractable in an input-oriented approach.

I propose then that the shapes are phonological templates associated with a particular semantics. Contrary to the plural formation where all of the schemas share one semantics, the grade templates have each a particular function, as we have seen in the previous section. For reference, the verbal schemas are given below:

(154) Verbal Schemas (grades) in Hausa:

Cue	Function	Status
Gr1: HL-a(a)	Neutral	basic
Gr2: LH-i	figure/ ground	derived
Gr3: LH-a	achievement verbs	"
Gr8: HLL-ike(e)	Totality+deictic center	"
Gr4: HL-e(e)	Totality	"
Gr6: HH-oo	deictic center	"
Gr7: LH-u	intensive/passive	"

The first column gives the grades and their cue in a derivational ranking to be justified in section 4.6.3 below. One can notice that the numbering does not match the ranking. This is because many people are familiar with Parsons' system, and it will not be convenient to renumber the grades. The absence of gr5 and gr9 is due to the fact that these two grade are purely syntactic (they are a combination of two separate verbs). They are treated in chapter 5. The second column gives a functional label to each grade. Grade 1 is termed neutral (see section 4.2). Grade 2 is labelled the figure/ ground grade (see section 4.3.1.). Grade 3 is, as we have seen in section 4.3.2, made up of achievement verbs. Grade 8 expresses the notion of completeness and marks a deictic center. Grade 4 and gr6 mark the

notions of completeness (totality) and a deictic center respectively (see section 4.4). Finally, gr7 is the intensive and passive grade (section 4.5). The "Status" column in (154) above gives the first hierarchy of the grade system, where gr1 is basic and all other grades derived. At the end of section 4.6.3 below, a second hierarchy will be presented as well, which reflects a more detailed ranking of the grades.

One aspect of the grades which is easily handled here is the fact that most grades have exclusive verbs. One property of schemas is that any particular member is independent from its base form, and members can exist by virtue of their belonging to an established schema (see 153f above). So, if one conceives the verbal system to comprise seven schemas (excluding gr5 and gr9, but including gr8), each of these schemas will stand independent of the others. They are independent in the sense that, theoretically, a particular verb can operate any subset of the nine grades. So, although gr1 is given as basic, many verbs can operate other grades without necessarily operating gr1, and this explains why most grades have exclusive members (see chapter 3).

The utility of the schema notion is also readily apparent if one compares the patterns of denominal verbs. Denominal verbs can operate any number of grades, depending on the input noun (see also Parsons 1960:6):

- (155) From tsòoroo 'fear':
 - a. tsooràtà 'frighten' (gr1)
 - b. tsòoràci 'fear (s.th.)' (gr2)
 - c. tsòoratà 'be frightened' (gr3)
 - d. tsooràcee 'be good and frightened' (gr4)
 - e. tsooratar 'frighten good' (gr5)
 - f. tsooratoo 'frighten + come' (gr6)
 - g. tsooràtaa mà 'frighten (s.o.'s child/pet) (gr9)

- (156) From Kiriri 'shamelessly'
 - a. Kiriìità 'render shameless' (gr1)
 - b. Kiriicìkee 'became shameless and come' (gr8)
 - c. Kiriìicee 'became shameless' (gr4)
 - d. Kiriitär 'render completely shameless' (gr5)
 - e. Kiriìitaa mà 'render (s.o.'s child) shameless' (gr9)

- (157) From Karfii 'strength'
 - a. Karfafà 'strengthen' (gr1)
 - b. Karfaoo 'strengthen + come' (gr6)
 - c. Karfafaa mà 'stengthen (for s.o.) (gr9)

One may functionally view gr1 as a schema on an equal footing with the other grades, so that any given denominal verb would operate those grades that are compatible with its basic lexical semantics. This will also explain why a small number of conflated gr5 forms are

reanalyzed into new stems and can operate gr1, gr6 and gr7, as seen below (see also chapter 5):

- (158) Western reanalyzed conflated gr5 : (from gr5: fit dà, fitar dà)
- a. fiddà 'take out' (gr1)
 - b. fiddo 'bring out' (gr6)
 - c. fiddu 'be taken out' (gr7)

Also, Parsons (1975) comments on the ease with which verbs borrowed from other languages are assimilated into the grade system. He notes on this point that there is no distinction between native and foreign vocabulary, and that "every single loan verb, Arabic or English [...], has been made to conform to the Hausa grade system with a positively Procrustean relish..."(p.434). Parsons cites the case of the verb 'change' which is borrowed in all grades except gr3: gr1 canzà 'change (tr., intr.)', gr2 cànji 'change (money)', gr4 canjè 'change completely', gr5 canzar dà 'convert up away (one's money)', gr6 canzoo 'change and come', gr7 cànu 'be changed' (and also gr8 canjikè 'change completely and come').¹⁶

Thus, although one can easily isolate the affixes, overt or hidden, necessary to derive the grades (as in Newman 1983, Furniss 1981), there are many problems, which this approach cannot solve. By viewing the grades as schemas, each characterizable in some way, not only do we not need the ad hoc notion of hidden extensions, but we also make sense of the distribution of the verbs among the grades: a verb operates only those grades that are compatible with its basic meaning. According to Bybee and Slobin (1982), Bybee and Moder (1983), the primary function of schemas is to organize lexical classes and facilitate access to their members. Thus, members of a schemas like the English irregular past tense classes, are lexically rather than inflectionally derived. In the next subsection, the derivational nature of the grades listed in (154) is explored.

4.6.3 GRADE DERIVATION

In this subpart, the grades are examined from a morphological view point to see whether they are schemas (in Bybee's sense), or whether they are rule-based, inflectional categories. I will use three criteria. The first one, noted in Bybee and Slobin (1982), is the tendency for schemas to have their cue spread all over a word, in multiple places. The second criteria is that of generality (Bybee 1985). Inflectional categories tend to apply to any form that satisfies the input configuration or requirements. Derivational classes on the other hand are not automatic and apply selectively. Finally, only lexical classes tend to have members without a corresponding base in the presumed input categories. Thus, grades that have exclusive verbs are most likely lexically derived (because much of the morphology of gr1,

gr2, gr3, and gr4 was presented in chapter 3, only the other grades will have expanded subsections below).

4.6.3.1 Grade 1, grade 2, and grade3

The cues of these three grades is spread all over the verbal forms. Parsons (1960) in fact defines a grade morphologically as a combination of a tone pattern plus a vowel ending. So, strictly speaking, we identify a grade by looking at the whole verb, not just at its final segment. The table below shows the cues for the above grades (for the C-form only, for more on other forms, see Parsons 1960):

	Gr1	Gr2	Gr3
disyllabic:	HL-a(a)	LH-i	LH-a, HH-a, HL-i
Trisyllabic:	HLL-a(a)	LLH-i	LHL-a
Quadrisyll.:	HHLL-a(a)	LLLH-i	LLHL-a

This table shows that with disyllabic verbs, gr3 has three templates LH-a, HH-a, and HL-i (see chapter 3) to associate with its achievement grade function. Grade 1 has transitive (HL-a) and intransitive (HL-aa) forms with are syntactically conditioned (Parsons 1960). Verbal forms rarely fail to comply with these tonal specifications (cf. the intransitive LH-i Kòoshi 'be replete', and other irregular verbs).

As seen in chapter 3, gr1, gr2, and gr3 have large classes of exclusive verbs (verbs which may however operate grades ranked lower than gr4, that is gr6, gr7, gr5 and gr9).

Because of the fact that most verbs appearing in other grades also appear in gr1, gr2, or gr3, Parsons have considered theses later grades as the "primary" grades. Theoretically, all forms in the non-primary grades should also be found in at least one of the primary grades (cf. Gouffé 1962 for example). It is well known however (Parsons 1962:262, Furniss 1981) that this is not entirely true (that is, most grades, primary or not, have exclusive verbs). On the other hand, it remains a fact (as it will be shown below) that the non-primary grades are "fed" by the primary grades. Indeed some of the non-primary forms are ambiguous when they have more than one possible input grade (so, for example gr7 bùgu means 'be well hit against' (gr1 sense) and 'be well hit' (gr2 sense). This is why, in this work, the grouping of gr1, gr2, and gr3 as the primary grades is retained. The primary grades satisfy all our three criteria, and can be considered as lexical classes

4.6.3.2 Grade 8

The verbal forms containing -ik- (or its variants) have long been reported, but they have never been given the label of "grade". In this subpart, I propose, if only for descriptive

simplicity, that the -ik- form should be considered a grade, the Grade 8. First previous treatments are reviewed, then the "grade" analysis is argued for. Finally, the derivational patterns of this new grade are explored.

4.6.3.2.1 Previous analysis of the -ik- forms

Parsons (1971-72:54), in a footnote, discusses what he reports as the "dialectal forms with infixed -ikk- or -ak-". One probable reason why Parsons did not think of these forms as constituting a grade lies in his semantic interpretation of them. Indeed, he takes them simply as more intensive variants of gr4. This is rather inaccurate, and, as we have seen in section 4.4, the semantics of -ik- forms is different from (but includes) that of gr4.

Newman (1977) also mentions the "-k(k)-" form but analyzes it again as an infix to what is basically a gr4 form. Contrary to Parsons, Newman gives the correct semantic interpretation, but still, he too does not consider it for "grade-hood". One probable reason for Newman's analysis is the fact that the gr8 -ik- form in Katsinanci almost always occurs with the gr4 -ee termination: -ike(e). Caron (1987) also considers the -ik(k)- morpheme to be a directional infix, which is inserted in the Adiranci dialect not only in gr4, but also in gr5 quite regularly. His solution then (for Adiranci only) is to propose that there are two gr4s: the regular gr4 and the infixed gr4' (gr4 bar). Similarly, Adiranci would have a regular gr5 and an infixed gr5'. Examples for all four grades are given below (adapted from Caron 1987:147):

- (160) Adiranci gr4/ gr4' and gr5/ gr5' forms:
- a. gr4: buuDè 'open'
 - b. gr4': buuDikkè 'open + come', 'open this way'
 - c. gr5: saisuwaà 'sell'
 - d. gr5': sâikassuwàà 'sell + come'

In Caron's analysis, Katsinanci would have a gr4 and a gr4', a gr6 and a gr6' but not a gr5', because in this dialect the -ik- morpheme does not occur with gr5. Overall, if all dialects are considered, the -ik- infix appears in gr4, gr5, and gr6. There are no reports of infixation in gr1, gr2, and gr3, the primary grades.

4.6.3.2.2 The "grade" analysis of -ik-

In this work, the proposal is made that the -ik- form can be conceived of as a grade. Notice that the "grade" analysis does not have a substantive advantage over the "infix" analysis. I think however that the new analysis is descriptively more economical and elegant than the alternative.

Taking -ik- as a grade allows one to do away with the only case of infixation in the verbal system. This is undoubtedly a substantial economy because it restricts the class of

morphological processes needed to handle the derivation of the verbs. The solution does add one more grade, but the number of the grades is argued, for example in Newman (1983), to be logically open-ended. Thus, grades, according to Newman, can appear and disappear. For the problem at hand here, one more or one less grade does not overload the system, so long as the new grade fits in the overall picture. Indeed, given a proper ranking, gr8 can be considered to serve as input to gr4, gr5 (in Adiranci), and gr6.

I propose that gr8 ranks between gr3 and gr4 as a secondary grade with gr4. This is represented below:

- (161) a. Primary grades:
 Gr1 HL-a(a)
 Gr2 LH-i
 Gr3 LH-a
- b. Secondary grades:
 Gr8 HLL-ike(e)
 Gr4 HL-e(e)

This (partial) ranking differs from Parsons in two ways. First, gr5 is no longer a secondary grade, because it is altogether outside the group of the morpholexical grades. Secondly, although gr8 and gr4 are at the same level (secondary), gr8 is input to gr4. In Parsons system, theoretically at least, a grade cannot input another grade of the same level. So, there is no derivation from primary to primary, from secondary to secondary, and from tertiary to tertiary. There are two counterexamples to this rule in the old grade system. The two exclusive gr4 verbs warkè 'get well' and keeBè 'set aside' can operate gr5 (which, in Parsons' system, is also a secondary grade): warkar dà 'cure' and keeBar dà 'set off away'. Also, and more importantly, the rule is certainly not true in the case of the primary grades. As seen in the preceding sections, gr1 is the neutral grade, while gr2 and gr3 are functionally marked. But still gr2 and gr3 are the marked and more restricted grades, and are in many instances derivable from gr1. So, the rule of "no same level" interderivation is false even for the old system, and should not constitute an objection to the ranking of gr8 proposed here.

Although in this work gr8 is given as HLL-ike(e), strictly speaking the proper gr8 does not have to contain the termination -e(e), which is characteristic of gr4. I will speculate here that the independent gr8 forms should be conceived of as ending in -ikv(v). This means that the grade has an unspecified vowel, which must be realized as -e(e) (gr4), or -o(o) (gr6). The fact is there is no occurring independent gr8 form. The reason for this may be the fact that an independent gr8 form would exactly do what gr6 does, as seen in section 4.4.2, that is, mark a deictic center for the verb and its participants. In this hypothesis, gr8 appears only

when it is "protected", by cooccurring with lower ranked grades. One can actually approach the problem in a diachronic perspective, and say that the independent gr8 were lost as such, but they are kept when cooccurring with gr4 to express the combined semantics of totality and deictic center. Notice that this hypothesis is consistent with the schema approach to morphology. Thus, although the gr8 base forms do not exist (no longer?), derived forms of gr8 can still function. This illustrates the independence of schemas from one another.

The hypothesis that -ik- is a secondary grade also explains well why the morpheme is not "infixed" to the primary grades, the only level where -ik- is not attested.¹⁷ Usually, a lower ranked grade does not serve as input to a higher ranked grade (notice that this principle is not violated by the reanalyzed gr5 forms where gr5 seems to input gr1. If gr5 is a syntactic cosubordination, then it is normal for it to evolve into morphology, because in RRG, cosubordination is at the frontier of morphology and syntax; but the reanalyzed gr1 are a real problem in Parsons' system).

Finally, if one looks at particular verbs in gr4 and gr8, there are discrepancies which can be easily handled in the "grade" analysis, but not in the "infix" analysis. So, for example, some verbs are better in gr8 than they are in gr4, the supposed base. This is illustrated below:

- (162) a. Abdù yaa ?arèe/ arìkee masù mootàa.
 Abdu 3ms.PERF borrow-IV/ borrow-VIII MA-3p car
 'Abdu borrowed up their car/ borrowed up their car (and come).'
- b. Abdù yaa ?taarè/ taarìkè tumaakii.
 Abdu 3ms.PERF gather-IV/ gather-VIII sheep
 'Abdu gathered up the sheep/ gathered up the sheep and come.'
- c. Dan tsuntsuu yaa *faadèe/ faaDìkee dàgà iccèe.
 little bird 3ms.PERF fall-IV/ all-VIII from tree
 'The little bird fell off from the tree/ fell off here from the tree.'

But:

- d. raanaa taa faaDèe masù daajìi.
 sun 3fs.PERF fall-IV MA-3p bush
 'The sun set while they were still in the bush.'
 (Parsons 1971-72:87)

In all the cases above, the sentences are best with gr8, and less so with gr4. Judgements are bound to vary here, the point though is that gr8 is not a simple matter of infixing -ik- to an existing gr4 base. Because it is simple and fits well with the overall grade system patterns, I think that the "grade" analysis of -ik- is better than the "infix" analysis. It avoids positing the process of infixation which is nowhere else attested in the verbal morphology. It also allows us to avoid labelling forms as gr4 and gr4'. The analysis also predicts that the

primary grades will not be "infixed" with -ik-, and it also explains some discrepancies with grammaticality judgements about related gr4 and gr8 forms.

4.6.3.2.3 Derivational patterns

Taking the HLL-ike(e) as the occurring basic form of the grade, the cue for gr8 is spread over the verbal form. The regular patterns are HLL-ike for trisyllabic verbs, HHILL-ike for quadrisyllabic, and HHHLL-ike for cinquasyllabic verbs. As with gr4, an alternate HHLH-ikee transitive form exists. An example is as follows:

- (163) sun raatayìkè/ raatayìkee Bàraawòo
 3p.PERF hang-VIII/ hang-VIII thief
 'They hanged the thief and come back.'

The input grades are gr1, gr2, and gr3. As usual, the derivation is very much restricted. This is illustrated below:

(164) Grade 1 verbs in gr8 derivation:

- | | |
|-----------------------|---------------------------------|
| a. gangàraa 'roll' | gangarìkee 'roll all down here' |
| b. kaamà 'seize' | kaamìkè 'seize all + come' |
| c. bugà 'hit against' | bugìkè 'hit up + come' |
| d. halbà 'fire (gun) | halbìkè 'fire off + come' |
| e. gasà 'roast' | gashìkè 'roast + come' |
| f. arà 'lend' | *arìkè 'lend off + come' |
| g. tankàa 'reply' | *tankìkee 'reply off + come' |
| h. ruugàa 'run' | *ruugìkee 'run off + come' |
| i. gamà 'finish' | *gamìkè 'finish off + come' |
| j. rabà 'divide' | *rabìkè 'divide off + come' |
| k. saidà 'sell' | *saidìkè 'sell off + come' |
| l. fiddà 'take out' | *fiddìkè 'bring out' |
| m. kaudà 'store' | *kaudìkè 'store + come' |

(165) Grade 2 verbs in gr8 derivation:

- | | |
|----------------------|-----------------------------|
| a. jèefi 'throw at' | jeefikè 'throw at + come' |
| b. bùgi 'hit' | bugìkè 'hit good + come' |
| c. hàlbi 'shoot at' | halbìkè 'shoot up + come' |
| d. àri 'borrow' | arìkè 'borrow up + come' |
| e. swàaci 'steal' | swaacìkè 'steal + come' |
| f. cèeci 'rescue' | *ceecìkè 'rescue up + come' |
| g. nùfi 'head on' | *nufikè 'close on here' |
| h. tàrki 'engage in' | *tarkikè 'engage in + come' |
| i. harì 'raids' | *harìkè 'raids good + come' |
| j. nùuni 'point at' | *nuunikè 'point at + come' |

(166) Grade 3 verbs in gr8 derivation:

- | | |
|-----------------------------|-----------------------------------|
| a. ìsa 'arrive' | ìskè (<*ishìkè) 'find on arrival' |
| b. dìra 'land' | dirìkee 'land off here' |
| c. fita 'get out' | ficcìkee 'escape out here' |
| d. shìga 'enter' | shigìkee 'sneak in here' |
| e. shèekarà 'pass a year' | sheekarìkee 'spend a year + come' |
| f. ìsa 'suffice' | *ishìkee 'suffice + come' |
| g. bùwaayà 'be intractable' | *buwaayìkee 'be stubborn + come' |
| h. girma 'grow up' | *girmìkee 'grow up + come' |
| i. farga 'realize' | *fargìkee 'realize up + come' |
| j. shìriyà 'go, leave' | *shìriyìkee 'leave + come' |

Grade 8 derivation is thus clearly restricted for the input grades as seen above, for no apparent reason. Grade 8 has no exclusive verbs as far as I am aware. But this is less significant, because, strictly speaking, there is no existing independent forms of the grade, so, one would not expect exclusive verbs. However, because gr8 satisfies well the other two criteria, one can consider it as a derivational class.

4.6.3.3 Grade 4

The cue for gr4 is as follows: HL-e(e) for disyllabic, HLL-e(e) for trisyllabic, and HHLL-e(e) for quadrисyllabic. Parsons (1971-72:53) reports transitive HL-ee forms that have an even greater totality meaning. In the west, with trisyllabic forms and greater, the last tone is also high: HLH-ee. some examples are as in below:

- (167) a. yaa riidè/ riidèe jikkar yaarinyàa.
 3ms.PERF snatch-IV/ snatch-IV bag-of girl
 'He snatched the girl's bag.'
- b. sun raatàyè/ raatàyee Bàraawòo.
 3p.PERF hang-IV/ hang-IV thief
 'They hanged the thief.'

Also, with three irregular verbs shaa, cii, jaa, alternate HL-nyè and FH-nyee forms are possible:

- (168) yaa jaaye/ janyè/ jânyee ruwaa.
 3ms.PERF pull-IV/ pull-IV/ pull-IV water
 'He drew up all the water.'

Although the template varies, the allowed tone patterns are well defined, and one still has to look at the whole word to identify the grade.

Grade 1, gr2, gr3, and gr8 all feed gr4. However, not all verbs in any given input grade (except gr8, see section 4.6.3.2) undergo the gr4 derivation. As we have seen, the three input grades all have exclusive verbs that do not operate gr4 (see chapter 3).

Finally, as seen in chapter 3, gr4 has its own exclusive verbs, verbs which have no corresponding bases in the primary grades (in violation of Parsons hierarchy). That is, ideally, any gr4 form would be a gr1, gr2, or gr3 form to which is added the totality meaning. But this is not true because some gr4 forms do not appear in the primary grades. So far, we have twenty seven such verbs. They are given here again for easy reference:

(169) Exclusive intransitive gr4 verbs:

- a. tsanèe 'become dry'
- b. rantsèe 'swear'
- c. dunDèe 'be overcast'
- d. laayèe 'lie low, disappear'
- e. arcèe 'go further'
- f. Kwarèe 'be expert'
- g. warkèe 'have complete remission'
- h. kaucèe 'eschew'
- i. kubcèe 'wrestle away'
- j. raamèe 'be thin'
- k. Darèe 'jump up on'
- l. goodèe 'thank'
- m. gwanàncee 'become expert' (Parsons 1960:35)

(170) Exclusive transitive and intransitive gr4 verbs:

- | | |
|----------------------------|--------------------------------|
| a. wucèe 'pass' | wucè 'surpass, overtake' |
| b. daurèe 'be patient' | daurè 'tolerate' |
| c. Kurèe 'be stretched' | Kurè 'outstretch, surpass' |
| d. swaakèe 'change' | swaakè 'change' |
| e. Kagèe 'be jammed' | Kagè 'jam' |
| f. moorèe 'enjoy' | moorè 'take advantage of' |
| g. tubkèe 'be uprooted' | tubkè 'uproot' |
| h. tuuBèe 'undress' | tuuBè 'undress (child, shirt)' |
| i. keeBèe 'be aside' | keeBè 'put aside' |
| j. waayèe 'be enlightened' | waayè 'enlighten' |
| k. zaamèe 'glide-stop' | zaamè 'glide-stop (a horse)' |
| l. gwaljèe 'have bruises' | gwalje 'bruise (leg)' |
| m. Kaarèe 'be finished' | Kaarè 'finish' |
| n. banyèe 'be loose' | banyè 'untie, unpack' |

These verbs are still called "exclusive" although most of them operate gr8. But, we have seen the special relationship between gr8 and gr4 above. The most relevant fact is that these verbs do not appear in the primary grades.

So, gr4 satisfies all the three criteria and can be considered a lexically derived category. In the remainder of this section, when gr4 is an input to other grades, the examples will be drawn from the exclusive verbs above. Because they do not operate gr1, gr2, or gr3, if they

appear in lower grades, we are certain that underlyingly, they can only be gr4. Also used as examples in the same circumstances are the three irregular cânyee 'eat up', shânyee 'drink up', and jânyee 'pull up' (in (168) above) which do not appear at all in gr1, gr2, and gr3 (they are outside the grade system), and retain their characteristic gr4 -ny- in lower derivations.

4.6.3.4 Grade 6

The cue of gr6 is made up of an all high tone pattern (regardless of the syllables number) and an invariable -oo termination. The input grades are: gr1, gr2, gr3. Grade 8 and gr4 are very restricted. All grades are illustrated in the following:

(171) Grade 1 verbs in gr6 derivation:

- | | |
|------------------------------|------------------------------|
| a. ruugàa 'run' | ruugoo 'run here' |
| b. raamàa 'compensate' | raamoo 'compensate + come' |
| c. halbà 'fire' | halboo 'fire toward here' |
| d. jeefà 'throw' | jeefoo 'hurl toward here' |
| e. arà 'lend' | aroo 'lend us here (s.th.)' |
| f. tankàa 'reply' | *tankoo 'reply here/ + come' |
| g. gaanàa 'meet' | *gaanoo 'meet + come' |
| h. tsayàa 'stop, stand' | *tsayoo 'stop/ stand + come' |
| i. reenà 'belittle' | *reenoo 'belittle + come' |
| j. tiilàsà 'compel' | *tiilasoo 'compel + come' |
| k. saidà 'sell' (reana. gr5) | saidoo 'sell + come' |
| l. fiddà 'take out' " | fiddoo 'take out here' |
| l. kaudà 'store' " | kaudoo 'store + come' |

(172) Grade 2 verbs in gr6 derivation:

- | | |
|---------------------|---------------------------|
| a. nèemi 'look for' | neemoo 'look for + come' |
| b. hàlbi 'shoot at' | halboo 'shoot at + come' |
| c. jèefi 'throw at' | jeefoo 'throw at + come' |
| d. àri 'borrow' | aroo 'borrow + come' |
| e. cèeci 'rescue' | ceetoo 'rescue + come' |
| f. bànki 'ram into' | ?bankoo 'ram into + come' |
| g. màari 'slap' | *maaroo 'slap + come' |
| h. hàri 'raids' | *haroo 'raids + come' |
| i. tsàni 'hate' | *tsanoo 'hate + come' |
| j. tsàrgi 'despise' | *tsargoo 'despise + come' |

(173) Grade 3 verbs in gr6 derivation:

- | | |
|-----------------------------|---------------------------------|
| a. fita 'get out' | fitoo 'get out here' |
| b. ìsa 'arrive' | isoo 'arrive here' |
| c. shìga 'enter' | shigoo 'enter here' |
| d. Kaura 'change residency' | kauroo 'move here' |
| e. faaDì 'fall' | faaDoo 'fall down here' |
| f. ìsa 'suffice' | *isoo 'suffice + come' |
| g. zama 'change' | *zamoo 'change + come' |
| h. shìriyà 'go away' | *shiriyoo 'come' |
| i. girma 'grow up' | *girmoo 'grow up + come' |
| j. wàhalà 'have hardship' | *wahaloo 'have hardship + come' |

(174) Grade 8 verbs in gr6 derivation:

- a. karyìkè 'break up+come'
- b. tubkìkè 'uproot all + come'
- c. kubcìkee 'escape clean here'
- d. kaamìkè 'catch all + come'
- e. bugìkè 'hit up/against + come'
- f. ficcìkee 'take out here'

- karyakoo 'break up+come'
- *tubukoo
- *kubcikoo
- *kaamukoo
- *bugukoo
- *ficcikoo

(175) Grade 4 verbs in gr6 derivation:

- a. tubkè 'uproot clean'
- b. kubcèe 'wrestle free'
- c. janyè 'pull up all'
- d. tsanèe 'dry'
- e. wucè 'overtake'
- f. swaakè 'substitute'
- g. daurè 'tolerate good'
- h. Kaarè 'fininsh up'
- i. canyè 'eat up'
- j. shanyè 'drink up'

- tubkoo 'uproot clean + come'
- kubtoo 'escape clean here'
- janyoo 'pull up all here'
- *tsanoo 'dry + come'
- *wutoo 'overtake + come'
- *swaakoo 'substitute + come'
- *dauroo 'tolerate good + come'
- *Kaaroo 'finish up good + come'
- *canyoo 'eat up + come'
- *shanyoo 'drink up + come'

Of the twenty nine exclusive or irregular gr4 verbs in (169-170), only three verbs operate gr6. The reason for this failure is not clear, because, as seen above, the combination "totality + ventive" is fine. So, the exclusive gr4 should be able to operate gr6. As for the gr8's feeding gr6, I can only cite the form Parsons (1971-72) reports: karyakoo 'break up and come'. It sounds fine, but, apparently, it is the only good one. One can also note that the gr8 base form and its derived g6 have the same meaning. Beside these restrictions in all the input grades, gr6 has four exclusive verbs as given in (90) in chapter 3. Overall, it can be considered as a lexically derived grade.

4.6.3.5 Grade 7

The cue for gr7 is LH-u for disyllabic verbs, LLH-u for trisyllabic verbs, and LLLH-u for quadrisyllabic verbs. For passive gr7, the possible input grades are gr1, gr2, and gr4. These grades are illustrated below:

(176) Grade 1 verbs in gr7 derivation:

- a. bugà 'hit against'
- b. halbà 'fire (gun)'
- c. baDà 'spread'
- d. buuDà 'open'
- e. tallàtà 'advertise'
- f. reenà 'belittle'
- g. tiiKà 'knock down'

- bùgu 'be hit against'
- hàlbu 'be fired'
- bàDu 'be spread'
- bùuDu 'be opened'
- tàllàtu 'be advertised'
- *rèenu 'be belittled'
- *tiiKu 'be knocked down'

h.	tiilàsà 'compel'	*tiilàsu 'be compelled'
i.	maraità 'orphan'	*màràitu 'be orphaned'
j.	tabkà 'overdo'	*tàbku 'overdone'
k.	saidà 'sell' (reana. gr5)	sàidu 'be sold'
l.	fiddà 'take out' "	fiddu 'be taken out'
l.	kaudà 'store' "	kàudu 'be stored'

(177) Grade 2 verbs in gr7 derivation:

a.	bùgi 'hit at'	bùgu 'be hit'
b.	hàlbi 'shoot'	hàlbu 'be shot'
c.	nèemi 'look for'	nèemu 'be found'
d.	tàrki 'engage in'	tàrku 'be engaged in'
e.	kwàBi 'silence'	kwàBu 'be silenced'
f.	kàlli 'look at'	*kàllu 'be looked at'
g.	tsàni 'hate'	*tsànu 'be hated'
h.	tsàrgi 'despise'	*tsàrgu 'be despised'
i.	tsòoràci 'fear'	*tsòoràtu 'be feared'
j.	tsìini 'insult'	*tsìinu 'be insulted'

(178) Grade 4 verbs in gr7 derivation:

a.	jânyè 'pull up all'	jànyu 'be pulled all'
b.	shânyè 'drink up'	shànyu 'be drank up'
c.	cânyè 'eat up'	cànyu 'be eaten up'
d.	tubkè 'uprooted'	tùbku 'be uprooted'
e.	Kagè 'lock, jam'	Kàgu 'be locked up'
f.	tuuBè 'take off (dress)'	tùuBu 'be taken off'
i.	keeBè 'set aside'	kèeBu 'be set aside'
a.	wucè 'overtake'	*wùtu 'be overtaken'
b.	daurè 'tolerate'	*dàuru 'be tolerated'
d.	swaakè 'change'	*swàaku 'be changed'
f.	waayè 'enlighten'	*wàayu 'be enlightened'
h.	Kaarè 'finish'	*Kàaru 'be finished'

As it can be seen, gr7 derivation is very selective. For example, of the thirty exclusive and irregular gr4, only seven undergo gr7. In section 4.5.2, the restriction on passivization was attributed to pragmatic factors and semantic transitivity. Also, all passive gr7 forms have a related transitive forms, thus, the passive grade has no exclusive form.

As seen in section 4.5.3, the intensive gr7 forms are very limited. Most verbs, transitive or intransitive have their totativity sense in gr4. If an intensive gr7 form has a non-gr7 intransitive correspondent, that form can only be gr1 or gr3. Also, in cases where the non-gr7 corresponding form is transitive, it can only be from gr1.

(179) Grade 1 in intensive gr7 derivation:
(from intransitive verbs)

a.	karà 'clash'	kàru 'clash well'
b.	tsayàa 'wait, stop'	tsàyu 'stand forlong'
c.	zamnàa 'sit'	zàmnu 'sit for long'

(from transitive verbs)

- d. rasà 'lose'
- e. bugà 'hit'
- f. kaDà 'shake'
- g. googà 'rub, polish'
- h. abkà 'overdo'

- ràsu 'die'
- bùgu 'be good and drunk'
- kàDu 'be shocked'
- góogu 'be experienced'
- àbku 'happen'

(180) Grade 3 in intensive gr7 derivation:

- a. himmantà 'strive'
- b. wàdaatà 'prosper'
- c. tafi 'depart, go'
- d. kàrantà 'be well read'
- e. dàidaità 'fit'

- hìmmàntu 'over strive'
- wàdàatu 'prosper well'
- tàfayu 'be well traveled'
- kàràntu 'be really well read'
- dàidàitu 'agree, strike a deal'

These examples are not exhaustive. But the derivation as said above is limited. Also, the intensive gr7 has one exclusive form wànz 'remain over'. Indeed, the meaning relationship between the base and the derived forms is unpredictable, as one can verify in (179d-h) above. So, the intensive gr7 is clearly a derivational class.

Grade 6 and gr7 are considered by Parsons to be tertiary, because the secondary grades (gr4, and gr5 in his system; gr8 and gr4 here) can feed them but not the reverse. In this work, the categorization of gr6 and gr7 as tertiary grades is retained.

CONCLUSION TO CHAPTER 4

Grade 1, gr2, gr3, gr8, gr6, and (intensive) gr7 were seen in this chapter to constitute lexical classes of verb which can be conceived as schemas in the sense of Bybee and Slobin (1982). This position, as we have seen, accounts well for the fact that most grades have exclusive members, despite the analysis that all grades other than gr1 are derived. Indeed we have also seen how gr1 can be taken as the neutral gr1, opposing the other grades in the first hierarchy of the grade system. In the second hierarchy, a primary group (gr1, gr2, gr3) opposes the other grades, which in turn can be divided between a secondary group (gr8 and gr4) and a tertiary group (gr6 and gr7). The system can now be represented as follows:

(181) The new Grade System:

Level/ Cue	Function	Status
<u>Primary grades</u>		
Gr1: HL-a(a)	Neutral	basic
Gr2: LH-i	figure/ ground	derived
Gr3: LH-a	achievement verbs	"
<u>Secondary grades</u>		
Gr8: HLL-ike(e)	Totality+deictic center	"
Gr4: HL-e(e)	Totality	"
<u>Tertiary grades</u>		
Gr6: HH-oo	deictic center	"
Gr7: LH-u	intensive/ passive	"

The grades listed above are the "morphological" grades. They are word level derivation as opposed to the grades studied in the next chapter, and which are formed syntactically. Indeed, in this work gr5 and gr9 are analyzed as combinations between a gerundive primary verb and an auxiliary verb (dà for gr5 and mà for gr9).

Notes to chapter 4

¹ The verb sanìi 'know' does appear with the nàa, but with the meaning of possibility such as illustrated below:

- (i) Bàlki tanàa sanìn Idii.
 Balki 3fs-CONT know-II-DN Idi
 'Balki should know Idi.'

² The use of gà varies according to the dialects. In general, it is found in Western dialects but apparently not in Standard Hausa (Furniss 1988). In Katsinanci, gà is used only for the continuous aspect, but it seems to have been generalized to most occurrences of nàa+VN in the more western dialects of Doutchi and Ader (Ousseina Alidou, p.c.). In dialects other than Katsinanci one can still formally separate the continuous aspect use of nàa with the insertion of words such as cikin 'inside of', tsakar 'in the middle of'.

³ According to Van Valin (1990, 1992), beside motion verbs, consumption and creation activity verbs also can derive an accomplishment. In Hausa, this derivation is indeed possible. For example, ci 'eat' is an activity verb when followed by àbinci, the generic term for 'food', or by any other indefinite nominal. So, yanàa cîn àbinci 'he is eating' implies yaa ci àbinci 'he ate' at all moments during the activity. When ci 'eat' is in gr4 however, it cannot even appear in the continuous (*yanàa cînyè tuwoo '?he is eating up the staple food'). This shows that the verb is not an activity, but a punctual accomplishment verb. The verb shaa 'drink' works the same way.

⁴ Actually, the perfect verbal form in (39) are not the direct equivalent of the nàa+NP forms. The real perfect of yanàa rawaa 'he is (doing) dancing' is rendered with the yi+NP construction: yaa yi rawaa 'he danced', lit: 'he did dancing'.

⁵ Dìyaa here is understood as 'daughter of Balki'. This may be a case of zero pronoun possessor. The zero, which is more stylistic, alternates with a full form as seen in (47a) usually with kinship terms.

⁶ With most locative constructions, the preposition drop is obligatory, so that an overt preposition is marginal or plain ungrammatical. In my judgment, a sentence such as taa tafi (à) Ingila 'she went to England' is marginal with the preposition. In such cases, the preposition can drop even when the locative nominal is fronted: (à) Kanòo nee ta tafi 'It is to Kano that she went', while the presence of the preposition is still less preferred in (?à) Ingila née tå tafi 'It is to England that she went'. Notice however that even if the preposition is dropped, the fronted nominal is still "embedded" in a locative phrase because of the masculine gender agreement of the copula. One cannot have *Ingila cèe ta tafi 'It is to England that she went', with the copula agreeing with the feminine Ingila 'England'. Both Ingila and Kanòo nominals have no problem taking a feminine copula if they are not locative arguments. The obligatory preposition drop may not explain the facts of (57) in relation to the word tsawoo 'height'. Indeed, tsawoo is not felicitous as a locative, with or without a preposition: *Indoo taa Daraa (à) tsawoo 'Indoo surpasses in height', one has to say Indoo taa Darà tsawoo (cf. also *Indoo taa dataa (à) tsawoo 'Indoo equals (s.o.) in height', but *(à) tsawoo née Indoo ta datà Abdù 'it is in height that Indo equals Abdu', where a preposition is necessary if tsawoo is fronted).

⁷ There exist two verbs, ròoKi 'ask/ ask for' and tàmbàyi 'ask/ ask for' that Pilszczikowa (1969) calls double DO construction verbs: ròoKi Audù 'ask Audu', ròoKi kuDii 'ask for money', ròoKi Audù kuDii 'ask Audu for some money'. Also, another LH-i verb Kòoshi '(food) nourish (s.o.)', can occur as intransitive: Kòoshi 'be replete'. It is usually considered a true exceptional verb (Furniss 1981), maybe an irregular gr3 achievement verb.

⁸ Two possible implications are that the theme's referent will be affected by the trip to the market, or that the market place will be affected by the theme's referent. The first case obtain with theme referents such as little children (for whom the market may be a "bad" place), animals and goods to be sold. The second case obtains with theme referents such as soldiers, gangs of children, tax officers, inspectors, etc, all entities that can change the market's structure. There is no such affectedness sense with the optional locative of a gr2 verb (compare: an aikà soojooji kàasuwaa 'soldiers were dispatched to the market (to quell unrest)' and an àiki soojooji kàasuwaa 'soldiers were sent (to buy something) to the market'; or again: an aikà raagunàa kàasuwaa 'the rams were sent to the market (to be sold) and *an àiki raagunàa kàasuwaa *'the rams were sent (to buy something) to the market').

⁹ This sentence as such is ungrammatical. Such sentences would be acceptable only if the locative nominal is a heavy NP. Otherwise, Abdù should be in a Verb+mà construction (cf. chapter 5). I assume that the LS of the verb stays the same whether or not mà is present. The only difference is that mà signals a marked undergoer choice linking where the locative is the undergoer over the theme, which is a simple core argument (cf. chapter 5). Thus, in this analysis, Verb+mà construction would also be a lexical operation expressed syntactically, as it is the case for gr5.

Readers may note that the LS of some verbs in this section are simplified and they are meant to be more explicit descriptions of the relevant semantic contrast between gr1 and gr2 verbs. In reality, the LS can be more complicated, their full representation would at once

include implied participants such as source argument, goal, instrument, etc, to account for all the possible occurrences of a verb. For example, the expanded LS for the Hausa root ar- 'lend/ borrow' in (ia) below can, in a unified way, account for the sentences in (ib-d):

- (i)
 - a. [[**do'** (x)] CAUSE [BECOME NOT **have'** (t,z)]] CAUSE [BECOME **have'** (y,z)]
 - b. Indoo taa aràa mà Abdù kèekentà.(equiv. to 85a)
Indo 3fs.PERF lend-I MA Abdu bike-of-3fs
'Indo lent her bike to Abdu.'
 - c. Indoo taa àri kèekee dàgà wajen Abdù. (cf. 85b)
Indo 3fs.PERF borrow-II bike from place-of Abdu
'Indo borrowed a bike from Abdu.'
 - d. Indo taa aram mà Dantà kèekee dàgà
Indo 3fs.PERF borrow-II-VN-of MA son-of-3fs bike from
wajen Abdù.
place-of Abdu
'Indo borrowed a bike from Abdu for her son.'

With sentence (b), Indoo would be the x-effector argument and the t-locative/ source argument. Abdù would be the y-locative/ recipient argument, while kèekee 'bike' would be the z-theme argument. With sentence (c), Indoo is the x-effector and the y-locative/ recipient argument. Abdù would then be the t-locative/ source argument. Finally, with the sentence (d), Indoo is still the x-effector argument, but Dantà 'her son' would be the y-locative/ recipient argument, and Abdù the t-locative source.

Similarly, the expanded LS for the verb 'buy' would specify that some goods are exchanged for money, as seen below:

- (ii) [**do'** (x)] CAUSE [[[BECOME **have'** (y, z)] & [BECOME NOT **have'** (x, u)]] CAUSE [[BECOME **have'** (v, u)] & [BECOME NOT **have'** (p, z)]]]

The LS above specifies that the buyer is the x-effector, the locative/ recipient is the y-argument (which can be the same as x) and the goods received are the z-theme argument. The transfer of the goods however is accompanied by a transfer of money, the u-theme argument, from an x-source argument (same as buyer). The second half of the LS specifies that the seller (the v-argument) receives the money (the u-argument), but also, the seller (or somebody else, the p-argument) is no longer in possession of the goods (cf. also Foley and Van Valin 1984:64 for a similar LS for 'buy'). In Van Valin (to appear), it is shown that in most languages, the verb for 'sell' is the causative of the verb for 'buy', so that 'sell' is equivalent to 'cause to buy'. In this analysis, 'sell' would be represented as [**do'** (x)] CAUSE [(ii)], where (ii) is the LS of 'buy' seen above, and where the seller causes the buyer to buy. Although this analysis would work fine with the Hausa gr5 form sayar dà, it is also possible to analyze 'buy' as the linking of the x-effector argument to the v-argument instead of a linking to the y-argument, in (ii) above. The difference between 'buy' and 'sell' would then depend on which locative/ recipient argument the x-effector argument is linked with.

For the verb 'cut off' in (89), the expanded LS would be (cf. also Foley and Van Valin 1984:68, Van Valin 1992):

- (iii) [[**do'** (x)] CAUSE [BECOME **be-at'** (y, z)] CAUSE [[BECOME **cut'** (y)] & [BECOME NOT **be-part-of'** (y, u)] & [BECOME **have'** (v, u)]]

In the LS above, the cutter is the x-argument, who brings the knife (z) in contact with the meat (y), which is cut. Part of the meat (u) no longer belongs to the whole, and is carried away by the referent of the v-argument (which can be the same as the cutter). It is clear then that the expanded LSs give a unified representation of related verbs, so, in the main text, the simplified versions are used only for the sake of highlighting the relevant gr1 vs. gr2 semantic contrasts.

10 Usually, daDà 'add' must occur with all the arguments expressed or the missing one must be understood. For me a sentence such as *taa daDà gooròn dà zaa tå kaiwaa kåasuwaa is odd and one has to use the verb Kaarà 'augment' in taa Kaarà gooròn dà zaa tå kaiwaa kåasuwaa 'she augmented the kolanuts that she is going to bring to the market'. Note also that with the (partitive) removal verbs, such as yànki 'cut', some sentences are ambiguous if the undergoer can be taken as either the figure or the ground. Thus, yaa yànki antåa lit: 'he cut liver' can mean 'he cut off the liver (from something)' or 'he cut off a piece from the liver'.

11 In the Adiranci dialect, even in the non-narrative discourse, gr6 can refer to a place different from the place of speech with an independent deictic marker, and in contexts where other dialects woul rule out the gr6. This is exemplified below:

- (i) Ambukà yaa isoo can MaraDii.
 Ambuka 3ms.PERF arrive-VI there Maradi
 'Ambuka went to Maradi and came back here.'

In Katsinanci, the sentence would mean 'Ambukà came there in Maradi' with the place of speech closer to Maradi than the source of motion.

12 Apparently English does not have this restriction. Thus, 'they moved to Buffalo' can be said from Buffalo; in Hausa, nân 'here, must be used alone or modifying Buffalo.

13 Jaggar (1988:395) claims that Hausa has two other patient-oriented constructions, the impersonal and the Stative. However, these constructions are not limited to occurring with a patient, as shown by the empathic impersonal and the actor-modifying Statives:

- (i) a. Abdù bà à sàamu jaràbaawàa ba.
 Abdu NEG.PERF IMP obtain-II exam NEG
 'Abdu failed his exam.'
- b. Abdù yaa ga Indoo rìKe dà yaaròo.
 Abdu 3ms.PERF see-II Indo holding with boy
 'Abdu saw Indo holding a boy.'

In (a), both the actor and the undergoer are present in the sentence, so, it is not patient-oriented only. In (b), the nominal described by the Stative is Indoo, who is holding the boy. On the other hand, it is true that the most common way of defocussing an agent is the impersonal construction. Parsons (1971-72) for example, equates the English passive with the impersonal, not with the gr7, and most scholars indeed gloss the construction with passive. Here is an illustration:

(ii)	an	bùgi	Aali/	kaamà	Aali/	san	Aali/	wucè
	IMP.PERF	hit-II	Ali/	catch-1	Ali/	know-II	Ali/	pass-IV
			Ali.					
			Ali					

'Ali was hit/ was caught/ is known/ was overtaken.'

The construction is, as far as I know, exceptionless, as any transitive verb can appear in it.

¹⁴ On this point, there is a controversy. Most authors do not believe that Parsons was accurate in reporting the gr7 examples with agentive phrase. Jaggar (1988:410 n9) actually suggests that Parsons was calquing English. He also reports that native Hausa speakers are reluctant to accept the examples. This may have to do with the fact that the agentive phrase in reality has a contrastive function. A sentence such as jaakii yaa kàamu gà Abdù 'the donkey was caught by Abdu' actually translates as 'the donkey was caught *only by Abdu*'. So, the agentive construction exists, to the point that it assumes a particular function. The sentence above may also presuppose that the donkey is difficult to catch. This sense however also obtains sometimes in constructions without agent; so, naamàn ràaKumii yaa yànku 'the camel's meat is cut' presupposes that the camel's meat is difficult to cut (a similar point is also made in Caron 1988:78).

¹⁵ In Hausa, the verb for 'stand up' itself is rendered with taashì 'rise' followed by the stative tsàye, as in taa taashì tsàye 'she stood up', lit: 'she rose stopped' or 'she rose still'.

¹⁶ Not surprisingly, descriptive grammars confronted with languages where the morphological schema effects are strong, have some pre-theoretical formulation of the schema model, as shown by Parsons's words above. Also, according to Deny (1971:527), DNs formation in Turkish is not always regular, but it is sometimes "analogique". That is, the derivation does not so much add a given affix to a base, but it tailors the word only to the extent necessary to give it the desired shape. Thus, one DN suffix is -inti which can be added to the root birik- 'gather' to have birikinti 'piling'. But a root like salin- 'swing' does not take the whole suffix -inti, instead, all that is needed is "ti" to give salinti 'oscillation', and, presumably, there is no form *salininti.

¹⁷ It is possible though that this may be what is happening with the irregular verb bâa 'give'. Thus, in Katsinanci, the bâa 'give' has many ways of marking a deictic center. First, it can use gr6 as shown below:

- (i)
 - a. yaa bâa Indoo gooròo.
3ms.PERF give Indo kolanuts
'He gave Indo kolanuts.'
 - b. ?yaa baayoo dà gooròo.
3ms.PERF give-VI V kolanuts
'He sent over kolanuts.'
 - c. yaa baadoo gooròo.
3ms.PERF give-VI kolanuts
'He sent over kolanuts.'

In (a), the verb is in its normal form. Sentence (b) shows what in chapter 5 will be analyzed as a gr5 construction based on a gr6 form. Here, the gr6 base baayoo is regular. The form in (c) however is based on the reanalyzed conflated form baadà 'give away'. Beside gr6, bâa also operate gr8 for its deictic center marking:

- (ii)
 - a. yaa bâkkà Indoo gooròo.
 3ms.PERF give-I Indo kolanuts
 'He gave kolanuts to Indo and she came here.'
 - b. yaa bâkkaa ta gooròo.
 3ms.PERF give-I 3fs kolanuts
 'He gave her kolanuts and she came here.'
 - c. yaa bât-ta gooròo.
 3ms.PERF give-3fs kolanuts
 'He gave her kolanuts and she came here.'
 - d. yaa bakkoo dà gooròo.
 3ms.PERF give-VI V gooròo
 'He gave over kolanuts.'

In (a) and (b) are the potentially gr1 infix forms. I say "potentially" because obviously the verb here is an irregular verb, and one cannot exclude cases of reanalysis, instead of an outright infixation into gr1. Notice that bâa itself is irregular, hence, does not uncontroversially operate gr1. For example, if one posits that bâa is a contracted gr1 form *bayà (*báyà > báà) then, the infixation should have occurred before the gr1 final low tone, to give a form such as *baikà or *bakkà; instead, one gets bâkkà. The fact that the "infixation" comes after the low tone shows that we have an irregular reanalyzed form here. In the present analysis, the -ik- infix would be an integral part of the lexical item. So, the forms in (iia-b) above are simply basic gr1. With a pronoun following, one can get either the "regular" form in (b) or a contracted form such as in (c) (cf. bânni 'give me over', bâkki 'give you-2fs over', bâkka 'give you-2ms over', bâsshi/ bâyya 'give him over', bâmmu 'give us over', bâkku 'give you-p over, and bâssu 'give them over').

Chapter 5

THE SYNTACTIC GRADES

5.0 INTRODUCTION

The previous chapter treated the morpholexical grades (including the intensive gr7) and the morphosyntactic passive gr7 forms. This chapter is concerned with the purely syntactic grades.

Parsons (1960) applies the term "grade" to verbal morphological alternations that are associated with a particular function or meaning, but are not necessarily in complementary distribution. This distinguishes the grades from the syntactic Forms, which are forms of a given grade in various syntactic environments. The grade system of Parsons is given below again for ease of reference:

(1) The Grade System.

Grade	tone	A-form	B-form	C-form	D-form
1	HL	-aa	-aa	-a	-aa
2	LH	-aa	-ee	-i	gr1, gr5
3	LH	-a			gr1, gr4, gr5
4	HL	-ee	-ee	-e	-ee
5	HH	-as/r	-ar da/shee	-ar da	-am ... da
6	HH	-oo	-oo	-oo	-oo
7	LH	-u			gr5

As one can see, six of the grades (all but gr5) are marked by a distinct tone pattern and a final vowel only. These six grades are purely morphological and there is no doubt that a form such as gr6 jeefoo 'throw here' is a single word. Only gr5 then has two types of marking. It is marked by a HH tone pattern and a suffix which ends in a consonant. Moreover, it requires the adjunction of the apparently independent particle dà. None of the other grades ends in a consonant or requires an external particle.

As for the syntactic Forms, they show a contrast in a way that is not explicitly reflected in traditional representations of the grade system such as the one in (1) above. The A-form, B-form, and C-form are purely morphological and can only end in a vowel (except in gr5 where they are given with gr5 endings). Thus, a gr2 form such as jèefi 'throw at' becomes jèefaa in A-form, jèefee in B-form, and jèefi in the C-form (the citation form adopted in this work, see Newman 1973). The D-forms on the other hand are marked by a morphological change, but also, the verb requires the adjunction of the particle mà, which is followed by the nominal "indirect object". Moreover, the verb in gr2, gr3, and gr7 may end in a consonant, in contrast to other Forms (note that gr5 requires all of its Forms, but the alternate B-form, to end in a consonant). This happens whenever gr2, gr3, or gr7 "borrows" a gr5 form as a

suppletive form before mà. So, from the perspective of the Parsons' system, the D-form should really be represented as shown below (gr2, gr3, and gr7 are given with gr5 "borrowing" only):

(2) Explicit representation of Parsons' D-forms:

gr1: HL-aa mà	jeefaa mà 'throw to'
gr2: HH-am mà	jeefam mà 'throw at (s.o.'s thing)'
gr3: HH-am mà	fitam mà 'appear out of (s.o.)'
gr4: HL-ee mà	jeefèe mà 'throw at (s.o.'s thing)'
gr5: HH-ar dàa mà	jeefar dàa mà 'throw s.o.'s thing away'
gr6: HH-oo mà	jeefoo mà 'throw to s.o. here'
gr7: HH-am mà	taaram mà 'gang up against (s.o.)'

As one can see, gr5 and the D-form share two particularities. They both may end in a consonant and they both require an independent particle, dà for gr5, and mà for the D form. For reasons that will be exposed shortly, Parsons identifies the D-forms of gr2, gr3, and gr7 in (2) with the gr5, in a process he calls "grade borrowing".

In this work, an entirely new approach is taken toward the gr5 (V+dà) and the D-form (V+mà). The proposal is that both are syntactic constructions where a verb (from the morphological grades) combines in nuclear cosubordination with a morphologically independent auxiliary verb, dà for grade 5, and mà for the D-form or grade 9. Indeed, it is shown here that gr5 forms are not limited to the traditional HH-ar dà forms. So, just like gr9 mà, gr5 dà can be preceded by vowel-ending verbal forms, as seen below:

(3) Expanded gr5:

gr1: HL-aa dà	aikàa dà 'send (s.th.)'
gr2: HH-ar dà	sanar dà 'inform'
gr3: HH-ar dà	karantar dà 'teach'
gr4: HL-ee dà	wucèe dà 'take inside'
gr6: HH-oo dà	fitoo dà 'bring out'
gr7: HH-ar dà	wanzar dà 'make last long'

This reorganization clearly shows the complete parallel between gr5 and the gr9 (the D-form). There is a terminological note to be made before proceeding. For Parsons, the term "grade" refers to morpholexical alternations as seen in chapter 4. Parsons obviously thought that gr5 is also a morpholexical form, and consequently assigned it a "grade" status. In Abdoulaye (1991) the V+mà complex was also labelled "grade-9" on the ground --among other arguments-- that mà is a suffix on the verb, and that the D-form too is morpholexical. These previous analyses are both wrong, however, for the sake of ease of reference and continuity, the labels "grade 5" and "grade 9" will still be used in this work. Note that the usage of the word "grade" is a coinage of Parsons, it is not a linguistic notion,

therefore, there is no contradiction in its application to syntactic constructions such as V+dà or V+mà.

The chapter will have two main sections, the first one dealing with gr9, and the second one devoted to the gr5. Notice however that these two grades should be ranked gr5> gr9 (not gr9> gr5), but, gr9 is presented first because its syntactic nature is more transparent and it will help clarify the structure of gr5.

5.1 GRADE 9

The morphological status and functions of mà, as well as the form of the preceding verb, have been the subject of a longstanding controversy in Hausa studies. With regard to the pre-mà verbal forms, all Hausaists agree that in gr1, gr4, gr5, and gr6, the form of the pre-mà verb is identifiable as the regular form of the respective grades. Researchers also agree that in gr2, gr3, and gr7, the pre-mà form is different from the regular form of the corresponding grade and it is considered to be in a suppletive grade. So, the central working assumption of all works on this topic (including theoretically oriented works) is that gr2, gr3, and gr7 cannot directly occur with mà.

In this thesis, the above assumption is rejected, and the position is taken that all grades occur before mà. It is also claimed that mà itself is a verb which, usually, occurs in nuclear cosubordination with a primary verb. As predicted by the RRG principles regarding juncture types, in nuclear cosubordination, the primary verb is stripped off its nuclear operators and reduced to a non-finite form. In Hausa, the non-finite form is the gerund, and this is indeed the form one finds before mà in *all* grades. Also, as predicted in RRG theory, it is shown that although they are two separate words, the verb and mà are nonetheless syntactically bound in a complex nucleus, and that the whole V+mà nucleus and the syntactic arguments are in a single core.

The section proceeds as follows. Section 5.1.1 presents, as a background, the general semantics of mà, and the various interpretations of the nominal following it. Section 5.1.2 introduces the morphology of gr9 and Parsons' grade borrowing hypothesis. In section 5.1.3, the RRG nuclear cosubordination juncture type is presented and illustrated with the French causative construction. Section 5.1.4 shows the gerundive nature of the morphology of the verb followed by mà. Section 5.1.5 gives some distributional tests for gerunds. In section 5.1.6, the nuclear operators are shown to apply to mà, not to the primary verb. Section 5.1.7 shows that all syntactic arguments are shared between the two verbs. In section 5.1.8, it is shown that the nominal introduced by mà is the sole undergoer of the V+mà construction, not the logical patient argument. Finally, section 5.1.9 deals with the

morphological status of mà, that is, whether it is a suffix on the verb (qua Parsons, Gouffé, Tuller, etc) or whether it is a free preposition (qua Newman). Instead, we will see that it is a defective auxiliary verb.

5.1.1 SEMANTICS OF GRADE 9

The aim of this section is to determine the possible interpretations of the roles of the NP following mà, as well as the general semantics of mà. The possible role interpretations for the applied nominal are suggested by the existence of non-gr9 constructions with an equivalent meaning as the gr9 form. Thus, the applied nominal can be a dative, a possessor, a benefactive, and a locative. These notions will be specified below. By contrasting the entailments compatible the gr9 forms as opposed to their non-gr9 equivalents, it is proposed that gr9 marks a non-theme (or a non-patient) argument nominal as an affected nominal. This is consistent with the result of section 5.1.8 where it is shown that the applied nominal is the undergoer of the complex V+mà. Because gr9 has the same function as the applicative constructions in other languages (exp.: Bantu), the nominal following mà is sometimes referred to as the "applied nominal". In the next subpart, we will see the possible role interpretations for the applied nominal.

5.1.1.1 The interpretations of the nominal following mà

The possible role interpretations of the applied nominal vary according to the grade of the pre-mà verb. Because they will be most relevant to the discussion in section 5.1.2, only gr1, gr2, gr3, and gr7 will be discussed here.

5.1.1.1.1 Grade 1

In gr1, one finds datives, locatives, benefactives, and possessors as applied nominals. This is evidenced by the semantic equivalence between sentences containing gr9 and sentences containing nominals marked with some preposition as datives, locatives, etc. The alternation with a dative nominal marked gà is illustrated below:

- (4) a. Indoò taa aikà takàrdaa gà duk saraakunàn dà
Indo 3fs.PERF send-I letter to all emirs that
akà naDàa bana.
IMP.REL PERF turban-I this.year

'Indo sent a letter to all the emirs that were throned this year.'

- b. Indoo taa aikàa mà duk saraakunàn dà
 Indo 3fs.PERF send-I IX all emirs that
 akà naDàa bana tàkàrduu.
 IMP.REL PERF turban-I this.year letters

'Indo sent all the emirs that were throned this year a letter.'

In sentence (a), a nominal appears which is marked as a dative with the preposition gà. The same nominal can be expressed in a gr9 construction, with an equivalent meaning, as seen in (b). It should be noted though that only "heavy" dative nominals can be expressed with gà. Thus, simple unmodified dative nominals can only be expressed with mà. The alternation with a locative nominal is illustrated below:

- (5) a. Sun loodà buhuuhuwàn gujiyaa à tèelâm.
 3p.PERF load-I sacks-of peanuts onto truck
 'They loaded sacks of peanut onto the truck.'
- b. Sun loodàà mà tèelâm buhuuhuwàn gujiyaa.
 3p.PERF load-I IX truck sacks-of peanuts
 'They loaded the truck with sacks of peanut.'

In sentence (a), a locative nominal tèelâm 'truck' appears with the preposition à (some locatives take gà instead). The same sentence can be expressed with the gr9 construction, with tèelâm following mà, as seen in (b). There are restrictions on which locative can appear with mà, as will be seen in section 5.1.1.2 further below. The alternation with a benefactive is illustrated next:

- (6) a. Indoo taa dafà tuwoo dan bàaKii àammaa...
 Indo 3fs.PERF cook-I paste for visitors but...
 'Indo prepared some food paste for the visitors but...'
- b. Indoo taa dafàà mà bàaKii tuwoo.
 Indo 3fs.PERF cook-I IX visitors paste
 'Indo prepared the visitors some food paste.'

A benefactive nominal bàaKii 'visitors' appears with the preposition dan (from dòomin 'sake of') in sentence (a). These constructions are generally followed by counterfactual statements. The benefactive nominal can also be expressed with mà in a gr9 construction, such as seen in the (b) sentence. Finally, the alternation with a possessive constructions is given below:

- (7) a. taa yankà naamàn àladèè dà wuKar lìimân.
 3fs.PERF cut-I meat-of pork with knife-of imam
 'She cut the pork meat with the imam's knife.'
- b. taa yankàa mà lìimân naamàn àladèè dà wuKaa.
 3fs.PERF cut-I IX imam meat-of pork with knife
 'She dared cut pork meat with the imam's knife.'

in sentence (a), we have a possessive phrase wuKar lìimân 'knife of the imam' as the undergoer of the clause. In sentence (b), the possessor is now following mà and the sentence is still equivalent to its (a) correspondent. Notice that in (4-5) the nominals are LS locative arguments. They are obligatory arguments. In (6-7) on the other hand, the benefactive and the possessor nominals are not LS arguments, they are not obligatory. It is clear then that the applied nominal can receive various interpretations depending on its context. Actually, this role interpretation can be ambiguous, as illustrated below:

- (8) a. Abdù yaa fasàa mà Indoo kwalbaa.
 Abdu 3ms.PERF break-I IX Indo bottle
 'Abdu crashed a bottle on Indo.'
 'Abdu broke a bottle for Indo.'
 'Abdu broke Indo's bottle.'
- b. Abdù yaa fasà kwalbaa kân Indoo.
 Abdu 3ms.PERF break-I bottle head-of Indo
 'Abdu crashed a bottle on Indo/ Indo's head.'
- c. Abdù yaa fasà kwalbaa dòomin Indoo àammaa...
 Abdu 3ms.PERF break-I bottle sake-of Indo but
 'Abdu broke a bottle for Indo but...'
- d. Abdù yaa fasà kwalbar Indoo.
 Abdu 3ms.PERF break-I bottle-of Indo
 'Abdu broke Indo's bottle.'

As the glosses indicate, in sentence (a) the applied nominal can be interpreted as a locative, a benefactive, or a possessor. All three readings have expressions where the relevant nominal appears in non-gr9 constructions, as seen in sentences (b-d). There are many gr1 verbs which take gr9, but do not have a corresponding non-gr9 construction with an equivalent meaning. These usually involve nominals that can be interpreted as datives or reversative datives (so, they are animate LS locative arguments). Some examples adapted from Parsons (1971-72) are given below:

- (9) a. an hanàa mashì aikìi.
 IMP.PERF refuse-I IX-3ms work
 'He was denied a job.'

- b. túnnaa manì (dà) shii!
 remind-I IX-1s (V) 3ms
 'Remind me about it!'
- c. an Kaaràa mamù kuDii.
 IMP-PERF increase-I IX-1p money
 'We had had a pay raise.'
- (10) a. yaa DanDànaa manì wùyaa.
 3ms.PERF taste-I IX-1s suffering
 'He gave me a hard time.'
- b. yaa gaanàa manì wùyaa.
 3ms.PERF meet-I IX-1s suffering
 'He gave me a hard time.'

Other gr1 verbs with a similar behavior are: tankàa 'reply', murmùsàa 'smile', Kiyàa 'refuse'.

These verbs can all appear without the gr9 construction, it is just that they do not take a dative nominal in any way other than as introduced by mà. Here, even "heavy" nominals would rather appear with mà. Indeed, with verbs such as those in (10), a gà nominal (or gàree with a pronoun) can only be understood as the causer of the suffering (yaa DanDàna wùyaa gàree nì 'he tasted suffering with me', = 'I made him suffer').

So, in gr1, one tends to find gr9 constructions which alternate with dative, locative, benefactive, and possessive phrases. Some gr1 verbs however, only take gr9, and not the corresponding dative phrase. These verbs involve animate LS locative arguments.

5.1.1.1.2 Grade 2

In gr2, the applied nominal can only be interpreted as a benefactive or a possessor nominal. This characterization is quite strongly supported, for I have not been able to find or produce a single counterexample. So, gr2-based gr9 constructions alternate with sentences where the applied nominal occurs marked as a benefactive or as a possessor of the default undergoer argument. This is illustrated below:

- (11) a. Abdù yaa nèemi maagànni sabòodà Indoo àmmaa...
 Abdu 3ms.PERF search-II medicine sake.of Indo but
 'Abdu got some medicine for Indo but...'
- b. Abdù yaa neemam mà Indoo maagànni.
 Abdu 3ms.PERF search-II IX Indoo medicine
 'Abdu got Indo some medicine.'
- (12) a. Abdù yaa àiki Dan Indoo wajen Aali.
 Abdu 3ms.PERF send-II son-of Indo place-of Ali
 'Abdu sent Indo's son to Ali's place.'

- b. Abdù yaa aikam mà Indoo Daa wajen Aali.
 Abdu 3ms.PERF send-II IX Indo son place-of Ali
 'Abdu sent Indo's son to Ali's place.'

In (11a), Indoo is introduced by the benefactive marker sabòodà. An equivalent reading can be obtained by using the gr9 construction, as seen in (11b). Similarly, in (12), a possessor nominal Indoo can appear in a possessive phrase in (12a) or in the gr9 construction in (12b). Although regular gr2 forms can appear with (non-obligatory) "dative" and locative nominals, these cannot appear in gr9, as seen below ((13a) is adapted from Newman 1983:69) :

- (13) a. yaa fàDi làabaarìi gà mutàanen dà sukà
 3ms.PERF tell-II news to people-DEF hat 3p-REL PERF
 tàaru à Koofàr faadà.
 gather-VII at gate-of palace
- 'He told the news to the people gathered at the palace.
- b. *yaa faDam mà mutàanee làabaarii.
 3ms.PERF tell-II IX people news
 *'He told away people's news.'
 NOT: 'He told the news to the people.'
- (14) a. Abdù yaa nèemi gooròo wajen Indoo àmmaa...
 Abdu 3ms.PERF seek-II kolanuts place-of Indo but
 'Abdu sought some kolanuts from Indo but...'
- b. Abdù yaa neemam mà Indoo gooròo.
 Abdu 3ms.PERF seek-II IX Indo kolanuts
 'Abdu sought some kolanuts for Indo.'
 NOT: 'Abdu sought some kolanuts from Indo.'

The sentence in (13a) is of a rare type where a dative occurs with gà in gr2. Contrary to true gr1 dative verbs (whose LS locative argument links to the preposition gà), gr2 verbs (including fàDi) do not take obligatory gà nominals (such nominal are not linked to position in LS). As seen in (13b), the gà nominal cannot appear with mà if mà is preceded by the gr2 gerund form (later we will see that it is possible if mà is preceded by the gr1 form faDàa 'tell', which is a true dative verb). In (14a), a gr2 verbs takes a locative nominal Indoo, introduced by wajen 'place of'. Again, in the gr9 construction, Indoo cannot be interpreted as the locative, but only as the benefactive, as seen in (14b). Because only a possessor and a

benefactive can appear before mà in gr2, the cases of ambiguity are limited to a maximum of two readings. This is illustrated below:

- (15) a. taa Deebam mà Indoo tsaabàa.
 3fs.PERF take.some-II IX Indo grain
 'She took some of Indo's grain.'
 'She took some grain for Indo.'

Also, because dative nominals are not involved with gr2 verbs, gr9 forms based on gr2 can easily be found a corresponding non-gr9 sentences with the relevant nominals in a benefactive or possessive constructions.

5.1.1.1.3 Grade 3

Grade 9 forms based on gr3 are quite rare, and the interpretation of the role of the applied nominal is also restricted. Indeed, as far as I am aware, only possessors can occur following mà with a gr3 verb. Example are given below:

- (16) a. kà fita dàgà cikin gidaanaa!
 2ms.SUB go.out-III from inside house-of-1s
 'Would you get out of my house!'
- b. kà fitam manì dàgà cikin gidaa!
 2ms.SUB go.out-III IX-1s from inside house
 'Would you get out of my house!'
- (17) a. Kurjii yaa fita à kumcìn Abdù.
 rash 3ms.PERF get.out-III on cheek-of Abdu
 'A rash appeared on Abdu's cheek.'
- b. Kurjii yaa fitam mà Abdù à kumcìi.
 rash 3ms.PERF get.out-III IX Abdu on cheek
 'A rash appeared on Abdu's cheek.'

In (16a), an alienable possessor '1st person' appears as a modifier of the locative nominal. An equivalent sentence containing mà is shown in (16b). Similarly, an inalienable possessor can be in a possessive phrase, as seen in (17a), or follow mà as an applied nominal, as seen in (17b). There are however cases where it is not easy to determine whether the nominal's role is locative or inalienable possessor. This happens when the gr9 form takes an optional locative body part, but the non-gr9 corresponding sentence requires the body part nominal in addition to the possessor. Consider the following sentence:

- (18) a. jinii yaa zubam mà Abdù (à Kafàa).
 blood 3ms.PERF spill-III IX Abdu (on foot)
 'Blood spilled on Abdu ('s leg).'
- b. jinii yaa zùba à *(Kafàr) Abdù.
 blood 3ms.PERF spill-III on leg-of Abdu
 'Blood spilled on Abdu's leg.'

In sentence (a), the gr9 form admits an optional possessed locative body part. The non-gr9 sentence however requires the locative body part, and Abdù can only be a possessor. Notice that if à Kafàa is omitted in (a), the sentence becomes ambiguous between the reading where the applied nominal is interpreted as possessor of the locative or possessor of the theme-pivot jinii 'blood'. This is illustrated below:

- (19) a. jinii yaa zubam mà Abdù.
 blood 3ms.PERF spill-III IX Abdu
 'Abdu's blood spilled out.'
 'Blood spilled on Abdu.'
- b. jinin Abdù yaa zùba.
 blood-of Abdu 3ms.PERF spill-III
 'Abdu's blood spilled out.'

Also, note that sentence (19b) shows an equivalent construction for the first reading of (19a). Here, Abdù appears in a possessive construction with the theme-pivot.

In conclusion, and as observed in Parsons (1971-72), the nominal following mà can have various semantic role interpretations. What so far has not been established is that the possible role interpretations are not the same from grade to grade. Thus, gr1 can have nominals understood as datives, locatives, benefactives, and possessors. Grade-2 is limited to benefactives and possessors. As for gr3, it is limited to possessors. Next, the general semantic function of mà is investigated.

5.1.1.2 Semantic function of mà

This subpart shows that there are implicational contrasts between gr9 sentences and their non-gr9 correspondent. Newman (1983:1) already characterized the applied nominal as "the indirect object affectee", but without specifying how the nominal is affected. It is shown here that in the gr9 sentence, the applied nominal is understood to be, depending on the case, more involved, concerned, or touched by the event. In other contexts, gr9 suggests a closer contact between the applied nominal referent and another entity; that some effects or "traces" were left; or that the event is somewhat odd or unusual. These subtle effects can be evidenced by entailment compatibility tests which may apply best to one or the other type of

sentences. They can also be evidenced by the range of meanings one or the other construction can have. An alternation involving the verb bâa 'give' is illustrated below:

- (20) a. an baadà kuDin Hâdiizà gâ Abdù.
 IMP.PERF give-I money-of Hadiza to Abdu
 'Hadiza's money was confided to Abdu.'
 NOT: 'Hadiza's money was given away to Abdu.'
- b. an bâa Abdù kuDin Hâdiizà.
 IMP.PERF give Abdu money-of Hadiza
 'Hadiza's money was confided to Abdu.'
 'Hadiza's money was given away to Abdu.'

In sentence (a), with baadà 'give', if the recipient nominal is marked by gâ, there is only one possible reading, that is, Abdu is the temporary keeper of kuDin Hâdiizà 'H's money', as indicated in the glosses. In the (b) sentence on the other hand, Abdu is an applied nominal, and can be understood as a temporary keeper, as well as a permanent beneficiary (note that with the verb bâa, the mâ is optional in Standard Hausa, but it is not used at all elsewhere). A contrast involving gr2 fâDi and gr1 faDâa 'tell' is illustrated below:

- (21) a. Abdù yaa fâDi màganàa gâban Indoo àmmaa
 Abdu 3ms.PERF tell-II matter front-of Indo but
 bà tà ji ba.
 NEG 3fs.PERF hear NEG
 'Abdu told the matter before Indo, but she did not hear.'
- b. Abdù yaa faDâa mà Indoo màganàa (*àmmaa bà
 Abdu 3ms.PERF tell-II IX Indo matter (but NEG
 tà ji bà).
 3fs.PERF hear NEG
 'Abdu told the matter before Indo, but she did not hear.'

In sentence (a) with fâDi 'tell', a counterfactual statement is possible if Indoo, the hearer, appears in a locative phrase. However, the counterfactual statement is impossible with the gr9, as seen in (b). This shows that in the (b) sentences of (20-21) above, the applied nominal is more affected than the corresponding locative or recipient nominal. This affectedness also shows in another situation. If for example Indo disputes having been told something by Abdu, Abdu can reply aikàu naa faDâa makì 'in fact I did tell you', implying

that she forgot or is being dishonest. He can also reply aikàu naa faDìi 'in fact I did say it', here, opening the possibility that Indo simply did not hear.

With the verb sâa 'put', taking the argument 'chairs' (as theme) and 'room' (as location), one obtains a difference in the range of meanings allowed in the gr9 and the non-gr9 form. This is shown below:

- (22) a. yaa sàa kùjèeruu cikin Daakìi.
 3ms.PERF put chairs inside-of room
 'He put the chairs into the room (for the night).' or
 'He equipped the room with chairs (permanently).'
- b. yaa sàa mà Daakìi kùjèeruu.
 3ms.PERF put IX room chairs
 'He equipped the room with chairs.'
 NOT: 'He put the chairs into the room.'

So, with the locative construction in (a), two senses are possible; the room can be equipped (permanently affected) with the chairs, or it can house the chairs only temporarily. With the gr9 construction on the other hand, the room can only be understood as permanently equipped with the chairs.

Another way to show the affected status of the applied nominal is to contrast themes likely to affect their location and those that are not likely to do so. Usually, the first type of themes can appear in both gr9 and non-gr9 constructions, while the second type cannot appear with gr9. This is illustrated below:

- (23) a. yaa kai yaaKii London.
 3ms.PERF bring war London
 'He brought war to London.'
- b. yaa kai mà London yaaKii.
 3ms.PERF bring IX London war
 'He brought war to London.'
- (24) a. yaa kai kuDii London.
 3ms.PERF bring money London
 'He took some money to London.'
- b. *yaa kai mà London kuDii.
 3ms.PERF bring IX London money
 'He took some money to London.'

As one can see, when a locative is likely to be affected or changed by the theme's coming into contact with it, the use of gr9 is fine; otherwise, gr9 usage is ungrammatical. So, in (23) the theme is yaaKii 'war' and is likely to change London, hence the acceptability of both

(23a-b). In (24) however, the theme kuDii 'money' would not ordinarily affect London, so, the use of gr9 is impossible, as seen in (24b).

Finally, and for the sake of completeness, there exists a rather special but fairly frequent use of the construction, where the pronoun following mà has no role in the clause, and refers to the listener of the utterance. This usage can approximately be translated by the English 'mind you'. This is illustrated below with an example adapted and reinterpreted from Tuller (1982b:19):

- (25) a. dàgà waddà zâa tai **màa** armee sai waddà
 from one-that FUT 3fs-do **IX.2ms** marriage to one-that
 zâa ta bàa gidaa kamar su Tabirni.
 FUT 3fs give home like-of 3p Tabirni

'From the one that would get to marry, **mind you**, to the one that would have to fall back on her family, such as Tabirni and her likes.'

Here, the story may be about some graduating female students. The utterance is just saying that some students will marry, while other will go back to their homes. The applied '2ms' refers only to the listener, it is not involved in the story itself, therefore, it cannot be affected by the actions described in the story (note that màa/ mâa is a contracted form of makà 'mà-2ms' -- see Newman 1982).

In conclusion, it was shown that applied nominals can be variously interpreted as locative, dative, benefactive, and possessor NPs. We have also seen that the function of gr9 mà is to mark a nominal as "affected" in ways that vary depending on the verb and the context, as seen above. Because LS arguments as well as non-LS ones can appear with mà, the construction can be said to be pragmatically motivated. This is shown clearly from contrasts such the one involving (23) and (24) above, where the same locative nominal behaves differently depending on the nature of the theme.

Throughout section 5.1.1, it was assumed that the pre-mà form of a gr2 verb such as jèefi 'throw at' is uniquely jeefam. There are however previous hypotheses which claim that forms such as jèefi and jeefam belong to separate grades. The aim of the next section is to show that these two forms and others involved in the same contrast belong to the same grade.

5.1.2. PREVIOUS ANALYSES OF THE PRE-mà VERB FORM

In this subpart, the central assumption common in Hausa works that gr2, gr3, and gr7 cannot occur before mà is shown to be false. Instead of a general incompatibility between these grades and gr9 (incompatibility which so far has not been satisfactorily explained) it is

shown, for example, that some gr2 verbs simply cannot take the possessor or benefactive applied nominal allowed by gr2. So, the incompatibility is idiosyncratic, and globally, all grades occur before mà. In the following, Parsons' hypothesis are presented, then the alternatives.

5.1.2.1 Parsons' grade borrowing hypothesis

Parsons (1971-72) observes that in gr1, gr4, gr5, gr6, verbs occur unmodified before mà, as seen below:

- (26) a. Indoo taa dafàa (mà bàaKii) tuwoo.
 Indoo 3fs.PERF cook-I IX visitors paste
 'Indo prepared some paste for the visitors.'
- b. yaa wankèe (mà Indoo) Kwaanoonii.
 3ms.PERF wash-IV (IX Indo) dishes
 'He washed Indo her dishes completely.'
- c. yaa bugar (mà Indoo) dà bàalôo.
 3ms.PERF hit-V (IX Indo) V ball
 'He kicked away Indo's ball.'
- d. yaa bugoo (mà Indoo) bàalôo.
 3ms.PERF hit-VI (IX Indo) ball
 'He kicked the ball here to Indo.'

As one can see, the presence of mà+NP construction does not totally alter the verb form, and the grades are clearly recognizable (save for a change from long to short vowel verb—finally in (a-b) if the material in parentheses is omitted, also, note that in Parsons' system gr5 is a true morpholexical grade). Parsons also observes that for gr2, gr3, and gr7, the verbal morphology changes when followed by mà, and an unmodified form is impossible. Furthermore, the verbs of these grades can take two or even three distinct suppletive forms before mà. Thus, gr2 verbs can assume a HL-aa or a HH-am form, as illustrated below:

- (27) a. Abdù yaa fàDi màganàr à gàban sarkii.
 Abdu 3ms.PERF tell-II matter-DEF at front-of emir
 'Abdu told the matter before the emir.'
- b. Abdù yaa faDàa mà sarkii màganàr.
 Abdu 3ms.PERF tell IX emir matter-DEF
 'Abdu told the emir the matter.'
- c. *Abdù yaa fàDi mà sarkii màganàr.
 Abdu 3ms.PERF tell IX emir matter-DEF
 'Abdu told the emir the matter.'

- (28) a. Abdù yaa nèemi maagànni sabòodà Indoo àmmaa...
 Abdu 3ms.PERF search-II medicine sake.of Indo but
 'Abdu got some medicine for Indo but...'
- b. Abdù yaa neemam mà Indoo maagànni.
 Abdu 3ms.PERF search-II IX Indoo medicine
 'Abdu got some medicine for Indo.'

In (27), the gr2 verb fàDi 'tell' changes to faDàa before mà. As seen in (27c), the regular gr2 form is impossible. In (28), the gr2 verb nèemi 'look for' changes to neemam before mà. In some cases, a gr2 verb can freely take either the HL-aa or the HH-am form. Parsons explained these alternations by positing that gr2, as a whole, cannot appear before mà. Therefore, before the applied marker, the verb has to "borrow" another grade, here gr1 (HL-aa) or gr5 (HH-am). Ideally, any gr2 verb can borrow any of gr1 or gr5, so long as it does not independently operate these grades. Indeed, the two verbs above in (27-28) do not operate gr1 and gr5 independently of mà, as seen below:

- (29) a. *Abdù yaa faDà màganàa/ faDar dà màganàa.
 Abdu 3ms.PERF tell-I matter/ tell V matter
- b. *Abdù yaa neemà kuDii/ neemar dà kuDii
 Abdu 3ms.PERF search-I money/ search V money

In sum, for a given gr2 verb, mà potentiates otherwise unoperated grades. Parsons notes that some gr2 verbs do independently operate the borrowed grades, but usually, there is no difference in meaning between the forms. So, the real constraint on grade borrowing is that there should be no ambiguity created.

Still according to Parsons, grade-3 verbs can change to HL-aa, HH-am, and HL-ee, as illustrated below:

- (30) a. sai kè hàKurà.
 should 2ms.SUB be.patient-III
 'You must be patient.'
- b. sai kè haKùraa mashì.
 should 2ms.SUB be.patient-I IX-3ms
 'You must be patient with him.'
- (31) a. kè fita dàgà cikin gidaanaa!
 2ms.SUB go.out-III from inside house-of-1s
 'Would you get out of my house!'
- b. kè fitam manì dàgà cikin gidaa!
 2ms.SUB go.out-III IX-1s from inside house
 'Would you get out of my house!'

- (32) a. Abdù yaa yàrda sù tāfi.
 Abdu 3ms.PERF agree-III 3p. SUBJ go
 'Abdu agreed that they go.'
- b. Abdù yaa yardèe masù sù tāfi.
 Abdu ms.PERF agree-IV X-3p 3p.SUBJ go
 'Abdu agreed that they go.'

In (30), gr3 hàKurà 'be patient' changes to HL-aa haKùraa. In (31), gr3 yàrda 'agree' changes to HL-ee yardèe. In (32), gr3 fita 'get out' changes to HH-am fitam before mà. Parsons again posits that gr3 is morphologically incompatible with gr9 and its verbs need to borrow a gr1, gr4 or a gr5 forms as illustrated in (30-31) respectively. As with gr2, the borrowing here is made so as not to create any ambiguity.

As for gr7 verbs, of which only two actually operate gr9 (Parsons 1971-72:85), they change to the HH-am form only, as seen below:

- (33) a. abindà ya àbku à kânsù nee
 thing-that 3ms.REL PERF happen-VII on them be.m
 akèe neeman sanìi.
 IMP-REL CONT search-DN-of know-DN
 'People_i want to figure out what has befallen them.'
- b. abindà ya abkam masù nee akèe
 thing-that 3ms.REL PERF happen IX-3p be.m IMP-REL CONT
 neeman sanìi.
 search-DN-of know-DN
 'People_i want to figure out what has befallen them.'

Again for Parsons, the LH-u form cannot figure before mà and the verbs have to borrow gr5.

Notice that in all cases of grade borrowing presented above, the semantic contrast between the original form and the borrowed form is minimal. So, for Parsons, the borrowed form should be conceived notionally as being in the borrowing grade (that is neemam is notionally a gr2 before mà, not a gr5, although formally it is a gr5). It happens that in actuality, gr2 is the most borrowing grade and it borrows only from gr5, the most lending grade, and from gr1. So, the controversy around Parsons' proposals has centered on

whether or not the pre-mà gr2 forms are really "borrowed" gr5 or gr1. In the following two subsections, alternatives to the borrowing hypothesis are presented.

5.1.2.2 Alternatives to grade 1 borrowing

Newman has been the leading critic of the borrowing hypothesis, but his own proposals are today as controversial as Parsons' (see for example Munkaila 1990, for criticism on the other hand, see Frajzyngier 1985:38, Gouffé 1988:39). First, Newman (1973, 1991) follows Parsons in assuming that gr2, gr3, and gr7 cannot directly occur with mà. Then he considers for example, the pre-mà faDàa ('tell to', in (27b)) as the gr2 verb fàDi 'tell' suffixed with the applicative HL-a. Indeed, in his system, the HL-a applicative is a hidden extension, distinct from the real HL-a(a) gr1). Thus, faDàa is neither a true nor a borrowed gr1. We have seen in chapter 3 how the system of hidden extensions is not a viable system for describing the grades relationships.

The basic proposal here is that there is no causal relationship between the HL-aa morphology of faDàa 'tell to' and the presence of mà. So, there is no grade borrowing, and no mà-induced HL-a applicative affixation. Therefore, a form like faDàa is simply a gr1 verb where the animate LS locative argument is necessarily expressed as an applied nominal. The evidence in support of these claims involve the existence of other gr1 verbs which require mà if they are followed by an animate LS locative argument, and some historical data.

First, one notices that the subset of HL-aa verbs (such as faDàa), which look like borrowed gr1 forms before mà, involve only an applied nominal which is understood as a dative. In terms of the verb decomposition system adopted in this work, the "dative" nominal is in fact an LS locative argument in an embedded locational state predicate. Example of verbs of the faDàa class are given below:

(34) Verbs operating gr1, but only before mà:

	Grade 2	Grade 1
a.	gwàdi 'show'	gwadàa mà 'show to'
b.	kòoyi 'learn'	kooyàa mà 'teach (s.o.)'
c.	gàyi 'tell'	gayàa mà 'tell (s.o.)'
d.	nùuni 'point at'	nuunàa mà 'point to'
e.	sàyi 'buy'	sayàa mà 'buy for'

By their basic lexical meaning, these verbs require an animate locative argument. The fact is that there is a semantic rule which requires that all animate locative arguments be expressed as applied nominals, with mà. Many verbs indeed allow inanimate locative with gà, but not animate locative. Let's consider the pattern with an inanimate argument:

- (35) a. Abdù yaa maidà bùhun hatsii goonaa.
 Abdu 3ms.PERF return-I sack-of millet farm
 'Abdu returned the sack of millet to the farm.'
- b. *Abdù yaa maidàa mà goonaa bùhun hatsii.
 Abdu 3ms.PERF return-I IX farm sack-of millet
 'Abdu returned the sack of millet to the farm.'
- (36) a. Abdù yaa aikà yâara Maraadi.
 Abdu 3ms.PERF send-I children Maradi
 'Abdu sent the children to Maradi.'
- b. *Abdù yaa aikàa mà Maraadi yâara.
 Abdu 3ms.PERF send-I IX Maradi children
 'Abdu sent the children to Maradi.'

The data above shows that with gr1, an inanimate locative argument can only be expressed in a locative phrase, as in the (a) sentences. It cannot be an applied nominal, as the ungrammaticality of the (b) sentences shows. Now, the same verbs, with an animate locative argument require mà. This is illustrated below:

- (37) a. *Abdù yaa maidà bùhun hatsii gà Indoo.
 Abdu 3ms.PERF return-I sack-of millet to Indo
 'Abdu returned the sack of millet to Indo.'
- b. Abdù yaa maidàa mà Indoo bùhun hatsii.
 Abdu 3ms.PERF return-I IX Indo sack-of millet
 'Abdu returned the sack of millet to Indo.'
- (38) a. *Abdù yaa aikà gooròo gà Indoo.
 Abdu 3ms.PERF send-I kolanuts to Indo
 'Abdu sent kolanuts to Indo.'
- b. Abdù yaa aikàa mà Indoo gooròo.
 Abdu 3ms.PERF send-I IX Indo kolanuts
 'Abdu sent kolanuts to Indo.'

So, it is clear that an animate locative argument has to be expressed as an applied nominal. There is a substantial list of gr1 verbs which pattern like maidà or aikà above. These include most of the Parsons' projective applicative class: jeefà 'throw to/ in', tuurà 'push to/ in' miiKà 'forward to/ in', zubà 'pur to/ in', etc. Because the so-called borrowed forms always have an animate locative argument, they cannot appear anywhere as gr1 but before mà. Thus, they are real gr1 verbs, only their distribution is limited due to the semantic rule and their selectional restriction.

The second type of evidence showing that the presence mà does not induce the HL-aa marking is historical. There is some historical data showing that verbs like gwadàa and kooyàa used to appear without mà. Thus, Schön (1862, 1885, cited in Newman 1982:64) reports the following sentences (with structure glosses added):

- (39) a. ya gwada ga Dansa
3ms.PERF show-I to son-of-3ms
'He showed (something) to his son.'
- b. ina son koya ga mutanen Kasammu.
1s.CONT want-DN-of teach-I to people-of land-of-1p
'I want to teach (something) to the people of our land.'

In the above sentences, animate locative arguments appear with gà. In today's Hausa, the above sentences are rather odd with the glossed meaning. Sentence (a) for example would mean 'He tried (it) on his son', while sentence (b) is simply bad unless the nominal is "heavy". The correct sentences for the above reading are those below (for Katsinanci):

- (40) a. yaa gwadàa mà Danshì nìigaa.
3ms.PERF show-I IX son-of-3ms gown
'He showed his son the gown.'
- b. inàa sòn kooyàa mà mutàanen Kasarmù taariihì.
1s.CONT want-VN-of teach-I IX people-of land-of-1p history
'I want to teach history to the people of our country.'

In conclusion, to account for the contrast fàDi/ faDàa, one does not need to posit a gr1 borrowing process or a mà-induced HL-aa applicative affixation. Instead, we have seen that there is no causal relationship between the HL-aa morphology and mà. Rather, many gr1 verbs obligatorily express their locative argument as an applied nominal if it refers to an animate entity. The verbs of faDàa class are then simply gr1 verbs.

5.1.2.3 Alternatives to grade 5 borrowing

This subpart shows that, because of their limited LS, gr2 verbs cannot have a dative or locative as applied nominal. They are limited then to taking only possessors and benefactives before mà. Taking for granted the fact that the "borrowed" HH-am forms are the gr2 gerunds, it is shown that some gr2 verbs never appear before mà as gr2 because they are incompatible with a possessor or a benefactive.

One important principle in the borrowing scheme is that a given gr2 verb borrows from a grade only if it does not operate that grade with a distinct semantics. The problem with this principle is that there are verbs which appear in gr2 form, in the so-called borrowed gr5

form, and in the real gr5 form, in violation of the principle. This is illustrated below (see also Newman 1977:291):

- (41) a. Abdù yaa jèefi kàren Indoo.
 Abdu 3ms.PERF throw-II dog-of Indo
 'Abdu threw at and hit Indo's dog.'
- b. Abdù yaa jeefam mà Indoo kàree .
 Abdu 3ms.PERF throw-II IX Indo dog
 'Abdu threw at and hit Indo's dog.'
- c. Abdù yaa jeefam mà Indoo dà kàree.
 Abdu 3ms.PERF throw-V IX Indo V dog
 'Abdu threw away Indo's dog.'

Sentences (a) and (b) have roughly the same meaning. The difference between them is that in (b) the fact is emphasized that Indoo is affected by her dog's being thrown at. Sentence (c) is truly in gr5 and has a different meaning. Here too Indoo is affected, but her dog is thrown away, not thrown at. Thus, (b) and (c) cannot be in the same grade, they differ both in morphology and sense. For Newman (1977, 1991), the verb in sentence (41b) is neither a gr2 nor a gr5 verb. It is a special pan-Chadic destinative extension which replaces gr2 before mà. This destinative extension -n (assimilated to /m/) is just another way (beside the HL-a applicative) for gr2 verbs to avoid the cooccurrence with mà. As far as Hausa is concerned, the destinative extension seems to be an ad hoc solution. The so-called destinative morpheme -n relates to no other morpheme or function in the language. Also, one may wonder why the remainder of the grades do not use it if it is really a destinative extension. Finally, even with gr2 verbs, some mà NPs are more readily conceived as (deprived) source than as destination (compare the benefactive in (14b) and the possessor in (15b)).

My basic proposal here is that all "borrowed" HH-am forms are truly gr2 verbs which are turned into gerundive forms when they appear in nuclear cosubordination with mà. This point will be developed more in later sections. One can notice that the gr2-based pre-mà HH-am forms all involve a possessor or a benefactive as their applied nominal. This point is understandable if one compares the LS of an accomplishment gr1 verb such as jeefà 'throw' and the LS of a gr2 verb such as jèefi 'throw at'. The gr1 form has an LS locative argument which can appear with mà, as seen below:

- (42) a. yaa jeefaa mà Indoo gooròo.
 3ms.PERF throw-I IX Indo kolanuts
 'He threw kolanuts to Indo.'

In the sentence above, jeefà has three arguments, the effector, the theme, and the locative. The LS locative argument realizes as an applied nominal following mà. The gr2 verb jèefi as in (41a) also has an LS locative argument, kàren Indoo 'Indo's dog'. But this argument is by default linked to the undergoer, hence, it cannot be an applied nominal. The LS limitation to two arguments only in gr2 rules out locative nominals before mà. So, only possessors and benefactives can figure before mà with a gr2 verb, and this is indeed what one obtains in (41b) above with the HH-am form.

It also follows that some gr2 verbs will not have a HH-am pre-mà form, if, for a semantic or pragmatic reason, they are incompatible with either a possessor or a benefactive. This is the case with the verbs of fàDi class listed in (34) above. So, fàDi 'tell' or gàyi 'tell' cannot appear before mà, as seen below:

- (43) a. *Abdù yaa faDam mà Indoo jàwaabìi.
 Abdu 3ms.PERF tell-II IX Indo speech
 *'Abdu told the speech of Indoo.'
- b. *Abdù yaa gayam mà Indoo Karyaa.
 Abdu 3ms.PERF tell-II IX Indo lie
 *'Abdu told the lie of Indoo.'

In (a), Indoo is understood as the owner of the speech told by Abdù. The sentence is ungrammatical though, and the correct way to say it is: Abdù yaa yi jàwaabìi màimakin Indoo 'Abdu made a speech on behalf of Indo'. Similarly, in (b) Indoo is understood as the owner of the lie which Abdu is only telling. Here again, the correct way to express the sense is: Abdù yaa yi Karyaa yaa cèe... 'Abdu lied and said...'. Thus, fàDi and similar verbs do not take gr9 because they don't have the right pragmatics, and this is shown by the pragmatically anomalous results in (43) above.

Concluding subsection 1.2, we have seen that Parsons' proposal that gr2, gr3, and gr7 borrow other grades before mà is unnecessary. Similarly, Newman's analysis of the borrowed forms as applicative or destinative extensions are also ad hoc. A viable alternative to these proposals is to reject the basic assumption that gr2, gr3, and gr7 are incompatible with gr9 mà. In this perspective, borrowed gr1 forms are simply gr1 forms, and borrowed gr5 are simply gr2 forms gerundivized by mà. This analysis is superior to the previous ones in that the borrowed gr1 forms are shown to pattern exactly like uncontroversial gr1 verbs, in requiring mà if their locative argument is animate. The gr2 verbs where shown to take only possessor and benefactive as applied nominals because of their restricted LS. Verbs that are compatible with a possessor or a benefactive may appear before mà, while verbs like fàDi 'tell', that are not so compatible, do not take mà. In the remainder of this section,

arguments will be put forth to support the hypothesis that gr9 is a syntactic combination of a primary verb and the verb mà. These two verbs are in nuclear cosubordination, and the change from LH-i to HH-am in gr2 is actually predicted by RRG principles. Next, the theory of nuclear junctures in RRG is presented.

5.1.3 NUCLEAR COSUBORDINATION IN RRG

This part presents a theoretical analysis of V+mà construction. The idea that a verb can become a gerund before an applicative marker may seem strange. However, as seen in chapter 1, one of the distinctive features of RRG is its theory of juntures types, which predicts, among other, the nominalization cases similar to the one at hand in Hausa. It is claimed here that mà is a predicate which acts as an auxiliary verb in cosubordination with a main (lexical) verb turned into a gerund.

The system of junctures in RRG involves three structural levels (clause, core, and nucleus) and three nexus relations (coordination, subordination, and cosubordination). The levels and the relations combine to yield nine juncture types. The one of interest to us here is the nuclear cosubordination where a nucleus (usually containing one predicate verb) combines with another nucleus to pool all of the two verbs' arguments as well as all nuclear operators such as aspect marking or nuclear negation. It is also customary that the verbs involved stand in a tight syntagmatic relationship inside the complex nucleus. Examples of cosubordination structures can be found across languages and the cases of Barai, English, and French have been presented in section 5.1.3.2. Because it is somewhat similar to Hausa V+mà construction, I will give here a further illustration of a case of cosubordination and its properties.

Indeed, the well known French causative construction is analyzed in Van Valin (1992) as a case of nuclear cosubordination between faire 'do' and a primary verb. In this construction, only the auxiliary verb faire can carry tense and aspect marking, the primary verb being always a bare infinitive. This is illustrated below:

- (44) a. elle a fait manger du pain rassis à Abdou.
 3fs PERF do eat-INF some bread old to Abdu
 'She made Abdu eat an old bread.'
- b. *elle a fait a mangé du pain rassis à Abdou.
 3fs PERF do PERF eat some bread old to Abdu
 'She made Abdu eat an old bread.'

In the (a) sentence, only faire is not in the infinitive and can be considered as conjugated. As seen in (b), both verbs cannot be conjugated, each with its tense/ aspect marking.

A second property of nuclear cosubordination is the pooling of verbal arguments between the two verbs. Thus, in the construction above, the verbs act as if syntactically they have merged their argument structures into one. Thus, although these argument structures are distinct at the logical structure level, at the syntactic level, there is only one set of arguments, an actor which is also the pivot, an undergoer, and a indirect core argument. For our concern here, this syntactic merger can be shown by comparing the causative with the permissive construction which also involves two verbs, but in simple core coordination with two different but overlapping sets of arguments:

- (45) a. Elle a laissé Abdou manger le gâteau.
 3fs PERF let Abdu eat the cake
 'She let Abdu eat the cake.'
- a. *Elle a laissé manger le gâteau à Abdou.
 3fs PERF let eat the cake to Abdu
 'She let Abdu eat the cake.'

As one can see, each construction has a distinct way of rearranging the two set of arguments. In the permissive construction, the verbs share one argument, *Abdou*, but have each one more particular argument, *elle* for the verb *laisser* and *gâteau* for the verb *manger*. All the arguments are direct core arguments. This is not the case for the causative construction where one of the arguments, *Abdou*, is an indirect core argument.

Finally, another property of cosubordination junctures is that the verbs involved are frequently in a close-nit relationship and cannot be parted easily. So, in the French causative construction, clitic arguments can only appear before the whole complex nucleus, they cannot appear between the two verbs. This contrasts with the permissive construction. The two constructions are illustrated below:

- (46) a. elle le lui a fait *manger*.
 3fs it.ACC 3ms.DAT PERF do *eat-INF*
 'She made him eat it.'
- b. *elle lui/ l' a fait le *manger*.
 3fs 3ms.DAT/ 3ms.ACC PERF do it.ACC *eat-INF*
 'She made him eat it.'
- (47) a. Elle l' a laissé le manger.
 3fs 3ms.ACC PERF let it.ACC eat
 'She let him eat it.'
- b. *Elle le l' a laissé manger.
 3fs it.ACC 3ms.ACC PERF let eat
 'She let him eat it.'

In French, clitic arguments are placed right before their predicates. In (46), the two clitics are positioned before fait manger. This shows that fait manger functions as one complex predicate. In (47) however, each argument cliticizes before its predicate, and they cannot be both placed before the two verbs. Thus, only the causative construction can be analyzed as a cosubordination juncture.

It is claimed that a cosubordination analysis also holds for Hausa V+mà construction. In gr9, the primary verb and mà are in nuclear cosubordination and the structure essentially has the three properties exhibited by the French causative construction. Because the tense and aspect operators no longer apply to the primary verb, it is expected that the verb, in Hausa, turn into a gerund. Indeed, Hausa has no infinitive (see Tuller 1986:92), and the gerund or DN are the forms assumed by verbs in other tenseless environments. Examples of such environments are the continuous aspect, the western Hausa future, and the gr5 cosubordination construction, as illustrated below:

- (48) a. Abdù yanàa neeman aikii.
 Abdu 3ms.CONT search-II-DN-of work
 'Abdu is looking for a job'
- b. Abdù zâa ya neeman aikii.
 Abdu FUT-3ms search-II-DN-of work
 'Abdu is going to look for a job'
- c. Abdù yaa sanar dà Indoo làabaarìi.
 Abdu 3ms.PERF know-II-VN-of V Indo news
 'Abdu informed Indo about the news.'

In sentence (a), nàa 'be' is usually considered to be an auxiliary aspect marker. In chapter 6, arguments will be presented showing that it is a predicate taking almost any category (except tensed verbs) as complement. Thus, the verbal noun in sentence (a) complement of nàa in a core subordination relation. Sentence (b) shows the future tense in western Hausa, where the verb can optionally be a verbal noun. In Standard Hausa, the VN is not used. The future tense marker zâa may be a real tense/ aspect-marking auxiliary, unlike the continuous nàa. Sentence (c) shows the grade 5 dà, which is also shown later to be a cosubordination construction. In each case, the gr2 verb is turned into a verbal noun and carries the linker -r/-n characteristic of nominal phrases.

Below, it will be shown that in V+mà structure, only mà is conjugated, that there is only one set of arguments, where the applied nominal is the undergoer, and that the two verbs cannot be parted. The next subsection presents argument for the gerundive status of the pre-mà verbal form.

5.1.4 THE VERBAL MORPHOLOGY AND THE GERUND ANALYSIS

Contrary to other hypotheses, the gerund analysis can be shown to be general. That is, for all grades, we can say that the verbal form before gr9 is a gerund.¹ This section highlights the relationships between the gerunds occurring in the perfect aspect A-form (for gr1), in the continuous aspect forms (for gr2) on the one hand, and those gerunds that are claimed appear before mà on the other hand.

5.1.4.1 Grade 1-type pre-mà gerund

The comparison between well established gerunds and gr9 gerunds will be much easier for gr2, gr3, and gr7 verbs. It will be seen below, that in these grades, gr9 forms compare well with the forms of the continuous aspect. With gr1-type verbs, the distinctive continuous suffix is polymorphemic and, for other reasons as well, it is not suitable for comparison for now. In order to show the contingent relationship between the gr1 pre-mà form and gr1 gerunds, I introduce here, anticipatorily, a new analysis of the grade system's syntactic Forms. The analysis claims that the verbal forms known in Hausa as the syntactic Forms are in fact gerund forms. The syntactic Forms for gr1 and gr2 are given below (Parsons 1960:23):

(49) The Grade System.

Gr	tone	A-form (no DO)	B-form (pron. DO)	C-form (noun DO)
1	HL	-aa	-aa	-a
2	LH	-aa	-ee	-i

Since Parsons (1960) presented these alternations, no one as far as I know, has tried to make sense of them in a comprehensive way. They are usually given as basic Hausa facts and listed as such or with ad hoc shortening or lengthening rules to relate them. The view that the A-form and the B-form are gerundive forms should not be surprising. As we have seen before, Hausa marks tense/ aspect elsewhere, but not on the verb. In most languages, tense and aspect are the categories that inflect the verb and contribute a great deal in distinguishing it from other syntactic categories. We have also seen at the end of chapter 2 that Hausa may not have a nominal as core pivot argument. The working hypothesis is that it is only before a nominal undergoer argument that a verb in Hausa is most prototypically a verb. Before pronominal argument or when there is no argument at all (for transitive verbs), then the verb is suffixed with the nominalizer -àa. Arguments and justification for these

points will be given in chapter 6 on nominalization. Below the suffixation of -àa in the A-form and gr9 is illustrated:

- (50) a. yaa aikà yâara wajen sarkii.
 3ms.PERF send-I children place-of emir
 'He sent the children to the emir's place.'
- b. yâara nè ya aikàa (à) gidan sarkii.
 children cop.p 3ms.REL PERF send-I-VN at house-of emir
 'It is the children that he sent to the emir's place.'
- c. yaa aikàa mà sarkii yâara.
 3ms.PERF send-I-VN IX emir children
 'It is the children that he sent to the emir's place.'

In sentence (a), the basic gr1 verb appears before a nominal argument with a short vowel /a/ (cf. Newman 1973 for arguments in favor of considering the C-form as the basic form). In sentence (b), the direct core argument is fronted and the verb is turned into a gerund, with the suffix -aa. Notice that it is not a phonological lengthening because the following preposition is optional so that the bare locative nominal can be next to the verb. Yet, even in this case, the vowel is long. The claim here is that in sentence (c), it is the same nominalizing suffix which is also used before mà. The hypothesis that the -àa before mà is the same as that of the A-form is an alternative to Newman's view that it is the HL-a applicative suffix (see section 5.1.2.2).

5.1.4.2 Grade 2, grade 3, and grade 7 pre-mà gerund

As it is widely known, regular gr2 verbs can appear in the continuous construction both in their gerundive and derived nominal forms. This is illustrated below (using only the HH-aa gerund form which is most common in Katsinanci, for all the possible gr2 gerund forms, see section 6.1.4.2):

- (51) a. Abdù yanàa bugar/ halbar/ Balgatar ginìn
 Abdu 3ms-CONT hit-II-VN-of/ kick-II-VN-of/ break-II-VN-of wall-of
 maKòbtaa.
 neighbors
- 'Abdu is hitting/ kicking/ breaking off the neighbors' wall.'

- b. Abdù yanàa bugùn/ halbìn/ Bàlgatàr ginìn
 Abdu 3ms-CONT hit-II-DN-of/ kick-II-DN-of/ break-II-DN-of wall-of
 maKòbtaa.
 neighbors

'Abdu is hitting/ kicking/ breaking off the neighbors' wall.'

Thus, as one can see, it makes no difference whether the gerund or the DN is used in the continuous. In the pre-mà context however, only the gerund can appear as seen below:

- (52) a. Abdù yaa bugam mà maKòbtaa ginìi.
 Abdu 3ms.PERF hit-II-VN-of IX neighbors wall
 'Abdu hit the neighbors' wall.'
- b. *Abdù yaa bugùm mà maKòbtaa ginìi.
 Abdu 3ms.PERF hit-II-DN-of IX neighbors wall
 'Abdu hit the neighbors' wall.'

The claim here is that the gerundive seen in (51a) in the continuous is the same form that appears in (52a) with mà. Only, unlike the continuous, the gr9 context does not accept the DN (see 52b).

There are a group of irregular gr2 verbs for which only the DN is good in the continuous. In the literature (see Parsons 1971-72:88, Gouffé 1978:16, and, for a diachronic treatment, Wolff 1984), these verbs are also cited for using the same form as their DN and as their A-form (=when the verb is not followed by a DO). The A-form usage of the DNs is illustrated below:

- (53) a. bà kà san ba àbin dà sukà
 NEG 2ms.PERF know-II NEG thing that 3p.REL PERF/
sanìi/ ganìi/ Djibàa.
know-II-DN see-II-DN/ take-II-DN

'You do not know what they know/ have seen/ have taken.'

- b. *bà kà san ba àbin dà sukà
 NEG 2ms.PERF know-II NEG thing that 3p.REL PERF/
sànaa/ gànaa/ Diibaa.
know-II-VN/ see-II-VN/ take-II-VN

'You do not know what they know/ have seen/ have taken.'

First, notice that the noun for 'knowledge' is sanìi, that for 'sight' is gani, and the noun for 'taking' is Diibàa. In sentence (a) then, we have these DN forms used in the A-form context, the expected A-form itself is ungrammatical as seen in (19b). The continuous use is illustrated below:

- (54) a. bàñ cêe dà sunàa sanìn Abdù ba/
NEG-1s.PERF say that 3p.CONT know-II-DN-of Abdu NEG/
ganin Abdù ba/ Diibàr tsaabàa ba.
see-II-DN-of Abdu NEG/ take-II-DN-of grain NEG

'I do not think that they know Abdu/ see Abdu/ take some grain.'

- b. *bàñ cêe dà sunàa sanar Abdù ba/
NEG-1s.PERF say that 3p.CONT know-II-VN-of Abdu NEG/
ganar Abdù ba/ Diibar tsaabàa ba.
see-II-VN-of Abdu NEG/ take-II-VN-of grain NEG

'I do not think that they know Abdu/ see Abdu/ take some grain.'

In sentence (a), the DNs are again used, this time in the continuous. Sentence (b) shows that the expected gerundive form is ungrammatical (compare with regular gr2 in (51a)). For some reason then, with these few irregular gr2 verbs, the DN form expanded its contexts to the detriment of both the regular A-form and the regular gerund. While there is apparently no other context where the A-form can be retrieved from, it is claimed here that the gerundive of the irregular gr2 verbs has survived in the pre-gr9 environment. So, just like gr1 and regular gr2 verbs, irregular gr2 verbs use a gerundive before mà+NP. This is illustrated below:

- (55) a. aa'aa tòo wàa fa ya sanam
no well who indeed 3ms.REL PERF know-II-VN-of
makù wânnan!
IX-2p that

'Who (do you think) would care for that matter for you!'

- b. shin wàa ya ganam manì Abdù-ù?
PRT who 3ms.REL PERF see-II-VN-of IX-1s Abdu-Q²
'Please, has anyone seen my Abdu?'

- c. an Deebam mà Indoo kùnuu.
 IMP.PERF take-II-VN-of IX Indo cruel
 'Someone took some of Indo's gruel.'

One apparent difficulty for the VN analysis is that with all gr3 verbs, the purported gerund before mà is always different from the form appearing in the continuous (which, so far, has been the traditional place to look for gerunds). The two constructions are illustrated below:

- (56) a. Abdù yanàa fitaa dà Indoo.
 Abdu 3ms.CONT go.out-III with Indo
 'Abdu is dating Indo.'
- b. kurjii yaa fitam mà Abdù à kumcìi.
 rash 3ms.PERF go.out-III-VN-of IX Abdu on cheek.
 'A rash appeared on Abdu's cheek.'

Actually, the form fitaa in sentence (a) can be analyzed as the gr3 DN which has expanded its occurrences and eliminated the true gerund in the continuous context. However, like with the irregular gr2 verbs case, the gerund has survived before the applicative marker as seen in sentence (b). The particularity of gr3 is that one has to posit that the gerund elimination from the continuous affects the verbs of the entire grade. The same proposal can also be considered for the only two verbs of gr7 that also operate gr9. An example is given below:

- (57) a. bà à san àbindà kee
 NEG IMP.PERF know-II thing-that REL CONT
àbkuwaa ba.
 happen-VII-DN NEG
 'No one knows what is happening.'
- b. bà à san àbindà ya
 NEG IMP.PERF know-II thing-that 3ms.REL PERF
abkam masù ba.
 happen-VII-VN-of IX-3p NEG
 'No one knows what has befallen them.'

I interpret àbkuwaa in sentence (a) as the gr7 DN (see Gouffé 1982 and Wolff 1984:21 for arguments against assimilating this form with gr1 type -`waa gerunds; however, both these authors take àbkuwaa as the primary VN or gerund). As with gr3 verbs, the DN

àbkuwaa may have eliminated the gerund from the continuous. Again, only the applicative context today supplies us with the true gr7 gerund such as seen in sentence (b).

Below is a table summarizing my treatment of gr2, gr3, and gr7 occurrences in the A-form, in the continuous, and in the gr9 contexts.

(58) Katsinanci A-form, gerunds, and derived nominals of gr2, gr3, and gr7:

Citation (C-form)	A-form	Continuous DNs:	Gerunds:	Grade 9 Gerunds:
<u>Regular grade 2:</u>				
a. hàlbi 'shoot'	hàlbaa	halbìi	halbaa	halbaa
b. nèemi 'search'	nèemaa	neemaa (m)	neemaa (f)	neemaa (f.)
c. bùgi 'hit'	bùgaa	bugùu	bugaa	bugaa
<u>Irregular grade 2:</u>				
d. san 'know'	sanìi	sanìi	----	sanaa
e. ga 'see'	ganii	ganii	----	ganaa
f. bar 'let, drop'	barìi	barìi	----	bar, baraa
<u>Grade 3:</u>				
g. fita 'go out'	(=citation)	fitaa	----	fitaa
<u>Grade 7:</u>				
h. àbku 'happen'	(=citation)	àbkuwaa	----	abkaa

In the above table, in (a-c) are regular gr2 verbs with a distinct A-form, a distinct DN, and a distinct gerund (for nèemi only gender marking distinguishes DN, which is masculine, from gerund, which is feminine, cf. yanàa neema-n kuDii/yanàa neema-r kuDii 'He is looking for money'). In (d-f) are the irregular gr2 verbs with a DN in both A-form and continuous contexts, and a gerund found only in gr9. Finally in (g-h) are gr3 and gr7 verbs, whose citation form is also their A-form (see Newman 1973:312). In the continuous these verbs use their DN only, while their gerund is restricted to gr9 context. The next subsection presents some tests showing the distribution of gerunds.

5.1.5 DISTRIBUTIONAL TESTS FOR GERUNDS

Section 5.1.4.2 established the morphological identity between gerunds (as in the continuous aspect), and forms appearing in gr9. Here, it is shown that the two gerunds can appear in contexts that canonically accept nominals only. Such contexts are, for example, the focused nominal slot, the relative head slot, the purposive complement, the subject and object positions. In all these environments a bare verb is impossible, while regular nouns and gerunds are grammatical. The data below, illustrated the focused construction with a gr2 verb:

- (59) a. yaa bùgi Dan Indoo.
 3ms.PERF hit-II son-of Indo
 'He hit Indo's son.'
- b. bugar Dan Indoo nèe ya yi.
 hit-II-VN-of son-of Indo be.m 3ms.REL PERF do
 'It is hitting Indo's son that he did.'
- c. bugam mà Indoo Daa nèe ya yi.
 hit-II-VN-of IX Indo son be.m 3ms.REL PERF do
 'It is hitting Indo's son that he did.'
- d. *bùgi Dan Indoo nèe ya yi
 hit-II son-of Indo be.m 3ms.REL PERF do
 'It is hitting Indo's son that he did.'

Sentence (a) above shows the basic gr2 verb, which cannot appear bare in focus as shown in sentence (d). The sentences (b-c) respectively show the gerund alone and in construction with gr9 appearing fine as a focused nominal. The relative clause construction is illustrated in the data below:

- (60) a. bà tà soo ba bugar Dan Indon
 NEG 3fs.PERF want NEG [hit-II-VN-of son-of Indo]-DEF

 dà Abdù ya tàrkaa.
 that Abdu 3ms.REL PERF engage-II

 'She did not appreciate the beating of Indo's son that Audu started.'
- b. bà tà soo ba bugam mà Indoo Daa
 NEG 3fs.PERF want NEG hit-II-VN-of IX Indo son

 dà Abdù ya tàrkaa.
 that Abdu 3ms.REL PERF engage-II

 'She did not appreciate the beating of Indo's son that Audu started.'
- c. *bà tà soo ba bùgi Dan Indon dà Abdù
 NEG 3fs.PERF want NEG hit-II son-of Indo that Abdu

 ya tàrkaa.
 3ms.REL PERF engaged-II

 'She did not appreciate the beating of Indo's son that Audu started.'

Again, the gerund, whether alone, as in (a), or in conjunction with gr9, as in (b), can appear as the relative clause head (here also functioning as the DO of the main clause). A bare verb

cannot be relative head, as shown in (c). So, the pre-gr9 form seems to pattern just like the regular gerund. These facts are essentially similar with other NP environments, and, they are consistent with the gerund analysis of the gr9 form. In the next subsection, the relations between the nuclear operators and the two verbs in nuclear cosubordination are explored.

5.1.6 SHARING OF NUCLEAR OPERATORS

As seen in section 5.1.3, RRG theory predicts that two predicates in nuclear cosubordination form a single nucleus to which the operators apply. In this subsection, it is shown that mà attracts the morphemes associated with the nuclear operators. This is indication that, for the purpose of marking the operators, the property of head has shifted from the primary verb to mà. Below, the continuous A-form, the regular syntactic Forms, and the phenomenon of yì 'do' deletion are reviewed.

5.1.6.1 The A-form of grade 1 in the continuous

In Hausa, tense/ aspect marking is separate from and can even be non contiguous to the verb. So, neither mà nor the primary verb can properly be said to carry the tense/ aspect marking. Tense/ aspect however, can be indirectly reflected on the verb. For example, it is well known that in the continuous, the verb is nominalized with the suffix -waa, as illustrated below:

- (61) a. yâara nèe ya aikàa à gidan sarkii.
 children cop.p 3ms.REL PERF send-IVN at house-of emir
 'It is the children that he sent to the emir's place.'
- b. yâara nèe yakèe aikàawaa à gidan sarkii.
 children cop.p 3ms.REL CONT send-I-VN at house-of emir
 'It is the children that he is sending to the emir's place.'

In sentence (a), the verb aikà is in its (perfect) A-form, with a single suffix -àa. As seen in section 5.1.4.1 above, this form is analyzed as a type of gerund. For most other scholars of Hausa, it is only in the continuous sentence in (b) that the verb is nominalized with the so-called suffix -waa. In this thesis too the verb in (b) is considered as a gerund, only it is a gerund taking *two* -àa suffixes separated by an epenthetic /w/. Notice that the double -àa suffixation occurs only if the verb is in the continuous *and* the undergoer argument is fronted, two conditions each independently licensing the suffix -àa (Hausa nominalization principles are discussed in chapter 6; also, in section 5.1.7.1 below we will come back to the relevant verbal arguments determining the appearance of A-form). The important fact for

now is that in the continuous A-form, with V+mà construction, only mà takes the double marking of -aa and the epenthetic /w/, not the primary verb. This is seen below:

- (62) a. gooròo nee Abdù ya aikàa mà sarkii.
 kolanuts cop.m Abdu 3ms.REL PERF send-I-VN IX emir
 'It is kolanuts that Abdu sent to the emir.'
- b. gooròo, sarkii nèe Abdù yakèe aikàa
 kolanuts emir cop.m Abdu 3ms.REL CONT send-I-VN
 màwaa.
 MA-VN
 'As for kolanuts, it is the emir that Abdu is sending them to.'
- c. *gooròo, sarkii nèe Abdù yakèe aikàawaa mà.
 kolanuts emir cop.m Abdu 3ms.REL CONT send-I-VN IX
 'As for kolanuts, it is to the emir that Abdu is sending them.'

In the perfect sentence in (a), the primary verb is marked -aa, because it is nominalized by the auxiliary mà, which has no special marking itself. In (b) however, the sentence is in the continuous and the applied nominal is fronted. These two facts create the condition for the double suffixation of -aa. But the double suffix appears on mà, it can't appear on the primary verb (or be absent) as seen in (c). So, for the purpose of continuous aspect marking on the verb, in V+mà construction, mà is the relevant verb.

Notice however that the double marking in V+mà construction is not limited to the continuous aspect, it also happens in the perfect. This is illustrated below:

- (63) a. gooròo, sarkii nèe Abdù ya aikàa
 kolanuts emir cop.m Abdu 3ms.REL PERF send-I-VN
 màwaa/
 MA-VN/ mâa
 MA-VN
 'As for kolanuts, it is the emir that Abdu sent them to.'

In the above sentence, only the alternate form mâa is predicted, with one -aa suffixation because of the applied nominal's fronting. Actually, the form màwaa is anomalous even for the continuous in (62b), it should be *màawaa, with two long vowels to reflect the double suffixation, as with a regular verb. One can only speculate that the borderline position of màwaa (having a first short vowel and an epenthetic /w/) allows it to be interpreted both as

the continuous A-form (with the /w/ signaling double suffixation) and as an alternate perfect A-form (with short vowel signaling one suffixation).

5.1.6.2 mà and the regular syntactic Forms

Another way in Hausa to indicate which verb is the real head concerns the syntactic Forms of the grade system. As seen many times before, verbs can inflect and indicate whether they are followed by a noun object, a pronoun object, or no object at all. In V+mà construction, mà is the verb inflecting for the Forms as already seen with the continuous A-form in section 5.1.6.1 above. The primary verb loses the ability to inflect depending on the changing syntactic environment. First, a regular verb is illustrated below:

- (64) a. Abdù yaa àiki Dìyar Indoo.
 Abdù 3ms.PERF send-II daughter-of Indo
 'Abdu sent Indo's daughter (somewhere).'
- b. Abdù yaa àikee tà.
 Abdù 3ms.PERF send-II-VN 3fs
 'Abdu sent Indo's daughter (somewhere).'
- c. Dìyar Indoo cèe Abdù yaa àikaa.
 daughter-of Indo cop-f Abdu 3ms.PERF send-II-VN
 'It is Indo's daughter that Abdu sent (somewhere).'

In the sentences above, a gr2 verb is shown inflecting for its various syntactic environments: when followed by a noun complement in (a), a pronoun in (b) and with a fronted complement in (c). The data below shows mà inflecting in the same environments:

- (65) a. Abdù yaa aikam mà Indoo yâara.
 Abdù 3ms.PERF send-II-VN-of IX Indo children
 'Abdu sent Indo's children (somewhere).'
- b. Abdù yaa aikam matà yâara.
 Abdù 3ms.PERF send-II-VN-of IX-3fs children
 'Abdu sent her children (somewhere).'
- c. Indoo cèe Abdù yaa aikam màa yâara.
 Indo cop-f Abdu 3ms.PERF send-II-VN-of IX children
 'It is Indo's children that Abdu sent (somewhere).'

- d. gooroo, Indo cèe Abdù yaa neemam màa/
 kolanuts Indo cop-f Abdu 3ms.PERF search-II-VN-of MA-VN/
mâa/ màwaa.
 MA-VN/ MA-VN

'As for kolanuts, it is to Indo that Abdu sent them.'

The sentences above shows gr2 verbs (a-d) with mà. As one can see, the gr2 verbs are nominalized and do not vary to indicate the Forms. mà however, is the element displaying the changes depending on whether the applied nominal is a noun, as in (a), a pronoun, as in (b), or a fronted applied nominal as in (c). Sentence (d) shows that when all nominals are fronted, mà can assume three possible forms. One can say then tht mà has an A-form, a B-form, and a C-form. Notice that for a verb to inflect, it does not have to be adjacent with the undergoer. This is illustrated below:

- (66) a. Abdù yaa àiki/ *àikaa dai Dan Indo.
 Abdu 3ms.PERF send-II/ send-II-VN MOD son-of Indo
 'Abdu indeed sent Indo's son.'
- b. Dan Indo nèe Abdù ya àikaa/ *àiki
 son-of Indo cop.m Abdu 3ms.REL PERF send-II-VN/ send-II
dai.
 MOD

"It is Indo's son that Abdu sent indeed.'

Here, because dai is only a modal, it is not itself marked for the syntactic changes. This shows that the syntactic changes are really characteristic of the head verb, and dai is not the head of the sentence. Thus, mà, which does take over the markings, cannot be argued to be a simple particle or a preposition. It is the head of the complex nucleus.

5.1.6.3 yi deletion

Finally, there is one context in which mà is clearly a sentential head because it is the only head available. When followed by mà (and in other unrelated contexts as well), the weak verb yi 'do' is simply optional. This is illustrated below:

- (67) a. 'âa (yi) wà àku wazircìn mutàanee?
 IMP.POT do IX parrot viziership-of people
 'Would you bestow on a parrot viziership over men?'
 (cited by Newman 1982:72)

- b. (yii) masà faDàa bâa shi dà àmfàanii.
do-VN IX-3ms rebucking NEG-CONT 3ms with utility
'Rebucking him would be of no help.' (Parsons (1971-72:64)
- c. am minì saatàa (Standard dialect)
IMP.PERF IX-1s burglary
'I am burglarized.' (lit: someone (did) burglarizing to me)
(Parsons (1971-72:64)

Usually these constructions are described as involving a rule of "yi deletion" (cf. Tuller 1986:450 for a GB account). However, because RRG has no multiple levels of syntactic derivation, such rule is useless here, whether or not it is justified in other theories.³ The fact is that mà is so crucially the sentential head that it can appear alone if the primary verb carries little lexical content, as is the case with yi. When this happens, mà is the only verb in the clause as seen in (a). In (c), as noted by Parsons, the "deletion" is so total that phonetic assimilation can take place over the presumed empty slot (the impersonal an goes to am before gr9 mà)

Also, the idea that mà can be analyzed as a verbal predicate is lent some support by the existence of what Parsons (1960:125) calls the "possessive-agential copula" such as illustrated below:

- (68) a. (shii) mài kuDii nèe.
(3ms) mà-3ms money be.m
'He has money.' 'He is a rich man.'
- b. màasu kuDii sun shigoo gârii.
mà-3p money 3p.PERF enter-VI town
'The rich people are in town.'

So, mà, clearly can function as an independent predicate, taking up to three arguments, as seen in (67a) above.

5.1.7 Pooling of all arguments

In this section, the focus is on a decisive factor for the complex nucleus hypothesis, namely, the shared argument status of the nominals involved in V+mà construction. It turns out that the hypothesis is strongly supported because all three arguments can be shown to be arguments of one single core. In what follows we will be concerned with the behavior of the applied nominal and the patient nominal and it will be shown that both are direct core arguments.

5.1.7.1 Influence of the three nominals on the continuous forms

It has long been observed in Hausa that a gr1 verb in the continuous aspect has a distinct form when it is followed by the "DO" and another form when the DO is fronted. This is seen in below:

- (69) a. munàa aikà kuDii.
 1p-CONT send-I money
 'We are sending money.'
- b. kuDii, munàa aikàawaa.
 money 1p-CONT send-I-VN
 'As for money, we are sending (it).'

In (a), the complex -waa cannot appear on the verb because the DO follows. When the DO is fronted as in (b), then -waa is obligatory. This observation has led various researchers (Gregersen 1967, Bagari 1971, Wolff 1984, and Tuller 1986) to hypothesize that the nominalizing "morpheme" -waa is underlyingly present in both sentences (a-b) above. However, the surface realization of the morpheme is possible only when no DO is following, as in (b). If a DO follows, the suffix is "blocked" or canceled. One problem with this generalization is that it will not account for the appearance of the suffix -waa with mà. Here, both the patient argument and the applied nominal cannot cooccur with -waa. This is exemplified in below:

- (70) a. munàa aikàa mà(*waa) Indoo.
 1p-CONT send-I-VN MA-(VN) Indo
 We are sending (s.th.) to Indo.
- b. Indoo cèe mukèe aikàa màwaa.
 Indo be.f 1p-REL.CONT send-I-VN MA-VN
 It is to Indo that we are sending (s.th.).
- (71) a. Indoo cèe mukèe aikàa mà(*waa) kuDii.
 Indo be.f 1p-REL CONT send-I-VN MA-(VN) money
 It is to Indo that we are sending money.
- b. kuDii? Indoo cèe mukèe aikàa màwaa.
 money Indo be.f 1p-REL CONT send-I-VN MA-VN
 Money, it is to Indo that we are sending (it).

In (70a), -waa cannot cooccur with an applied nominal as indicated. In (70b) however, -waa is required. The sentence in (71a) illustrates a theme/ patient argument directly following mà and "blocking" the -waa suffix. Again, as with the applied nominal, if the patient is fronted, -waa is required, as seen in (71b). One can actually contrast the behavior of the applied

nominal and the theme/ patient nominal with that of dative and locative nominals. With dative, locative, and other indirect arguments or adjuncts, the suffix -waa is obligatory (assuming that any direct core argument is fronted). This is illustrated below:

- (72) a. kuDii nèe zâa a baadàawaa gâ Audù.
 money be.p FUT-IMP give-I-VN to Audu
 It is money that is about to be given to Audu.

- b. *kuDii nèe zâa a baadàa gâ Audù.
 money be.p FUT-IMP give-I-VN to Audu
 It is money that is about to be given to Audu.

- (73) a. gooròo, sarkii nèe takèe aikàa màwaa
 kolanuts emir cop.m 3fs.REL CONT send-I-VN MA-VN
 (à) Maraadi.
 (in) Maradi

'As for kolanuts, it is the emir that she is sending them to in Maradi.'

- b. *gooròo, sarkii nèe takèe aikàa mà
 kolanuts emir cop.m 3fs.REL CONT send-I-VN IX
 (à) Maraadi.
 (in) Maradi

'As for kolanuts, it is the emir that she is sending them to in Maradi.'

In (72a), a dative nominal introduced by the preposition gâ cooccur with -waa. In (73a), a locative also does the same. In both cases, -waa is required or the sentence will be ungrammatical, as seen in the (b) sentences. Notice that it is not the presence of a preposition which allows the suffix -waa to appear. In (73), the preposition is entirely optional, yet, the suffix -waa is obligatory. One can clearly propose that the rule constraining the appearance of -waa concerns direct core arguments, not simply "direct objects".⁴

5.1.7.2 Copy in focus fronting, relativization and wh-questions

As seen in chapter 2, in focus fronting, the nominal appears at the beginning of the sentence and is optionally followed by the copula nee/ cee. In relative clauses, the head is fronted and followed by a relative pronoun and the complementizer dà. In questions, the wh-word is fronted and followed by an optional nee nèe/ cee cèe. In all three constructions, the

relative marker ka (perfect) or kèe (continuous) appears at least on the next PTAM. When theme/ patient nominals and applied nominals are fronted, relativized or questioned, a copy pronoun is strictly ruled out in simple clauses. as well as in complex sentences. The focus construction is illustrated below:

- (74) a. gooròo nee [sukà yi neeman [sù
 kolanuts cop.m 3p-REL PERF do search-II-DN-of 3p.SUB
 aikàa (*shi)].
 send-I-VN 3ms

'It is kolanuts that they tried to send.'

- b. gooròo nee [sukà yi neeman [sù
 kolanuts cop.m 3p-REL PERF do search-II-DN-of 3p.SUB
 aikàa mà Indoo (*shii)].
 send-I-VN IX Indo 3ms

'It is kolanuts that they tried to send to Indo.'

- (75) a. Indoo cèe [sukà aikàa māa/ *matà gooròo].
 Indo cop.f 3p-REL PERF send-I-VN IX-VN/ IX-3fs kolanuts
 'It is to Indo that they sent the kolanuts.'

- b. an cèe Indoo cèe [sukà yi neeman
 IMP.PERF say Indo cop.f 3p-REL PERF do search-II-DN-of
 [sù aikàa māa/ *matà gooròo]).
 3p.SUB send-I IX-VN/ IX-3fs gooròo

'It was said that it is Indo to whom they tried to send kolanuts.'

In (74a), the undergoer gooròo 'kolanuts' is focused from the lower clause and no copy is possible. In (74b), gooròo behaves the same although an applied nominal, Indoo, cooccurs. In (75a), the focussed applied undergoer in simple clause cannot have a copy pronoun. (75b) shows that in complex sentences too, a copy is impossible. This result is at variance with Tuller (1986), where a copy is acceptable for the fronted applied nominal in complex sentences such as (75b). The facts of relativization are similar, and here too, the theme/ patient and the applied nominal cannot have a copy even in complex sentences. This is illustrated below:

- (76) a. gooròo wandà [sukà yi neeman
 kolanuts 3ms-that 3p-REL PERF do search-II-DN-of
 [sù aikàa (*shii)]].
 3p.SUB send-I-VN 3ms
- 'The kolanuts which they tried to send.'
- b. gooròo wandà [sukà aikàa mà Indoo (*shii)].
 kolanuts 3ms-that 3p-REL PERF send-I-VN IX Indoo 3ms
 'The kolanuts which they sent to Indo.'
- c. gooròo wandà [sukà yi neeman [sù
 kolanuts 3ms-that 3p-REL PERF do search-II-DN-of 3p.SUB
 aikàa mà Indoo (?shii)]].
 send-I-VN IX Indoo 3ms
- 'The kolanuts which they tried to send to Indo.'
- d. Indon dà [sukà yi neeman [sù
 Indoo-DEF that 3p-REL PERF do search-II-DN-of 3p.SUB
 aikàa mà/ *matà gooròo]].
 send-I-VN IX/ IX-3fs gooròo
- 'The Indo that they tried to send kolanuts to.'

In the (a) sentence, the theme undergoer cannot have a copy. When cooccurring with an applied undergoer nominal, the theme still cannot have a copy in simple sentences, as seen in (b), but a copy is marginally acceptable in complex sentences such as (c). Sentence (d) shows that a relativized applied nominal has no copy pronoun even in complex sentences. In questions, the restriction on pronominal copy is total, both in simple and complex sentences for all three nominals. This is illustrated below:

- (77) a. mìi nee nèe [sukà yi neeman [sù
 what cop cop.m 3p-REL PERF do search-II-DN-of 3p.SUB
 aikàa (*shii)]]?
 send-I-VN 3ms-Q
- 'What is it that they tried to send.'

- b. mìi nee nèe [sukà yi neeman [sù
 what cop cop.m 3p-REL PERF do search-II-DN-of 3p.SUB
 aikàa mà Indoo (*shii)]]?
 send-I-VN IX Indoo 3ms-Q

'What is it that they tried to send to Indo?'

- c. wàa cee cèe [sukà yi neeman [sù
 who cop cop.f 3p-REL PERF do search-II-DN-of 3p.SUB
 aikàa mà/*matà gooròo]?
 send-I-VN IX/ IX-3fs kolanuts-Q

'Who is it that they tried to send kolanuts to?'

The sentences above show that a copy is impossible in question formation for a theme undergoer (a), a theme (non-undergoer) direct core argument (b), and an applied nominal (c).

The behavior of the three types of nominal illustrated above contrasts clearly with that of indirect core arguments or obliques. With these nominals, a copy is obligatory with all three focus, relative, and question constructions. This is illustrated below:

- (78) a. gooròo nee sukà isoo dà *(shii).
 kolanuts cop.m 3p-REL PERF arrive-VI with 3ms
 'It is kolanuts they came with.'
- b. mìi nee nèe kukà azà kaayaa gàree *(shii)?
 bike cop cop.m 2p-REL PERF put-I stuff on 3ms-Q
 'What is it that you we put stuff on?'
- c. teebùr kin dà mukà sâa jíkkaa KàlKashii *(nai).
 table DEF that 1p-REL PERF place bag under of-3ms
 'The table under which we placed a bag.'

In the (a) sentence, an argument of the preposition dà 'with' requires a copy in focus. Similarly, sentence (b) shows that a questioned nominal has an obligatory copy with the preposition gà/ gàree 'on'. Finally in sentence (c) a relative nominal "extracted" from an adjunct locative possessive phrase needs a pronominal copy.

I interpret these results as showing that the patient/ theme argument with and without macrorole, as well as the applied undergoer are all direct arguments of one core. These nominals clearly contrast with indirect core arguments in extraction constructions such as illustrated above.

5.1.7.3 Verb focus fronting

Beside nominals, Hausa also allows verbs to be focused. In this construction, the verb is nominalized and the verb *yi* 'do' appears following the PTAM of the "extraction" site. The relevant point about this verbal focus is that some arguments are obligatorily fronted with the verb. These arguments happen to be again the patient/ theme nominals and the applied nominal. This is illustrated below:

- (79) a. aikà kuDii nèe Abdù ya shàwàrcee sù
 send-I money cop.m Abdu 3ms.REL PERF advise-II-VN 3p
 sù yi.
 3p.SUB do

'It is sending money that Abdu advised them to do.'

- b. *aikàawaa nèe Abdù ya shàwàrcee sù
 send-I-VN cop.m Abdu 3ms.REL PERF advise-II-VN 3p
 sù yi kuDii.
 3p.SUB do money

'It is sending money that Abdu advised them to do.'

- (80) a. aikàa mà Indoo nèe akà cêe
 send-I-VN IX Indo cop.m IMP-REL PERF say
 sukà yi.
 3p-REL PERF do

'Sending (s.th.) to Indo is what they were said to have done.'

- b. *aikàa màwaa nèe akà cêe sukà
 send-I-VN IX-VN cop.m IMP-REL PERF say 3p-REL PERF
 yi Indoo.
 do Indo

'Sending (s.th.) to Indo is what they were said to have done.'

- (81) a. aikàa mà Indoo kuDii nèe akà cêe
 send-I-VN IX Indo money cop.m IMP-REL PERF say
 sukà yi.
 3p-REL PERF do

'Sending money to Indo is what they were said to have done.'

- b. *aikàa mâa nèe akà cêe sukà yi
 send-I-VN MA-VN cop.m IMP-REL PERF say 3p-REL PERF do
Indoo kuDii.
 Indo kuDii.

'Sending money to Indo is what they were said to have done.'

In (79-81) above, the (a) sentences show that neither a lone patient/ theme argument (79), nor a lone applied nominal (80) or a combination of both (81), can be left stranded in verb focus constructions. Hence the ungrammaticality of the (b) sentences. In contrast, to these nominals, associative, datives and locatives can optionally appear stranded at the end of the sentence. For some locative constructions, the stranding is obligatory. These are illustrated below:

- (82) a. fitaa dà Audù nee mukà yi.
 go.out-III with Audu cop.m 1p-REL PERF do
 'It is going out with Audu that we did.'
- b. fitaa nèe mukà yi dà Audù.
 go out-III cop.m 1p-REL PERF do with Audu
 'It is going out with Audu that we did.'
- (83) a. baadà kuDii gà Audù nee akai.
 give-I money to Audu cop.m IMP-REL PERF-do
 'It is giving money to Audu that someone did.'
- b. baadà kuDii nèe akai gà Audù.
 give-I money cop.m IMP-REL PERF-do to Audu
 'It is giving money to Audu that someone did.'
- (84) a. aikà hatsii (à) Maraadi nèe akà cêe
 send-I millet to Maradi cop.m IMP-REL PERF say
 sun yi.
 3p.PERF do
- 'It is sending millet to Maradi that they were said to have done.'
- b. aikà hatsii nèe akà cêe sun yi (à)
 send-I millet cop.m IMP-REL PERF say 3p.PERF do to
 Maraadi.
 Maradi
- 'It is sending millet to Maradi that they were said to have done.'

- (85) a. ?saidà shaanuu (à) can Nàajeeriyàa nèe sukèe.
 sell-I cows (in) there Nigeria cop.m 3p-REL CONT
 'They are in the business of selling cows there in Nigeria.'
- b. saidà shaanuu nèe sukèe (à) can Nàajeeriyàa.
 sell-I cows cop.m 3p-REL CONT (in) there Nigeria
 'They are in the business of selling cows there in Nigeria.'

In (82) above, an associative nominal (dà) abdu, can follow the verb in cleft, as in (82a) or it can be stranded, as in (82b) with equal grammaticallity. Similarly, in (83), the recipient nominal (gà) Abdù can appear with the fronted verb, as in (83a), or it can be left stranded, as in (83b). Locative nominals too can follow the fronted verb, as in (84a), or they can be stranded, as shown in (84b). In some locative constructions however, the locative phrases are best if left stranded, as suggested in (85).

In conclusion, it is quite evident that in V+mà constructions, the applied nominal and the theme/ patient nominal are both direct arguments of the same core. They have similar behavior as opposed to indirect core argument or indirect arguments (obliques). Direct core arguments influence the continuous A-form in not cooccurring with the complex suffix -waa. They cannot have a pronominal copy when they are focus-fronted, relativized, or questioned. Direct core arguments also are not stranded in verb focus constructions. The next subpart brings even more evidence for the unique core hypothesis by showing that the applied nominal is the real undergoer when it cooccurs with a theme/ patient nominal.

5.1.8. The applied nominal as the undergoer of V+mà

In this subpart, it is shown that the applied nominal is the undergoer of the core constituted by the verb and mà. In RRG, there can be only one undergoer per clause, which means that the applied nominal is the sole (marked) undergoer even when a theme/ patient is cooccurring. These facts supports the nuclear cosubordination analysis. In what follows, we will see that the applied nominal alone passivizes and cliticizes to the head verb which, here, is mà.

5.1.8.1 Grade 7 passivization

As seen in chapter 4, gr7 has the defining characteristics of a canonical passive for accusative languages like Hausa (Foley and Van Valin 1984). Grade 7 indeed involves the foregrounding of the undergoer and the simultaneous backgrounding of the actor, if this nominal is expressed at all. The fact is that a passivized theme/ patient undergoer can

cooccur as pivot alone but never with an applied nominal in the sentence. This is illustrated below:

- (86) a. kuDii sun àiku (gà Audù).
 money 3p.PERF send-VII (by Audu)
 'The money is sent away (by Audu).'
- b. *kuDii sun aikam mà Audù.
 money 3p.PERF send-VII IX Abdu .
 'The money was sent to Audu.'

In (a), the theme kuDii 'money' is the antecedent of the PVP sun '3p' (money is plural in Katsinanci). kuDii is then an undergoer which is foregrounded to the pivot function. Thus, a basic tenet in RRG is that a syntactic function like pivot is delinked from semantic functions like actor or undergoer in pragmatic pivot languages like Hausa. So, this is why actors as well as undergoers can be pivot. In most languages only the actor or the undergoer can be pivot (the few exceptions include Icelandic, where non-undergoers can be passive pivots, cf. Van Valin 1992). Sentence (b) shows that a theme/ patient nominal cannot be promoted to pivot while an applied nominal is in the clause. The crucial fact is that an applied nominal can be foregrounded to pivot-hood with a theme/ patient argument present in the clause.

This is illustrated below:

- (87) a. Audù baayà àikuwaa kuDii à haalin
 Abdu NEG.CONT-3ms send-VII-DN money at circumstances-of
 yànzù.
 now
 'Audu cannot be sent money at this time.'
- b. Yaaròn nan bà zâi kòoyu ba.
 boy-DEF that NEG FUT-3ms teach-VI NEG
 'That boy is unteachable.'
 (Parsons 1971-72:197)
- c. Audù bâaya bàayuwaa kaashii (gàree kè).
 Abdu NEG.CONT-3ms give-VII beating (by 2ms)
 'Audu cannot be punished (by you).'

There are three remarks though about this data. First, mà itself does not appear in the sentences, so, strictly speaking, there is no cosubordination. There is no obvious explanation for this absence, and one can only stipulate that in gr7, an applied nominal has no marking. Actually this absence is normal in sentence (c) with the verb bâa 'give', which takes wà only

optionally in Standard Hausa but not in Katsinanci (see discussion of (90b) below). Also, according to Parsons (1971-72:66), in formulaic expressions, mà is frequently omitted (sai naa ga àbindà ya tuurè (mà) Buuzuu naDii 'I will do it -come hell or high water!' lit: 'I shall see what could upset a Buuzuu man's turban'). Nonetheless, the passives in (87) above seem to be of the syntactic type, because an agentive PP can occur, as seen in (c). The second remark is that in the continuous sentences in (a) and (c), the verb is in a DN form (not a gerund) which does not lose its suffix -waa before direct core arguments (see discussion of (57) in section 5.1.4.2 and Gouffé 1982). Thirdly, these constructions are quite restricted and seem to be best in the continuous or future aspects, and especially in the negative. However they clearly exist, to the point that they are reported in the literature, as (b) is. In all (a-c) sentences the recipient nominal is foregrounded as pivot antecedent, and this is consistent with its analysis as an undergoer argument. It follows that kuDii 'money' in (a) and kaashii 'beating' in (c) cannot be undergoers too (also, cf. the "affected" status of the applied nominal as seen in section 5.1.1.2).

5.1.8.2 Cliticization of the undergoer argument

As is well known, in Hausa there exists an accusative set of clitic pronouns different from the independent pronouns set. In traditional Hausa works, the pronouns are usually said to become clitics because they are DO. It is also noted though that the pronominal DOs have to be adjacent to the verb in order to cliticize. These points are illustrated below:

- (88) a. yâara sun nèemàr ta/*ita.
 children 3p.PERF search-II-VN-of 3fs/ 3fs
 'The children searched for her.'
- b. yâara sun nèemi har *ta/ ita.
 children 3p.PERF search-II even 3fs/ 3fs
 'The children searched even for her.'

In sentence (a), an adjacent pronominal undergoer cliticizes on the verb (Hausa orthography represents the clitic separate), usually (but not always, --cf. Newman 1977) with a polar tone. An independent pronoun is impossible as seen in the starred alternative. In sentence (b), an undergoer is separated from the verb by a modal particle har 'even'. In this context, it appears in the independent form, it cannot be a clitic. So, it can be said that only an adjacent pronominal undergoer can be a clitic. One finds that in V+mà constructions, the applied nominal behaves exactly like an unmarked undergoer with regard to cliticization. This is illustrated below:

- (89) a. yâara sun aikàa matà/ *mà ita.
 children 3p.PERF send-I-VN IX-3fs/ **IX** **3fs**
 'The children sent her (s.th.).'
- b. yâara sun aikàa ma har *tà/ ita.
 children 3p.PERF send-I-VN IX even **3fs/** 3fs
 'The children sent (s.th.) even to her.'

Sentence (a) shows the regular construction with a clitic applied undergoer (Hausa orthography represents ma+pronoun as one word). In this context, the pronoun cannot be independent. Sentence (b) shows that if the marked undergoer is separated from mà, it can't be a clitic on har 'even', the intervening word. Now, that being undergoer is a necessary condition to cliticization is shown by the fact that the theme/ patient direct core argument cannot be a clitic even if it is adjacent to mà or to the primary verb. This is illustrated below:

- (90) a. Abdù nee yâara sukà aikàa mâ ita/ *ta.
 Abdu cop.m children 3p.REL PERF send-I-VN IX 3fs/ **3fs**
 'It is to Abdu that the children sent it.'
- b. Abdù nee yâara sukà bâa ita/ *ta.
 Abdu cop.m children 3p.REL PERF give 3fs/ **3fs**
 'It is to Abdu that the children gave it.'
- (91) a. ?Audù bâaya àikuwaa ita (gâree kè).
 Abdu NEG.CONT-3ms send-VII-DN 3fs (by 2ms)
 ?'Audu cannot be sent it (by you).'
- b. *Audù bâaya àikuwar tà (gâree kè).
 Abdu NEG.CONT-3ms send-VII-DN-of 3fs (by 2ms)
 ?'Audu cannot be sent it (by you).'

The non-undergoer direct core argument is adjacent to mà in sentence (90a) but it can only appear as an independent pronoun. Here however, some may object that the clitic is impossible because the pronoun is not adjacent to the primary verb. But look what happens in sentence (90b). There, the pronoun is adjacent to the primary verb bâa which does not occur with mà in Katsinanci. Yet, cliticization is impossible even in this case. Also, in (91), when the applied nominal is foregrounded as pivot undergoer, the theme/ patient is adjacent to the gr7 DN. The sentence is somewhat marginal with an independent pronoun, as seen in (91a), but it becomes totally ungrammatical if the pronoun is a clitic, as seen in (91b) (here, the clitic should trigger the possessive linker to rule out confounding).

Thus, in V+mà construction, there is no evidence that the theme/ patient is the "direct object" as it is generally thought in Hausa literature. Instead, the facts about passivization

and cliticization show that the applied nominal is the undergoer of the core. So, again, these facts support the cosubordination analysis of the complex V+mà.

5.1.9 The morphological status of mà

The debate over whether mà is a bound suffix or a free preposition has been going on since Parsons (1971-72) to as recently as Newman (1991). Based on its syntactic behavior, Parsons and a number of Hausaists concluded that mà is a bound verbal suffix (endorsing this view are Gouffé 1962, 1981:49, Tuller 1984, 1986, Abdoulaye 1989, Munkaila 1990, etc). However, for Newman (1982, 1991), there is plenty of prosodic/ suprasegmental evidence pointing to a free preposition status for mà. In this section, the arguments on both sides are reviewed and ultimately, the contradictory behaviors of mà is explained by its being in cosubordination with a primary verb.

5.1.9.1 mà as a bound verbal suffix hypothesis (Parsons)

The assumption under most Hausa studies is that mà is the marker of the indirect object, and that it is a preposition similar to English 'to' for example (see Abraham 1959). Parsons (1971-72), although taking mà as the IO marker, nonetheless noticed that mà displays some syntactic behavior like no other preposition in the language. These behaviors include the restricted occurrence of mà to the immediate postverbal position only.

5.1.9.1.1 No insertion between the verb and mà

According to Parsons, an indirect object marked by mà obligatorily precedes the direct object. This is true even in case of "heavy" IO's. Also, modal particles cannot be placed right before mà. These points are illustrated in below:

- (92) a. Sheehù yaa aikàa mà duk saraakunàn dà
Shehu 3ms.PERF send-I-VN IX all emirs that

akà naDàa bana wàsiiKàa.
IMP-REL PERF turban-I-VN this.year letter

'Shehu sent all the emirs that were throned this year a letter.'

- b. Sheehù yaa aikà wàsiiKàa gà/ *mà duk saraakunàn
Shehu 3ms.PERF send-I letter on/ *IX all emirs

dà akà naDàa bana.
that IMP-REL PERF turban-I-VN this.year

'Shehu sent a letter to all the emirs that were throned this year.'

- c. Abdù yaa aikàa (*fa/
Abdu 3ms.PERF send-I-VN (indeed/ *har) mà IX sarkii

wàsiiKàa.
letter

'Abdu sent even the emir a letter.'

- d. Abdù fa yaa aikàa mà har sarkii làsiiKàa.
Abdu indeed 3ms.PERF send-I-VN IX even emir letter
'Abdu indeed sent even the emir a letter.'

As seen above, and indeed for most dialects of Hausa, mà cannot under any circumstances be parted from the verb. In sentence (a), a dative applied nominal modified by a relative clause comes first in its entirety before the "direct object". Sentence (b) shows an alternative construction where the dative nominal is shifted to the right, but as an argument of the preposition gà, not mà. Sentence (c) shows that modal particles cannot intervene between the verb and mà. On both sentences (b-c), there are marginal individual and dialect variations. Thus Newman 1991 brings data from the Bauchi dialect where wà+NP can be shifted to the right (wà is a variant of mà before nouns mostly in Nigeria), but only with nominal applied arguments, and if these applied arguments are not fronted. This is illustrated below (adapted from Newman 1991):

- (93) a. Muusaa yaa wankè rìigaa wà Sulè.
Musa 3ms.PERF wash-IV gown IX Sule
'Musa washed Sule his gown.'
- b. *Sulè nee Muusaa yaa wankè rìigaa wà.
Sule cop.m Musa 3ms.PERF wash-IV gown IX
'It is Sule that Musa washed a gown for.'
- c. Sulè nee Muusaa yaa wankè rìigaa wà.
Sule cop.m Musa 3ms.PERF wash-IV-VN IX gown
'It is Sule that Musa washed a gown for.'
- d. Muusaa yaa wankè masà rìigaa.
Musa 3ms.PERF wash-IV-VN IX-3ms gown
'Musa washed him his gown.'
- e. *Muusaa yaa wankè rìigaa masà.
Musa 3ms.PERF wash-IV gown IX-3ms
'Musa washed him his gown.'

According to Newman, sentence (a), where the undergoer comes before wà, is due to an extraposition rule. In (b), in case of focus fronting of the applied nominal, the wà cannot appear stranded after the theme/ patient nominal; it has to be next to the verb, as seen in (c). With a pronoun, Newman's extraposition rule does not apply, and mà+pronoun cannot appear following the theme/ patient, as seen in (e).

With regard to modal insertion, Newman reports that some, but not all, Standard Hausa speakers do allow fa only between the verb and wà. There are severe restrictions to this however. It is possible to insert fa only in gr4, gr5, gr6 and only for the irregular verbs. The insertion is also impossible if the applied argument is pronominal. In fact, the exact nature of the restrictions are so elusive that in the words of Newman himself "...there was much greater indecision by individuals and more inconsistencies from speaker to speaker than is normally the case." So, it seems that, on the whole, Parsons observations on mà as being inseparable from the verb are valid for most speakers.

5.1.9.1.2 Obligatory stranding of mà in nominal fronting

Another observation by Parsons is the that mà is necessarily stranded when the applied nominal is fronted. This is a property that characterizes mà only and no other preposition. These facts are illustrated below:

- (94) a. kèekee nèe ya azàa mà -- kaayaa.
bike cop.m 3ms.REL PERF put-I-VN IX load
It is on the bike that he put some load.

- b. *mà kèekee nèe ya azà -- kaayaa.
IX bike cop.m 3ms.REL PERF put-I load
'It is on the bike that he put some load.'

- (95) a. gà kèekee nèe ya azà kaayaa --.
on bike cop.m 3ms.REL PERF put-I load
'It is on the bike that he put load.'

- b. *kèekee nèe ya azà kaayaa gàa --.
bike cop.m 3ms.REL PERF put-I load on
'It is on the bike that he put load.'

In sentence (94a), the applied nominal is focused and mà is stranded. It cannot be fronted with the nominal as seen in (94b). Prepositions on the other hand necessarily have to be fronted with the nominal, as in (95a), they cannot strand, as seen in (95b) (unless there is a copy pronoun). Again Newman, in arguing against the validity of Parsons' observations noted that in the dialect of Niamey, mà fronting is possible, as shown below (from Newman 1991, with structure glosses, underlying and italics added):

- (96) a. mà Laadì ankà wankoo (mà) riigâr.
 ? Ladi IMP-REL PERF wash-VI-VN (IX) gown
 'It is Ladi they washed the gown for.'
- b. mà *ita* ankà wankoo (mà) riigâr.
 ? 3fs IMP-REL PERF wash-VI-VN (IX) gown
 'It is she they washed the gown for.'
- c. mà Muusaa ta dahwàa mà/ mâa àbinci.
 ? Musa 3fs.REL PERF cook-I-VN IX/ IX-VN food
 'It is Musa she cooked the food for.'
- d. mà *nii* ta dahwàa mà/ mâa àbinci.
 ? 1s 3fs.REL PERF cook-I-VN IX/ IX-VN food
 'It is me she cooked the food for.'

These are all the examples reported of the violation of a strong property of mà. Newman analyzes them as mà+NP fronting, and assimilates them to P+NP frontings such as in (95a) above. The problem with this analysis is the presence of a second stranded mà after the verb in the above examples. This second mà is reported as optional but *preferred*, although Newman characterizes it as redundant. However, it is not clear that the second mà is indeed redundant. If it is marked optional in sentences (a-b) it is not so marked in sentence (c-d), where it even occurs inflecting for the syntactic Forms. That this second mà appears at all shows that we really do not have mà fronting in (96). One may alternatively view the fronting as a copying of mà, while the real mà itself is left stranded with the verb. That it may indeed be a simple analogical copying process before a fronted nominal is also suggested by the fact that the copied mà takes the independent pronouns set as shown in (b) and (d). Normally, mà takes the accusative set of pronouns (see discussion of (89) in section 5.1.8.2). Note that the true mà does not need to be backed by a primary verb in order to take the accusative pronouns set. It does so even when it occurs alone. Thus, after yi 'do' deletion, one gets: yaa matà aikìi 'he worked for her', and not yaa mà ita aikìi. Both the "double" mà marking and the occurrence of the independent pronouns before the copied mà point to the innovative but marginal aspect of the constructions in (96).

In conclusion, despite the data from peripheral dialects such as those of Bauchi and Niamey, one can conclude nonetheless that Parsons' observations are accurate and that mà is, syntactically at least, inseparable from the verb. In the next subpart, we will see some arguments that suggest some difficulties for Parsons' conclusion, based on its syntax, that mà constitutes one word with the verb.

5.1.9.2 mà as a prosodically free preposition (Newman 1982, 1991)

Newman is almost the only Hausaist who has consistently rejected the idea that mà is a verbal suffix. As seen above, while his attempt at weakening the significance of the syntactic behaviors of mà is inconclusive, he does bring forth prosodic facts about mà which clearly are discrepant with its syntactic patterns.

5.1.9.2.1 Leben's 1971 tone raising rule

Newman (1982) makes the observation that mà for example, does not prevent Leben's tone raising rule from applying. According to the rule, a succession of final Low-Low tone is raised to Low-High if the final vowel is long. If mà were part of the verb, then a vowel on the verb stem should not raise. But it does, as seen in the following example (from Newman 1982, with structure gloss added):

- (97) a. *karàntàa wà màcè ===> karàntaa wà màcè
read-I-VN IX woman
'read to the woman'

Thus, if mà was a suffix, then the long vowel would not have been final and its tone would have remained low. But the tone is raised and, consequently, the long vowel is final and mà is not a suffix. Also, when mà ends in a low tone long vowel and that the verb also ends in a low vowel, the long vowel on mà does not raise. This is illustrated below:

- (98) sun aikàa màa/ *maa Abdù wàsiiKàa.
3p.PERF send-I-VN IX/ IX-VN Abdu letter
'They sent a letter to Indo Abdu.'

màa is an informal variant of mà (see also Bature 1990). Here, the low tone should have raised by Leben's rule if màa was part of the verb. The facts clearly show that mà is not bound to the verb as hypothesized by Parsons and others. ⁵

5.1.9.2.2 Imperative formation (Bature 1991)

Bature (1990, 1991:169-170), while arguing for mà as a clitic, and not an affix, shows that mà does not constitute one word with the verb as far as the imperative tone pattern assignment is concerned. If no nominal argument follows, the regular Hausa imperative assigns a low tone to all syllables of a verb, except the last syllable, which is high. Thus, one has rufikè 'close and come', but rùfikee! 'close (before coming here)!'. When mà follows a verb in the imperative, the last high tone of the imperative appears on the last syllable of the verb, not on mà. Thus, one has rùbùutaa mà Abdù wàsiiKàa! 'write a letter to Abdu!', and not

*rùbùutàa ma Abdù wàsiiKàa. Because of this failure of mà to get the last high tone, Bature concluded, rather like Newman, that mà is a clitic, and is not bound to the verb.⁶

5.1.9.2.3 Maradi contour tone simplification

Another prosodic feature of mà concerns what Newman (1991) calls the Maradi contour tone simplification rule. In this optional rule, a falling tone can be simplified to low if it occurs word initially (the restriction given by Newman, that the falling tone should occur on monosyllabic words, is inaccurate). This rule is illustrated below:

- (99) a. Abdù yaa kai kānshì/ kānshì
Abdu ms.PERF bring REFLEX/ REFLEX
'Abdu took himself (somewhere).
- b. dà kānshì/ *kānshi ya zoo.
with REFLEX/ REFLEX 3ms.REL PERF come
"He came by himself.' or 'He (the governor) came himself.'
- c. raanâi/ *raanâi
day-DEF/ day-DEF
'The day in question.'

in sentence (a), kānshì (a reflexive marker here) is a free word and begins with a falling tone. When preceded by a high tone, as in (a), the falling tone can optionally simplify to low. But the simplification is impossible if the last tone on the preceding word is low, as seen in sentence (b). Also, the rule is restricted to word initial falling, and thus, it does not apply if the triggering high tone is on the same word as the falling tone. This can be seen in (c). The relevant fact here is that when mà, by unrelated phonological processes, ends up with falling tone, it is subjected to the optional simplification rule. This is illustrated below:

- (100) a. naa gayàa māa/ *màa zancee.
1s.PERF tell-I-VN IX-2ms/ IX-2ms matter
'I told you the matter.'
- b. naa aikoo māa/ màa takàrdaa.
1s.PERF send-VI-VN IX-2ms/ IX-2ms letter
'I sent you the letter.'

In the sentences above, māa is, according to Newman, the contracted form from makà 'to you (masc.)' In sentence (a) it is preceded by a low tone and the falling tone cannot be simplified. In sentence (b), māa is preceded by a high tone and the rule can apply. If one compare (100b) with (99c), then it is evident that aikoo māa 'send-VI IX-2ms' is not one word like raanâi 'the day'. This is another indication that mà is not an affix on the verb.

Newman's own conclusion was that mà may sometimes cliticize, but it should be conceived of as a free preposition like any other preposition in Hausa.

In conclusion, in Hausa literature, two views exist on the morphological status of mà, each based on a set of valid observations. The problem with the two sides of the debate is that the conclusions drawn are probably both wrong. One can take the two sets of facts to indicate that mà is indeed prosodically and morphologically a free word, but that it is in a tight syntagmatic bond with the verb as predicted by the nuclear cosubordination analysis. In RRG, nuclear cosubordination is the closest linkage into which two elements can enter, short of affixation. In this analysis, the sets of facts about mà are not inconsistent. They are in fact repeated over and over across languages with nuclear cosubordination, such as French or Barai.

Conclusion to section1

This section presented a new analysis of V+mà or gr9. It was shown that gr2, gr3, and gr7 do not need to borrow another grade or turn into a special destinative form to support mà. Instead, the verbs of these and other grades simply switch to a gerund form before mà. This analysis has many advantages over its alternatives: it is general, it is simple, and therefore, it is more likely to attain at some psychological reality, especially if compared to the elaborate grade borrowing schemes. Also, the RRG notion of nuclear cosubordination was shown to be very useful in Hausa grammar. Indeed V+mà complex was shown here to have the canonical properties of a nuclear cosubordination construction. The two verbs share their nuclear operators, they have one set of shared arguments with a unique pivot and a unique undergoer. The verbs are also so closely linked, and yet definitely two separate words, that, on their morphological relationship, Hausa investigators stood on two divergent conclusions. Next we turn to the second Hausa nuclear cosubordination structure, the grade 5.

5.2 GRADE 5

In Parsons' grade system, as well as for most leading Hausaists, gr5 is thought to be expressed by two separate morphemes, the causative -as and the particle dà. Because one of its marker, -as, is considered a suffix, gr5 is then naturally considered as a regular morpho-lexical grade. In this section, the possibility is explored that gr5 might be syntactically parallel to gr9 in that a primary verb enters in nuclear cosubordination with the verb dà. Just like with gr9 mà, the primary verb is turned into a gerund when it combines with gr5 dà. It will also be shown that dà is to be found cooccurring with all the other grades. So, the

version of gr5 presented here includes the traditional -ar dà forms (which in reality are only those gr5 forms based on gr2, gr3, and gr7 verbs), but also -àa dà (gr1-based), -ee dà (gr4-based), -oo dà (gr6-based) forms. Before the verb dà, gr1-type verbs are suffixed with -aa and no linker is added. On the other hand, in the same context, gr2 and gr3 verbs are suffixed with -aa, but in addition, they also take the linker -r (assimilating to /s/ or /d/).

The section proceeds as follows. Section 5.2.1 presents arguments in favor of the gerund analysis of the pre-dà form, and against the -as causative morpheme analysis. Section 5.2.2 --in accordance with Newman (1971)-- shows that the verb dà is different from the associative preposition dà, contrary to claims made in Gouffé (1962) and Caron (1987). In section 5.2.3, arguments are provided supporting the analysis of dà as an auxiliary verb. In section 5.2.4, the syntax of V+dà is explored; it is shown that the two verbs are in a strong syntagmatic bond, like V+mà. Section 5.2.5 deals with the semantics and the functions of gr5 dà. There is one remark to be made however. The facts about V+dà are much more fuzzy than those of gr9. Indeed, in the opinion of most scholars, gr5 is the most morphologically varied grade, both across dialects and dialect internally. So, the arguments will not always be as sharp as in the gr9 section. For example, one omnipresent factor to deal with is the fact that gr5 is essentially on the boundary between syntax and morphology, and it frequently shifts back and forth depending on the verb, the construction at hand, the dialect, etc. Also, to avoid confusion, and whenever necessary, the gr5 of Parsons' system will be referred to as the "original" gr5, or the "gr2-type" gr5 (in reference to the gerund analysis). The gr5 forms without the linker and based on gr1, gr4, and gr6 will be referred to as the "gr1-type" gr5. The combination of both types, whenever necessary, will be referred to as the "expanded" gr5.

5.2.1 THE PRIMARY VERB AS A GERUND

In this subsection, it is argued that Hausa does not have a causative morpheme -as. On the contrary, the -as termination can be analyzed as the gerundive nominalizer -aa plus the possessive linker -r. Therefore, the verbal form is simply a gerund.

First, the subsection explores the various factors which cooperated and lead to the deep-sitted acceptance of -as as a causative morpheme. Then the gr5 gerund form is shown to indeed behave like a normal gerund in being able to occur in environments where regular NPs occur. Finally, it is shown that one can derive not only -ar dà gr5 forms, but also gr5 forms based on gr1 (-aa dà), gr4 (-ee dà), and gr6 (-oo dà). This clearly sets the parallel between gr5 dà and gr9 mà, before which all grades occur, as seen in section 5.1.

5.2.1.1 The non-existence of a causative morpheme -as

Although most people take for granted the fact that -as is a unitary morpheme, there is some disagreement over its function. Depending on the author, -as is the causative marker (Gouffé 1962, Bagari 1977a), the "riddance" or "disposal" action marker (Parsons 1971-72), or even a sort of applicative marker (Frajzyngier 1985). Like most authors, I will refer to the old -as as the causative morpheme (even people who assign it another function still call it the "causative" morpheme, in quotes). Like other grades, gr5 is taken to be the result of a morphological derivation, not that of a syntactic derivation. So, it was never suspected that the gr5 forms could underlyingly be gr2 and gr3 verbs in their gerundive forms. Five factors, in my opinion, have contributed to the wide acceptance of the morpheme analysis of the "suffix" -as. These factors are reviewed in the following subparts.

5.2.1.1.1 -as as the Hausa morphological causative

The most compelling reason to think of -as as the causative morpheme is the fact that gr5, in a sort of accidental way (see section 5.2.5), is one of the constructions used to express the causative, as seen below:

- (101) a. taa ga wàsiiKàa/ ci tuwoo.
 3fs.PERF see-II letter/ eat food paste
 'She saw the letter/ ate the food paste.'
- b. taa ganar dà shi wàsiiKàa/ ciyar dà shi
 3fs.PERF see-VN-of V 3ms letter/ eat-VN-of V 3ms
 tuwoo.
 food paste

 'She showed him the letter/ fed him food paste'.

In sentence (a), we have two simple verbs with a pivot argument and an undergoer. In (b) however, we have the corresponding gr5 forms. Here, a third argument is added along with -as dà with a clear causative meaning. Because many Hausaists suspect that dà is only the associative preposition dà and less important than the suffix -as, it is all natural to think that the termination -as is the relevant causative morpheme. This view is most articulated and generalized for all gr5 forms in Gouffé (1962), Bagari (1977a), and Caron (1987). Both Bagari (1977) and Caron (1987), along the lines of the typological works on the subject, distinguish two types of causativization for Hausa. One type is the "periphrastic" causative which is built with the verb sâa 'put', and which expresses indirect causation. In this type of causation, the causee is induced (verbally for example) to perform some action (cf. taa sâa Abdù wankè mootàa 'she made Abdu wash the car'). The second type of causative is,

according to Bagari and Caron, the gr5, which is a "morphological" causative and expresses the notion of direct causation, as exemplified in (101) above. Grade 5 then would be comparable to English -en suffix, as in 'enlighten' or 'sharpen'. This however is inaccurate, and formally, gr5 compares more with the French faire+V causative, which is a syntactic construction *but* with the two verbs in a tight syntagmatic bond and acting as one predicate (cf. also Comrie 1985:331 on this point). The real morphological causative in Hausa is none but gr1, when it contrasts with intransitive gr3 verbs for example (cf. gr3 cìka 'become full' and gr1 cikà 'fill up (s.th.)', see section 5.2.5 below). In this work, as one can see in the structure glosses, gr5 is analyzed as a syntactic derivation, the verbs in (101) are gr2 gerunds suffixed with the possessive linker -t in cosubordination with the verb dà, the real marker for gr5.

5.2.1.1.2 The alternate B-form in -(s)shee

The second factor reinforcing the idea of -as as a unitary morpheme is the fact that gr5 has an alternate B-form in -(s)shee, in addition to the regular form ending in -ar dà. This is illustrated below:

- (102) a. taa karantar dà suu.
 3fs.PERF read-III-VN-of V 3p
 'She taught them.'
- b. taa karantasshee sù.
 3fs.PERF read-?-VN 3p
 'She taught them.'

Sentences (a-b) are equivalent and can occur with the same speaker. Early investigators analyzed -(s)shee as the full, unitary causative morpheme, of which -as is only a reduced form (Bargery 1934, in Newman 1973). Later authors however (Parsons 1962, Newman 1973, Gouffé 1988), considered -(s)shee to be made up of the suffix -as added with the gr2 alternate B-form termination -ee (gr2 itself has two B-forms, cf. jèefee shì and jèefas shi, both 'throw at him'). So, the prevalent idea today is that -(s)shee is bimorphemic. As far as I am aware, there is no principled explanation on why only gr5 and gr2 should share the -ee alternate B-form marker. Newman (1973:311) for example, claims that -ee is a pre-pronoun marker. But this only states the observable and does not explain the restriction to gr2 and gr5. For Gouffé (1988), the use of -ee is imported --by analogy-- from gr2 to gr5. Again, in this hypothesis too, gr5 would inexplicably be the only grade subject to the analogy.

In the gerund analysis of gr5 developed here, some gr5 forms are gr2 gerund forms in cosubordination with dà. Because a cosubordination structure is at the frontier of syntax

and morphology, some of the gr2-based gr5 forms are conflated and reanalyzed morphologically as gr2 verbs again. In most dialects, only the B-form of the reanalyzed verbs is extant. However, from the dialect of Guddiri, Bagari (1977a) reports what may very likely be the missing C-forms of the reanalyzed verbs. To illustrate the reanalysis, let's examine the evolution of sàyi 'buy' from gr2 to gr5 and back to gr2 again. Most Hausa dialects have (at least) the regular gr2 sàyi 'buy', the regular gr5 sayar dà 'sell', and the gr5 form in -(s)shee. This is illustrated below (adapted from Bagari 1977:5, except 103c):

- (103) a. yâu naa **sàyi** kaayaa dà wuri.
today 1s.PERF buy-II stuff early
'Today I bought my shopping early.'
- b. yâu naa **sàyee** sù dà wuri.
today 1s.PERF buy-II-VN 3p early
'Today I bought them early.'
- c. yâu naa **sàyàs** su dà wuri.
today 1s.PERF buy-II-VN-of 3p early
'Today I bought them early.'
- (104) a. yâu naa **sayar** dà suu dà wuri.
today 1s.PERF sell-II-VN-of V 3p early
'Today I sold them early.'
- b. yâu naa **saishee** sù dà wuri.
today 1s.PERF sell-II-VN 3p early
'Today I sold them early.'

In (103a), the regular C-form of gr2 sàyi appears, followed by a noun argument. In (103b), we have the most common B-form sàyee, with the -ee suffix. (103c) presents the second, less frequent gr2 B-form alternate sàyàs. In (104a), the regular gr5 appears, where sayar is the gr2 gerund plus the linker and followed by dà. The reanalyzed form is in (104b). The claim here is that saishee in (104b) is a gr2 B-form parallel to sàyee in (103b). The two forms have different meanings though, because saishee in (104b) is still carrying the gr5 semantics, although it is now a gr2 verb. The gr5 semantics can be considered as totally incorporated and a basic lexical feature of saishee. As said above, for Katsinanci and most dialects, saishee 'sell' is the only syntactic Form available. For Guddiranci on the other hand, Bagari (1977:5) cites the following forms (which he analyzes as remnants of the old - class verbs of Proto-Chadic, not the modern gr2; transcription, gloss, and morpheme boundaries are from original):

- (105) a. yau naa **sai-s-i** kaayaanaa da wuri
 today I-comp. **buy-cause** goods-my with earliness
 'Today I have sold my goods early'
- b. naa **sai-sh-ee** su da wuri
 I-comp. **buy-cause** them with earliness
 'I sold them early'
- c. wannan nee riiga-r da Audu ya **sai-s-ii** (maka)
 this cop. shirt-the rel. Audu he-comp. **buy-cause** ([to]-you)
 'Is this the shirt that Audu sold you?'

Sentences (a) and (c) respectively show that the reanalyzed C-form saisi and A-form saisii do exist. Sentence (b) shows the reanalyzed B-form which is the only form to be shared with other dialects. Guddiranci then has the full range of the syntactic Forms for the reanalyzed gr2 verb.⁷ Actually this is not the whole story about the reanalysis. In the western dialects, gr5 sayar dà is reanalyzed not as a gr2, but as a gr1, from which a gr6 and a gr7 form can be obtained as well. This is illustrated below:

- (106) a. yâu naa **saidà** kaayaanaa dà wuri.
 today 1s.PERF **sell-I** stuff early
 'Today I sold my shopping early.'
- b. yâu naa **saidoo** kaayaanaa dà wuri.
 today 1s.PERF **sell-VI** stuff early
 'Today I sold my shopping early (+come).'
- c. kaayaa sun **sàidu.**
 goods 3p **sell-VII**
 'The merchandize is sold.'

It is clear now that the so-called gr5 -(s)shee form is only a gr2 form. Furthermore, it is only one of many forms derived from the reanalysis of the gr5 cosubordination structure. So, it is not an isolated import as suggested in Gouffé (1988), but part of an overall pattern of reanalyses. Note that if one should synthesize all the forms related to the verb sàyi 'buy', then one can see that this verb operate most of the grades twice, as a simple and as a reanalyzed form. This is summarized below (only the C-forms are given):

- | | | |
|-------|----------------------|---|
| (107) | simple forms: | reanalyzed forms (from gr5 <u>sayar dà</u>): |
| gr1: | sayâa (mà) 'buy for' | saidà 'sell' (or saisà --Caron 1987) |
| gr2: | sàyi 'buy' | saisi 'sell' |
| gr4: | sayè 'buy up' | (*saidè) |
| gr6: | sayoo 'buy + come' | saidoo 'sell + come' |
| gr7: | sàyu 'be bought' | sàidu 'be sold' |

Most reanalyzed verbs do not undergo gr5 derivation again, but the phenomenon is not unattested. Thus, Gouffé (1962) cites the forms ciisad dà 'feed' and maisad dà 'return (s.th.)'. These forms are gr5 forms of verbs already having the gr5 semantics, and are referred to by Parsons (1962:265) as the "decausative causatives" or "double causatives" (borrowing a terminology from Gouffé). The basic verb for 'eat' is ci, an irregular form. The regular gr5 form is ciyar dà 'feed', which can be contracted to cii dà (in Standard Hausa) or reanalyzed as gr1 ciidà or gr2 ciishee 'feed', in western dialects. It is this reanalyzed gr2 form ciishee which undergoes gr5 derivation again, ciisar dà 'feed'. The non-gr5 form related to the verb 'return' is gr1 mayà and means 'repeat (action)'. Its regular gr5 is mayar dà 'return (s.th.)' and can be reanalyzed as gr1 maidà or gr2 maishee 'return (s.th.)'. Here, both the gr1 and the gr2 forms can each undergo gr5 one more time: gr1 maidar dà 'return (s.th.)' (Newman 1973:318), and gr2 maisar dà 'return (s.th.)'. Other possible double gr5 forms are ?fisar dà 'take out', gaisar dà 'greet'. The double derivation is very limited and does not apply in most cases: *saidar dà, *saidàa dà, ?saisar dà, *saidoo dà (all 'sell'), etc. Also, the phenomenon mostly characterizes the western dialects.

5.2.1.1.3 Grade 5 as a secondary grade

The third factor in the conception of -as as the causative morpheme is the hypothesis of Parsons that gr5, along with gr4, is a secondary grade as opposed to the primary grades (gr1, gr2, gr3) and the tertiary grades (gr6, gr7). This relatively privileged ranking somehow reinforced the "basicness" of the gr5 morphology. For Parsons, evidence that gr5 is a secondary grade includes the fact that it operates gr6. This is illustrated below:

- (108) a. yaa fitoo dà agalèemii.
 3ms.PERF get.out-VI-VN V skin.mat
 'He came out with a skin mat.' or 'he put out (here) a skin mat.'
- b. yaa fiddoo agalèemii.
 3ms.PERF get.out-VI skin.mat
 'He put out (here) a skin mat.'
- (cf.)
- c. yaa fiddà agalèemii
 3ms.PERF get.out-I skin.mat
 'He put out a skin mat.'

Sentence (a), presents the regular gr5 operating the "lower" ranked gr6. In sentence (b) we have the reanalyzed form found in western dialects. This is analyzed by Gouffé (1962) as having incorporated the gr5 dà into the verb stem and then operating gr6. Thus, in both sentences (a-b), gr5 is given prominence as the basic stem. Consider however the sentence

in (c). There it seems that gr5, a secondary grade, is operating gr1, a primary grade. This is a blatant violation of Parsons hierarchical constraints, which bar a lower ranked grade from inputting a higher ranked grade. This ability of gr5 to input gr1 shows that it is not a morpholexical grade at all. It is a syntactic construction which can conflate and, *only then*, can it infiltrate the grade system, just as denominal or borrowed English verbs do. The verb fiddà in (c) is then a genuine gr1 verb, which can also operate gr6, as seen in (108b) (and also gr7, see Gouffé 1962). The evolution from fitar dà to fiddoo is schematized below:

- (109) a. 1: fita 'go out' ==> 2: fitar dà 'take out' ==> 3: fit dà 'take out'
 ==> 4: fiddà ==> 'take out' ==> 5: fiddoo 'bring out'

So, a gr5 construction becomes a real morpholexical grade only at the step '4' in (109) above. But then, the verb is no longer a gr5, but a gr1, gr2, gr6, etc. It follows from this analysis that in sentence (108a), gr5 cannot be operating gr6. Rather, it is the reverse. The basic form is gr6 fitoo 'come out', which appears in cosubordination with gr5 dà, yielding fitoo dà 'bring out'. So, fitoo dà is a gr6-based gr5, not a gr5-based gr6.

5.2.1.1.4 Grade 5 as a "borrowed" grade

As seen in section 5.1, Parsons formulated the grade borrowing hypothesis, on the assumption that gr2, gr3, and gr7 cannot cooccur with gr9. In Parsons system, gr5 happens to be the most borrowed grade, and can replace each of gr2, gr3, or gr7 before mà. In this central function, the part of gr5 borrowed is only the main verb, for example, neemam+mà 'search for', not *neemar dà+mà. By such an analysis, Parsons is in effect suggesting that -as is the real gr5 marker, and this is doubtless another factor in its being considered as a genuine and unitary causative morpheme. However, we have also seen in section 5.1 how inaccurate the gr9 incompatibility assumption is for any grade.

5.2.1.1.5 Grade 5 dà as an accessory particle to causative -as

Finally, the fact that dà can be easily identified as the preposition dà has contributed to people's giving an exaggerated importance to -as. So, dà is viewed as a complementary or even an optional particle. Indeed, when no object is following, then gr5 dà can drop, and sometimes actually it is obligatorily dropped. This is illustrated below:

- (110) a. aikii yaa wahalar. (from Newman 1983)
 work 3ms.PERF tire-III-VN-of
 'The work has tired (someone).'

- b. gooròo, Abdù yaa jaafas (*dà/ dà shii).
 kolanuts Abdu 3ms.PERF throw.away-II-VN-of (V/ V 3ms
 'As for the kolanuts, Abdu has thrown them away.'
- c. Sulè, aikiì yaa wahalar *(dà shii)
 Sule work 3ms.PERF tire-III-VN-of V 3ms
 'The work has tired (someone).'

In sentence (a), a human patient is understood and dà would indeed be ungrammatical there. Similarly in (b) with the theme/ patient left dislocated, it is not ordinarily possible to have dà alone realized, unless there is a copy pronoun. In sentence (c) however, with a human left dislocated argument, dà+pronoun is now obligatory but still, dà cannot appear alone (more generally, left dislocated nominals referring to humans need a copy pronoun, which in turn needs dà). Although this optionality of gr5 dà distinguishes it from the real preposition dà (which is not optional), the facts in (a-b) above may suggest that dà is not the critical element to express the gr5 meaning. This of course reinforces -as as the main gr5 marker.

In reality, if one turns to historical and comparative evidence, then gr5 dà can be found cognates in other Chadic languages, but not the causative -as. In fact all of the grade system's morphemes -- but except -as -- can be related to markers in other Chadic languages. For example, Newman (1983) shows that gr5 dà is the reflex of an old directional "efferential" morpheme *d, which indicates "action away". Many present-day Chadic languages exhibit a similar morpheme. Thus Karekare has the tranzitivizer -t- as in nzàBu 'fall', nzàBtu 'throw down'; nzàraa 'drip', nzàràatu 'pour away'. The Kapsigi dialect of Higi has a cognate -nte, which expresses action away among other functions, as seen in: fi 'rub', fimte 'rub off'; k_le 'take one thing', k_1_mte 'take away one thing'; pa 'buy', pamte 'sell'. The Margi language also has a cognate, -na, which marks action away, as in: ndàl 'throw', ndàlnà 'throw away'; D_1 'buy', Dèlnà 'sell'. As noticed in Frajzyngier (1985), many of the cognates of Newman's efferential *d have diversified their meaning and function. This is to be expected and does not invalidate the reconstruction. In Hausa itself, as it will be seen in section 5.2.5, the main functions of gr5 da include "action away", "performative", and causative marker.⁸

As for gr1 and gr2 markers, they have been linked to an old Proto-Chadic contrast involving two phonological classes of verbs: the -a verbs and the - verbs (Newman 1973:329, Wolff 1984). In Hausa, the classes are somewhat deluted, but it is generally thought that gr1 and (probably) gr3 derive from the -a class and gr2 from the - class. In other Chadic languages the classes are still strongly contrasting. Grade 4 -(ny)ee has been linked to the proto-Chadic totality extension -anya, which still occurs in few other languages (cf. Margi: sà 'drink', sànyà 'drink up' (Newman 1977:275), and Hausa shâa 'drink', shânye

'drink up'). Grade 6 -oo/ -woo derives, according to Newman (1977:277), from the proto-Chadic "distant" extension *(a)wa, which in many present-day Chadic languages marks the ventive or action "toward the speaker". Grade 8 -ik (Newman 1977:278n) and gr7 -u (Jaggar 1988:405) have both been linked to the proto-Chadic completive/ perfective marker *kwo. In many Chadic languages, it simply marks the perfect aspect (Gwandara and Bolanci both have a morpheme -wo, Karekare has -ko, etc). Finally, Newman (1982) shows that gr9 mà is related to the possessive pronoun marker in other Chadic languages. Thus, in Kanakuru 'mine' is mono, in Sura it is m na; all forms that are clearly cognate to Hausa mani 'to me'. Hausa here has innovated --not by creating a new morpheme-- but by reanalyzing the possessive marker as an applied marker (or indirect object marker, in Newman's terminology).

When one turns to the probable origin of -as, one finds no cognates or proto-form proposed. Actually, Newman (1983) gives -as as a morpheme of an obscur origin. The only proposed origin for -as is Hausa-internal and is put forth in Frajzyngier (1985). According to Frajzyngier, some Chadic languages have a "valence increasing" morpheme which is used in applicative (=his "benefactive") constructions and in causative constructions. According to Frajzyngier, in all Chadic languages which mark valence increase, the morpheme is identical to the 3rd person singular pronoun. He adduced the following table as evidence:

(111)	languages	benefactive	causative	3s pronoun
Bolanci		-in	t	taa
Pero		-n	-n	ni
Kanakuru			-nu	-n(i)
Ngizim		-d, -naa	-d, -naa	da (subj)
Ga'anda		-an-	-an-	-an-
Higi			-na	
Bachama			-d	ndu
Masa		ta	ta	ta
Hausa		-s	-s	sV (cf. shii)

Based on this apparently compelling data, Frajzyngier claims in essence that there is a principle in the Chadic family where the 3rd person pronoun marker is also used to mark the addition of a new argument to a verb (note that Chadic languages usually do not have agreement markers referring to arguments other than the pivot, so, the forms in the above table are not agreement markers). There are at least two problems with Frajzyngier's proposal.

First, according to Frajzyngier himself, the Hausa 3rd person singular shii (or sV above) is *not* related to the corresponding pronoun in the languages in (111). Despite this gap,

Hausa, like the other languages, would still use its pronoun as a valence increasing morpheme. So, presumably, the use of the pronoun as a valence increase marker proceeds from some general linguistic tendency, not from a formal resemblance or a historical connection in a language family. Frajzyngier almost agrees to this when he said that the use of the pronoun is a "natural way to add an argument" (p.35). But we know for example that Bantu languages use their oblique marker as an applied nominal marker, not a pronoun. It follows from this that any language taken in isolation may or may not use its pronoun as a valence increase marker, and the evidence to one or the other way should be provided language-internally, not on comparative ground alone.

In Hausa, Frajzyngier' valence increasing morpheme is -as, which is added in gr2, gr3, and gr7 before mà (mà in Frajzyngier's perspective adds a "benefactive" argument), and in gr5 (which also adds a new argument "causer" to the verb). The problem with specifying -as as a valence increasing morpheme is that there are numerous verbs with transitive and intransitive forms, but which never add -as. Thus, most intransitive gr3 verbs do not have -as when they become transitive in gr1 (cf. tùuluu yaa cìka 'the pot filled up', and taa cikà tùuluu 'she filled up the pot'). All gr1 intransitive verbs changing to gr1 transitive verbs also do not add -as (cf. taa mootsàa 'she moved', and taa mootsà miyàa 'she stirred the soup'). Similarly, all the intransitive exclusive gr4 verbs do not use -as when they become transitive (cf. kacàa taa Kagèe 'the bike chain jammed', and taa Kagè kwàDDoo 'she engaged the lock'). Also, when one turns to gr9 itself, one realizes that although it adds an argument with all grades, it is only with gr2, gr3, and gr7 that mà requires the valence increasing -as. Frajzyngier does not satisfactorilly explain all these anomalies. Finally, there are many gr5 verbs --where -as appears-- which simply do not have an additional argument compared to the input form. Thus, in taa jeefà duutsèe ruwaa 'she threw a stone in the water', the verb has an effector, an theme and a locative arguments. The corresponding gr5 with -as, taa jeefar dà duutsèe 'she threw the stone away', has only an effector and a theme specified. Strictly speaking, with jeefà 'throw' as well as numerous other projective applicative class verbs, the case can be argued that -as is a valence decreasing morpheme. Indeed, in gr1, jeefà requires the locative argument, but not jeefar, in gr5. In sum, it is only only with gr9 mà and with true causative gr5 forms (cf. taa ga takàrdaa 'she saw the letter', and taa gaanar dà shii takàrdaa 'she showed him the letter') that -as can have a valence increasing function. But clearly, one cannot generalize this function to the majority of its occurrences.

The second problem with Frajzyngier' hypothesis is that of the over 150 Chadic languages, only the ones listed in (111) use their pronoun to mark valence increase (all other Chadic languages, according to Frajzyngier, simply lack a valence marker). Assuming that in these languages the valence increase marker is truly such (that is, it is not like the Hausa

-as), the resemblance can still be due to some accidental coincidence, not to a linguistic tendency (say if the two proto-form of the valence marker and that of the 3rd person pronoun happened to be similar and evolved similarly in the languages listed above).

In conclusion, one should reject the causative analysis of gr5 -as. In this work, gr5 is a syntactic construction where a primary verb enters in nuclear cosubordination with the real gr5 marker, the verb (or auxiliary) dà. In this cosubordination, the primary verb is turned into a gerund. The "morpheme" -as is only the result of the affixation of the nominalizer -aa and the linker -t (<*-t). The linker -t can assimilate to /s/, /m/, or /d/, depending on the following environment. Just like in gr9, the affixation of the linker --normally-- occurs only with gr2, gr3, and gr7 gerunds. Indeed, gr5 forms exist that do not take the linker (the purported causative -as) and which are based on gr1, gr4, and gr6 forms.

5.2.1.2 The gerund status of the pre-dà forms

Normally, derived morpholexical grades do not carry the morphology of their input grades. Exceptions to this are forms based on the gr8 -ik-, and the irregular gr6 -nyoo forms which still carry the gr4 marker -ny- (jaa 'pull', gr4 janyèe, and gr6 janyoo or jaayoo). So, in most cases, basic and derived grades are related only semantically, not morphologically. This is not the case for gr9 as we have seen, because most grades can be easily recognized when they cooccur with grade 9. This subpart claims that gr5 too actually carries the morphology of its underlying grades. One can indeed show that the pre-dà form is the gerund of a gr1, gr2, gr3, gr4, or gr6 verb. This in effect expands the range of gr5 constructions to include so far unsuspected forms.

5.2.1.2.1 Grade 2- and grade 3-based HH-ar dà gr5 (=original gr5)

In section 5.1.4.2 the identity between gr2 gerunds in the continuous and gr2 pre-mà forms was established. It is claimed here that the original gr5 forms in HH-ar dà are also gr2, and gr3 gerunds. Indeed, only gr2, gr3, and gr7 have the type of gerund which takes the linker -t. But, as far as one can tell, no gr7 inputs gr5. So, presumably, all HH-ar dà forms are either gr2 or gr3. Examples of gr2 verbs in gr5 are illustrated below:

- (112) a. yanàa ciyar tuwoo.
3ms-CONT eat-II-VN-of paste
'he is eating food paste.'
- b. Indoo taa ciyar dà suu tuwoo.
Indo 3fs.PERF eat-II-VN-of V 3p paste
'Indo fed them some food paste.'

- (113) a. tanàa sanìn Abdù.
 3fs.PERF know-II-DN-of Abdu
 'She may well know Abdu.'
- b. taa sanar dà Abdù làabaarì.
 3fs.PERF know-II-VN-of V Abdu news
 'She informed Abdu about the news.'

In (112a), the gr2 verb contracted ci 'eat' appears in the continuous as a gerund complement of the predicate naa. In (112b), the same gerundive form occurs in cosubordination with gr5 dà. (113) exemplifies an irregular gr2 verbs. These irregular verbs no longer use their gerundive form in the continuous, where it is replaced by the derived nominal, here sanì 'knowledge', as in (113a). In (113b), the true gerund is used in cosubordination with dà, as it is with mà.

As seen in section 5.1.4.2, all gr3 verbs do not use their regular gerund forms in the continuous, instead, a DN form is used. An example of gr5 derivation from gr3 is as follow:

- (114) a. Aishà tanàa fitaa.
 Aishà 3fs-CONT get.out-III-DN
 'Aisha is going out (habitually).'
- b. Aishà taa fitar dà su Abdù.
 Aishà 3fs.PERF get.out-III-VN-of V 3p Abdu
 'Aisha got Abdu and others out.'

In sentence (a), the DN of the gr3 verb fita 'get out' appears in the continuous. The gerund form on the other hand can appear before dà, as it does before gr9 mà, as seen in sentence (b). In this analysis, all HH-ar dà gr5 forms should derive from gr2 or gr3. In Katsinacii and in the Standard dialect (but not in Adiranci), there are gr1 verbs which operate neither gr2 or gr3 but which take the HH-ar dà form. Also, some gr1 verbs do operate gr2, but their meaning in gr5 is closer to their meaning in gr1. These two cases are illustrate below:

- (115) a. Yaaròo yaa kwântaa/ kwantaa gado.
 child 3ms.PERF lie-I/ lie-I on.bed
 'The child went to bed.'
- b. Abdù yaa kwantar dà yaaròo gado.
 Abdu 3ms.PERF lie-VN-of V child on.bed
 'Abdu put the child to bed.'
- c. *yaaròo yaa kwânci gadoo.
 child 3ms.PERF lie-II bed
 'The child went to bed.'

- (116) a. Abdù yaa jeefà bùhun hatsii à mootàa.
 Abdu 3ms.PERF throw-I sack-of millet in car
 'Abdu threw a sack of millet in the truck.'
- b. Abdù yaa jèefi mootàa dà tùmmaatìr.
 Abdu 3ms.PERF throw.at-II car with tomatoes
 'Abdu threw at the car with tomatoes.'
- c. Abdù yaa jeefar dà bùhun hatsii.
 Abdu 3ms.PERF throw-VN-of V sack-of millet
 'Abdu threw off/ away the sack of millet.'

(115a) shows an intransitive gr1 verb, which does not operate gr2, as seen in (115c). However, in gr5, the verb assumes the HH-ar dà form (this verb also does not operate gr3). In (116), the verb operate both gr1, in (116a), and gr2, in (116b). In (116c), the gr5 form is HH-ar dà, but the meaning 'throw away' is closer to the meaning in gr1 ('throw somewhere') than to that in gr2 ('throw at'). My speculation here is that in most dialects of Hausa, the HH-ar dà has expanded its occurrences and appears with verbs of gr1 as well. In the next subpart, we will see that this expansion of HH-ar dà has not taken place in the Adiranci dialect, where gr1-based gr5 forms have the predicted HL-aa dà shape.

Another argument in favor of the gerund analysis of gr5 forms is the fact that a gr5 form can appear in environments where canonically a NP appears. This is illustrated below:

- (117) a. yaa bùgi Dan Indoo.
 3ms.PERF hit-II son-of Indo
 'He hit Indo's son.'
- b. bugar Dan Indoo nèe ya yi.
 hit-II-VN-of son-of Indo cop.m 3ms.REL PERF do
 'It is hitting Indo's son that he did.'
- c. bugar dà Dan Indoo nèe ya yi.
 hit-II-VN-of V son-of Indo cop.m 3ms.REL PERF do
 'It is beating up Indo's son that he did.'
- d. bà tà sooo ba [bugar] dà Dan
 NEG 3fs.PERF want NEG [hit-II-VN-of] V son-of
 Indo]n dà Abdù ya àrkaa.
 Indo]-DEF that Abdu 3ms.REL PERF engaged
 'She did not like the beating up of Indo's son that Audu engaged in.'

(a) shows the basic gr2 verb bùgi 'hit' which, when focus-fronted, assumes the gerundive form as seen in (b). Gade 5 can appear in focus fronting without any modification, as seen

in (c). Similarly, a gr5 form can be the head of a relative clause, as seen in (d). This result is consistent with a gerund analysis of the gr5 forms.

5.2.1.2.2 Grade 1-type grade 5 forms

As seen above, the original HH-ar dà gr5 constructions are based (normally) on gr2 and gr3 verbs. Although they are nowhere recognized as such, there exist gr5 forms which have HL-aa dà and HL-ee dà shapes. These forms, it is claimed here, are gr5 based on gr1 and gr4 respectively. Caron (1987) for example, claims that many HH-ar dà constructions in Standard Hausa correspond to HL-aa dà gr5 constructions in Adiranci. Caron identified the verbs involved as belonging to the projective applicative class, a class which includes the verb jeefà 'throw'. This verb is illustrated below:

- (118) a. Abdù yaa jeefà bùhun hatsii à mootàa.
Abdu 3ms.PERF throw-I sack-of millet in car
'Abdu threw a sack of millet in the truck.'
- b. Abdù yaa jeefaa dà bùhun hatsii.
Abdu 3ms.PERF throw-I-VN V sack-of millet
'Abdu threw off/ away the sack of millet.'
- c. Abdù yaa jeefar dà bùhun hatsii.
Abdu 3ms.PERF throw-VN-of V sack-of millet
'Abdu threw off/ away the sack of millet.'

In all dialects, 'throw into' is a gr1 verb, jeefà, as seen in (a). In Adiranci, the gr5 of this verb, meaning 'throw away/ off', is jeefaa dà, as seen in (b). This is indeed the regular and expected gr5 construction based on a gr1 verb. Because Caron too takes -as as the causative marker, and dà as a simple preposition, he labelled the form in (b) as a "prepositional causative". Such label in our analysis is unnecessary. Note that (b) expresses, not the causative, but "action away" only. In dialects other than Adiranci, the gr5 of jeefà is jeefar dà, as seen in (c).

In Katsinanci and Standard Hausa too, there exist some gr1 verbs which singularly can appear with what so far has been considered to be the associative preposition dà. This is illustrated below:

- (119) a. Indoo taa juuyàa dà kéekee.
Indo 3fs.PERF turn.over-I-VN V bike
'Indo turned over the bike.'
- b. Indoo taa aikàa dà gooròo à Maraadi.
Indo 3fs.PERF send-I-VN V kolanuts in Maradi
'Indo sent kolanuts in Maradi.'

- c. gùsaa dà shii can!
move-I-VN V 3ms there.invisible
'Move it away!'

As seen above, gr1 juuyà 'turn s.th.', aikà 'send', gusà 'push', and probably a few other verbs, can take dà. If one analyzes dà in above as the preposition (as most people do), the sentence would not make much sense. In sentence (b) for example, the referent of the theme goorò 'kolanuts' could have been sent by mail, so, it does not have any comitative meaning (in (119b) for example, only goorò is theme, the argument moved, and nothing else). On the other hand, the efferential meaning is readily observable.

The facts above, and those relative to gr6-based gr5 forms in (108), do point out to the possibility that gr5 dà, like mà, can cooccur with a number of grades. Thus, one can suggest the following paradigm as a way of summarizing:

- (120) a. gr1+gr5: aikà 'send' => aikàa dà 'send away'
b. gr2+gr5: sanìi 'know' => sanar dà 'inform'
c. gr3+gr5: kàrantà 'be well read' => karantar dà 'teach'
d. gr4+gr5: wucèe 'pass' => wucèe dà 'carry in/ out'
e. gr6+gr5: fitoo 'come out' => fitoo dà 'bring out'
f. gr7+gr5: wànzú 'remain over' => wanzar dà 'make last long'

The parallel with the verbal forms before mà is quite well established. For gr1-type verbs, the suffix -aa is added to the verb, just as in the perfect A-form. For gr2-type verbs, the linker -r is added to the -aa suffix. This is one sign of a nuclear cosubordination structure.

5.2.2 GRADE 5 dà AS A VERB, NOT A PREPOSITION

In this subpart, arguments are presented showing that dà is not a preposition-like particle. Newman 1977 already has proposed that dà is the reflex of a Proto-Chadic efferential marker *d̥. This extension is called efferential by Newman because it seems to add the meaning of action away to verbs (see section 5.2.5). Hausa-internally too, there is evidence for distinguishing gr5 dà from the preposition dà. These arguments are reviewed next.

5.2.2.1 Difference in NP focus

Most prepositions in Hausa can pied-pipe in NP focus fronting. This is the case for the associative dà, the locatives gà 'against, on', à 'at', dàgà 'from', bisà 'on top', etc. In contrast, gr5 dà never pied-pipes. These points are illustrated below:

- (121) a. dà Audù nee mukà fita.
 with Audu cop.m 1p-REL PERF go.out-III
 'It is with Audu that we went out.'
- b. *dà bùhuu nèe mukà fitar.
 V sack cop.m 1p-REL PERF go.out-VN-of
 'It is the sack that we took out.'

In sentence (a), the associative dà can clearly follow the fronted nominal. Grade 5 dà however cannot be fronted, as seen in (b). A human referent as well as an inanimate referent nominal can go in either sentences without affecting the grammaticality.

If they do not pied-pipe, prepositions can be left in situ but with an obligatory pronoun copy. The gr5 dà takes such pronominal copy very marginally with focus fronting (but such copies are fine in left dislocation constructions with gr5 dà). This is illustrated below:

- (122) a. Audù nee mukà fita dà shii.
 Audu cop.m 1p-REL PERF go.out-III with 3ms
 'It is with Audu that we went out.'
- b. ?bùhuu nèe mukà fitar dà shii.
 sack cop.m 1p-REL PERF go.out-VN-of V 3ms
 'It is the sack that we took out.'

Sentence (a) is perfectly fine while the gr5 sentence in (b) is marginal. In casual conversation most people may accept it, but few would produce it. Again, animacy here would not change the grammaticality of the sentences. Notice that one point the preposition dà and the gr5 dà have in common is that they both do not take the accusative pronouns set, instead they require the independent set.

Also, and contrary to the preposition dà, gr5 dà can be stranded or dropped. Most of the time, instead of using a pronominal copy as in (122b), speakers would rather strand the gr5 dà or leave it out altogether. The associative dà cannot be stranded or dropped. This is illustrated below:

- (123) a. *Audù nee mukà fita dà.
 Audu cop.m 1p-REL PERF go.out-III with
 'It is with Audu that we went out.'
- b. *Audù nee mukà fita.
 Audu cop.m 1p-REL PERF go.out-III
 'It is with Audu that we went out.'
- (124) a. bùhuu nèe mukà fitar dàa.
 sack cop.m 1p-REL PERF go.out-VN-of V
 'It is the sack that we took out.'

- b. bùhuu nèe mukà fitar.
sack cop.m 1p-REL PERF go.out-VN-of
'It is the sack that we took out.'
- c. wai wani sarkii nèe akà fitar (?dàa).
EVID some.m emir cop.m IMP-REL PERF go.out-VN-of (V)
'Apparently it is some emir that was forced out.'

In sentences (123a-b), the preposition dà can neither strand nor be left out. The gr5 marker on the other hand is most natural if stranded or left out as seen in (124c-d) respectively. When the fronted undergoer is human, leaving out the gr5 marker is strongly preferred, as seen in (124c).

5.2.2.2 Difference in incorporation abilities

As seen in section 5.2.1.1.2, western Hausa has conflated short gr5 forms (reanalyzed gr1) which exist along side regular ones. The reanalyzed forms are generally thought to be the result of the incorporation of gr5 dà into the short verbal stem. As far as I am aware, there is no case where the associative dà would be incorporated into a verb, with the resulting form alternating with a non-incorporated form. This point is relevant because there are verbs in Hausa which obligatorily takes the preposition dà if followed by an NP. This is illustrated below:

- (125) a. Abdù yaa tunàa dà lookàcin dà yakè
Abdu 3ms.PERF remember-I with time that 3ms-REL.be
Dan Kàraminshì.
little small-of-3ms
'Abdu remembered the time he was a tiny little boy.'
- b. *Abdù yaa tundà lookàcin dà yakè
Abdu 3ms.PERF remember-with-I time that 3ms-REL.be
Dan Kàraminshì.
little small-of-3ms
'Abdu remembered the time he was a tiny little boy.'
- (126) a. Abdù yaa karàa dà suu.
Abdu 3ms.PERF clash-I with 3p
'Abdu clashed with them.'

- b. *Abdù yaa kardà su.
 Abdu 3ms.PERF clash.with-I 3p
 'Abdu clashed with them.'

In sentences (a) examples are given of verbs that always appear with the associative dà if they are followed by an argument. The (b) sentences show that the preposition dà cannot be incorporated into the verb. Other verbs patterning like those in (125-126) above are: gaanàa dà 'meet with' (*gaddà); san dà 'be aware of', (*saddà), etc. This behavior of the preposition dà contrasts with that of gr5 dà. As seen in section 5.2.1.1.2 above, gr5 dà can be incorporated to yield a gr1 or a gr2 verb. In many dialects, the incorporated form and the non-incorporated ones alternate freely, as seen below:

- (127) a. Bàlki taa fitar dà tùuluu.
 Balki 3fs.PERF get.out-III-VN-of V pot
 'Balki took out the water pot.'
- b. Bàlki taa fiddà tùuluu.
 Balki 3fs.PERF get.out-I pot
 'Balki took out the water pot.'

Finally, as reported in Newman (1977:279n7), the two dà's differ in their ability to "block" the complex suffix -waa on the primary verb in the continuous aspect. With gr5 dà, the suffix is impossible, while it is obligatory with the associative dà. This is illustrated below (from Newman 1977):

- (128) a. yanàa fitoo dà kaayaa.
 3ms-CONT get.out-VI-VN V loads
 'He is bringing out the loads.'
- b. yanàa fitôowaa dà kaayaa.
 3ms-CONT get.out-VI-VN with loads
 'He is coming out with the loads.'

In sentence (a) above, the gr5 dà appears without -waa on the verb fitoo 'get out'. The sentence describes a situation where someone is busy repetitively taking out loads. In (b), the associative dà appears with the -waa. Here, the sentence describes a situation where someone walked out, but also carrying something with him.

In view of the facts presented above, it is clear that gr5 dà is different from the preposition dà. Because of their phonological identity, they have been identified as same by many authors (Gouffé, Bagari, Caron). However, as argued in Newman (1971) and shown here, gr5 dà and the preposition dà are different particles. Because -as is nothing else but the

nominalizer -aa plus the linker -r, gr5 dà can be considered as the specific marker of gr5. In the following subsections, we will see that the complex V+dà displays the properties typical of nuclear cosubordinations. Thus, the two verbs share the nuclear operators and are syntagmatically in a close-nit relation.

5.2.3 POOLING OF NUCLEAR OPERATORS: CONTINUOUS A-FORM

As seen in section 5.1 with gr9 mà, when two verbs are in cosubordination, they form a complex nucleus to which nuclear operators apply. So, the operators may not be marked on the primary verb. However, the aspect operator is marked separate from the verb, so, it can only be seen on the verb in an indirect fashion, through the syntactic Forms inflection. Overall, the facts support the cosubordination analysis, and show that when dà is present, it gets the Forms inflection, not the primary verb.

In the continuous, and when no direct object is following, one gets the situation where gr5 morphology is the most intricate. There are then many ways to realize the resulting gerund, depending on the speaker, the dialect, and the verb considered. Here are some of my judgements on gr5 continuous A-form:

- (129) jeefar dà 'throw away':
 - a. jeefaswàa (or jeefawwàa, or jeefarwàa)
 - b. jeefâswaa (or jeefâwwaa, or jeefârwa)
 - c. jeefassuwàa
 - d. jeefassùwaa
 - e. jeefad dàawaa (or jeefar dàawaa)

- (130) karantar dà 'teach':
 - a. karantawwàa (or karantawwàa, or karantarwàa)
 - b. karantâswaa (or karantâwwaa, or karantârwa)
 - c. karantassuwàa
 - d. karantassùwaa
 - e. karantad dàawaa (karantar dàawaa)

(129-130) above shows the freely alternate forms for the gr5 verbs jeefar dà 'throw away' and karantar dà 'teach'. Any of the forms (a-e) in (129-130) can occur in the continuous if the nominal following dà is fronted, such as in: yâara (nèe) takèe karantassùwaa 'it is the children she is teaching'. The forms in (a-b) apparently do not contain the verb dà. They seem to be suffixed directly with the nominalizer - waa (which shows that with the forms above, -waa is indeed taken as the nominalizer, however, we will see in chapter 6 that the real nominalizer is -aa only). Various assimilations are also taking place as indicated. In (c-d), dà is probably incorporated and assimilated to /s/, hence the gemination. Note that a high tone vs. falling tone contrast is involved on the second syllable of (a-b) and a high tone vs.

low tone contrast on the third and fourth syllables of (c-d). In both cases, the low tone may be that of the incorporated verb dà (falling tone in Hausa is derived from the conflation of H+L). Probably the forms in (a-d) in both (129-130) are morphological and constitute one word. They contrast with the form in (e) in both (129-130), where the primary verb and the verb dà are still separate (for a detailed discussion of the conflated gerunds in Adiranci, see Caron 1987).

The critical point here is that the A-form marking shows up on the verb dà. The double -aa suffixation cannot come on the primary verb if dà is retained. This is illustrated below:

- (131) a. yâara takèe karantarwàa/ karantar dàawaa/ *karantarwàa dà.
 children 3fs.REL CONT teach-V-VN
 'it is the children she is teaching'.

In the sentence above, dà is left out in the first form (karantar+wàa). In the second form, dà is retained and receives the nominalizer -waa. The suffix cannot go on the primary verb, as seen in the third form. It cannot be left out also. This constitutes evidence that dà is the head of the complex verb, and supports the cosubordination analysis. Other continuous A-forms are illustrated below:

- (132) ciyar dà 'feed'
 a. ciisarwàa (or ciisawwàa)
 b. ciisârwaa
 c. ciisad dàawaa (or ciisar dàawaa)
- (133) kayar dà 'throw off, knock down'
 a. kaayaswàa (or kaayawwàa)
 b. kaayâswaa (or kaayâwwaa)
 c. kaayassuwàa
 d. kaayassùwaa
 e. kaayad dàawaa (or kaayar dàawaa)
- (134) cikar dà 'fill up'
 a. cikaswàa
- (135) kwantar dà 'put to bed'
 a. kwantaswàa (or kwantawwàa, or kwantarwàa)
 b. kwantâswaa (or kwantâwwaa, or kwantârwaa)
 c. kwantassuwàa
 d. kwantassùwaa
 e. kwantad dàawaa (or kwantar dàawaa)
- (136) mayar dà 'return (s.th.)'
 a. mayarwàa
 b. mayârwaa
 c. maisuwàa

In the above, only the forms that "sound" right to my personal judgment are given. For any particular verb, another speaker may have a different set. There are a couple of remarks though. First, the forms are not very frequent, speakers would rather use other strategies to convey the intended meaning. For example, with the verbs that are conflated and reanalyzed into gr1 verbs, a speaker would use the gerund of the reanalyzed form. So, both mayarwàa 'returning (s.th.)' and its conflated form maidàawaa are grammatical and mean the same, but the latter one is most recurrent. Likewise, for verbs that operate gr1 and gr5 with the same meaning, the gr1 form is most encountered. So, both gr1 cikàawaa and gr5 cikaswàa mean 'filling up (s.th.)', but the gr1 form cikàawaa would be preferred to the gr5 form. Of course, with the verbs that do not conflate or have a truly different meaning in gr1, then the gr5 forms must be used or a syntactic equivalent be found. So, jeefar, kwantar, karantar, do not conflate and their gr1 forms have a different meaning. If a speaker wants to avoid using any of these forms, s/he may utter sentence (a) instead of sentence (b) below:

- (137) a. yâara nèe yakèe kooyàa mà kàràatuu.
 children cop.p 3ms.REL CONT teaching-I IX reading/study
 'It is the children that he is teaching.'
- b. yâara nee yakèe karantarwàa/ karantar dàawaa/, etc.
 children cop.p 3ms.REL CONT read-V-VN
 'It is the children that he is teaching.'

5.2.4 THE STATUS OF V+dà COMPLEX NUCLEUS

This subpart presents more arguments in favor of treating V+dà as a complex nucleus where the two constituents are in a fixed syntagmatic relation. The construction is thus parallel to that in gr9.

5.2.4.1 Verb focus fronting

One constituency test for V+dà nucleus is verb fronting. As one would expect, in focus fronting one cannot have the verb fronted with dà+NP left stranded. There are however a number of possibilities depending on the verb and the context.

- (138) a. jeefar dà bùhun hatsii nèe Abdu ya yi.
 throw-VN-of V sack-of millet cop.m Abdu 3ms.REL PERF do
 'It is throwing off/ away the millet sack that Abdu did.'
- b. *jeefar nèe Abdu ya yi dà bùhun hatsii.
 throw-VN-of cop.m Abdu 3ms.REL PERF do V sack-of millet
 'It is throwing off/ away the millet sack that Abdu did.'

- c. sanar dà Aishà làabaarii nee na yi.
 know-II-VN-of V Aishà news cop.m 1s.REL PERF do
 'It is conveying the news to Aisha that I did.'
- d. *sanar nee na yi dà Aishà làabaarii.
 know-II-VN-of cop.m 1s.REL PERF do V Aishà news
 'It is conveying the news to Aisha that I did.'

As one can see, in verb fronting in sentence (a), the undergoer of the complex nucleus bùhun hatsii 'sack of milllet' has to follow the verb. It cannot stay stranded, as seen in (b). Sentences (c-d) show the causative construction of gr5. Both the Aishà and the theme làabaari 'news' obligatorily follow the verb.

5.2.4.2 Insertions between verb and dà

The insertion tests with modals particles show different results where fa 'indeed' contrasts with the other modals. fa can appear between the verb and dà when there is only one post-verbal argument. But the insertion is less natural with two post-verbal arguments. This is seen in the following:

- (139) a. Indoo taa karantar (fa) dà yâara.
 Indo 3fs.PERF read-III-VN-of MOD V children
 'Indo indeed taught the children.'
- b. ?Abdù yaa sanar (fa) dà Aishà làabaarii.
 Abdu 3ms.PERF know-II-VN-of MOD V Aisha news
 'Abdu indeed conveyed the news to Aisha.'
- c. Indoo taa karantar dà yâara (fa).
 Indo 3fs.PERF read-III-VN-of V children MOD
 'Indo indeed thought the children.'
- d. Indoo taa karantar dà (fa) yâara.
 Indo 3fs.PERF read-III-VN-of V MOD children
 'Indo indeed taught the children.'

Sentence (a) seems to me to be grammatical, more so than sentence (b). The most natural place for the modal is at sentence final as in (c). It is also quite natural to have the modal fa between dà and the next argument as seen in (d). fa is also acceptable before dà with a gr6-type gr5, but apparently not with a gr1-type gr5. This is illustrated below:

- (140) a. Indoo taa aikàa *(fa) dà gooròo.
 Indo 3fs.PERF send-I-VN indeed V kolanuts
 'Indo indeed sent some kolanuts.'

- b. Indoo taa aikoo (fa) dà goorò.
 Indo 3fs.PERF send-VI-VN indeed V kolanuts
 'Indo indeed sent some kolanuts.'

The sentence in (a) in gr1+dà is grammatical with fa intervening. The same modal in the same position is fine with gr6, as seen in (b). Modal particles other than fa are worst in all cases when they intervene between the verb and dà. This is illustrated below:

- (141) a. Indoo taa karantar (*dai/*maa/*har) dà yâara.
 Indo 3fs.PERF read-III-VN-of MOD/MOD/MOD V children
 'Indo taught indeed/ even the children.'
- b. Abdù yaa sanar (*dai/*maa/*har) dà Aishà
 Abdu 3ms.PERF know-II-VN-of MOD/MOD/MOD V Aisha
 làabaarii.
 news
 'Abdu conveyed the news indeed/ even to Aisha.'

This result is similar to the one presented in Newman (1991) about the modals insertion with mà. There, it was shown that only fà, for some speakers and under some restrictions, can intervene between the verb and mà. Although I do not in my judgement accept fà before mà, it seems grammatical before dà. However, As shown in (141a-b), the insertion of "heavy" syllable modals is not acceptable.

5.2.4.3 Grade 5-based grade 9

It is possible to have both gr9 and gr5 cooccurring with one primary verb. In these constructions, in Katsinanci at least, mà+NP appears between the verb and dà. This is illustrated below:

- (142) a. Aishà taa jeefar dà kàren Indoo.
 Aisha 3fs.PERF throw-VN-of V dog-of Indo
 'Aisha threw away Indo's dog.'
- b. Aishà taa jeefam mà Indoo dà kàree.
 Aisha 3fs.PERF throw-VN-of IX Indo V dog
 'Aisha threw away Indo's dog.'
- c. Aishà taa jeefam màa dà Indoo kàree.
 Aisha 3fs.PERF throw-VN-of IX V Indo dog
 'Aisha threw away Indo's dog.'

- d. Aishà taa jeefar dàà mà Indoo kèree.
 Aisha 3fs.PERF throw-VN-of V IX Indo dog
 'Aisha threw away Indo's dog.'

In above, sentence (a) is a regular gr5 with a possessive head as argument. In sentence (b), the possessor is an argument of mà, in a construction that combines gr5 and gr9. Grade 5 is basic because both sentences (a-b) are semantically gr5, the only difference is that (b) has an applied nominal Indoo. In this combination, mà+NP can appear between the primary verb and dà, as indicated in (b). Thus, sentence (b) is a clear instance of a dà that is non-adjacent to the primary verb. However, sentence (c) shows that mà can be followed immediately by dà, in effect then, one can have all three verbs lined up in a complex cosubordination structure. There is also an alternative where dà preceds mà, as seen in (d). It should be noticed that sentence (b) is much more preferred than either (c) or (d) in Katsinanci. In Standard Hausa however, (b) and (c) would at least be equally fine. Thus, Parsons (1962:259) reports the following data (with structure gloss added):

- (143) a. naa sayar wà Audù dookìi.
 1s.PERF sell-II-VN-of IX Audu dookìi
 'I sold a horse to Audu.'
- b. naa sayar wà Audù dà dookìi.
 1s.PERF sell-II-VN-of IX Audu V dookìi
 'I sold a horse to Audu.'
- c. naa sayar wà dà Audù dookìi.
 1s.PERF sell-II-VN-of IX V Audu dookìi
 'I sold a horse to Audu.'
- d. naa sayar wà dà Abdù dà dookìi.
 1s.PERF sell-II-VN-of IX V Audu V dookìi
 'I sold a horse to Audu.'

According to Parsons, all sentences are grammatical, but sentence (c) is the most preferred. So, the interaction of dà and mà supports the cosubordination analysis. The only discrepancy is relative to the order mà+dà. It should be dà+mà if V+dà is the basis, but instead the two orders are fine, in Katsinanci at least. One would still consider the predicted order V+dà+mà as basic because it is the only one possible when one or both nominal arguments are fronted. This is illustrated below:

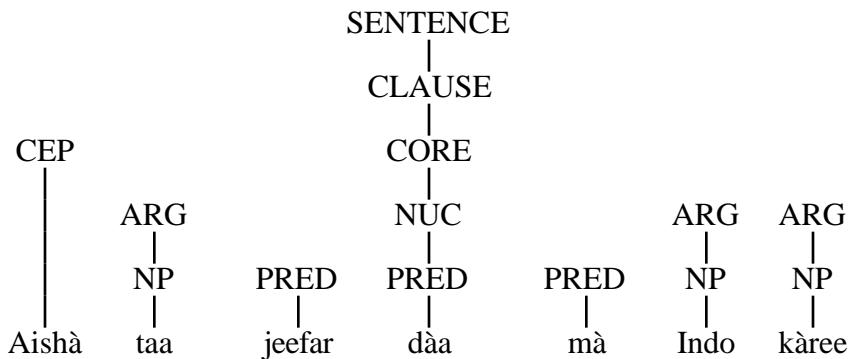
- (144) a. kèree, Indoo cèe Aishà ta jeefad dàa
 dog Indo cop.f Aisha 3fs.REL PERF throw-VN-of DA-VN
màwaa.
MA-VN
- 'As for dog, It is Indo's that Aisha threw away.'
- b. Indoo cèe Aishà ta jeefar dàa
 Indo cop.f Aisha 3fs.REL PERF throw-VN-of DA-VN
mâa (dà) kèree.
MA-VN (V) dog
- 'It is Indo whose dog Aisha threw away.'
- c. kèree nèe Aishà ta jeefar dàa mà Indoo.
 dog cop.m Aisha 3fs.REL PERF throw-VN-of DA-VN IX Indo
 'It is a dog (of Indo) that Aisha threw away.'
- d. *kèree nèe Aishà ta jeefar mâa dà Indoo.
 dog cop.m Aisha 3fs.REL PERF throw-VN-of IX V Indo
 'It is a dog that Aisha deprived Indo off.'

Sentences (a-c) clearly show that gr9 is built on the complex V+dà. So, formally too, gr9 is derivable from gr5. As indicated in (d), the two predicates cannot be reordered mà+dà.

Another mismatch concerns the length of the vowel of the second predicate. In Katsinanci the second predicate, whether mà or dà, must have a long vowel, and this is in line with the cosubordination analysis in that one of the predicate-particle is nominalized by the following predicate. Parsons' data shows no such vowel lengthening on wà (the Standard version of mà before noun).

Nonetheless it is clear that the notion of cosubordination such as developed in RRG handles these facts quite well. If dà is taken to be a preposition for example one would be at pain explaining why it can be followed by mà. One will have an even bigger problem if both mà and dà are considered to be prepositions. In the cosubordination analysis, the lexical verb, gr5 dà and gr9 mà form a complex nucleus which contains three predicates. The complex nucleus construction is represented in the diagram below:

(145)



5.2.5 SEMANTICS OF GRADE 5

This subsection deals with the functions of gr5 dà. It is proposed that the general function of gr5 is to express the idea of efferential or action away from the pivot's referent. Indeed, in most occurrences of gr5, the pivot' referent is understood as putting away the referent of another argument. With verbs that do not imply any kind of movement, gr5 instead has the "performative" sense, where the pivot's referent is understood as having acted expertly to carry out the action. Finally, with verbs that do not have a gr1 accomplishment form, gr5 marks the causative.

The first subpart reviews the previous proposal about the semantics of gr5. Then the following three subparts each deal with the relationships between gr5 and gr1, gr2, gr3, the primary grades. The other grades are left out on the assumption that their verbs will behave accordingly with the primary grade from which they are semantically derived.

5.2.5.1 Previous analyses of gr5 semantics

The semantics of gr5 has for a long time been the subject of a controversy. For Bargery (1934), Abraham (1959), Kraft and Kirk-Greene (1973), Cowan and Schuh (1976), Gouffé (1968), Bagari (1977a), Caron (1987), gr5 is the causative in Hausa, and a form like sayar dà 'sell' means 'cause to buy'. Parsons (1962) rejects such an analysis and proposes instead that gr5 expresses the idea of "disposal" or "riddance", where the subject's referent "gets rid" of something. Newman (1983), more like Parsons, characterizes the gr5 as an "efferential" or "action away" directional grade. For him, a gr5 form describes an action whose impetus is away from the subject. There are two types of action away gr5 verbs according to Newman. The first type of action away has a literal directional sense, and occurs with verbs like those listed below (list from Newman 1983):

(146) Literal action away sense of gr5:

- | | |
|--------------|------------------------------------|
| a. tuurar | 'push away' (< tuurà 'push') |
| b. jeefar | 'throw away' (< jeefà 'throw') |
| c. kifar | 'jolt out' (< kifa 'invert') |
| d. zubar | 'pour out' (< zubà 'pour') |
| e. rabar | 'distribute' (< rabà 'divide') |
| f. baaKuntar | 'exile' (< bàaKùnci 'be guest of') |

Thus, for Newman a sentence such as taa zubar dà ruwaa 'she poured away some water' denotes an action directed outward, away from the pivot's referent. According to Newman, the second type of action away is where there is a shift of the action's impact from the subject to the object. This is exemplified in the verbs listed below (list from Newman 1983):

(147) Action's impact shift from subject to object in gr5:

- | | |
|-----------|-----------------------------------|
| a. arar | 'lend' (< àri 'borrow') |
| b. ramtar | 'lend (money)' (< ràmcì 'borrow') |
| c. kooyar | 'teach' (< kòoyi 'learn') |
| d. sayar | 'sell' (< sàyi 'buy') |
| e. sanar | 'inform' (< sàni 'know') |
| f. ganar | 'show' (< ga 'see') |
| g. gaanar | 'explain' (< gaanè 'understand') |
| h. ciyar | 'feed' (< ci 'eat') |
| i. jiyar | 'make feel' (< ji 'feel') |

Apparently, for Newman, in a sentence such as taa ga takàrdaa 'she saw the letter', the action is directed toward the pivot, but in taa ganar dà Abdù takàrdaa 'she showed Abdu the letter', the action now is directed toward the "object" Abdu, not toward the "subject" taa '3fs'. We will see shortly that most of the verbs in (28) are gr2 and gr3 verbs and express the causative, despite Newman's claims to the contrary. Indeed, for Newman, in no instance can the causative label be justified for the gr5.

To wrap up Newman's treatment, a third function of the gr5 is stylistic. Following Parsons (1962, 1971-72), he assumes that some gr5/ gr1 contrasts are semantically empty as seen in the verbs listed below (list from Newman 1983, except (c)):

(148) Stylistic HL-a/ gr5 contrast:

- | | |
|-----------------------|---------------------|
| a. rikità/ rikitar | 'tangle, muddle up' |
| b. tsoràtà/ tsooratar | 'frighten' |
| c. nunà/ nunar | 'ripen' |
| d. Kaayàtà/ Kaayatar | 'beautify' |

For Parsons and Newman, there is no difference between the gr1 form of the verb and the gr5, so that sentences like yaa rikità kacàa and yaa rikitar dà kacàa both mean 'he muddled up the bike chain'. Below it is shown that with these verbs, gr5 marks the "performative"

(Parsons 1962:257n1 acknowledges that some gr5 forms seem to have an "effective" connotation similar to gr4, but he considers this to be incidental to their main function, that of expressing the idea of "riddance/ disposal"). The following subparts deal with the functions of gr5 in the primary grades.

5.2.5.2 Grade 1

There are two relevant gr1 verbs subgroups as far as gr5 derivation is concerned. The first group is made up of accomplishment verbs which may embed a state predicate with either a patient or a theme and a locative argument. These verbs are syntactically transitive, and with them, gr5 expresses the action away or the performative sense. The second group is made up of achievement verbs which do not have a corresponding accomplishment form in gr1. With these verbs (usually syntactically intransitive), gr5 has primarily a causative meaning.

5.2.5.2.1 Grade 1 and the performative/ efferential gr5

Two types of accomplishment verbs are distinguished in gr1, depending on whether they embed a state predicate with a patient argument, or a state predicate with a theme and locative argument. The verbs embedding a single-argument state predicate have a performative reading in gr5. Such verbs include those listed in (148) above. The performative sense has a completeness feature in it, so that non-gr5 forms contrast with gr5 form in the entailment constructions they accept. This is illustrated below:

- (149) a. dookii yaa tsooratà yaaròo (àammaa bàa kwarai ba).
horse 3ms.PERF frighten-I boy (but NEG much NEG)
'The horse frightened the boy a bit.'
- b. dookii yaa tsooratar dà yaaròo (*àammaa bàa
horse 3ms.PERF frighten-VN-of V boy (but NEG
kwarai ba).
much NEG)
- 'The horse completely frightened the boy (*a bit).'
- (150) a. sun nunà lèemûn nan (àammaa bàa saranshì ba).
3p.PERF ripen-I lemon that (but NEG totality-of-3ms NEG)
'They ripened that lemon, but not in its totality.'

- b. sun nunar dà lèemûn nan (*àammaa bàa
 3p.PERF ripen-VN-of V lemon that (but NEG
 saranshì ba).
 totality-of-3ms NEG)

'They completely ripened that lemon, (*but not in its totality).'

The sentences in (a) are gr1, and, as indicated, they can appear with counterfactual constructions. On the other hand, the gr5 forms in the (b) sentences cannot appear with the same counterfactual constructions. This is evidence that they strongly entail the sense that the action was well performed, and that the situation needs not be revisited again (cf. English 'finish off').

With posture verbs, which do not entail a transfer but a simple change in position, gr5 has an efferential sense. This is illustrated below with the verb juuyà '(re)turn':

- (151) a. yaaròo yaa juuyàa.
 boy 3ms.PERF turn-I
 'The boy changed his position (by turning).'
- b. taa juuyà yaaròo.
 3fs.PERF turn-I boy
 'She turned the boy.'
- c. taa juuyar dà yaaròo.
 3fs.PERF turn-VN-of V boy
 'She faced the boy away.'

This verb has an achievement form as indicated in sentence (a), where yaaròo is the theme and the pivot. The accomplishment form of the verb is derived gr1-internally, as seen in (b). This sentence has indeed a clear causative sense. In (c), the gr5 form too has a causative meaning, but it contrasts with the gr1 accomplishment in having an action away sense added to it, as indicated in the gloss. This is shown in the entailment structure compatibility test below:

- (152) a. naa juuyà yaaròo naa fuskantoo shì nân.
 1s.PERF turn-I boy 1s.PERF face-VI 3ms here
 'I turned the boy and faced him toward here.'
- b. *naa juuyar dà yaaròo naa fuskantoo shì nân.
 1s.PERF turn-VN-of V boy 1s.PERF face-VI 3ms here
 '*I turned away the boy and faced him toward here.'

As one can see, the gr1 form in (a) is compatible with a conjunct clause containing a gr6 form referring to the place of speech. So, clearly the boy is not positioned to face away from the speaker. In (b) on the other hand, the gr5 form is incompatible with a gr6 construction encoding the place of speech as the deictic center. This evidences its efferential sense.

Notice that with verbs such as juuyà above, there is no need to assign a causative function to gr5. The causative reading already obtains in gr1 itself.

It is possible to have the accomplishment verb appearing in gr5 reflexively. In this use, the action away sense is still intended, but the reference point is not the pivot, but some other deictic center. This is illustrated below:

- (153) a. taa juuyà kântà.
 3fs.PERF turn-I head-of-3ms
 'She turned her head/ herself.'
- b. ta juuyar dà kântà dà ta
 3fs.REL PERF turn-VN-of V head-of-3fs when 3fs.REL PERF
 ga Abdù.
 see-II Abdu
 'She turned her head away when she saw Abdu.'

Sentence (a) is in gr1 and does not presume the direction or reference point for the action. Sentence (b) is in gr5 and clearly indicates that the head-turning was away from Abdu. In addition, the sense obtains that the head-turning was complete.

The gr5 sense of action away is most apparent with transfer verbs, that is, verbs that imply an actual change of location. These verbs are accomplishment verbs that embed a state predicate with a theme and a locative argument. They correspond to Parsons' projective applicative verb class. They usually have no achievement form, so, there is only a gr1 accomplishment form to contrast to the gr5 form. This is illustrated below:

- (154) a. Indoo taa jeefà kuDintà cikin asuuusù.
 Indo 3fs.PERF throw-I money-of-3fs inside-of piggy.bank
 'Indo threw her money into the piggy bank.'
- b. Indoo taa jeefar dà kuDintà.
 Indo 3fs.PERF throw-VN-of V money-of-3fs
 'Indo threw away her money.'

In (a), the theme referent kuDintà 'her money' is put in a specific place, and indeed the gr1 form requires a locative argument. In (b) on the other hand, no locative argument is required, and, it is pragmatically irrelevant. The meaning of the gr5 sentence, as indicated, is that Indo

"disposed off" her money by throwing it away. Here too, there is no need to label gr5 as the causative grade, for any such causative meaning is already obtainable in the gr1 form.

Gouffé (1988) also notices that with the projective applicative verbs, utterances have a secondary meaning where the pivot's referent shows a lack of concern for the fate of the theme's referent. This of course is consistent with Parsons' idea of "riddance" or "disposal", and Newman's notion of efferential. This point can be well illustrated by contrasting the projective applicative verbs in gr1, gr2, and gr5, as in below:

(155)	HL- <u>a</u> :	LH- <u>i</u> :	HH-ar <u>dà</u> :
	ramtà 'lend'	ràmcí 'borrow'	ramtar dà 'lend recklessly'
	arà 'lend'	àri 'borrow'	arar dà 'lend recklessly'
	sayàa mà 'buy to'	sàyi 'buy'	sayar dà 'sell'
	jeefà 'throw'	jèefi 'throw at'	jeefar dà 'throw away'
	rabà 'divide'		rabar dà 'distribute away'

As it can be seen, the difference between gr1 and gr5 is that in gr1, the actor's referent may still be concerned by the fate of the theme's referent being transferred. Thus, the lender may have carefully chosen where to lend and, indeed, a destinative argument is syntactically required. But in gr5, the destination of the thing or money being lended is not important and, the sentences are best without such destinative argument specified. The emphasis is put on the fact that the lender is not much concerned about the fate of the things lended, that he succeeded in getting rid of the things lended, or that he is not much concerned about his own needs. According to Bagari (1977b), with gr1 raba 'divide' (in (155) above), it is not excluded that the pivot's referent gets a share for himself. With gr5 rabar 'distribute away' on the other hand, the pivot's referent has definitely no share of the goods distributed. So, the efferential function of gr5 is quite strongly marked.

5.2.5.2.2 Grade 1 and the causative function of grade 5

There are gr1 achievement verbs which lack an accomplishment form in gr1. In effect, some achievement gr1 verbs have no causative form in gr1 itself. When these verbs appear in gr5, the predominant effect is that the forms are causative. The pivot of the gr1 achievement verb becomes a causee and an undergoer of V+dà in gr5. This is illustrated below:

- (156) a. yaaròo yaa durKùsa.
 boy 3ms.PERF kneel-I
 'The boy kneeled.'

- b. Indoo taa durKusar dà yaarò.
 Indo 3fs.PERF kneel-VN-of V boy
 'Indo kneeled the boy.'
- c. *Indoo taa durKùsà yaarò.
 Indo 3fs.PERF kneel-I boy
 'Indo kneeled the boy.'

Verbs such as durkùsaa 'kneel', cannot become causative in gr1, as indicated in sentence (c). The gr5 form in (b) is understood as expressing the causative. The efferential and performative senses are not prominent, although they are derivable.

Motion to stance verbs such as zamnàa 'sit' and kwantà 'lie' do occur as accomplishment in gr1, however, the undergoer is not the theme but the locative argument. So, with these verbs too, the gr5 form is primarily causative, and only secondarily does it express the efferential or the performative senses. This is illustrated below:

- (157) a. yaaròo yaa zamnàa (kân) kujèeraa.
 boy 3ms.PERF sit-I on chair
 'The boy sat on the chair.'
- b. yaaròo yaa zamnà kujèeraa.
 boy 3ms.PERF sit-I chair
 'The boy sat on the chair.'
- c. Indoo taa zamnar dà yaaròo kân kujèeraa.
 Indo 3fs.PERF sit-VN-of V boy on chair
 'Indo sat the boy on the chair.'

The verb in sentence (a) is an achievement verb. In sentence (b), an accomplishment form is derived, but the undergoer is the locative nominal of 'sit', not the theme. In sentence (c) on the other hand, the undergoer causee is the theme, and the sentence has a typical causative reading.

In conclusion, with gr1 verbs, gr5 assume three main functions. It expresses the performative function with most non-transfer accomplishment verbs. It also expresses the efferential meaning canonically with transfer verbs of the projective applicative class. Finally, gr5 functions as the causative grade with gr1 achievement verbs that do not have a corresponding accomplishment form gr1-internally.

5.2.5.3 Grade 2

The gr2 verbs considered here are only those that do not operate gr1. Indeed, with verbs operating both gr1 and gr2, the derived gr5 forms are semantically based on gr1, as

indicated in the table under (155) above. With the exclusively gr2 verbs, gr5 only expresses the causative meaning. This is illustrated below:

- (158) a. taa ga wàsiiKàa.
 3fs.PERF see-II letter
 'She saw the letter.'
- b. yaa ganar dà ita wàsiiKàa
 3ms.PERF see-II-VN-of V 3fs letter
 'He showed her the letter.'
- (159) a. taa san zancen dà akèe yîi.
 3fs.PERF know-II topic that IMP-REL CONT do-DN
 'She knows what is being talked about.'
- b. yaa sanar dà ita làabaarii.
 3fm.PERF know-II-VN-of V 3fs news
 'He informed her about the news.'

In the above sentences, we have a gr2 perception state verb in (158a) and a gr2 cognition state verb in (159a). The perceiver/ cognizer is the pivot. In gr5, the gr2 pivot is now the undergoer of V+dà, and the new pivot is a causer, as seen in the (b) sentence. The data above instantiate then a canonical case of causativization, contrary to the claims in Newman (1983). As far as I know, gr2 verbs do not appear in gr5 with the efferential sense. In most cases, gr2 verbs are actually incompatible with the idea of action away from the pivot's referent, as one can judge from the table under (155) above. However, the gr2-based gr5 can easily have a secondary performative sense.

5.2.5.4 Grade 3

As seen in chapter 4, gr3 is made up of achievement verbs. In this discussion, the relevant gr3 verbs are those that accept an accomplishment form. There are two types of these achievement verbs. First, some gr3 verbs can have an accomplishment form in gr1, and also operate a gr5 form based on the gr1 form. This is illustrated below:

- (160) a. tìuluu yaa cïka.
 pot 3ms.PERF be.full-III
 'The pot filled up.'
- b. taa cikà tìuluu.
 3ms.PERF fill.up-I pot
 'She filled up the pot.'
- c. taa cikar dà tìuluu.
 3ms.PERF fill-III-VN-of V pot
 'She swiftly filled up the pot.'

- (161) a. ruwaa sun zùba.
 water 3p.PERF spill-III
 'The water spilled.'
- b. taa zubà ruwan à tùuluu.
 3fs.PERF pour-I water-DEF in pot
 'She poured the water into the pot.'
- c. taa zubar dà ruwan.
 3fs.PERF pour-III-VN-of V water-DEF
 'She poured away the water.'

In the (a) sentences, we have the gr3 achievement verbs. In the (b) sentences, we have derived gr1 accomplishment verbs with a causative meaning. The gr5 forms in the (c) sentences contrast with the gr1 forms in that the former have a performative sense in (160c) and an efferential sense in (161c). So, strictly speaking, the gr5 forms are more accurately described as derived from the gr1 forms, with which they share the causative semantics.

The second type of achievement gr3 verbs derive their accomplishment forms in gr5, not in gr1. With these forms, gr5 has an indisputable causative function, as illustrated below:

- (162) a. yaaròo yaa fita.
 boy 3ms.PERF get.out-III
 'The boy got out.'
- b. taa fitar dà yaaròo.
 3fs.PERF get out-III-VN-of V child
 'She got the child out.'
- c. *taa fità yaaròo.
 3fs.PERF get out-I child
 'She got the child out.'
- (163) a. yaaròo yaa shìga sùlmâa.
 boy 3ms.PERF enter-III theather
 'The boy entered into the theather.'
- b. taa shigar dà yaaròo sùlmâa.
 3fs.PERF enter-III-VN-of V child theather
 'She got the child into the theather.'
- c. *taa shigà yaaròo sùlmâa.
 3fs.PERF enter-I child theather
 'She got the child into the theather.'

In the (a) sentences, the gr3 forms are achievement, with a theme-argument as pivot. The gr5 forms in the (b) sentences are clearly causative in meaning. Here though, the semantics of

gr3 is not incompatible with the efferential and the performative senses, so, these senses can be implied as well. In sentences (c), it is shown that these particular gr3 verbs do not operate a gr1 form (but the gr5 fitar da can be reanalyzed as gr1 fiddà 'get (s.o.) out'; the reanalysis does not apply to shigar dà 'get (s.o.) in', cf. *shiddà).

In conclusion, one can say that gr5 has many functions. With the projective applicative gr1 verbs, gr5 has an efferential sense. With non-motion gr1 accomplishment verbs, gr5 has a performative sense. Finally, gr5 functions as the causative grade with all achievement verbs and gr2 state verbs that do not have a corresponding gr1 accomplishment form. Overall then, it seems that the primary function of gr5 is to express the efferential or action away semantics, as proposed in Newman (1983). Secondary senses can obtain where the action is understood as having been well carried out once and for all (cf. English 'finish off'). The causative function seems to be accidental, and obtain only when there is no actual gr1 accomplishment form.

In this section, I have challenged the widespread idea that gr5 is made up of a causative morpheme -as and a particle dà. Indeed, unlike other grades in Parsons' system, gr5 was shown to be a syntactically derived grade, with the primary verb and dà in nuclear cosubordination. In this structure, the primary verb is turned into a gerund and suffixed with the linker -x if it is a gr2 or a gr3 verb. If it is a gr1 verb, there normally should be no linker suffixation, but it does happen in dialects other than the Adiranci dialect. I have also shown that gr5 can no longer be considered as a secondary grade, as it is in Parsons' system. Instead, it can be operated by all the grades, which are then more basic.

Conclusion to chapter 5

This chapter established the syntactic nature of gr5 and gr9. These grades are not morphological grades in the sense of Parsons. They are parallel syntactic constructions where a primary verb enters in nuclear cosubordination with an auxiliary verb, dà for gr5 and mà for gr9. We have seen that most of the morphological grades can cooccur with gr5 and gr9. Grade 7 is the only grade which is restricted with gr9 (two verbs) or gr5 (only one attested case). In addition, gr5 can combine with gr9, in a construction that involves a complex nucleus with three successive predicates. In this complex nucleus, gr5 dà usually precedes gr9 mà, so, gr5 should be ranked higher than gr9.

Notes to Chapter 5

¹ There are a few mismatches for the VN analysis with the mostly monosyllabic irregular verbs which may have two gr9 forms: sun cii mà Abdù tuwoo/ sun cim mà Abdù, 'they ate Abdu's tuwoo/ they caught up with Abdu'; Sun ii mà aikii/ sun im mà Abdù, 'they measured

up to the task/ they put it up with Abdu'; yaa (yi(i)) manì Karyaa 'He lied to me...'; kù kira
manì shii/ kù kiram manì shii 'call him for me'. Some verbs have one form, but without the possessive linker: sun shaa mayà kai 'they bothered him'; sun jaa mashì rai 'they teased him'. Probably, the forms without the linker have shortened and lost the linker along with their last syllable (cf. sun sam mashì/ sun saamam mashì 'they shared (s.th.) with him/ they found him (s.th.')'). At a later stage, some of these shortened forms may have been reanalyzed as true monosyllabic verbs and re-appended with the linker (with a meaning change in some cases, cf. cii/ cim above). With some of these irregular verbs, gr9 actually occurs alone, not in combination with another grade (for more on the gr9 of irregular verbs, see Parsons 1971-72:86-97).

² For a treatment of question formation in Hausa see Newman and Newman (1982). The particle shin in Katsinanci is very informal and cannot be used with persons the speaker respects.

³ Actually this analysis may have some problems, as does an alternative account in Tuller (1986:455) where a base-generated empty verb is posited instead of a deletion trace. Beside the gr9 mà context, yi is also optional when it is followed by a DN or a regular noun complement. If yi really deletes and leaves somekind of trace (or if we have an empty verb), that trace or empty verb would be the head of the clause, and one would expect PVP drop not to occur, in conformity with Schuh's right environment restriction. However, PVP omission is possible, which means there is no empty head verb or trace. This is seen below:

- (i)
 - a. Abdù yanàa yin dàshen itàacee.
 Abdu 3ms-CONT do planting-of trees
 'Abdu is planting trees.'
 - b. Abdù nàa dàshen itàacee.
 Abdu CONT planting-of trees
 'Abdu is planting trees.'

In (a), both the PVP and yîn 'do' appear. In (b), yîn, the head, is absent but still the PVP can drop. According to the deletion/ empty verb analyses, the PVP should not be able to drop because the head is not overt. In a theory like RRG one would have in (i) two distinct underived structures, one containing the head verb yi, and the other containing the DN head dàshen 'planting'. Both sentences will then satisfy the right environment restriction, yi in (a) and dàshen in (b) being heads of the next constituent where the TAM cliticizes if the PVP is dropped.

⁴ With the verb mà, the complex suffix -waa has an alternate form -âa/ -àa in West Hausa. In Standard Hausa, this alternate form is actually the only option. Contrary to -waa, the suffix -âa can appear even when a direct core argument follows. However, either one of the suffixes has to appear when all direct core arguments are fronted or are simply absent. This topic will be discussed in the chapter on nominalization.

⁵ There is another free variant of mà with a falling tone mâa, and which may well be the result of a partial application of the tone raising rule to the informal màa. This is illustrated below:

- (i)
 - a. sun aikàa mâa Abdù wàsiiKàa.
 3p.PERF send-I IX/ Abdu letter
 'They sent a letter to Indo Abdu.'

The mâ form may be partially affected because of its falling tone. A falling tone in Hausa is analyzed as a HL combination on the same syllable. It is not surprising that mâ should show some scant effects of the tone rule. Nuclear cosubordination is indeed the last domain of syntax, before morphology, and this may be the beginning of a reanalysis process, as is underway with gr5.

⁶ There is in fact the alternative rùbùutàa mà Abdù wàsiiKàa acceptable for most speakers at least in Standard Hausa and Katsinanci, and where the verb does not end in a high tone. Still mâ itself does not carry the last high tone either. For more on these alternative forms and proposed explanations see Jaggar (1982), Newman and Jaggar (1989), and Schuh (1989).

⁷ As shown in Newman (1973:313n23), the syllable preceding -ee in the reanalyzed gr5 form must be heavy, that is, it must contain a long vowel or end in a consonant (also see Gouffé 1968-69:13). Neither Newman nor Gouffé provide an explanation for this fact. In the analysis proposed here, the gemination -ssh- shows the incorporation of the gr5 particle dà. Thus, the -(s)shee complex is not simply made up of -as+ee, as most people think, but it ultimately derives from -as+dà+ee, with contraction of dà and assimilation of /d/ to /s/ (/s/ ==> /sh/ is a nearly automatic change before high front vowels). Sometimes, the first /s/ of the gemination is changed to a length feature on the preceding vowel, thus giving the alternates -shee and -sshee (hence the -(s)shee cited in the literature).

⁸ In fact, for Newman (1983:400), the real diachronic Hausa efferential marker is the (-)dà of the shortened Standard Hausa gr5 forms (cf. fit dà 'get s.th. out') or the Western Hausa conflated gr5 forms (cf. fiddà 'get s.th. out'). For Newman, the dà appearing with the full gr5 form (cf. fitar dà 'get s.th. out'), is semantically empty and is there as a syntactic device to introduce the next argument (although it has properties distinguishing it from the associative preposition dà). In short, for Newman, gr5 is expressed by two unrelated morphemes, efferential (-)dà with shortened or conflated gr5 forms, and -as with full gr5 forms. This thesis assumes that the (-)dà of the shortened or conflated forms and the dà of the full forms are the same and the only gr5 marker. One still must admit that VN+r can now be used as standing for gr5 if no object is following, but this is a simple reanalysis.

Chapter 6

NOMINALIZATION

6.0 INTRODUCTION

This chapter deals with nominalization, an important aspect of Hausa morphosyntax, and which also has generated a lot of interest in typological and theoretical studies. Indeed, Hausa makes an extensive use of nominalization in most of its key syntactic constructions, particularly in complementation structures. This can be easily illustrated by comparing English and Hausa sentences, as given below:

- (1) a. Abdù yaa shìga cîn àbinci.
 Abdu 3ms.PERF enter-I eat-DN-of food
 'Audu began eating.'
 'Abdu went inside to eat.'
- b. Abdù yaa shìga yà ci àbinci.
 Abdu 3ms.PERF enter-I 3ms.SUB eat food
 NOT: 'Audu began eating.'
 'Abdu went inside to eat.'
- c. hawan rìaKumii nàa dà wùyaa.
 riding-DN-of camel be with difficulty
 'Riding/ to ride a camel is difficult.'
- d. yâara dà zuwàa sùlmâa bâi dà ànfàanii.
 children with go-DN movies NEG.3ms.CONT with purpose
 'Children's going to the movies has no worth.'
- e. yâara fa sun sàamu kàren kishìi.
 Children indeed 3p.PERF have dog-of beat-DN
 'The children indeed have found a dog to beat on.'
- f. àbin cîi
 thing-of eat-DN
 'An edible thing, a thing to be eaten'
- g. àbinci
 'food'

Sentences (1a) presents a case of ambiguity between a complement and a purposive construction reading with a nominalized clause, as discussed in Tuller (1986). As one can see from the gloss, English has distinctive strategies for the two constructions. In Hausa too the second clause can appear in the subjunctive, as shown in (1b), but the semantics is now restricted to the purposive reading. Sentence (1c) shows a nominalized clause functioning as the pivot. Here, the subjunctive clause more freely alternates with the nominalized one (cf. à

hau ràaKumii nàa dà wùyaa lit: (that) someone ride a camel is difficult'). In (d), a nominalized clause appears as a prepositional complement. In sentence (1e), the derived nominal kishìi 'beating' appears as a type of nominal "purpose" complement, a construction for which English uses the infinitive. The same type of purpose complement construction, as shown in (f), can give rise to regular lexemes, as illustrated in (g). Thus, nominalization is crucial in Hausa morphosyntax. Noonan (1985:65) proposes a cline of complementation with a universal set of strategies, among which each language chooses its own. The strategies range from the full indicative clause to subjunctive clause, the infinitive, the paratactic, the nominalized clause, the participle, and finally, to the regular noun. The generalization is that the more complementation types a language has, the more each type is restricted to a particular construction or complement-taking classes of predicates. Hausa lacks the infinitive form, and, as far as I am aware, the paratactic construction too. Therefore, it would use a nominalized form in places where other languages would have a specialized form. English for example has a more restricted usage of nominalization, as noted by many authors (cf. Foley and Van Valin 1984). Quechua on the other hand, is like Hausa in this regard, and makes an extensive usage of nominalized forms (cf. Lefebvre and Muysken 1988). Despite its centrality, nominalization in Hausa is still poorly understood and this chapter, it is hoped, will contribute to clarifying the situation.

Nominalization has also generated a number of typologically oriented works, notably Comrie and Thompson (1985) and Koptjevskaja-Tamm (1988). The main endeavour of these works is to establish a universal set of possible argument-inheritance patterns from the verb form to the nominalized form. These works are crucial, because they provide the necessary basis for theoretical accounts of nominalization. The problem however is that most of the current theoretical treatments have ignored the typological aspects, and stated their generalization based on individual languages. It is also true however, that even the crosslinguistic surveys have neglected facts other than argument-inheritance patterns, facts which are as crucial in understanding the relationship between verbs and their nominalized forms.

The aim of this chapter is two-fold. First, a more accurate account of Hausa nominalization is given. It will be shown for example that three principles, the tenseless predicate principle, the cosubordination principle, and the functional categorization principle (or FCP), independently and in combination, determine whether a predicate is a verb or a verbal noun. Secondly, this chapter proposes a theoretical account of nominalization based on the RRG Layered Structure of the Clause (LSC). It is proposed that predication is an operator projectable over the levels determined by the LSC. Projection at various nodes defines a continuum of syntactic categories, ranging from the simple noun/ derived nominal

to the nuclear gerund, the core gerund, and finally the verb. In sum, the RRG independently articulated view of the clause structure allows a formal account of the continuum, a protracted problem in most other formal theories.

Section 6.1 below describes the gerund and derived nominal (DN) forms found in Hausa. In section 6.2, the mapping of the noun-verb continuum over the LSC nodes is presented.

6.1 HAUSA GERUND AND DERIVED NOMINAL FORMS

The currently accepted classification of Hausa verbal nouns (VNs) is that assumed by Parsons in most of his works (Parsons 1962:264-5, 1971-72:61 n37 and p.92 n96). In this classification, the distinction is made between "weak" verbal nouns and "strong" verbal nouns. Nowadays however, Abraham's (1959) terms of "primary verbal nouns" (or gerunds), and "secondary verbal nouns" (or derived nominals) are used by most scholars to match Parsons' own conceptions of weak and strong VNs respectively (cf. Gouffé 1966-67). This section shows that the current description simplifies the facts a great deal in that it does not take into consideration the phenomenon of the syntactic Forms and the facts of the gr9 and gr5 cosubordination constructions. First, a summary of the current view is given, then the alternate analysis is presented.

6.1.1 CURRENT ACCOUNTS OF THE VERBAL NOUNS

Bagari (1971), adopting the transformational framework, explicitly links the primary verbal nouns to the notion of gerund and the secondary verbal nouns to that of derived nominal. The two notions are detailed next.

6.1.1.1 Gerunds: "waa" and "non-waa"

Gerundive forms of regular verbs can be related to a particular grade, the semantics and the morphology of which they carry. The total number of gerundive forms a verb can have depends on the number of the grades it operates. Ideally, this number should be at least eight if one includes the gr5 gerunds where dà is dropped or incorporated. Here are three illustrative paradigms below for Katsinanci:

(2)	<u>jeefà</u> 'throw':	<u>cikà</u> 'fill up':	<u>canzà</u> 'change':
G1	jeefääwaa	cikääwaa	canzääwaa
2	jeefaa, jèefaa	*	canzaa, càanzaa
3	*	cikaa	*
8	jeefikeewàa	cikikeewàa	canjikeewàa
4	jeeféewaa	cikéewaa	canjéewaa
5	jeefawwàa	cikawwàa	canzawwàa
6	jeefoowàa	cikoowàa	canzoowàa
7	jèefuwaa	cikuwaa	cànuwaa

As one can see, the suffixation of the nominalizing morpheme -waa is regular in all grades but gr2 and gr3. So, all of the forms in (2) are considered gerundive, but they are distinguished into two classes, the "waa" gerunds and the "non-waa" gerunds (Bagari 1971, Cowan and Schuh 1976, Tuller 1986).

The prominent feature of "waa" gerunds is the fact that they mark their undergoer in the same way as do the corresponding verbs. That is, when an undergoer follows the "waa" gerund, the suffix -waa is dropped and consequently, the verb and the gerund form are morphologically indistinguishable. The situation is illustrated in the contrast below with two sentences in the continuous aspect, which normally requires the gerund forms:

- (3) a. sunàa nunà lèemuu (à) killaa.
 3p.CONT ripen-I lemon (in) garden
 'They are ripening lemon in the garden.'
- b. lèemuu nèe sukèe nunàawaa (à) killaa.
 lemon be 3p.REL CONT ripen-I-VN (in) garden
 'It is lemon that they are ripening in the garden.'

The continuous aspect, in Hausa works, is the primary place to look for the identification of gerundive forms. In sentence (a) above however, when an undergoer immediately follows a gr1 verb, the verb ends in a short vowel, which is also the form of a regular verb. The current assumption is that the verb form is still underlyingly a gerund. Indeed, when the following argument is preposed, as in (3b), then the nominalizing -waa suffix is required on the verb. When the actor argument follows a "waa" gerund, the suffix is not dropped, but the form is affixed with the linker. This is illustrated below:

- (4) a. jeefääwar Abdù
 throw-I-VN-of Abdu
 'Abdu's throwing.'

The suffix is represented with a preceding low tone because in Standard Hausa, the syllable preceding it must have a low or a falling tone (which in Hausa is analyzed as H+L). In

Katsinanci, the falling tone is optionally changed to a high tone, so that alternative forms with the low tone or high tone before the -`waa exist along side the forms in (2) (cf. the gr6 of 'change+come: canzôowaa, canzòowaa, and canzoowàa; based on similar data, Newman 1992 has concurrently formulated a tonal change rule which simplifies falling tone to high).

"Non-waa" gerunds are the forms found in gr2 and gr3, as seen in (2). Their main feature is that they mark their undergoer differently than their corresponding verbs do. When followed by an undergoer, they end in -ar, whereas the regular verb end in -i. In consequence, gr2 and gr3 gerunds are always distinguishable from the plain verbs. This is exemplified below with gr2:

- (5) a. Abdù yanàa halbar kàren Idii.
 Abdu 3ms.CONT kick-II-VN-of dog-of Idi
 'Audu is kicking Idi's dog.'
- b. Abdù yaa hàlbi kàren Idii.
 Abdu 3ms.PERF kick-II dog-of Idi
 'Audu kicked Idi's dog.'

In the continuous sentence (a) above, the gerund is marked -ar (< -aa+-r) before the undergoer argument. In sentence (b), the object follows a regular verb in the perfect aspect, and there is no linker. Consequently, gr2 and gr3 verbs are suffixed with -aa to form the gerund. Grade 7 too, and according to Gouffé (1982), takes the nominalizing suffix -aa, not -`waa, as it appears on the surface. This will be discussed more fully later.

Gerund formation is usually considered to be very productive. As seen above, the gerundive forms of a verb depends on the grades operated by this verb. The gaps in (2) occurs because the verbs do not operate the relevant grades. These gaps then have no incidence on the productivity claim. However, the claim is not totally unchallenged. There exist a class of highly frequent monosyllabic verbs that Parsons (1960, 1962) keeps out of the grade system. When they appear as irregular (or in "grade 0", a notation used in R.M. Newman (1990:xviii) for the monosyllabic and the HH-aa irregular transitive verbs), they have no corresponding gerund, and their DN forms is used in the continuous. If they occur in any particular grade however, then they do have a gerund. Some of these verbs are exemplified below:

(6)	a.	<u>shaa</u> 'drink'	
	Gr0	shaa	(DN only: shâa)
	1	*	
	2	shàayi	shaayaa (Adiranci only)
	3	*	
	8	shaayìkè	shaayìkeewàa
	4	shânyè, shanyè	shânyeewàa, shanyèewaa
	5	shaayar dà	shaayassuwàa
	6	shaawoo	shaawòowaa
	7	shàawu, shànyu	shàayuwaa, shànyuwaa
	b.	<u>ci</u> 'eat'	
	Gr0	ci	(DN only: cîi)
	1	*	
	2	cìyi	ciyaa (Adiranci only)
	3	*	
	8	canyìkè	canyìkeewàa
	4	cânyè, canyè	cânyeewàa, canyèewaa
	5	ciyar dà	ciyassuwàa
	6	ciyoo	ciyòowaa
	7	cìwu, cànyu	cìuwaa, cànyuwaa
	c.	<u>yi</u> 'do'	
	Gr0	yi	(DN only: yîi)
	1-3	*	
	8	*	
	4-5	*	
	6	yoo	yôowaa
	7	yìwu	yìuwaa
	d.	biyaa 'pay'	
	Gr0	biyaa	(DN only: biyàa)
	1	*	
	2	*	
	3	*	
	8	*	
	4	*	
	5	*	
	6	*	
	7	bìyu 'be paid (money)'	bìyuwaa

As one can see, it is only the irregular form that has no gerund. So, the productivity claim can be maintained as long as the regular grade forms are concerned.

In conclusion, "waa" and "non-waa" gerunds differ in that the former take the nominalizing suffix -waa while the latter take only -aa. Also, the "waa" gerunds lose the nominalizing suffix when they are followed by the undergoer, and are then indistinguishable from the plain verb. "Non-waa" gerunds on the other hand retain the nominalizing suffix and also add the linker -r before the undergoer, unlike their corresponding verbs. Note that the gerund types, "waa" or "non-waa", are a property of the grades, not a property of

particular verb stems. In principle, any verb operating a given grade can have a gerund in that grade, so that the derivation is practically automatic.

6.1.1.2 Derived nominals.

Hausa derived nominals (or "secondary verbal nouns"), are standardly likened to English derived nominals (Bagari 1971, Tuller 1986). As far as vowel ending is concerned, there is no regularity in derived nominals formation (except in gr3 and gr7, as will be seen later on). Thus, unlike gerunds, they are not totally predictable, as shown by the examples below (cf. Abubakar 1989 and Wolff 1991 in particular for detailed presentations of the DN formations):

- (7) examples of derived nominals:
- a. jiifàa 'throwing, a throw'
cf. gr1 jeefà 'throw in', gr2 jèefi 'throw at'
 - b. cikòo 'filling up, a fill, a patch'
cìkee 'a patch'
cf. gr1 cikà 'fill up', gr3 cìka 'become full'
 - c. canjìi 'changing, a change, (remaining money) change'
cf. gr1 canzà 'change', gr2 càngi 'change (money)'
 - d. fàskàree 'chopping, chopped wood'
fàskaràa 'chopping'
cf. gr1 faskàrà 'chop', gr2 fàskàri 'chop'
 - e. sàuraàree 'listening, audition'
sàuraaràa 'listening'
cf. gr1 sauràrà 'listen, follow (advice)', gr2 sàuràari 'listen, follow (advice)'
 - f. kàràatuu 'reading, studying'
cf. gr1 karàntà 'read'
 - g. yàboo 'praising, a praise'
cf. gr1 yabà 'praise'
 - h. halbìi 'kicking, a kick, shooting, a shot'
cf. gr1 halbà 'shoot, throw (leg)', gr2 hàlbi 'shoot at, kick'
 - i. bugùu 'hitting, a hit, a blow'
bùgee 'wall decoration, wall decoration items'
cf. gr1 bugà 'hit against, affix, nail', gr2 bùgi 'hit on'
 - j. taBìi 'a touch, an experience'
cf. gr1 taBà 'touch, to have experienced once', gr2 tàBi 'touch'

- k. kaamùu 'catching, a catch, an arrest, (hand apposition) cure'
kàamee 'reservation'
cf. gr1 kaamà 'catch, reserve'
- l. gìnnaa 'digging, digged hole'
ginìi 'construction, wall'
cf. gr1 ginà 'dig, build'
- m. dàfee 'gift of cooked food'
dafii '(cooked) poison'
dàfuwaa 'cooking'
cf. gr1 dafa 'cook'
- n. kashìi 'killing'
kishìi, kisàa 'beating'
cf. gr1 kasà 'divide', gr2 kàshi 'beat on', gr4 kashè 'kill'

Usually, verbs have only one DN for action nominalization. However, some verbs can have two action nominalization DNs if they are polysemic as illustrated above (see kaamùu 'catch' and kàamee 'reservation' in (7k)). Most of the DNs can have a non-action nominalization sense (for example result nominalization), as one can see in (7) above. Note that in (4m) gr1 dafà 'cook' has a "waa" gerund dafàawaa distinct from the DN dàfuwaa. In the current view of Hausa nominalization, a verb can lack an action DN for two reasons. In the first case, a derived nominal exists but serves some purposes other than action nominalization. In this case, gerundive forms are used in all contexts requiring nominalization. Some examples of such verbs are given below:

- (8)
- a. fâaDii 'epilepsy' (also falfaaDiyaa)
fâaDee 'rape'
faaDùwaa 'falling, a fall'
cf. gr1 faaDà 'attack', gr3 faaDì 'fall'
 - b. isòo 'announcement (of visitor to emir)'
isòowaa 'arriving, arrival'
cf. gr6 isoo 'arrive here'

In the current thinking, the VNs in -waa in (a-b) above are gerunds functioning as DNs. In the second case, some verbs, a limited number I believe, can lack any type of derived nominal. Again, the gerund will be used in all contexts requiring nominalization. Some examples of verbs totally lacking a derived nominal are given below:

- (9)
- a. mutuwàa 'dying, death'
cf. gr3 mutù 'die'
 - b. koomàawaa, koomòowaa 'returning, return'
cf. gr1 koomàa 'return', gr6 koomoo 'come back'
 - c. zôwwaa 'coming, arrival'
cf. zoo 'come'
 - d. buushèewaa '(s.th.) drying', 'dryness' (Tuller 1986:42)
cf. gr4 buushèe 'become dry'

Because of their apparent -waa ending, the VN forms in above are also analyzed as gerunds functioning in lieu of derived nominals. One can note that there is a DN zuwàa that corresponds only to the irregular jee 'go', not to the gr6 zoo 'come'.¹

In conclusion, Hausa is currently thought to have two types of VNs, the gerunds (or primary VNs) and the derived nominals (or secondary VNs). The gerunds, "waa" and "non-waa", are regular and very productive in formation and meaning. The DNs on the other hand are unpredictable in their formation and meaning. The two classes are taken to resemble the English gerunds and derived nominals. In the subsections to follow, we will see that this classification is not adequate. It is proposed that three separate contexts need to be distinguished in order to fully account for Hausa nominalized forms. Here is a terminological note before proceeding. In Hausa linguistics (except Newman), the distinction is not made between participles and VNs (gerunds or DNs). Normally, VNs are only the nominalized verbs that appear in typical NP slots, as arguments of another verb for example. Participles on the other hand still appear in verbal position in nominalized clauses, and are usually homophonous with the VNs. In this work, I will continue the Hausa tradition and will call VN any non-finite verb form or DN. The nominalization principles in Hausa are presented next.

6.1.2. TENSELESS PREDICATE PRINCIPLE

This principle tries to capture the fact that in tenseless environments, a VN form is used rather than a plain verb. The tenseless environments most of the time involve some kind of subordination. Because it played a key role in Hausa nominalization studies, one such environment, the continuous aspect, will be presented here in detail, along with other subordinate constructions.

6.1.2.1 The continuous nàa

The continuous is taken to involve an auxiliary aspect marker nàa, and a primary verb. The primary verb, if it is not followed by an argument, is always in a non-finite form. This is why the continuous aspect has always been looked to to find gerundive forms of verbs. Marking the continuous however is not the only function of nàa. It can be followed by almost any other syntactic category. Newman and Schuh (1974:26) for example claim that nàa can be followed by a "verbal", a locative, the stative, or a PP (=their "Have"). In fact, nàa can also appear before a gerund or a DN, a regular noun, an adjective or past participle, and an adverb. The exact meaning of nàa changes according to the constituent that follows it, and the general context, as will be seen shortly. First, let us consider the continuous aspect marking, where nàa can be optionally followed by a preposition before the primary verb, gerund or DN:

- (10) a. Indoo tanàa (gà) kaamàawaa.
Indo 3fs.CONT (at) catch-I-VN
'Indo is catching (something).'
- b. Indoo tanàa (gà) kaamùu.
Indo 3fs.CONT (at) catch-DN
'Indo is catching (something).'

Both the above sentences express the continuous, with or without the preposition gà. When gà is omitted, then nàa can be considered as a tense/ aspect auxiliary. So, in GB treatments (Bagari 1971, Tuller 1986), this status is formalized by attaching nàa to the INFL node. Neither of these two GB/ transformational works takes into account the continuous construction with gà, where nàa cannot be an INFL element, or the clause will have no verb. In the GB analyses then, one will have two different nàa's, an auxiliary aspect marker and plain verb when followed by a PP. A simpler solution will be to analyze nàa as a main verb, which can take a gerund, a DN, or a PP as complement. In all these cases, nàa should be understood as expressing the sense of 'be at', properly or metaphorically. This will constitute a generalization from cases where nàa expresses real location, as illustrated below:

- (11) Indoo tanàa cikin Daakìi.
Indo 3fs.be inside-of room
'Indo is in the room.'

In the above sentence, the noun cikin Daakìi 'inside of room' is understood as a locative. Because there is no other verb, nàa is necessarily the main verb.

In other contexts, nàa takes the reading of 'be' only. This happens when it is followed by an adjective, a stative, a status, role or identity nominal, as illustrated below:

- (12) a. Abdù yanàa Kàramii sa'àrdà uwarshì ta
 Abdu 3ms-be little time-of-when mother-of-3ms 3fs.REL PERF
 tàfi makkà.
 go-III Makkà
- 'Abdu was little when his mother went the Mecca.'
- b. sun ìskè Indoo tanàa zàmne bisà kujèeraa.
 3p.PERF find-VIII Indo 3fs-be sitting on chair
 'They found Indo sitting on a chair.'
- c. Gòwòn nàa shùugàban Nàjeeriyyàà à lookàcin yaaKìn Ojukwù.
 Gowon be leader-of Nigeria at time-of war-of Ojukwu
 'Gowon was the leader of Nigeria during the Biafra war.'
- d. Lookàcîn nan Muhammad Ali nàa Muhammad Alinshì.
 time-DEF then Muhammad Ali be Muhammad Ali-of-3ms
 'Then Muhammad Ali was for real.'

In all the sentences above, nàa can reasonably be glossed as 'be'. In Van Valin 1992 (based on Schwartz 1992), attributive and identificational sentences in English and Italian are analyzed as involving an incorporation of the attribute into the predicate 'be'. Syntactically then, 'leader' in 'Gowon was the leader' is not an argument, but it is part of a complex predicate.²

Yet in still other constructions, nàa is understood as meaning 'do', 'say' or 'have'. these senses are illustrated below:

- (13) a. Aali yanàa shìgifikasi.
 Ali 3ms.do room
 'Ali is building a room.'
- b. yaaròo nàa "kù gusàa kù baa nì hanyàà".
 child do 2p.SUB move-I 2p.SUB give 1s way
 'The child went: please move and give me the way.'
- c. Indoo tanàa dà kyaawòò/ Indoo tanàa dà kuDii.
 Indo 3fs.be with beauty/ Indo 3fs-be with money
 'Indo is beautifull'/ 'Indo has money' or 'Indo is a rich person'

The 'do' sense in sentence (a) is literal, but it can be conceived as metaphorical in the (b) sentence. Indeed, nàa can mean 'say' only in direct speech constructions, which shows that it

is not equivalent to the real verb 'say'. The 'have' sense too in sentence (c) can be reduced to the 'be' reading to obtain 'be with' in combination with the preposition dà.

Viewing nàa as the main predicate is also consistent with the fact that modal elements can intervene easily between it and the following constituent. This would parallel the situation with a regular verb, where a modal can come before the complement. Insertion with nàa is illustrated below:

- (14) a. Abdù yanàa **fa/ dai/ kau** faDàa mà sarkiizancee sai...
 Abdu 3ms-CONT **indeed** tell-I-VN IX emir matter when
 'Abdu was telling the emir the matter when...'
- b. ...Abdù yanàa kumaa **diddiìbaawàa** Dakà.
 Abdu 3ms-CONT on.the.other.hand **REDUP-search-I-VN** in.room
 '...while Abdu, on his side, was searching the room.'

Sentence (a) above shows monosyllabic modals intervening between nàa and a gerund form. In sentence (b), and more significantly, one gets a disyllabic modal before the gerund. Except fa, all other modals were shown to be impossible in the cosubordination structures involving gr9 mà and gr5 dà. The continuous marker nàa is therefore not in cosubordination with the following gerund. Rather, one can generalize and say that it is a main predicate taking a variety of categories and constructions as complement. Because gerunds as well as DNs can follow nàa in its continuous aspect marking function, the continuous construction is not the ideal place to look in for gerund forms, contrary to what is assumed in most Hausa studies.³

6.1.2.2 Other subordination constructions

As one would expect, regular verbs too can take a sentential complement, and if no tense is specified in the subordinate clause, its verbal head turns into a VN. This is illustrated below:

- (15) a. sun nèemi sù jee sù gan shì.
 3p.PERF search-II 3p.SUB go 3p.SUB see-II 3ms
 'They tried to go and see him.'
- b. sun nèemi zuwàa ganii nài.
 3p.PERF search-II go-DN see-DN his
 'They tried to go and see him.'

In sentence (a), the main verb nèemi 'search' is followed by two tensed coordinated clauses as complement. An alternative, as shown in (b), is to have the complement clauses headed by

VNs (nài in (b) is a contracted form of the possessive pronoun naa-yà 'of-3ms'). It is clear then that tense/ aspect marking is relevant to whether one has a VN or a plain verb.

There are special verbs, sometimes called auxiliaries (cf. Jaggar 1977) which take only a nominalized clause or a noun as complement, but do not admit tensed clauses. Verbs of the 'begin, finish' class are good examples, and are illustrated below:

- (16) a. yaaròo yaa faarà zuwàa makarantaa.
 child 3ms.PERF begin-I go-DN school
 'The child began to go to school.'
- b. yaa Kaarè cîn àbinci.
 3ms.PERF finish-IV eat-DN-of food
 'He finished eating.'

Also, the complement clause can naturally fill any argument slot, for example the pivot position, or the preposition argument position, as well as more particular environments, as illustrated below:

- (17) a. koomàawaa Kàtsinà taa mà Abdù wùyaa.
 return-I-VN Katsina 3fs.PERF MA Abdu difficulty
 'returning to Katsina is difficult for Abdu.'
- b. Indoo taa mà yâara zancee gâme dà zuwàa
 Indo 3fs.PERF MA children talk about with go-DN
 makarantaa.
 school
 'Indo talked to the children about going to school.'
- c. yâara sukà yii ta halbar kèren
 children 3p-REL PERF do INTENSIVE kick-II-VN-of dog-of
 mutàanee.
 people
 'The children kept kicking some people's dog.'
 (lit.: children did that of kicking people's dog)
- d. ìnaa Abdù ìnaa zuwàa kàasuwaa yànzu dà baayàa
 where Abdu where go-DN market now that NEG.CONT-3ms
 dà kuDii!
 with money
 'How can Abdu go to the market, now that he is penniless!'

- e. bâa zuwâa makarantaa.
NEG go-DN school
'There is no going to school.'
- f. bandâ shân giyâa dai!
NEG-with drink-DN-of beer indeed
'Do not drink beer!' (lit.: without drinking beer please!)

In sentence (a) above, the pivot is a nominalized clause and is referred to by a third person feminine PVP. In sentence (b), the nominalized clause appears as an argument of the preposition dà 'with'. Sentence (c) presents the most common construction expressing the idea of a sustained or repetitive action. I suspect that here, the argument of the main verb yii 'do' is the whole possessive phrase ta [halbar kâren mutâanee] (cf. ta [Abdù] 'that(f) of Abdu'). In this analysis then, the tenseless clause would alternate with a nominal like Abdù in the just seen example. Sentence (d) shows a construction called "modalité d' incompatibilité-dominance" in Attouman (1987), where the action or entity introduced by the second inâa 'where', is interpreted as being totally out of reach, in any type of relationship, for the referent of the nominal introduced by the first inâa. Both inâa's particles can only be followed by a non-tensed complement. In (e), a nominalized clause appears in a negative construction which usually takes only nominals (Newman 1971). The negative construction in sentence (f) is used to specify exceptions (bandâ Abdù '(everyone) except Abdu'), or things that are not to be done. In all sentences (a-f), a tensed clause in lieu of the nominalization is impossible.

This subsection showed that tense/ aspect marking plays a role as to whether a clause is nominalized or not. Hausa having no infinitive category, when the clause is tenseless, the verb is turned into a VN. This happens in subordination structures such as the continuous nâa, as well as NP specific environments. We have also seen that both gerunds and derived nominals can appear with nâa as an aspect marker. Therefore, the continuous construction is not a reliable environment for identifying gerund forms. The next section presents a context where only gerund forms are acceptable.

6.1.3 THE COSUBORDINATION PRINCIPLE

This subsection explores the effects of the cosubordination structure on the categorial status of a primary predicate. It is shown that cosubordination structures are the appropriate environment for identifying gerund forms. Indeed, and contrary to the continuous nâa construction, the cosubordination structures admit only one single VN form for any given grade. The claim is made that that VN form is the real gerund. The cosubordination gerund

perfectly matches the gerund found in the continuous of gr2, but does not entirely do so in the continuous of other grades. The facts in gr1, gr4, and gr6 on the one hand, and gr2, gr3, and gr7 on the other hand are presented next.

6.1.3.1 Gerunds in gr1, gr4, and gr6 cosubordination structures

As seen in the section 6.1.2 --cf. (10)--, for a gr1 verb such as kaamà 'catch', the continuous admits three forms. Two of these forms are recognized as gerunds, kaamà (before undergoer, with -waa non-realized) and kaamàawaa (with not argument following); and one is recognized as the DN, kaamùu 'catching, catch'. The main claim here is that the basic gr1 gerund for the verb kaamà 'catch' is the form kaamà, found in cosubordination before mà and dà. As it will be shown in section 6.1.4 below, the traditional gerunds kaamà and kaamàawaa are only two contextual variants of the gerund kaamà.

There are many formal tests available which can distinguish the verbal and gerund categories as opposed to the DN. For example, verbs and gerunds can be derived into intensive forms (or "pluractional" forms) with reduplication of the first syllable. DNs on the other hand require complete reduplication to derive pluralized forms. This is illustrated below:

- (18) a. tanàa **kakkàamaa** mà Indoo awaakii.
 3fs-CONT REDUP-catch-I-VN IX Indo goats
 'She is catching goats for Indo.'
- b. tanàa **kakkàamaawàa**.
 3fs-CONT REDUP-catch-I-VN
 'She is catching here and there.'
- (19) a. tanàa kaamùn/ kàame kàamen kiifii.
 3fs-CONT catch-DN-of/ REDUP catch-DN-of fish
 'She fishing here and there.'
- b. *tanàa **kakkamùn** kiifii.
 3fs-CONT REDUP-catch-DN-of fish
 'She fishing here and there.'

A cosubordination gerund in (18a) and a -waa-suffixed gerund in (18b) are shown appearing with the partial reduplication. A DN such as kaamùu can only undergo the total reduplication, as shown in (19a), not the partial reduplication, as seen in the ungrammatical (19b). The gerund and the DN also differ in that only the DN and regular nouns can appear as complement of yi 'do' (cf. also Tuller 1986:41, among others). This is illustrated below:⁴

- (20) a. taa yi kaamùn kiifii.
 3fs.PERF do catch-DN-of fish
 ?'She did fishing.'
- b. *taa yi kaamàa mà Indoo awaakii.
 3fs.PERF do catch-I-VN IX Indo goats
 *'She did catching goats for Indo.'
- c. *taa yi kaamàawaa.
 3fs.PERF do catch-I-VN
 *'She did catching.'

In sentence (a), the DN appears as complement of *yi* 'do'. The cosubordination gerund and the -waa-suffixed gerund cannot, as shown in sentences (b-c) respectively. Finally, only DNs can appear in a possessive construction with a time or place adverbial to designate the product of an action obtained at the time/ place specified by the adverbial. This is illustrated below:

- (21) a. wannàn kaamùn jiyà nee.
 this catch-DN-of yesterday cop
 'This is yesterday's catch (pointing to fish bucket).'
- b. ?wannàn kaamàawar jiyà nee
 this catch-I-VN-of yesterday cop
 ?'This is yesterday's catching (pointing to fish bucket).'
- c. *[wannàn kaamàa mà Indoo]-n jiyà nee
 [this catch-I-VN IX Indo]-of yesterday cop
 *'This is yesterday's catching for Indo (pointing to fish bucket).'

Again, the DN is fine in the possessive adverbial construction, as sentence (a) shows. The -waa-taking gerund is somewhat marginal in the same construction, while the cosubordination gerund is simply impossible, as seen in sentences (b-c) respectively.

Thus, both the cosubordination form kaamàa and the kaamàawaa form are gerunds. There are a couple of advantages in taking the cosubordination form as the basic gerund. First, from a theoretical perspective, and in view of the arguments for a cosubordination analysis presented in chapter 5, one would expect to find a gerund before mà. The analysis is also consistent with the facts of gr2 where the gerundive nature of the pre-mà form is more obvious. Taking kaamàa as the basic gerund also allows one to consider -àa as the nominalizing suffix, that is, the same suffix found as nominalizer with the syntactic Forms.

With gr4 and gr6, there is some adjustment to be made. The suffix -àa there does not appear evidently in the cosubordination gerund. But the cosubordination form, at least in gr4, is still different from the plain verb. This is illustrated below:

- (22) a. taa kaamè àkuyàa.
 3fs.PERF seize-IV goat
 'She seized the goat firmly.'
- b. taa kaamèe mà Indoo àkuyàa.
 3fs.PERF seize-IV-VN IX Indo goat
 'She seized Indo's goat firmly.'
- (23) a. taa kaamoo àkuyàa.
 3fs.PERF seize-VI goat
 'She seized the goat and came.'
- b. taa kaamoo mà Indoo àkuyàa.
 3fs.PERF seize-VI-VN IX Indo goat
 'She seized Indo's goat and came' or 'She seized a goat for Indo and came.'

For gr4, the cosubordination gerund in (22b) has a lengthened vowel when compared to the plain verb of (22a). At this point I will assume that the -àa morpheme have fused with the terminal vowel of the grade and manifests itself only through the lengthening. In gr6, the cosubordination gerund in (23b) is homophonous with the plain verb in (23a) which also ends in a long vowel.

In conclusion, a new gerund form was suggested for gr1, gr4, and gr6 verbs. This gerund is formed by the affixation of a low-toned nominalizer -àa (the low tone is raised to high for trisyllabic verbs by the Leben's Tone Raising rule, cf. kakkàamaa mà in (18a) above and chapter 5). The traditional gerund in -waa and its reduced version before undergoer argument are derived, and are due to a process --the functional categorization principle-- to be explored in section 6.1.4 below.

6.1.3.2 Gerunds in grade 2

As said before, in gr2, the HH-aa form of the verb which appears in cosubordination with gr9 mà and gr5 dà also appears in the continuous, where it alternates with the DN (although for many verbs, especially the gr2 irregular verbs, the DN has completely replaced the gerund form in the continuous --see section 5.1.4.2). However, there are some dialectal differences over the exact shape of the gr2 gerund appearing in the continuous. Most Hausa accounts --such as Gouffé (1966-67), Galadanci (1969)-- reports that the gr2 gerund in the continuous is LH-aa shaped, therefore homophonous with the gr2 A-form. Gouffé cites the forms kàrBaa 'receive' and hàlbaa 'shoot' as the gr2 gerund or A-form of kàrBi and hàlbi respectively. As far as I am aware, no one has questioned the pandialectal validity of the above observation. But in fact, in Katsinanci, the continuous gr2 gerund has the shape HH-aa, such as with karBaa 'receive' and halbaa 'shoot'. The HH-aa form is an acceptable

alternate in Standard Hausa, in a way in which the LH-aa A-form is not acceptable in Katsinanci.⁵ In effect then, for most gr2 verbs, there are three possible continuous constructions, as illustrated below:

- (24) a. Indoo tanàa halbìn jàkkin Aali.
 Indo 3fs-CONT kick-DN-of donkey-of Ali
 'Indo is kicking Ali's donkey.'
- b. Indoo tanàa halbar jàkkin Aali.
 Indo 3fs-CONT kick-II-VN-of donkey-of Ali
 'Indo is kicking Ali's donkey.'
- c. Indoo tanàa hàlbar jàkkin Aali.
 Indo 3fs-CONT kick-II-VN-of donkey-of Ali
 'Indo is kicking Ali's donkey.'

In sentence (a) above, the DN form is used, and this construction is found in all dialects. Apparently, in the dialect of Niamey, the DN is the only acceptable form for most verbs. In more central dialects such as Katsinanci and Standard Hausa, the HH-aa form is also possible, as shown in (b). The LH-aa form of sentence (c) above is limited to Standard Hausa or the east dialects. We will see later that the LH-aa form is also a gerund, but the claim of this subpart is that the HH-aa form is another gerund form of gr2, which is dialectally more widespread. Beside its dialectal generality, the HH-aa form is also found in cosubordination structures. No dialect accepts the LH-aa form or the DN as cosubordination form, as seen below:

- (25) a. Indoo tanàa halbam mà Aali jàkkii.
 Indo 3fs-CONT kick-II-VN-of IX Ali donkey
 'Indo is kicking Ali's donkey.'
- b. *Indoo tanàa hàlbam mà Aali jàkkii.
 Indo 3fs-CONT kick-II-VN-of IX Ali donkey
 'Indo is kicking Ali's donkey.'
- c. *Indoo tanàa halbìn mà Aali jàkkii.
 Indo 3fs-CONT kick-DN-of IX Ali donkey
 'Indo is kicking Ali's donkey.'

As it can be seen, the cosubordination construction is more restrictive in that it allows only one type of gerund, the HH-aa form, whereas the continuous nàa allows all three forms. Therefore, in general, one can consider the cosubordination construction to exclusively show the gerund form (the reason why the DN and the gerunds all take the possessive linker before mà in (25) and before an undergoer in (24) will be dealt with in section 6.2).

The nominalizing suffix for gr2 verbs can be posited as having the shape (H)(H)HH-aa. This means that all the tones of the gerund are high, and that it ends in /aa/. This is illustrated below:

- (26) grade 2 gerunds:
- a. hàlbi 'shoot at' halbaa
 - b. Bàlgàci 'break off (s.th.)' Balgataa
 - c. BÀBàlgàci 'break off (s.th.)' BaBBalgataa

With respect to the VN formal tests, the gr2 high-toned gerund behaves like a gr1 gerund except that it does not clearly undergo the verbal partial reduplication. This is illustrated below:

- (27) a. *yaa yi halbar bàalôo/ Balgatar ginìi.
3ms.PERF do kick-II-VN-of ball/ breaking-II-VN-of wall
'He did ball kicking/ wall breaking.'
- b. ?yanàa **hah**halbar bàalôn/ **BaB**Balgatar
3ms-CONT REDUP-kick-II-VN-of ball/ REDUP-breaking-II-VN-of
ginìi.
wall
'He is kicking the ball/ breaking the wall.'
- c. *wannàn halbar/ Balgatar jiyà nee.
this shoot-II-VN-of/ break-II-VN-of yesterday cop
*'This is yesterday's shooting/ breaking off.'

Thus, the gerund does not appear as a complement of *yi* 'do', nor does it appear in adverbial possessive constructions, as shown in sentences (a,c) respectively. The ability to undergo the partial reduplication is questionable, as seen in sentence (b). This fact is not surprising, because, in the next section, we will see that the gr2 gerund is closer to the DN than is the gr1 gerund. The DNs on the other hand behave like real nouns, as illustrated below:

- (28) a. yaa yi halbìn bàalôo/ Bàlgatàr ginìi.
3ms.PERF do kick-DN-of ball/ breaking-DN-of wall
'He did ball kicking/ wall breaking.'
- b. yanàa hàlbe hàlbee/ Bàlgàce Bàlgàcee.
3ms-CONT REDUP kick-DN/ REDUP breaking-DN
'He is giving kicks/ breaking things here and there.'

- c. wannàn halbìn/ Bàlgatàr jiyà nee.
 this shoot-DN-of/ break-DN-of yesterday cop
 *'This is yesterday's shooting/ breaking off.'

These facts distinguish the gr2 gerunds and the DNs, although these two categories have some points in common, the foremost being their ability to take the possessive linker before their argument.

In this subpart, we have seen that gr2 gerunds have an all high tone pattern and end in -aa. This contrasts with previous descriptions where the gr2 gerund is equated with the A-form only. The A-forms do not appear in the continuous for most dialect, and they should not be taken as the only gerund form. The HH-aa forms on the other hand occur Hausa-wide. In this work, cosubordination structures are claimed to be the place of choice for identifying a verb's gerund form in Hausa.

6.1.3.3 Gerunds in grade 3

For virtually any description of Hausa dealing with the topic, the gerund of a gr3 verb is obtained simply by lengthening the final /a/ vowel. This claim is based on the fact that the form appearing in the continuous has a lengthened vowel, as illustrated below:

- (29) a. Abdù yaa fita.
 Abdu 3ms.PERF go.out-III
 'Abdu went out.'
- b. Abdù yanàa fitaa.
 Abdu 3ms-CONT go.out-DN
 'Abdu is going out (i.e. will go out).'

We have seen above that almost any syntactic category can follow the continuous nàa. So, the fact of sentence (29b) cannot be taken as evidence that fitaa is a gerund. On the other hand, it is also recognized (for example Tuller 1986:86) that gr3 verbs do not usually have a corresponding DN form. This mean that in all environments requiring a nominal form the purported fitaa-type gerunds are used. The fact is these forms are DNs, not gerunds. This can be evidenced with the VNs test as in below:

- (30) a. yaa yi faadùwaa mugunyàa/ kùmburàa mai daamaa.
 3ms do fall-DN bad/ swell-DN owner.of a.lot
 'It had a bad fall/ it swelled a lot.'
- b. màasu fice ficee
 POSS-3p REDUP going.out-DN
 'Those always going out'
 (cf. màasu fitaa 'those going out'.)

- d. wannàn mangwàro faaDùwar jiyà nee.
 this mango fall-DN-of yesterday cop
 'This mango fell (from tree) yesterday.'

In sentence (a) above, the so-called gr3 gerund appears as a complement to yi 'do' (faaDùwaa 'falling' is an irregular gr3, and takes the epenthetic /w/ before the suffix -àa). Note also how the gr3 form can be modified by an adjective mugunyàa 'bad'. In sentence (b) the form can undergo total reduplication, and in sentence (d) faaDùwaa 'falling' is the head of the adverbial possessive construction. Thus, the gr3 "gerunds" actually exhibit the characteristics of DNs. Not only can they be action DNs, the gr3 forms can also take unpredictable senses, which is typical of DNs. Thus, sàbkaa (from gr3 sàbka 'get down') is used for '(koranic) graduation' (cf. sun tafi wajen sàbkaa 'they went to the graduation ceremony'); ìsaa (from gr3 ìsa 'arrive, suffice') is used for arriving and sufficing, but also for 'arrival' and 'insolence' (cf. yaa yii manì ìsaa 'he was insolent with me', lit: 'he did sufficiency to me').⁶

The fitaa-type forms are then DNs which have replaced the regular gerunds in the continuous, as suggested in chapter 5. It is only in cosubordination structures that one finds the gr3 gerund, which has a high-toned pattern and end in -aa. This is illustrated below:

- (31) a. yaa karantar dà Dantà.
 3ms.PERF teach-III-VN-of V son-of-3fs
 'He taught her son.'
- b. kurjii yaa fitam mà Abdù à kumcìi.
 rash 3ms.PERF get.out-III-VN-of IX Abdu on cheek
 'A rash appeared on Abdu's cheek.'
- c. *kurjii yaa fitam mà Abdù à kumcìi.
 rash 3ms.PERF get.out-III-DN-of IX Abdu on cheek
 'A rash appeared on Abdu's cheek.'

Sentences (a-b) above shows the high-toned gerunds in cosubordination with gr5 dà and mà respectively. Sentence (c) shows that the LH-aa DN fitaa 'getting out' cannot appear in cosubordination constructions (note that the linker -r assimilates to the next consonant, thus, *fitar mà > fitam mà; similarly, karantar dà in sentence (a) is usually pronounced karantad dà).

Incidentally, this analysis of the gr3 VN motivates the inclusion of the HL-i class of irregular verbs into gr3 (cf. section 4.3.2). This inclusion may seem arbitrary or even problematic in the perspective of the old grade system. The problem is that the irregular HL-i verbs would not have a "gerund" similar to that of regular gr3 verbs in the continuous

(cf. gr3 yanàa fitaa 'he is going out' and HL-i yanàa taashìi/ *tàasaa 'he is rising', from taashì 'arise'). If however the "gerund" fitaa is in fact a DN, then it would correspond to the DN taashìi 'rise, move', and there would be no need for a form like *tàasaa. The variation in the DN formation patterns would not be a surprise (that is, verbs of the same grade can have different DN formation patterns, as with gr2 jèefi 'throw at' and its DN jiifàa 'a throw', as compared to gr2 hàlbi 'shoot', which has the DN halbìi 'shot'). On the other hand, both regular gr3 verbs and irregular HL-i verbs have the same HH-aa cosubordination gerund (cf. yaaKii yaa taasam mà Jibiyàa 'the war set off for Jibiya', from yaaKii yaa taashì 'the war broke out').

In conclusion, we have seen that the form that is generally believed to be the gr3 gerund is in fact a DN. The real gr3 gerund appears in cosubordination structures and has the same shape as the gr2 gerund. They both take the suffix (H)(H)HH-aa and require the linker before mà/ dà and, for gr2, before an undergoer argument.

6.1.3.4 Gerunds in grade 7

Like for gr3, the gr7 gerund was assumed to be the form that appears in the continuous, as illustrated below:

- (32) àbinci baayà tàBuwa.
 food NEG.CONT-3ms touch-VII-VN
 'The food is untouchable.' (i.e. it is hot)

The sentence above is in the negative continuous, and thus requires a VN, here the gr7 form tàBuwa 'be touchable'. This form also appears in all other environments requiring nominalization. Before Gouffé (1982), gr7 continuous forms were likened to the gr1-type -waa-suffixed gerunds. The main problem with this analysis, as noted by Gouffé, is the fact that the tone preceding /waa/ in the gr7 gerund is never low or falling. The real gr1-type -waa has its low tone realized on the preceding syllable as low or falling (cf. gr1: kaamà+`waa => kaamàawaa 'catching'; gr6: kaamoo+`waa => kaamòowaa or kaamôowaa; In Katsinanci the falling tone can be levelled to high, but then, the tone on the /waa/ itself becomes low --kaamoowàa--, which is not the case in gr7). So, for Gouffé, if the gr7 suffix was really -waa, then the derivation would have been: gr7 kàamu+`waa => *kàamûwaa (or in Katsinanci *kàamuwàa). Neither of these forms is possible in any dialect. Instead one finds the pandialectal kàamuwaa 'be catchable'. Gouffé (1982) concludes that the real nominalizer for gr7 is the suffix -aa. According to Gouffé, this suffix is the same one finds in gr3 VNs such fitaa 'going out'. The only difference is that in gr7, the -aa suffix requires

an epenthetic /w/.(cf. kàamu+w+aa). Because he takes the gr3 fitaa-type VNs as gerunds, Gouffé, and most other Hausaists, considered gr7 VNs such as kàamuwaa as gerunds too.

The gr7 kàamuwaa-type VNs are less amenable to the three VN tests used previously. For example, the total pluralization test applies best to dynamic predicate, whereas gr7 expresses passive. However, they do occur in another construction which also requires nouns or DNs only. The construction uses the word maràC to express the negative sense of 'lack-er of NP' (maràC is a contraction of the agentive nominal maràshii 'lack-er', from gr1 rasà 'lack, default', and where "-C" indicates an assimilation to any following consonant). This is illustrated below:

- (33) a. maràk kàamuwaa
 lacker be catchable
 'the non-catchable'
 - b. marày yànkuwaa
 lacker be.able.to.be.cut
 'the one that cannot be cut'
- (34) a. *maràk kaamàawaa
 lacker catch-I-VN
 'the one that cannot catch' or 'the one not catching'
 - b. *marày yankà naamàa
 lacker cut-II meat
 'the one that cannot cut meat' or 'the one not cutting meat'

In (33), the gr7 VNs can appear with maràC, but not the gr1 -waa-suffixed gerund or its version before undergoer argument, as shown in (34a-b) respectively. Thus, gr7 VN behaves more like nouns, which can appear with maràC (cf. maràk kuDii 'the one lacking money, the poor', maràs saa'aa 'the unlucky'). Other DNs too can occur easily in the construction (cf. maràf fitaa (gr3) 'the one not going out', maràssaa kaamùn kiifii 'the ones not catching fish' --maràssaa is the plural of maràC--, etc).

Also, there are a couple of the gr7 VNs which have developed an idiosyncratic meaning, a fact typical of DNs. Thus, dàfuwaa (from dàfu 'be cooked') means 'cooking', beside 'be able to be cooked'; tàBuwaa (from tàBu 'be touched' or, by extension, 'be crazy') means 'insanity' beside 'be touchable'. It can be concluded then that these forms are DNs, which have replaced the real gr7 gerunds in the continuous, as it is the case with gr3 and certain gr2 verbs.

The true gr7 gerunds are again to be found in the cosubordination structures. The problem is that their number is very limited. There are only two known gr7 verbs able to

occur with mà, while only one gr7 verb, as far as I am aware, appears with gr5 dà. The three verbs are again given below:

- (35) a. sun taaram mà Abdù.
 3p.PERF gather-VII-VN-of IX Abdu
 'They ganged up on Abdu.'
- b. àbindà ya abkam mà Abdù.
 thing-that 3ms.REL PERF befall-VII-VN-of IX Abdu
 'The thing that has befallen Abdu.'
- c. taa wanzar dà kuDii.
 3fs.PERF remain.over-VII-VN-of V money
 'She made the money last.'

The form in the (a) sentence derives from tàaru 'gather, be gathered', that in sentence (b) is derived from àbku 'happen', and that in sentence (c) is derived from wànzú 'remain over'. All three forms have a high-toned pattern and take the linker before mà. They thus behave like gr2 and gr3 gerunds, and can be assumed to use the same (H)(H)HH-aq suffix.

6.1.3.5 Gerunds in grade 0

Grade 0 (cf. R.M. Newman 1990:xviii) denotes the occurrence of the irregular verbs as irregular, that is, when they are not operating any grade. In this mode, they are generally claimed to have no gerund. Indeed, they use only their DN forms in the continuous. This is illustrated below:

- (36) a. Abdù yaa ci tuwoo.
 Abdu 3ms.PERF eat staple
 'Abdu ate staple food.'
- b. Abdù yanàa cii/ cîn tuwoo.
 Abdu 3ms.CONT eat-DN/ eat-DN-of staple
 'Abdu is eating (s.th.)/ is eating staple food.'

In sentence (a), the plain irregular verb for 'eat' is ci. In the continuous, the DN form cii (or cîn before undergoer argument) is used, as shown in sentence (b). These are indeed true DNs. cii can appear totally reduplicated (yaa yi cìye cìyee 'he ate here and there'), it can be complement of yi 'do' (see previous example, and also yaa yi cîn mutuncii 'he betrayed' --lit: 'he did eating-of humaness'). It can also appear in possessive adverbial constructions (wannàn bungài cîn jiyàa nee 'this carcass is yesterday's kill' --lit: 'this carcass eating-of yesterday is'). Other irregular DNs are bii (from bi 'follow'), jii (from ji 'hear'), Kii (from Ki

'refuse'), jâa (from jaa 'pull'), shâa (from sha 'drink'), fîi (from fî 'surpass'), yîi (from yî 'do'), etc.

Not surprisingly, these DNs cannot appear in cosubordination with mà or dà. In this context, one finds a high-toned form cii, as illustrated below:

- (37) a. Abdù yaa cii/*cîn mà Aali tuwoo.
 Abdu 3ms.PERF eat-VN/ eat-DN-of IX Ali staple food
 'Abdu ate Ali's staple food.'

As one can see only the high-toned form is acceptable before mà. These are what I will assume to be the gerund form of this class of verbs. Notice that the irregular verbs' gerund does not take the linker before mà (except a few cases, see chapter 5, nxx). In this respect, they pattern like gr1-type gerunds, and unlike gr2, gr3, and gr7 gerunds.

In conclusion, in this subsection 6.1.3, it was shown that the real gerunds are to be found in cosubordination structures, not in the continuous aspect construction. In gr1, verbs are suffixed with the low-toned suffix -aa to derive the gerunds. In gr2, gr3, and gr7 on the other hand, the suffix (H)(H)HH-aa is added to the verb. Yet in gr4, gr6, and gr0, the gerund is derived, on the surface at least, by lengthening the verb's final vowel. The next subsection presents a third factor determining the appearance of a gerund, independently from tense/aspect marking and cosubordination construction.

6.1.4 FUNCTIONAL CATEGORIZATION PRINCIPLE (FCP)

This subsection takes up the issue of the categorial status of the various syntactic Forms of the grades (cf. Parsons 1960). As seen before, Hausa verbs, especially those of gr2, assume distinctive shapes depending on whether or not they are followed by an undergoer, and depending on the nature of the undergoer. The central claim here is that Hausa verbs are most prototypically verbs only when they are followed by a noun undergoer. When the verb is followed by a pronominal undergoer or when there is no undergoer argument at all, then the verb is turned into a gerund. The remainder of the subsection gives the details of the proposal.

6.1.4.1 Functional categorization in gr1, gr4, and gr6

In gr1, the basic form before noun undergoer (the C-form) ends in a short vowel -a. The A-form (before no argument) and the B-form (with pronominal argument) both end in long vowel -aa. The three forms are illustrated again in below:

- (38) a. Indoo taa kaamà kiifii jiyà.
 Indo 3fs.PERF catch-I fish yesterday
 'Indo caught some fish yesterday.'
- b. kiifii nèe Indoo ta kaamàa jiyà.
 fish cop.m Indo 3fs.REL PERF catch-I-VN yesterday
 'It is some fish that Indo caught yesterday.'
- c. Indoo taa kaamàa shi jiyà.
 Indo 3fs.PERF catch-I-VN 3ms yesterday
 'Indo caught it yesterday.'

All three sentences are simple clauses in the perfect aspect. Yet, in sentences (b-c), the verb's final vowel is lengthened and one obtains a form similar to the gerund form found in the cosubordination structures (cf. taa kaamàa mà yâara kiifii 'she caught the children some fish'). The forms in (38b-c) can then be taken as gerund forms too. This is one context where the term "participle" may be more appropriate, but participles and gerunds in Hausa are formally the same, hence, they will both be referred to as gerunds. For gr4 and gr6, the Forms are illustrated as in below:

- (39) a. taa kaamè kiifii/ kiifii ta kaamèe/
 3fs.PERF catch-IV fish/ fish 3fs.REL PERF catch-IV-VN/

 taa kaamèe shi.
 3fs.PERF catch-IV-VN 3ms
- 'She caught some fish/ it is fish that she caught/ she caught it.'
- b. taa kaamoo kiifii/ kiifii ta kaamoo/
 3fs.PERF catch-VI fish/ fish 3fs.REL PERF catch-VI-VN/

 taa kaamoo shi.
 3fs.PERF catch-VI-VN 3ms
- 'She caught some fish and came/ it is fish that she caught and
 came/ she caught it and came.'

For gr4, the gerund is formed from the verb by the lengthening of the final vowel, as seen in the examples in (a) above. For gr6, the contrast is neutralized because the base verb also ends in a long vowel, as shown by the examples in (b). As was the case with the cosubordination gerunds, one can analyze the gr4 and gr6 forms as having incorporated the -àa suffix, which survives only in gr4 as a length feature.

6.1.4.2 Functional categorization in grade 2

The syntactic Forms alternation is more clearly marked in gr2 than in any other grade. Also, the facts here support the gerund analysis of the Forms in the strongest way. The gr2 alternations are illustrated below:

- (40) a. yaa jèefi kàree.
 3ms.PERF throw-II dog
 'He threw at the dog.'
- b. kàree ya jèefaa.
 dog 3ms.REL PERF throw-II-VN
 'It is a dog that he threw at.'
- c. yaa jèefee shì.
 3ms.PERF throw-II-VN 3ms
 'He threw at it.'
- d. yaa jèefas shi.
 3ms.PERF throw-II-VN-of 3ms
 'He threw at it.'

In sentence (a) above, we have the most verbal category of the Forms (also the citation form, from which, according to Newman (1973), the other forms should be derived). In (b), we have the gr2 A-form with a long -aa termination. Sentence (c) presents the most common B-form, which ends in -ee. Finally, sentence (d) gives the second, less frequent B-form (henceforth called "the 2nd B-form"), which in Standard Hausa is limited to the imperative context (cf. Dàukàs shi! 'take it!', Parsons 1962:264, 1971-72:203), but is unrestricted as a free variant to the 1st B-form in the Western dialects (see also Caron 1987).

It is very likely that the same suffix -aa found in gr1 is also used with the gr2 syntactic Forms. In this analysis, one would have to invoke Leben's tone raising rule (see chapter 5, discussion of xx) to explain the high tone of the A-form. After the suffixation of the nominalizer, the structural description of the rule is met: jèef+aa => jèefaa 'throw at', where the low tone on a final long vowel is raised if it is preceded by a low tone syllable. For the 2nd B-form too, the low tone -aa is suffixed on the verb, but because the linker is appended, the syllable becomes closed, with an automatic shortening of the vowel (see Newman 1972). The linker affixation then bleeds the input of the tone raising rule: jèef+aa => jèefar. As for the 1st B-form, it ends in a long -ee. One can only speculate that it results from the fusion of jèefi+aa, where the C-form -i blends with the nominalizing suffix -aa, to give -ee. One must also assume that the falling tone which should have resulted is simplified to high, due to the cliticization of the polar tone pronoun. The derivation would be:

jèefi+aa => *jèefiyaa => *jèefée, then *jèefée+shi => jèefee+shì 'throw at him/ it' (this

tonal change would be parallel to the one producing the Katsinanci "waa" gerund variants: kaamôowaa, kaamoowàa, 'catching+gr6'). In turn, the blending analysis may explain why the 1st B-form does not have the linker before the pronominal undergoer, unlike the 2nd B-form. Somehow, by incorporating the -i of the C-form, the 1st B-form is more verbal than the 2nd B-form, which does not incorporate -i.

Contrary to the situation in gr1, the gr2 gerund form found in cosubordination structures is different from any of the syntactic Forms. Indeed, as seen before, gr2 gerunds before mà have the HH-aa shape (cf. yaa jeefam mà Indoo kàree 'he threw at Indo's dog'). So, for gr2, one has the cosubordination jeefaa, the A-form jèefaa, the 1st B-form jèefee, the 2nd B-form jèefar. All are gerunds in this analysis. I propose that we have two types of gr2 gerunds. In one class, the gerunds that admit the linker, i.e. the cosubordination form and the 2nd B-form. In the other class figures the 1st B-form, which does not take the linker. The A-form can be classed among the linker class because it has the suffix -àa, not a blend of -i and -àa. Also, in Standard Hausa, where it can occur followed by an undergoer, it does take the linker (cf. yanàa kàrBar kuDii 'he is receiving the money, hàrbar bàreewaa tanàa dà wùyaa 'shooting a gazella is difficult', all examples from Gouffé 1966-67, p.34 and p.48).

It is probably difficult for other theories (especially for GB theory) to accommodate a principle like the functional categorization. Before Parsons, gr2 verbs used to be referred to as the "changing verbs" (cf. Abraham 1959 for example), as opposed to the "unchanging verbs", the verbs in the other grades. Parsons (1960) proposes the grade system, and notices that the Forms are instantiated in most grades, as contextual variants (Parsons himself takes the A-form to be basic, and the others derived from it; as we will see later, the issue of which form is basic is not really critical once one considers the FCP). Since Parsons (1960), no comprehensive proposal has been made to handle the Forms. Newman (1973, 1991) analyzes the cosubordination form of gr1 as a "hidden" applicative extension, but for that of gr2, he evokes an old "destinative" extension. For the B-form of gr1, he proposes a rule of vowel lengthening before pronoun, while it is not clear why the A-form should also have a long vowel. In gr2, Newman (1973:311) essentially has nothing to say about any of the Forms, and rather claims that the 1st B-form in -ee needs an ad hoc statement in any likely analysis. Wolff (1984:10) again focuses only on gr1, and proposes that the A-form is in reality suffixed with an "anaphoric" marker -aa which signals that there is a missing undergoer argument. This analysis is basically an arbitrary extension of analyses in other Chadic languages where a distinctive anaphoric marker is affixed on the verb if the undergoer is understood. But we will see below that in languages where it exists, the anaphoric marker cooccurs with the nominalization suffix. This is not the case in Hausa, which probably has lost any anaphoric marker it may have had.

The approach taken here is different. Previous Hausa studies consider the syntactic forms to signal the nature of the following undergoer argument, and if there is any. Thus, the markings are just surface devices.⁷ The claim here is that the alternations have a greater significance in that they reflect more of the predicate's shift of category than simply marking the nature of the following argument. It is very likely that Hausa overtly marks an elsewhere hidden linguistic tendency by which predicates tend to be most verbal only to the extent that they have a following noun argument, everything else being equal. The functional generalization may be that the less focal the following argument is (zero argument or pronoun), the less verbal the predicate becomes. In Hausa one can assess more the impact of this functional principle by examining two irregular gr2 verbs displaying idiosyncratic alternations. They are illustrated below:

- (41) a. taa ga takàrdaa.
 3fs.PERF see letter
 'She saw the letter.'
- b. taa ga tà.
 3fs.PERF see 3fs
 'She saw it.'
- c. taa gan tà.
 3fs.PERF see 3fs
 'She saw it.'
- d. taa ganee tà.
 3fs.PERF see-II-VN 3fs
 'She saw it.'
- e. takàrdaa cèe ta gani.
 letter cop.f 3fs.REL PERF see-DN
 'It is a letter that she saw.'
- (42) a. taa san Abdù.
 3fs.PERF know Abdu
 'She knows Abdu.'
- b. taa san shì.
 3fs.PERF know 3ms
 'She knows him.'
- c. can ta sànee shì.
 there.invisible 3fs.PERF know-II-VN 3ms
 'She met him there.'
- d. Abdùn dà ta sanìi...
 Abdu-DEF that 3fs.REL PERF know-DN
 'The one Abdu she knows...'

Both ga 'see' and san 'know' use their DN in the A-form context, as seen in (41e, 42d) respectively. Thus, ganii means 'sight, perception, opinion' and sanii means 'knowledge'. For 'see', the C-form is pandialectally gà, as seen in (41a). In Katsinanci, the B-forms ga, gan, and gane, in (41b-d) respectively, are all acceptable. In Standard Hausa, reportedly, only gan is possible B-form. For 'know' the C-form is san, as seen in (42a). Again, in Katsinanci, both san and the regularized sànee, respectively in (42b-c), are acceptable as B-forms. In Standard Hausa only gan is possible (Newman 1973:311 n20). My hunch about these forms is that somehow the real verbal forms were lost and the DNs' use was extended (that is, the DNs forced the verbs out). Subsequently, the various Forms were derived from the DN, which is shortened to fit a more canonical verb form when followed by an nominal argument (one may wonder why the option of reverbalizing the DN into *gànìnci/ *sànìnci is not used).⁸ Notice that it is not a coincidence that the DNs stay intact just in environments requiring a VN: when they are not followed by an argument, that is, in the A-form, and when they appear in the continuous, with an argument or not. Thus, one has: yanàa ganin sù/ Bàrai sa'är dà sukà tseerèe 'he could see them/ the thieves while they were escaping'. In these environments indeed, there is no reason to reshape the DNs into a more verb-like shape. Another irregular gr2 verb using DNs as A-form and a shortening before argument is bar 'leave, abandon': yaa bar shì/ littaafii 'he left it/ the book', liitaafin dà ya barii (=DN) 'the book he left'. Yet, other semi-irregular gr2 predicates use their DN as A-form or in the continuous, but keep the verbal or gerund form in other contexts: fàDi 'tell' yaa fàDi màganàa 'he told the matter', yaa fàDee tà/ fàDàt ta 'he told it', màganàr da ya fàDaa/ fàDìi (both gerund and DN are ok) 'the matter that he told'; gwàdi 'show' yaa gwàdi wàsiiKàa 'he showed the letter', yaa gwàdee tà/ gwàdàt ta 'he showed it', wàsiiKàr dà ya gwadii/ *gwàdaa (only DN is ok) 'the letter he showed'; gàyi 'tell' yaa gàyì màganàa 'he told the mater', yaa gàyee/ gàyat ta 'he told it', màganàr da ya gàyaa/ gayii 'the matter that he told'; Dàuki 'take' yaa Dàuki yaaròo 'he hold a boy', yaa Dàukee shì/ Dàukàs shi 'he hold him', yaaròn dà ya Daukàa (DN only) 'the boy he held'.

As a further support for the functional categorization, there are some Chadic languages which also exhibit verbal alternations similar to the Hausa syntactic Forms. According to Newman (1974:27), Kanakuru uses a nominalized form of the verb with a suffix -ma in the continuous and future. However, the -ma is suffixed only when the verb is intransitive, when the undergoer argument is fronted or deleted, and when the verb is followed by a pronominal undergoer argument. The perfect and continuous aspects with nominal undergoer present are illustrated below (adapted from Newman 1974:17):

- (43) a. nà **kape** kure.
 1s.PERF plant corn
 'I planted corn.'
- b. nàa **kape** kure.
 1s-CONT plant corn
 'I am planting corn.'

As one can see, the verb has no particular marking from the perfect to the continuous. Instead, the difference is marked on the PVP. However, if the verb is not followed by any argument, then the nominalizer -mà appears on the continuous form only. This is illustrated below (adapted from Newman 1974:27):

- (44) a. m` **d le.**
 1p.PERF push
 'We pushed (something).'
- b. m` n **d l-ma-i.**
 1p.CONT push-VN-ANAPH
 'We are pushing (something).'

In both sentences above, the undergoer argument is understood. In the perfect sentence in (a), no nominalizer appears on the verb. In the continuous sentence in (b) on the other hand, the nominalizer -ma is present, as well as the anaphora marker -i. This is the marker which specifically tells that the verb has a missing argument, a marker which, as far as I can tell, Hausa lacks. As one would predict, with intransitive, the -ma occurs without the anaphoric marker. This is illustrated below (adapted from Newman 1974:28):

- (45) a. shèe por-**ma**.
 3fs.CONT go.out-VN
 'She is going out.'
- b. à poro-**to**.
 3fs.PERF go.out-3fs
 'She went out' (lit: 'she went out she') ⁹

In sentence (a) above, the intransitive continuous verb is marked -ma, and no anaphoric marker is present. In the perfect sentence in (b), the verb takes neither the nominalizer nor the anaphoric marker. Instead, one gets what Newman and other Chadicists call the "intransitive copy pronoun". To our concern here, the Kanakuru data again shows that, everything else being equal, a predicate tends to be most verbal when followed by a syntactic argument.

Outside Chadic, Ewe (Kru-Bantu, Togo and Ghana) displays some functional categorization effects whereas in the continuous a verb followed by an undergoer appears in its simple form. However, when the argument is fronted, then the verb appears in a reduplicated form, a form which also functions as the VN. This is illustrated below ((46) is adapted from Ameka 1992, (47) from Collins 1992):

- (46) a. áma- (é) le te da-m.
 Ama aFOC PRES Yam cook-PROG
 'AMA/ Ama is cooking yams.'
- b. te (é) áma le da da-m.
 yams aFOC Ama PRES cook cook-PROG
 'YAMS Ama is cooking.'
- (47) a. me le fufu du.
 I am fufu eating
 'I am eating fufu.'
- b. fufu, me le dudu.
 fufu, I am eating
 'Fufu, I am eating.'

As one can see, in the Ewe instantiation of the functional categorization principle, the main predicate is more verbal when it has a syntactic argument, as in the (a) sentences, as compared to the (b) sentences, where it is realized as a VN because no argument is present. So, the Ewe continuous construction is comparable to that in Hausa and Kanakuru.

Even further away from Hausa, French also exhibits a (very restricted) syntactic Forms system. Normally, gender and number can be marked on the past participle of the perfect aspect in intransitive constructions only with the auxiliary être 'be'. This is illustrated below:

- (48) a. les petites sont **restées** avec Abdou.
 the littles-f be.3p.PERF stay-f-p with Abdu
 'The girls stayed with Abdu.'
- b. le petit est **resté** avec Abdou.
 the little.m be.3s.PERF stay.m.s with Abdu
 'The boy stayed with Abdu.'
- (49) a. les deux femmes ont été **admises** dans une clinique.
 the two women have.3p.PERF be admit-f-p in a clinic
 'The two women were admitted in a clinic.'
- b. le blessé a été **admis** dans un hôpital.
 the injured.m have.3s.PERF be admit.m.s in a hospital
 'The injured was admitted in hospital.'

In (48a), the past participles restées/ resté 'stay' agrees in number and gender (orthographically at least) with the pivots les petites 'the girls' and le petit 'the boy' in sentences (48a-b) respectively. (49) presents two passivized sentences where the participles admis/ admis 'admit' also agrees with the pivots les deux femmes 'the two women' and le blessé 'the injured' in (49a-b) respectively. In transitive constructions on the other hand, the agreement depends on whether or not the undergoer argument follows the participle. When the undergoer syntactically follows the participle, agreement is impossible, as shown below:

- (50) a. Indo a **remis** les clés dans son tiroir.
 Indo have.3s.PERF put.back the keys in her drawer
 'Indo put back the keys in her drawer.'

b. Indo a **remis** le sac dans son tiroir.
 Indo have.3s.PERF put.back the bag in her drawer
 'Indo put back the bag in her drawer.'

In sentence (a) above, les clés 'the keys' is a feminine plural noun. No agreement is marked on the participle, which has the same form as when the undergoer is a masculine singular noun, as in sentence (b). When the undergoer is fronted or cliticized, then agreement is required, as seen below:

- (51) a. Indo les a **remises** dans son tiroir.
 Indo 3p.ACC have.3s.PERF put.back-f-p in her drawer
 'Indo put them back in her drawer.'

b. Indo l' a **remis** dans son tiroir.
 Indo 3s.ACC have.3s.PERF put.back.m.s in her drawer
 'Indo put back the bag in her drawer.'

As shown in sentence (a) above, the participle agrees in number and gender with the clitic undergoer referring here to les clés 'the keys'. It has a different form then when the undergoer is a masculine singular referent, as in sentence (b). In sum, a predicate tends to show the nominal categories of gender and number when no syntactic undergoer argument is following. In this sense, one can say that it is less verbal.

Before closing this subsection, it should be mentioned that there are four areas of difficulty for the VN analysis of the syntactic Forms. First, gr3 and gr7 ordinarily are not followed by any argument, but they do not undergo the *-àa* suffixation. This is illustrated below:

- (52) a. Indoo taa fita/ *fitaa/ *fitaa.
 Indo 3fs.PERF go.out-III/ go.out-III-VN/ go.out-III-DN
 'Indo went out.'

- b. Abdù yaa bùgu/ *bugaa/ *bùguwaa.
 Abdu 3ms.PERF hit-VII hit-VII-VN/ hit-VII-DN
 'Abdu is good-drunk./ Abdu is hit.'

For now, my only speculation about this fact is that the verbs do not shift to a VN form because the gr3 and gr7 are intransitive, and thus there is no alternation between presence vs. absence of argument.

Secondly, the proposition gà 'on, with' also displays a syntactic Forms alternation. Before a noun complement, the form of the preposition is simply gà. Before a pronoun on the other hand, the form assumed is gàree. This alternation is illustrated below:

- (53) a. kuDii sunàa **gà** Indoo.
 money 3p-be with Indo
 'The money is with Indo.'
- b. kuDii sunàa **gàree** tà.
 money 3p-be with 3fs
 'The money is with her.'

In sentence (a) only the preposition gà is possible, whereas in sentence (b) only the longer form gàree is possible. Newman (1982:72n6) has suggested that gà and its pre-pronominal variant are historically unrelated (gà would be the real preposition, while gàree, according to him, would be derived from the word gàri-n 'while [during]'. Synchronously though, one has an alternation similar to that of the grade system. The fact should not be surprising. In most theories, prepositions are taken as predicates, taking an object and having some other common points with regular verbs. In Hausa the shared properties include the syntactic alternation.

The third areas of difficulty for the VN analysis concerns the possessive particles na/ ta 'of' (following masculine and feminine possessed NP respectively). These particles too display a syntactic Form effect where na/ ta appear before a possessor noun and naa/ taa before a possessor pronoun. This is illustrated below:

- (54) a. yâara sun maidoo riigaa **ta** Indoo.
 children 3p.PERF return-VI gown of Indo
 'The children returned Indo's gown.'
- b. yâara sun maidoo riigaa **taa-tà**.
 children 3p.PERF return-VI gown of-3fs
 'The children returned her gown.'

- (55) a. yâara sun maidoo kèekee **na** Abdù.
 children 3p.PERF return-VI bike of Abdu
 'The children returned Abdu's bike.'
- b. yâara sun maidoo kèekee **naa-shì.**
 children 3p.PERF return-VI bike of-3ms
 'The children returned his bike.'

As one can see, whenever the possessive particles are followed by a noun, they have a short vowel, as shown in the (a) sentences. If on the other hand they are followed by a pronoun, then they assume a long vowel, as seen in the (b) sentences. The vowel adjustments are obligatory. In many Hausa works, including this dissertation, the na/ ta particles are glossed as "of". Thus, one may think that the lengthening before pronoun is similar to the one found with the preposition gà or the regular verbs. This analysis is not satisfactory however because it assumes that na/ ta are simple prepositions. There are indications that the particles are more than a preposition, and that they are also pronouns. First, notice that the particles agree in number and gender with the preceding nominal, the possessed head. Prepositions usually do not agree with a noun, and if they do, they would do so with their object, in this case the possessor nominal (cf. PP head-marking languages). On the other hand, the sequence ta Indo in (54a) above can stand on its own as a complete NP meaning something like 'the one of Indo' or 'that of Indo' (Cowan and Schuh 1976:99 also give the literal gloss of rìigar Mammàn 'Mamman's gown' as 'gown-that of Mamman'). Clearly then na/ ta are pronouns referring to the "head" noun, which in reality is a noun in apposition to the real possessive construction, the structure ta+NP, where ta is the real head. In this analysis, the noun rìigaa in (54a) would be a sort of topic nominal, the equivalent of the clausal CEP (core external position) "subject" nominal, such as Abdù in (Abdù) yaa tafi gidaa '(Abdu) he-went home'. This still does not solve the problem of the vowel length. It will be quite ad hoc to say that the pronouns na/ ta are predicates and therefore show the syntactic alternation like other predicates. An alternative solution can be drawn from facts and analyses of the Hebrew equivalent construction.

Hebrew grammars usually distinguish three types of possessive constructions or "construct states" (smixut in Hebrew). One of these constructions, the most common, is known as the "shel" construct state, and is illustrated below (from Berman 1978:232):

- (56) a. para shel ikar
 cow of farmer
 'a farmer's cow'

- b. haima shelo
 mother of-his
 'his mother'

In example (a) above, both the possessor and the possessed are nouns. In example (b) the possessor is a pronoun and a clitic on the shel particle. As in Hausa, Hebrew works, including Berman (1978) gloss shel as "of", but in fact, Berman rejects a previous analysis where shel is taken as a preposition and suggests instead that shel is a conflation between she 'that' and le 'to (dative)'. So, literally, according to her, para shel ikar is 'cow that-to farmer'. Both she and le are freely occurring particles. For Hausa, the claim here is that the structure ta+NP used to contain a distinct predicate preposition which was contracted and manifests itself now only through the pre-pronominal vowel lengthening. Such a preposition can be the current gà 'on, with'. Thus, one can have the following derivations:

The presumed source string, as one can see, is actual and has the sense indicated above in (57). The two constructions are not necessarily related by a generative rule. The claim is that na/ta before a NP are functionally equivalent to na+gà or ta+gà. They fulfill two roles, that of a pronoun and that of a preposition. So, in Hausa, the possessive construction rìigaa taa-shì resembles a clause in that it displays a CEP-like structure, where the nominal CEP noun is optional. This can be represented as seen below:¹⁰

- (58)

```

graph TD
    CEP["(CEP)"] --- riigaa[riigaa]
    NP["NP"] --- CORE
    NP --- NUC
    NP --- PRED
    CORE --- t["t-"]
    CORE --- PER["PER"]
    PER --- PP["PP"]
    PP --- aa[aa]
    PP --- shi[-shì]
    PRED --- shi

```

The diagram shows the following structure:

 - (CEP)** branches to **riigaa**.
 - NP** branches to **CORE**, **NUC**, and **PRED**.
 - CORE** branches to **t-** and **PER**.
 - PER** branches to **PP**.
 - PP** branches to **aa** and **-shì**.
 - PRED** branches to **-shì**.

The fourth possible areas of difficulty still relates to the possessive construction. In Hausa, the equivalent of 'his car' is expressed with the possessed noun followed by a clitic

possessor pronoun. For most persons, the linker -n/ -r (<na/ ta) intervenes between the possessed noun and the clitic pronoun. For the first person however there seems to be no linker. This is illustrated below:

(59)	feminine possessed ('car')	masculine possessed ('bike')
1s	mootàatàa/ taa 'my car'	kèekeenaa 'my bike'
2ms	mootàrkà/ ka	kèekenkà
2fs	mootàrkì/ ki	kèekenkì
3ms	mootàrshì/ sà/ yà or shi/ sa/ ya	kèekenshì/ sà/ yà
3fs	mootàrtà/ ta	kèekentà
1p	mootàrmù/ mu	kèekenmù
2p	mootàrkù/ ku	kèekenkù
3p	mootàrsù/ su	kèekensù

As one can see, all persons have the linker except the first. In (59) above, both rìigaa 'gown' and kèekee 'bike' end in a long vowel when standing on their own. The problem for the FCP arises when nouns which end in a short vowel on their own get a long vowel when they appear as possessed nouns before the 1st person singular. This is illustrated below (using examples adapted from Cowan and Schuh (1976:101) who make the observation):

- (60) a. shùugàbaa-naa
leader-1s
'my boss' (cf. shùugàba(a) 'leader')
- b. àkwàatii-naa
box-1s
'my box' (cf. àkwàati 'box')

When they are followed by a possessive pronoun other than the 1st person singular , or when followed by a noun, the short vowel-ending nouns above keep their short vowel and take the linker (shùugàba-n-shì 'his boss' shùugàba-n Abdù 'Abdu's boss'). Before the 1st person singular pronoun, the vowel is obligatorily long, as indicated in (60). The problem is that the category undergoing the lengthening is a noun, not a verb or a preposition. One may be tempted to explain the long vowel by Newman's (1973, 1991) pre-pronoun vowel lengthening rule. According to the rule --a description of the grade system's B-form-- all verbs lengthen their final vowel when followed by a clitic pronoun undergoer. Extending this rule here will make it general and expose it to cases of exception (Newman himself gives the rule as exceptionless with regular verbs; if generalized, the rule would not handle gr9 mà followed by pronoun such as in matà 'MA-3fs', or the indefinite pronoun wa-ni 'someone-macs.', wa-ta 'someone-fem'; also, verbs appear in their C-form before na/ ta+NP, as in sun nèemi ta Abdù 'they searched that-of Abdu').

The proposal here is that the vowel lengthening in the 1st person singular is a compensatory lengthening, which in Hausa linguistics corresponds to the notion of "syllable weight". Newman (1972) shows that this notion is useful in handling cases of CVV vs. CVC alternations. Thus, shùugàbaa-naa 'my boss' has a long vowel because in all other persons the possessed noun ends in a heavy syllable closed by the linker, as in shùugàban-kà 'your boss'. This analysis can be motivated if one considers the possible development of the possessive forms of (59) above:

- (61) a. mootàa-taa 'my car' < mootàa tàawa(a) 'car mine'
 b. mootàr-kà 'your car' < mootàa taakà 'car yours'
 etc

The source construction on the right involves a possessed noun in apposition to taa+NP, where NP is a pronoun. Taa+pronoun is a free occurring possessive pronoun.¹¹ The change from the right column to the left would involve the dropping of the "aa" of taa, and the cliticization the remaining "t-+pronoun" onto the possessed noun: mootàa taakà > *mootàt-ka > mootàr-kà (this change is parallel to mootàa ta Abdù > *mootàt Abdù > mootàr Abdù 'Abdu's car'). In the case of the 1st person singular (that is, its archaic form *waa) in (61a) above, the loss of the "aa" of taa also leads to the loss of the weak consonant /w/. Therefore, the remaining /t/ cannot change to /r/ because it is forced in syllable-initial position in place of /w/ (the change /t/ > /r/ occurs only in syllable finally). Thus one gets mootàa tàawaa > *mootàa twaa > mootàataa 'my car'. There is no vowel shortening because the syllable is not closed. This extends even to nouns that originally end in a short vowel because the possessive construction is now associated with a heavy syllable with all the other pronouns and possessor nouns. So, with àkwàati 'box' one gets àkwàati nàawaa > *àkwàati nwaa > *àkwàati-naa > àkwàatiinaa 'my box'. The compensatory lengthening also accounts for the length contrast kii/ kin 'of' in teebùr kiinaa/ bâl kiitaa 'my table/ my ball' as opposed to teebùr kinkì/ bâl kinkì 'your table/ your ball'.

In conclusion to this subsection 6.1.4, some crosslinguistic facts, and, more clearly, the Hausa facts point to the existence of a process of functional categorization, where a predicate tends to be a verb only to the extent that it is syntactically taking a nominal undergoer argument. This principle is only one among three, and it is not surprising to find that the three can interact in various ways, as we see next.

6.1.5 INTERACTIONS BETWEEN THE THREE PRINCIPLES

So far in this section, we have seen three nominalization principles, the tenseless predicate principle, the cosubordination principle, and the functional categorization principle.

We have also tried to focus on each, individually (which occasioned many repetitions). In this subsection, the effects of the combination of the three principles are explored. It will be shown that depending on the grade, one or the other principle can outcompete the others in the sense that when the strongest applies, the other have no effects. Only gr1, gr2, and gr5 will be dealt with here (gr5 and gr9 are the only places where the cosubordination principle comes into play, so, most of the time, only the tenseless principle and the functional principle will compete).

6.1.5.1 Combination in grade 1

In gr1, the functional principle seems to prevail in all instances. Thus, when an undergoer argument follows the verb, the tenseless principle has no effects; the predicate remains verbal whether it is tensed or not. This is illustrated below:

- (62) a. sunàa kaamà/ *kaamàa(waa) kiifii.
 3p.CONT catch-I/ catch-I-VN fish
 'They are catching fish.'
- b. kaamà kiifii/ *kaamàa(waa) kiifii nàa dà ban shaawàa.
 catch-I fish/ catch-I-VN fish CONT with give-DN-of pleasure
 'Fishing is a pleasurable activity.'

In sentence (a), the verb appears as complement of the continuous nàa, with a short vowel. It cannot be a gerund of the cosubordination type, or of the -waa type, as indicated. In sentence (b), we have a nominalized clause functioning as an argument of the whole sentence. Yet, because an undergoer is following it, the predicate has a verbal shape. Gerunds are impossible, as it is shown. Similarly, when the undergoer is pronominal, then only the simple HL-aa gerund is possible. This is illustrated below:

- (63) taa faarà kaamàa su/ *kaamàa(awaa) su.
 3fs.PERF begin-I catch-I-VN 3p/ catch-I-VN 3p
 'She began catching them.'

Again, the tenseless principle has no effect when a pronoun follows. In the sentence (63) above, a plain verb or a -waa gerund cannot occur. A situation can arise where the tenseless principle and the functional principle cooperate rather than conflict. In the case where a gr1 predicate has no tense and no syntactic argument, then the nominalizing suffix -aa is applied twice. The two suffixes however are separated by an epenthetic /w/, as seen below:

- (64) kiifii nèe takèe kaamàawaa.
 fish cop 3fs.CONT catch-I-VN
 'It is fish that she is catching.'

So, the traditional -`waa nominalizer is a complex element, not a simple morpheme. The high tone of the second -aa is easily explained by Leben's tone raising rule, where the last of two consecutive low tones is raised to high if it occurs on a final long vowel. kaamàawaa then derives from *kaam-àa-w-àa.¹²

6.1.5.2 Combination in grade 2

In gr2 the reverse hierarchy obtains, the tenseless nominalization principle is stronger than the FCP. So, when a predicate is tenseless, the presence of an argument makes no difference on the predicate's form (except for the linker suffixation). This is illustrated below:

- (65) a. kàree nèe yakèe jeefaa.
 dog cop.p 3ms-CONT throw.at-II-VN
 'It is a dog that he is throwing at.'
 b. yanàa jeefar kàree/ *jèefi kàree.
 3ms-CONT throw.at-II-VN-of dog/ throw.at-II dog
 'He is throwing at the dog.'

In sentence (a) above, the predicate is tenseless and has no following argument, thus, it assumes a VN form jeefaa. In sentence (b), the undergoer now is placed after the verb, but the VN form remains, as is further attested by the suffixation of the possessive linker. A verb form is impossible, as shown. Actually, the tenseless principle is so strong that even DNs can resist the functional principle (cf. the continuous yanàa ganin Abdù 'he can see Abdu' vs. the perfect yaa ga Abdù 'he saw Abdu'). Similarly, when a pronoun follows, there is still no effect as long as the predicate is tenseless. This is illustrated below:

- (66) yanàa jeefar shì/ *jèefee shì/
 3ms-CONT throw.at-II-VN-of 3ms/ throw.at-II-VN 3ms /
 *jèefàs shi
 throw-II-VN-of 3ms
 'He is throwing at it.'

In the sentence above too, the HH-aa form occurs with the linker. Neither of the two B-forms is possible, as one can see. Notice from (65a), where the two principles cooperate,

that there is no double suffixation of the nominalizer. It seems then that the gr2 (H)(H)HH-aa nominalizer acts like the gr1 double suffix -àa-w-aa. This lack of double suffixation caused the gr2 forms to be called "non-waa" gerunds.

6.1.5.3 Interaction in cosubordination structures

In cosubordination constructions, the HL-aa-shaped gerund is used for gr1, and the HH-aa-shaped gerund, suffixed with the linker, is used for gr2. The two types of gerunds are invariable regardless of any change or reordering taking place in the sentence. Any such change or reordering is manifested on the verb dà in gr5, or mà in gr9. The verbs dà and mà behave like gr1 verbs, so, the functional principle is the strongest. This is illustrated below:

- (67) a. yâara nèe yakèe karantar dàawaa/ dàa/ ?dà
 children cop.p 3ms-REL CONT teach-III-VN-of V-VN/ V-VN/ V
 'It is the children that he is teaching.'
- b. yanàa karantar dà yâara/ *dàa(waa) yâara.
 3ms-CONT teach-III-VN-of V children/ V-VN children
 'He is teaching children.'

In sentence (a) above, all three principles have a distinct effect. The cosubordination principle accounts for the VN shape of the primary verb karantar 'teach'. The tenseless principle and the functional principle account for the double -àa suffixation on gr5 dàawaa. Notice though that dà and dàa are also possible. The form should be dàawaa only, as shown in sentence (a). On the other hand, neither dàa or dàawaa are possible when an argument follows, as seen in the sentence (b).

The following hierarchies can be proposed to summarize this section. The left end of the hierarchies is more "verby", the right end, more "nouny".

- (68) Verbness-nounness hierarchies:
- a. Grades: gr1, gr4, gr6 ==> gr2, gr3, gr7
 - b. Predicates: tensed => cosubordinated => tenseless
 - c. Arguments: noun => pronoun => zero argument

The first hierarchy, in (a) above, reflects the fact that in the continuous, a gr2 gerund takes the linker, while a gr1 gerund reverts to accusative case-marking. Grade 2 gerunds are then more nouny. The second hierarchy in (b) reflects the fact that the cosubordination form is invariant, and cannot be a DN. In tenseless environments, a DN can occur and can even replace the gerund in gr2, gr3, and gr7. Finally, the third hierarchy in (c) reflects the effects of the functional principle: a predicate is most verbal when followed by a noun undergoer.

Also, the various gerund forms can be represented in a noun-verb continuum, as follows:

(69) Hausa noun-verb continuum:

	verbs	no-linker gerunds	linker gerunds	DNs (=nouns)
gr1:	HL-à	HL-àa	(HLH-àawaa)	many shapes
gr2:	LH-i	(LH-ee)	HH-aa, LL-aa, LH-aa	many shapes
gr3:	LH-a		HH-aa	LH-aa and others
gr7:	LH-u		HH-aa	LHH-w-aa

This table shows that Hausa has at least four different categories spanning the noun-verb continuum. The first column presents the verbal forms. The second column gives the gerunds that cannot take the linker when followed by an argument or by mà or dà. These gerunds are mostly based on gr1, the gr2 LH-ee form being restricted to pre-pronoun context as an alternate. The gerunds of the second column are closer to the verb than the gerunds in the third column. Indeed the forms of the third column obligatorily take the linker before an argument or before mà and dà. As a matter of speculation, one can say that gr2 gerunds are so varied because they are between regular gerunds and DNs, thus, they exhibit, in a limited scale, the well-known diversity of DN formation patterns. Note that the gerunds of the third column are mostly based on gr2, the gr1 HLH-àawaa form being limited contextually. The last column presents the DN or nominal category. There are many more possible shapes in gr1 and gr2 than in other grades. Notice that the presence of the DNs column assumes that DNs are relatable to the grades. In Hausa studies, the fact that gerunds are clearly based on verbs already operating particular grades is taken to support their transformational nature. Consequently, it seems strange to link DNs too to the grades, as it is done in (69) above, because DNs are lexically derived. So, grade affiliation per se does not distinguish gerunds from DNs. A similar situation also obtains in Hebrew. According to Berman (1978:84), the Hebrew gerunds closely relate to the binyanim in a regular and predictable way. But the Hebrew DNs too relate to the binyanim, only they do so in an unpredictable manner with regard to their morphology and semantics (the Hebrew binyan system is comparable to but unrelated to the Hausa grade system). The remainder of this chapter is devoted to the refining of the continuum in the table of (69) above, the exploration of the possible argument-inheritance patterns, and a theoretical account in RRG framework.

6.2. MAPPING THE NOUN-VERB CONTINUUM

The previous section showed that Hausa displays a number of categories dispersed over a cline from verbs to nouns. At the left end of the cline, we find the verbal category. Next is the gr1 gerund which accepts no linker before an argument. Then one also has the gr2

gerunds, most of which require a possessive linker before an argument. Finally, at the right end of the cline are the DNs which behave like regular nouns. Numerous attempts have been made in linguistic literature to account for and formally represent the similarities and differences observed between verbs and nouns. Non-formal accounts like that in Hopper and Thompson (1982) invoke discourse-pragmatics and semantics to motivate the continuum. This approach may yield adequate descriptions of the contexts of usages but it will not show the relations that obtain between the categories. Formal accounts, the aim of which is precisely to dissect the categories and specify what properties they have in common and what is at variance, fail to do so because they do not or cannot take into account all the relevant data. For example, in the continuum in (69), the standard GB notation and theoretical assumptions would properly handle only the category of verb and that of gerund on the one hand, and the category of noun and DN on the other hand. So, it is not surprising that GB accounts of Hausa fail to explain the existence of the two types of gerunds. Another problem associated with all previous accounts of the noun-verb continuum is the reliance mostly on actor/ undergoer inheritance phenomenon, and sometimes also on sentential adjuncts, to assess the proximity of two given categories. So, intermediate categories were judged as close to the verb by their ability to take arguments and sentence adjuncts. The limitation to considering arguments and sentence adjuncts only is due to the inadequacy inherent in most theories' idea of clause structure.

In this work, the noun-verb continuum is mapped onto RRG's Layered Structure of the Clause (LSC). It follows then that constituents at various nodes of the LSC will be relevant to determining the position of a given category on the cline. The constituents are given below with the respective nodes under which they appear:

- (70) Nodes and constituents:
- | | |
|--------------|------------------------------|
| CLAUSE node: | peripheral adjuncts, core(s) |
| CORE node: | core arguments, nucleus |
| NUC node: | cosubordinated predicates |
| PRED node: | morphemes |

Let's consider the fact that a verb subsumes (is predicated of) all constituents but the peripheral elements, that a gr1 gerund subsumes the cosubordinated predicates but not the core arguments, that a gr2 gerund subsumes only the morphemes in a word but not the cosubordinated predicates, and that a DN subsumes none of the constituents. It follows that one cannot distinguish the gr1 and the gr2 gerunds using argument-inheritance patterns only, because, everything else being equal, neither of the two gerunds subsumes the core arguments. Therefore, to completely map out the noun-verb continuum, one has to use all the relevant constituents at all levels, and position the categories of a language with respect

to the constituents they subsume. This is what will be attempted below. After factoring out the effects of the functional categorization principle in languages, the ability of a predicate to be predicated of the constituents at the LSC levels, will be indicative of the position of that predicate on the noun-verb cline.

The first subsection presents a review of the theoretical proposals aimed at handling nominalization. The second subsection presents the RRG-based account, considering crosslinguistic data drawn from Comrie and Thompson (1985), Koptjevskaja-Tamm (1988), Deny (1971), Berman (1978), and others.

6.2.1 THEORETICAL APPROACHES TO NOMINALIZATION.

First of all let's specify the type of theoretical works relevant to this section. The section purports to map the categories present on the noun-verb continuum, such as the Hausa categories in (69) above. The domain under investigation spans the entire range of the continuum, therefore, only works claiming to address this domain will be reviewed. The types of works which focus on the syntax of the English DN and try to propose mechanisms to account for why a particular verbal argument can or cannot appear in either prenominal or postnominal position in the DN are excluded from this review. Some of these accounts evoke differences in underlying syntactic structure between types of DNs to explain differences in surface syntactic behavior (cf. Anderson 1979, reviewed in Nunes 1990, 1992). Some of the accounts on the other hand rely on the thematic role constructs, with a principled means of determining them (as in Nunes 1990, 1992), or by an arbitrary label assignment (as in Rozwadowska 1988). Not much will be said about these works other than that the thematic roles-based accounts have the advantage over the syntactic ones. For example, an account which explains English *'barbarians' destruction' by a Projection Principle violation or by the PS rules (VP) will run into problems with crosslinguistic data such as Classical Arabic quatlu Zaidin 'killing of Zaid (by s.o.)/ Zaid's killing (of s.o.)'. Thematic roles-based accounts however can clearly be formulated with language specific rules linking thematic macroroles to syntactic argument positions.

The works relevant to this section and presented are those of Lees (1960), Chomsky (1970), Schachter (1976), Lefebvre and Muysken (1988), and Grimshaw (1990). These works all seek to give a categorial characterization to types of nominalization and make their properties to follow from this characterization.

6.2.1.1 Lees (1960).

Lees (1960, in Schachter 1976) is the first to give an account of nominalization in the framework of generative and transformational grammar. His basic proposal is that

gerundive nominals as well as DNs are transformationally derived from underlying sentence structures. Let's consider the example below:

- (71) a. He claims immunity from prosecution.
b. His claiming immunity from prosecution.

For Lees, sentence (a) and (b) have the same deep structure representation, (b) being derived from (a) by a nominalization transformation. Lees also makes the distinction between gerunds and "action nominals" with -ing form and spells out some of their differences as shown below:

- (72) a. His claiming immunity
b. His having claimed immunity
c. *His sudden claiming immunity
d. His suddenly claiming immunity
- (73) a. His claim of immunity
b. *His having claimed of immunity
c. His sudden claiming of immunity
d. *his suddenly claiming of immunity

The two nominals differ by their way of case-marking the undergoer, accusative for the gerundive nominal in (72a) and genitive "of" for the action nominal in (73a). Also, the gerund can take an aspect marking or an adverb, as seen in (72b,d) respectively, but it cannot take an adjective as (72c) shows. Action nominal on the other hand cannot bear an aspect marking or or adverb, as seen in (73b,d) respectively. However, they can be modified by an adjective, as shown in (73c). Despite all these distinctions, Lees still proposes a transformational derivation for these nominals as well as derived nominals of the "destruction" type as illustrated:

- (74) His claim of immunity from prosecution.

Chomsky later will say that Lees made the same analysis for both types of nominals because there was no other alternative at that time in generative grammar. However, this work played an important role in bringing the problem of nominalization at the forefront of linguistic description and linguistic theory.

6.2.1.2 Chomsky (1970).

Chomsky (1970) also focussed on the nature of both gerundive nominals and DNs. He proposes that these are two separate categories involving different derivational processes.

He endorses Lees' transformational analysis for gerunds but rejects it for derived nominals, mainly for two sets of reasons.

First, gerunds show the characteristic effects of transformations while derived nominals do not. For example, gerundive nominals have regular and predictable meaning and form and have full productivity, that is, they can be formed from any verb. This is in accordance with the fact that transformations are regular and exceptionless. Derived nominals on the other hand behave differently in all these respects: their form and meaning have extensive idiosyncracy, and there are many gaps in their formation. All these features Chomsky argues, are characteristic of lexical derivation and not transformations. Also, gerundive nominals, but not derived nominals, can be derived from transformed sentences as illustrated below (from Chomsky 1970:191):

- (75) a. (for us) to please John is easy.
 b. It is easy (for us) to please John.
 c. John is easy (fo us) to please.
 d. John's being easy (for us) to please.
 e. *John's easiness (for us) to please.

In sentence (a) above, we have a deep structure representation. Sentence (d) shows that it is possible to derive a gerund from (a), even after two transformations have applied to (a), here extraposition (in (b)) and raising (in (c)). With the assumption that lexical rules always precede transformations, the gerund in (d) cannot be lexical. Now, the fact that the derived nominal in (e) is impossible can be easily explained if derived nominals are derived by lexical rules. When the base clause is not a transform, both gerund and derived nominal are possible, as seen below (from Chomsky 1970:187):

- (76) a. John is eager to please.
 b. John's being eager to please.
 c. John's eagerness to please.

Here, the example in (a) above involves no transformation and consequently can be applied a transformation to obtain the gerund in (b), or it can be applied a lexical rule to obtain a derived nominal, as in (c). Moreover, for Chomsky, all subtypes of DN structures are obtained by the application in the base-generated NP of the same transformations one finds in sentences. Thus, we have the following basic and derived srtuctures (From Chomsky 1970:203-204):

- (77) a. The enemy's destruction of the city.
 b. The destruction of the city by the enemy.
 c. The city's destruction.
 d. The city's destruction by the enemy.

Here, the example in (a) is the basic NP and the other are derived by passive transformation: example (b) by the Agent-postposing part of the passive rule, example (c) by the NP-preposing part, and example (d) by the application of both passive component rules.

The second set of reasons for Chomsky's analyses is related to the resemblance between verbs and gerunds, and that between regular nouns and derived nominals. Thus, gerunds have an internal structure close to that of verbs rather than to that of NPs. For example, the specifier NP of a gerund cannot be replaced by another type of determiner, nor an adjective be inserted into it. Derived nominals, on the other hand, have a structure close to that of NPs and should present no problems in bearing nominal categories such as determiner, adjective, and number.

Pitfalls of Chomsky's analysis include his overlooking of cases such as the non-possessive subject gerund (Schachter 1976) shown below:

- (78) John refusing the offer annoyed me.

These types of gerunds seem structurally to be even closer to verbs. There is no way to distinguish them from the genitive-subject gerunds, unless by stipulation. Finally, Chomsky considers the gerund forms with "of"-genitive objects (or Lees' "action nominals") and proposes that they are "mixed" forms, somehow between gerunds and derived nominals. Thus, they are neither transformationally or lexically derived or that their status cannot be determined.

So, the account ends up with four types of hybrid nominals but only two categories (nouns and verbs) to fit them in.

6.2.1.3 Schachter (1976).

Schachter (1976) argues against a transformational account for both gerundive nominals and derived nominals. He proposes that gerundive nominals are generated by the same PS rules that produce regular NPs, these rules are given below (from Schacter 1976:225):

(79) a. NP ---> (Det) Nom
S

b. Det ---> Art
NP
...

c. Nom ---> Nom S
(adj) N ...
VP

The innovation in the rules above is that in (79b), the Det can be rewritten as NP. So, the prenominal genitive in a gerund is licensed by the same "Det" rule as a prenominal genitive in a regular possessive NP. "Det" being optional, this can explain why a verbal subject is obligatory while a gerund subject is not, as illustrated below:

- (80) a. He claims immunity from prosecution.
b. *Claims immunity from prosecution.
c. John's claiming immmnunity from prosecution is right.
d. Claiming immunity from prosecution is right.
e. John's book is readable.
f. The book is readable.

A non-transformational account can say that a determiner is optional in all NPs, both the regular ones and the gerundive nominals. A transformational account however will have no way of explaining the lack of subject in the grammatical (80d), if it has the same deep structure as (80b). Schachter shows in this regard that none of the deletion devices works here. Other facts also follow from the rewrite rules in (79) above, as illustrated below (from Schachter 1976):

- (81) a. This telling tales out of school has got to stop. (p.218)
b. She was afraid at her own offending. (p.217)
c. *She own offended. (p.217)
d. *I acknowledge perhaps my having been mistaken. (p.220)
e. I acknowledge that perhaps I was mistaken. (p.220)

In sentence (a) above, a determiner other than a specifier NP appears, which constitutes further difficulties for a transformational account. In sentence (b) --which is ungrammatical for some speakers-- a particle appears in the gerund that is not found with sentences, as indicated in (c). In sentence (d), an element cannot occur with the gerund but is fine with sentences, as shown in (e). In conclusion, for Schachter, gerundive nominals look otherwise like verbs because the PS rules allow a VP expansion under "Nom", as shown in (79c) above.

The big problem for Schachter, something that he admits, is the possibility of having the gerundive nominal with a bare prenominal NP as shown below:

- (82) a. The rain stopping made me change my plans.
 b. *John book is readable.

Thus, unlike a genuine NP, a gerundive nominal can take an unmarked "Det" NP. Schachter tries to do away with this problem by saying that these types of gerunds may be really transformationally derived, unlike the ones taking a possessive NP. This may work if we do not also have another type of gerund which is followed by "of NP". These, Schachter said, and following Lees (1960), are not gerunds but "action nominals", apparently implying that they are not transformationally derived either. Thus, we have the following three types of gerunds:

- (83) a. John sweeping the floor annoyed me.
 b. John's sweeping the floor annoyed me.
 c. John's sweeping of the floor annoyed me.

Again, it is clear that considering one or the other of these forms as either transformationally or lexically derived will not be of definitive help in accounting for the three-way differences. What is needed are ways of accommodating all categories without ad hoc stipulations.

6.2.1.4 Lefebvre and Muysken (1988)

Chomsky (1981) assigns defining categorial features to nouns, which are [+N-V], verbs, [-N+V], adjectives, [+N+V], and prepositions, [-N-V]. For Quechua, Lefebvre and Muysken argue that these assignments are inadequate, that adjectives are really nouns, as shown by the fact that they lack the case-assigning feature entailed by [+V]. For Lefebvre and Muysken, [+N+V] defines a nominalized verb. This revision in itself however does not explain the case marking patterns found in Quechua nominalization, which are three, according to Lefebvre and Muysken (1988:118), and are given below:

- (84) Quechua case-marking in nominalized sentences:
- | | subject | object |
|----|---------------|----------------|
| a. | -∅ nominative | -ta accusative |
| b. | -∅ nominative | -∅ objective |
| c. | -q genitive | -∅ objective |
| d. | *-q genitive | -ta accusative |

As shown above in (d), a nominalized clause cannot assign genitive and accusative at the same time. The regular clause has the pattern Nominative-accusative (-∅, and -ta). To explain

the facts in (84) above, Lefebvre and Muysken introduce the notion of "mixed category". Essentially, in a mixed category, the head can be one category, say a [+N+V] verbal noun, but its maximal projection can be either an NP [+N-V], or a VP [-N+V]. Thus, in their new version of X' theory, there is a rule which can change any [+feature] at any X-level into a [-feature]. So, a nominalized [+N+V] head projects either as a nominal [+N-V] or a verbal [-N+V]. Notice that there is no particular mechanism determining which feature must change. Also, as noted in Baker (1990), there is no reason why the original features [+N+V] cannot project as such to X'' level. At this point, one is still far from accounting for the case patterns. First, they reaffirm that the object is assigned case under direct government at the X' level, and the subject is assigned case under indirect government at the X'' level. Then they determine the case assigning properties of the categories as follows (from Lefebvre and Muysken 1988:123):

- (85) case-assigning properties of VN, N, and V:

	X" level (subject)	X' level (object)
a.	V: -∅ nominative	-ta accusative
b.	VN: -q genitive	-∅ objective
c.	N: -q genitive	(no case assigned to object)

For a VN, the [+feature] to [-feature] shift can occur at three levels, X', X'', or X'''. If a VN shifts at X''' to V'', it would assign -q genitive case to the subject at X'' and -∅ objective case to the object at X'. If it shifts at X'' to V'', it would assign -∅ nominative case to the subject and -∅ objective case to the object. If it shifts at the X' level to V', it assigns -∅ nominative case to the subject and -ta accusative case to the object. This would ensure that when a [+N+V] VN changes to VP, the correct patterns in (84) above are obtained. Similarly, when the [+N+V] VN shift at X''' to N'', it would assign -q genitive case to the subject at X'' and -∅ objective case to the object at X' level. If it shifts to N'' at X'', then the subject at X'' receives -q genitive case and the object at X' receives -∅ objective case. Finally, if it shifts to N' at the X' level, the subject receives -q genitive case at X'', but the object at X' receives nothing (a nominal does not give objective case).

Notice that the apparatus, as complicated as it is, is designed to handle only the Quechua equivalent of gerunds. The four different affixes used in the derivation of gerunds are also used to derive DNs. But, as noted in Baker (1990), not much is said about these DNs and how their features obtain or differ from those of the gerunds.

6.2.1.5 Grimshaw (1990).

Grimshaw focuses on derived nominals constructions and proposes that some derived nominals are like verbs, have theta-marking properties and an argument structure, and take

their arguments obligatorily. On the other hand, other derived nominals have no theta-marking properties, no argument structure, and, consequently, do not require arguments. The first type of derived nominals is illustrated below :

- (86) a. The enemy destroyed the city.
 b. *The enemy destroyed.
 c. The enemy's destruction of the city.
 d. *The enemy's destruction.

The basic assumption is that verbs and derived nominals, as exemplified above, share an event structure which implies participants and thus assign an argument structure to the predicates. The positions in this argument structure need to be all satisfied and this explains the parallel between verbs and certain derived nominals as shown in (86). The only difference between them is that verbs assign case directly to their arguments, while derived nominals and nouns in general, do it indirectly with a preposition. The second type of derived nominals which has no theta-marking properties is exemplified below:

- (87) a. The physicists claimed that the earth was round.
 b. The physicists' claim (that the earth was round).
 c. *The doctor examined.
 d. The doctor's examination.
 e. The city's destruction.

The derived nominals in (b, d-e) above are not associated with an event structure and thus, like regular nouns, they do not have an argument structure. So, the complement phrase in example (b) is not licensed by an argument structure, otherwise, it would have been assigned case by way of a preposition as is done with a nominal. Also, this complement would not be optional as it is indicated. Similarly in example (d-e), the arguments are optional because they are not licensed by an argument structure. Grimshaw concludes that derived nominal forms are in fact ambiguous between those with an event and argument structures and those without. She provides some tests to distinguish them and shows that some consistently behave like verbs while the others behave like nouns. One set of these tests concerns the behavior of derived nominals vis-à-vis some presumably argument-structure-licensed adjuncts such as the modifiers "constant, frequent", the "by" NP, and the prenominal genitive. The prediction is that these adjuncts should occur only with argument-structure-taking nominals (or "complex event nominals") and not with those that do not have an argument-structure (or "simple event nominals"). This is illustrated below (Grimshaw 1990:50-52):

- (88) a. The expression of one's feeling is desirable.
 b. The frequent expression of one's feeling is desirable.
 c. The expression is desirable.
 d. *The frequent expression is desirable.
- (89) a. The examination of the papers.
 b. The instructor's examination of the papers.
 c. The examination took a long time.
 d. *The doctor's examination took a long time.
- (90) a. The expression of negative feelings by patients.
 b. The destruction of the city by the enemy.
 c. *The expression by patients.
 d. *The destruction by the enemy.

Thus, in all (a-b) examples above, the nominal has an argument structure and can take the argument-structure-licensed adjuncts: the event related modifiers in (88), the prenominal genitive in (89), and the "by" NP in (90). In the (c-d) examples, we have the simple event nominals which do not have an argument structure. Consequently, they cannot take the argument-structure-related adjuncts, as seen in the ungrammaticality of all examples (88-90d). The problem with these tests is that none is without ambiguity. Lets consider the data below (from Grimshaw 1990):

- (91) a. The constant assignments were avoided by students.
 b. *The constant assignment was avoided by students.
 c. Only frequent examination by doctors kept John healthy.
- (92) The doctor's examination took a long time.
- (93) a. The investigation by the police.
 b. The inspection by the controller.
 c. The city's destruction by the enemy.

(91) illustrates the weaknesses of the first test by showing that the ability to take the event related modifiers is also influenced by number. Thus, a plural simple event noun can take them as seen in (91a). (91c) shows that sometimes even a singular simple event nominal can bear the argument-structure-licensed modifiers, here the event modifier 'frequent'. Similarly, (92) shows a prenominal genitive in a simple event nominal construction. Notice that this sentence is identical to (89d) above. Here, Grimshaw argues that the sentences have the same form, the same meaning, but yet, they are different. Finally, (91c) as well as the examples in (93) show a simple event nominal with "by" phrase. Most of Grimshaw's answer to these problems is that the adjuncts themselves are ambiguous, that is, there can be either argument structure related or not. This then makes them unreliable. Another set of

tests does better at distinguishing the two types of nominals. One test shows that the nominals take different sets of determiners and that they behave differently with respect to pluralization. This is illustrated below (Grimshaw 1990:54):

- (94) a. They studied the/ an/ one/ that assignment.
 b. They observed the/ *an/ *one/ *that assignment of the problem.
- (95) a. Assignment of difficult problems is envisaged.
 b. *Assignment was long.
- (96) a. The assignments were long.
 b. *The assignments of difficult problems.

In (94), the determiners "a", "one", and "that" occur only with the single event, non-argument-taking nominals. They cannot accompany an argument-taking nominal. "The" on the other hand occurs with both types of nominals. In (95), a complex event nominal can appear without determiner, but this is impossible for a simple event nominal, as seen in (95b). Finally, (96) shows that only simple event nominals can be pluralized. The last of Grimshaw's tests presented here purports to show that the two types of nominals have different aspectual properties as exemplified below (Grimshaw 1990:57-58):

- (97) a. The book was translated to make it available to a wider audience.
 b. The translation of the book to make it available to a wider audience.
 c. *The translation to make it available to a wider audience.

Grimshaw (endorsing Lasnik 1988 and Williams 1985) claims that here, the whole event in the main clause controls the purposive clause, not an implicit argument. The data above shows that only event-structured element such as verbs and complex event nominals can control purposive clauses. However, this explanation is subject to the accuracy of the purposive clause control hypothesis, otherwise, the sentence (c) could be bad because the "it" has no recoverable antecedent.

There are at least three main problems with Grimshaw's account. First most of her tests are not strongly conclusive as we have seen. Secondly, the parallel between verbs and complex event nominals does not hold very well. Lets consider the examples below:

- (98) a. *Destroyed the city.
 b. The destruction of the city.

The verb, in the example (a) above, cannot appear without subject because this argument is required by the argument structure. Yet, the complex event nominal in (b), which has the

same argument structure, can appear without subject. Thus, it will not suffice to claim that the only difference between verbs and argument-taking derived nominals is that of case marking strategies. One would have to show how it is possible to have (b) and not (a). Thirdly, Grimshaw assumes that gerunds are like verbs and are unambiguous, that is, they always have an argument structure. However, we have seen in the section on Schachter that gerunds can appear with missing arguments. This is troubling because gerunds are even closer to verbs in her account. Thus, here too her parallelism between verbs and gerunds will not hold.

In this thesis, a distinction will be assumed between process and result/ substantive DNs, a distinction akin to Grimshaw's complex event- and simple event- nominals. The process DNs are the action nominalization DNs and they can have their arguments realized in the genitive. But the appearance of the arguments is optional. The result or substantive nominals on the other hand are like regular nouns and cannot have an actor or undergoer argument. The two usages of the DN are made clear for Hebrew in Berman (1978:334) who cites (parenthesis in original):

- (99) a. haknisa (shel zarim) laxacer hi asura.
 the-entrance (of strangers) to-the-yard is forbidden
 'Strangers are forbidden to enter the yard.'
- b. haknisa (laxacer) hi cara miday bishvilo.
 the-entrance (to-the yard) is narrow too.much for him
 'The entrance of the yard is too narrow for him.'

In sentence (a) the process DN takes an optional actor argument in a possessive construction. Sentence (b) illustrates the same DN form but with a substantive meaning. Here the DN cannot have actor/ undergoer arguments.

In conclusion, this survey of previous theoretical accounts of nominalization shows that none of them achieves what it purports to do. Those that assimilate gerunds to verbs on the one hand, and DNs to nouns on the other hand, seem not to have enough categories to handle the data. Faring worse, are accounts, such as Lees (1960) and Schacter (1976), which derive both gerunds and DNs either transformationally or lexically. Also, Grimshaw has not conclusively shown that nouns are ambiguous into those taking obligatory arguments and those that do not have arguments at all. An alternative formal account of nominalization is presented next.

6.2.2 AN RRG-BASED ACCOUNT OF THE NOUN-VERB CONTINUUM

In this subsection, it is proposed that the position of a predicate on the noun-verb cline depends on its level of predication on the LSC. Nouns have the least of the predicative property, verbs have the most. The level of predication is represented by the projection of an operator onto the LSC nodes. The LSC would thus help distinguish four categories, the verb, the core gerund (gr1, in Hausa), the nuclear gerund (gr2), and the DN/ regular noun.

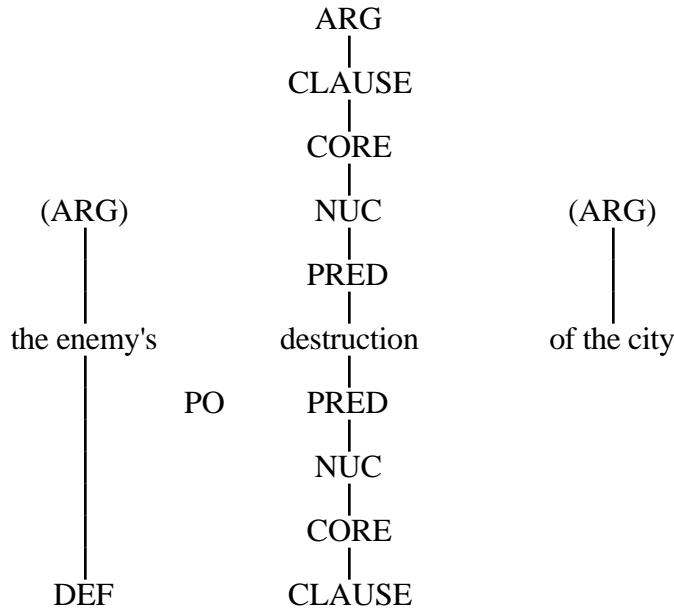
6.2.2.1 The predication operator

As a reminder, RRG views the clause structure as a layered structure where the innermost node, the predicate node (noted PRED), is contained in the next node, the nuclear node (NUC). The nuclear node in turn is contained in the core node (CORE), which is itself subsumed under the clause node (CLAUSE). The highest node is the sentence (SENTENCE). Verbal arguments which are arguments in the verb's Logical Structure (LS) are all constituents under the CORE node. Thus, RRG posits no primitive structure akin to VP in GB, but VP-like effects may obtain only as derivatives of pragmatic factors. Therefore, the notion of VP will not be used here as a primary construct.

RRG posits a number of operators for aspect, tense, status, directional, evidential, etc, which are projected onto the various LSC nodes (Johnson 1987). Most of these operators apply at only one level; thus, aspect is a nuclear operator, while tense and evidentials are only clausal operators. Negation though is a case of multiple-level operator (Foley and Van Valin 1984:75). So, we have a nuclear negation, where the operator applies at the NUC node (cf. 'unlock'), a core negation ('John did not eat'), and a sentential negation ('not that he ate').

I propose here that the notion of predication can be cast into an operator one may call the "predication operator" (or PO for short). PO will be a multiple-level operator which can project to the innermost PRED node, the NUC node, the CORE node, and the CLAUSE node. An assumption here is that when the PO of a predicate projects at a given node, then the constituents under the lower node at least are subsumed by the predicate. Constituents under predication are necessarily expressed, while those outside the predication scope are optional. I will also assume that generally, subsumed constituents are unmarked (or have a primary marking, exp: accusative), while non-subsumed constituents are marked with a special morphology (exp: genitive case). The LSC tree adopted here is given below:

(100)



This tree differs from the regular RRG trees in that the V and N nodes are taken away. Indeed, the categorial notations V and N are not needed here because a predicate's categorial status follows from its level of predication on the LSC nodes. The details of the proposal are presented next.

6.2.2.2 Predication at the clause node

The highest level at which a predicate can project its PO is the CLAUSE node. PO at this level defines the syntactic category "verb". Most typically, the verb will be tensed, with all of its LS arguments expressed. Notice that only LS arguments are obligatory, so, even at this highest level, constituents under the CLAUSE node itself are not subsumed. Hence, peripheral elements modifying the core (such as the scene-setting locative 'in the garden'), are not obligatory. Core arguments on the other hand are expressed, unless their omission is motivated by a specific reason such as if they are context-evident or pragmatically irrelevant. The CLAUSE node projection is illustrated below:

- (101) a. The barbarians destroyed Rome (in the spring).
 b. *destroyed Rome.
 c. *The barbarians destroyed.

As seen above, the verb 'destroy' requires the expression of its two LS arguments.

If the tense operator does not apply to the CLAUSE node, then one obtains an infinitive in languages where this subcategory is formally distinguished. Here too, the verb's LS

arguments are obligatory, but most of the time the actor may not show up for discourse-pragmatic reasons and coreference. This is illustrated below:

- (102) a. John intends to fix his car.
- b. Préparer un plat pris tout son temps à Jeanne.
cook a dish take-PAST all her time at Jeanne
'Cooking a dish took all her time to Jeanne.'

In the (a) sentence above, the English infinitive 'fix' shares the same actor argument. On the other hand, it has its own undergoer in the accusative case. In sentence (b), the French infinitive préparer 'cook' has only an undergoer, the actor being recoverable elsewhere in the sentence. It is not the case however that in all languages infinitives necessarily have an unexpressed actor/ pivot arg. According to Deny (1971), beside the verb, Turkish has the categories of infinitive, the "action nominal", and the "action nominal" with concrete/substantive meaning. Still according to him, the essential difference between the verb and the infinitive is that the infinitive has no tense marking. Otherwise, a pivot argument can be specified for the infinitive, as with the verb. This is illustrated below (adapted from Deny 1971:875, French gloss in original, English glosses added)

- (103) Bagdaad sahraa-lar-i su basmaq sherr-i-n-den masuun-dur.
Bagdad open.lands water infringe harm preserve
'les plaines de Bagdad sont préservées de l'inconvenient des inondations'.
(mot à mot: 'l'eau empiéter')
'Bagdad's lands are preserved from inundation.' lit. '...water infringe...'

In the sentence above, su 'water' appears with no special marking as the actor of the infinitive form basmaq 'infringe, step on'. Notice that in general the infinitive is really a verbal category because it does not alternate a genitive-marked undergoer with an accusative-marked one. Thus, for Turkish, Deny (1971) reports that the infinitive never appears with a genitive-marked argument, as opposed to all other deverbal formations. The situation is also the same for English, as seen below:

- (104) *cook of a fish

In the present analysis, in terms of their category, the infinitive is a plain verb which only lacks a tense marking. So, in general the provision must be made that both verbs and infinitives have their actor and undergoer arguments obligatorily expressed or recoverable while all other categories take the arguments only optionally.

6.2.2.3 Predication at the core node

In RRG, the gerund is already taken to be a core (cf. Foley and Van Valin 1984:255). When the PO applies at the CORE, one obtains the syntactic category "core gerund". The predictions of the LSC-based analysis are that the actor and undergoer arguments will not be under the PO's scope, and will therefore receive a special marking if they occur, not the accusative/ nominative marking. This prediction is partially true. First, in English, "-ing" nominals do appear with arguments marked with the genitive case. This is illustrated below ((a-c) are from Comrie and Thompson 1985):

- (105) a. The hunter's shooting of the deer
b. The hunter's shooting/ the shooting of the hunter
c. The deer's shooting/ the shooting of the deer
d. The company's raising of the price of the machine
e. His claiming of immunity from prosecution

This is certainly the least frequent patterns, but they exist, and an analysis should be able to predict them. Here, the examples in (105) above are the "basic" gerund constructions, where the gerunds appear with genitive arguments, as expected if, contrary to verbs and infinitive, they do not formally subsume the core arguments. What happens for most gerund occurrences in English is that the functional categorization principle (FCP) intervenes and obliterates the arguments' genitive case marking, thus rendering the gerund predicate more like a verb. Example of genitiveless gerund constructions are given below:

- (106) a. The hunter shooting the deer was an awful spectacle.
b. John refusing the offer annoyed me.
c. him climbing a tree is something I've got to see. (Pullum 1991:766)
d. The hunter's shooting the deer

Examples (a-c) are cases where the genitive marker of both actor and undergoer arguments are suppressed. This type of "-ing" nominal is generally referred to as the "accusative -ing" and has been a problem for most accounts. Example (d) gives what is elsewhere referred to as the "gerund" construction. Here, only the genitive marker for the undergoer argument is suppressed. The pattern which is not attested, a fact which must be handled English-internally, is that where the actor receives nominative case but the undergoer receives genitive case (cf. *the hunter shooting of the deer). With reference to (105-106), the claim is that English gerunds appearing with arguments tend to be recategorized as verbs (i.e. they display many more verbal properties, cf. Lees' discussion of "gerunds" vs. "action nominals", section 6.2.1.1). Because the FCP is actually a tendency rather than a strict principle, there are more than one way for the gerund to behave like a verb (such as when

one or both actor and undergoer arguments are non-genitive). Notice that the alternation of the genitive case on the one hand and the accusative and nominative cases on the other hand involves only the core gerund category. In English, the functional principle does not affect verbs (usually verbs do not alternate direct arguments with genitive arguments). The FCP also does not affect DNs (DNs do not have accusative or nominative arguments).

In Hausa, predication at the CORE node determines the gr1 gerund, the category next to the verb in the table (69). The LSC-based account predicts that gr1 gerunds should mark their arguments with the genitive case. This possibility is true only for the actor argument. This is illustrated below:

- (107) a. kaamàawar Abdù/ kaamà kiifin Abdu
 catch-I-VN-of Abdu/ catch-I fish-of Abdu
 'Abdu's catching (something)/ Abdu's catching a fish.'
- b. zamnàawar Abdù
 sit-I-VN-of Abdu
 'Abdu's sitting down'

In the example (a) above, the actor appears with the genitive case, whether or not an undergoer is also present. Example (b) shows an intransitive verb also marking the actor with genitive case. The undergoer is always accusative with gr1 gerunds, as seen in the previous section, by virtue of the functional principle. Note that it is very likely that [kaamà kiifiil] 'catch fish' in kaamà kiifin Abdù in (94a) above is a unit where the verb and the undergoer are nominalized together. The unit would then have the actor Abdù as nominal complement. That being the case, one can still observe that what should have been a VN (the environment is tenseless) appears in a verbal form instead, by the FCP. In any case, as shown in note 12, Caron (1987:149) does report a dialect where even the undergoer appears as a genitive argument with the -àawaa form. So in the Barmou area, one would have kaamàawak kiifii 'the catching of fish' instead of kaamà kiifii. If this dialect allows both arguments with the gerund, then one, presumably, would get kaamàawak kiifin Abdù 'Abdu's catching of the fish', but this has to be verified and it is possible that undergoer is marked genitive only when it occurs alone (Caron is not clear on this point). Contrary to English, in Hausa, the actor usually cannot appear without the genitive marking (in the dialects known to me at least).¹³

Another language showing the effects of the functional principle on its gerunds is Turkish. Indeed, according to Comrie and Thompson (1985:378-379), the actor of the gerund (= their "action nominal") in Turkish is always genitive, while the undergoer is always accusative, whether they appear individually or cooccur. This is illustrated below:

- (108) a. Hasan-in gel-me-si
 Hasan-GEN come-VN-his
 'Hasan's coming'
- b. mektub-u yaz-ma
 letter-DO write-VN
 'The writing of the letter'
- c. Hasan-in mektub-u yaz-ma
 Hasan-GEN letter-DO write-VN
 'Hasan's writing of the letter'

In example (a) above, the actor Hasan is in the genitive case and is crossreferenced by a possessive pronoun on the intransitive gerund. In example (b) on the other hand, the undergoer appears with the accusative case-marking -u, which is also found in regular sentences. According to Comrie and Thompson, the undergoer cannot be genitively marked (cf. *mektub-un yaz-ma(-si) 'the writing of the letter'). When both actor and undergoer cooccur as in the example in (c), the actor is still genitive and the undergoer accusative (this pattern of Turkish is similar to Hausa kaamà kiifin Abdù 'Abdu's catching a fish', where the actor --here Abdù-- is always genitive and the undergoer --here kiifii 'fish'-- always accusative). However, according to Deny (1971) it is possible for the undergoer in Turkish to also appear in the genitive in what he calls the "nom verbal de sens abstrait" usage of the -me/ -ma gerund. This is illustrated below (adapted from Deny 1971:458):

- (109) bun-un yap-ma-si quolay.
 this-GEN accomplish-VN-its easy
 'doing this is easy.'

This is the construction that is predicted by the LSC-based account. The constructions where the undergoer is accusative (as in (108b-c) above) are an alternate, partially recategorized form of the gerund. As one can see, these facts are quite similar to what happens with English gerund. In Turkish, and according to Deny (1971), the "nom d'action" (i.e. gerund) in -me/ -ma is very different from the infinitive, which never appears with a genitive argument. In its inventory, beside the infinitive and the gerund, Turkish also has a DN category (formed with about fifteen different suffixes) which take substantive meaning and can be analyzed as the categorial equivalent to English DNs.

In Classical Arabic, and as predicted by the LSC-based analysis, either the actor or the undergoer can appear in the genitive. However, when they both cooccur, then the undergoer is obligatorily marked accusative and the actor marked genitive. This is illustrated below (from Comrie and Thompson 1985:380):

- (110) a. quatl-u zayd-in
 killing-NOM Zaid-GEN
 'Zaid's killing (s.o.)' or '(s.o.'s) killing of Zaid'
- b. quatl-u zayd-in muhammad-an
 killing-NOM Zaid-GEN Muhammad-ACC
 'Zaid's killing of Muhammad'

In example (a) above, the genitive marked argument can be interpreted either as the actor or the undergoer, as indicated in the gloss. When both arguments appears, as in (b), the undergoer is accusative and the actor genitive. So, apparently, in Arabic, the effects of the FCP are limited to cases where both arguments cooccur, contrary to Turkish and Hausa.

Under the LSC-based analysis, the Quechua nominalization case-marking patterns show a gradual effect of the FCP. The three patterns are again given below:

- (111) Quechua case-marking in nominalized sentences:
- | | actor | | undergoer | |
|----|-------|------------|-----------|------------|
| a. | -Ø | nominative | -ta | accusative |
| b. | -Ø | nominative | -Ø | objective |
| c. | -q | genitive | -Ø | objective |

In (111a) above, the first pattern is manifesting the full effects of the FCP in that the arguments are marked as they would be in a regular clause. The second pattern in (111b) shows a partial effect, where the VN assigns nominative case to the actor, but fails to mark the accusative case. In this sense, the VN is less verbal than in pattern (111a). Finally, in the third pattern in (111c) the Quechua VN is at its most nominal status. The actor is marked genitive and the accusative case for the undergoer is dropped.

In conclusion, the LSC-based account of predication predicts that gerunds will mark their actor and undergoer arguments with the genitive case. This is because the core arguments are not under the scope of the gerund's PO applying at the CORE node itself. However, because the gerund category is close to the verbal category, the FCP applies, in numerous ways in various languages, to allow accusative and nominative marking of the arguments. The application of the functional principle is apparently constrained by language-specific rules and principles. Notice for example that most of the languages reviewed above generally allow only one genitive argument at a time. This may be the actor or the undergoer when they occur alone. English has quite frequent cases of double genitive construction. The idea is that the LSC-based account allows the double genitive construction, although for gerunds, probably few languages actualize the allowed structure. We will see below that more languages have the double genitive construction with derived

nominals. Also, of the four logical possibilities of marking the actor and the undergoer, one finds usually three. Both arguments can be marked genitive, or they can be marked accusative or nominative. A frequent pattern is that where the actor is genitive and the undergoer accusative. No language among those seen in this section allows the pattern where the actor would be marked nominative and the undergoer marked genitive (cf. *John sweeping of the floor). This is unexpected if both actor and undergoer are taken as having the same core argument status. However, these facts are predictable, as shown in Nunes (1990, 1992). In her analysis of English DNs, Nunes (1990:62) posits that the linking from semantics to syntax for NP follows an undergoer > actor markedness hierarchy, in opposition to the clause where the markedness hierarchy is actor > undergoer. Indeed, for accusative languages like Hausa and English, the Actor has priority in the linking to syntactic visibility, the pivot position (cf. section 1.4.4). Following Sadock and Levi (1977) and Levi (19978), Nunes proposes that the English DN is ergative and therefore the undergoer is the privileged argument for linking to the most prominent syntactic position (the direct, non-genitive marking). For the gerunds in the languages seen above, the prominent position is also the direct, non-genitive status, and this is the status of the undergoer most of the time.

6.2.2.4 Predication at the nuclear node

Predication at the NUC node defines a nuclear gerund. Like the core gerund, the nuclear gerund does not subsume the actor and undergoer arguments, hence, the prediction is that these arguments will be marked genitive if they occur. Notice then that, generally speaking, one should not be able to use argument-inheritance to distinguish the two types of gerunds. However, because it is two steps away from the verb category, the nuclear gerund is less likely to be affected by the functional principle and be recategorized as a verb. Thus, the prediction is that the nuclear gerund (and the DN too) will always case-mark its arguments with genitive, in contrast to the core gerund which shows accusative/ nominative marking vs. genitive marking alternations. This is indeed the case, at least in Hausa, which so far is the only language I know to have a formally distinct nuclear gerund category.

Nonetheless, the directly relevant constituents in distinguishing the two types of gerunds are the constituents under the NUC node, that is, the cosubordinated elements. If the PO applies at the NUC node itself, constituents in the nucleus will not be subsumed, hence, they will need a special marking, the genitive in this case. On the other hand, if the PO applies at the CORE node, then the resulting gerund subsumes the constituents in the nucleus, and, there should be no special marking. This prediction is born out in Hausa which has at least two nuclear cosubordination constructions, as seen in chapter 5.

It has been claimed in Hausa studies that the gr2 gerund share some behaviors in common with the gr1 gerund (a core gerund) on the one hand, and with the DN on the other hand. This claim happens to be true for both LH-aa and HH-aa gr2 gerunds seen in section 6.1.2.3. For example, gr1 and gr2 gerunds can appear before mà, but the DN cannot. This shown in below:

- (112) a. jeefaa mà Abdù
 throw-I-VN IX Abdu
 'throwing (s.th.) to Abdu'
- b. jeefam mà Abdù kàree.
 throw-II-VN-of IX Abdu dog
 'throwing at Abdu's dog'
- c. *jiifà-r mà Abdù
 throw-DN-of IX Abdu
 '?"'

In examples (a-b) above, respectively, a gr1 and a gr2 gerund take mà. In example (c), their corresponding DN is impossible with mà. On the other hand, if followed by an undergoer, both the DN and the gr2 gerund obligatorily take the linker -x, but the gr1 gerund reverts to accusative case-marking, as seen above. The contrast is illustrated below:

- (113) a. jeefà KunKuu
 throw-I stone
 'throw a stone'
- b. jeefar tsuntsuu
 throw-II-VN-of bird
 'throw at a bird'
- c. jiifar KunKuu / tsuntsuu/ Abdù/ jiyàa
 throw-DN-of stone/ bird/ Abdu/ yesterday
 'stone throw/ throwing at birds/ Abdu's throw/ yesterday's throw'

Again the example (a) above shows the gr1 gerund taking an argument directly, as a regular verb would do. Examples (c-b) respectively show the gr2 gerund and the DN, both taking the possessive linker -x before their arguments. Beside these points, in another respect, gr2 seems ambiguous in behaving both like gr1 gerund and the DN. Thus, gr1 and gr2 gerunds can take a time adverbial without genitive marking. The gr2 gerund and the DN can take the same adverbial with a genitive marking. But the gr1 gerund cannot mark the adverbial with genitive, while the DN cannot satisfactorily stand with a non-genitive adverbial. This is illustrated below:

- (114) a. jeefā KunKuu jiyàa
 throw-I stone yesterday
 'throwing a stone yesterday'
- b. jeefā KunKun jiyàa
 throw-I stone-of yesterday
 'throwing yesterday's stone'
- (115) a. jeefar kàree jiyàa
 throw-II-VN-of dog yesterday
 'throwing at the dog yesterday'
- b. jeefar kàren jiyàa
 throw-II-VN-of dog-of yesterday
 'throwing at the dog yesterday'
 'throwing at yesterday's dog'
- (116) a. ?jiifār KunKuu jiyàa
 throw-DN stone yesterday
 'the throw of a stone yesterday'
- b. jiifār KunKun jiyàa
 throw-DN stone-of yesterday
 'yesterday's stone throw'
 'the throw of yesterday's stone'

(114) shows the gr1 gerund (here using the term really for the nominalized verb plus its undergoer) taking only the non-genitive adverb. If the linker is added, one gets another sense, as indicated in (114b). In (115) the gr2 gerund can appear both with the non-genitive and the genitive-marked adverb. This last case is ambiguous, as seen in (115b). In (116) the DN is quite unfelicitous with a non-genitive adverbial. Thus, the gr2 gerund, by these three properties above, is clearly "midway" between the gr1 gerund and the DN.

In chapter 5, arguments were presented in support of the cosubordination analysis of gr9 and gr5. The primary verb and the auxiliary mà or dà are both constituents under the NUC node. In (112a) above, the gr1 gerund appears without genitive marking before mà, while in (112b), the gr2 gerund displays the possessive linker -r (assimilated to /m/). It is claimed here that this contrast between the two gerunds is due to a difference in their predication scope. The gr1 gerund predicates at the CORE node and subsume mà, an element in the nucleus. The gr2 gerund on the other hand predicates at the NUC node, that is, the very level where it is a constituent with mà. Therefore, mà and any other nuclear constituent will not be subsumed by the gerund, and they will be marked genitive.

Not surprisingly, there are properties that are unique to gr2 gerunds in Hausa. The gr1 gerunds (and the DNs) can appear with an actor argument alone. This is impossible with a

gr2 gerund. It appears most satisfactorily with the undergoer alone. The contrast with the two gerunds is illustrated below:

- (117) a. jeefaaawar Abdù
 throw-I-VN-of Abdu
 'Abdu's throwing (s.th.)'
- b. jeefar Abdù
 throw-II-VN-of Abdu
 'throwing at Abdu'
 NOT: 'Abdu's throwing at (s.th.)'

In example (a) above, the gr1 gerund is fine with the actor as sole argument, which it always marks with the genitive linker. In example (b), the gr2 gerund is followed by an argument which can only be interpreted as an undergoer, not as an actor. I also find gr2 gerunds to be unfelicitous when occurring with both the actor and the undergoer. The result however is nothing near the total ungrammaticality of the disallowed interpretation of (117b) above. This is illustrated below:

- (118) a. kasam macìijin Abdù
 beat-II-VN-of snake-of Abdu
 'beating on Abdu' s snake.'
 ??: 'Abdu's beating on the snake.'

The primary interpretation of an example like the one above is that where Abdu is understood as the owner of the snake beaten. To really get the action nominalization reading as an option with the double genitive, one needs to substitute the DN form for the gerund in the sentence above. The DN forms for 'killing' or 'beating on' are kashìi and kishìi/ kisàa respectively (as indicated in (7n), section 6.1), which can indeed appear with both arguments, as we will see shortly in the next subpart. Thus, the gr2 gerund is different from both the DNs and the gr1 gerunds.

Tuller (1986), in discussing the gr2 gerunds (the LH-aa type), claims that their behavior resembles that of VNs in Welsh. However, it is not clear whether the Welsh VNs are not simply regular core gerunds. Apparently, there are two types of VNs in Welsh, the DN and what I will here call the gerund. The regular sentence and the DN are illustrated below (data and gloss cited in Sproat 1985:184-185):

- (119) a. Mi ddistrywodd Siôn y dref
 PTCL. destroyed-3SGPST the town
 'John destroyed the town.'

- (120) a. distrywiad Siôn o'r dref
 destruction of-the town.
 'John's destruction of the town'
- b. distrywiad y dref gan Siôn
 destruction the town by
 'the destruction of the town by John'
- (121) a. ei ddistrywiad o'r dref
 his destruction of-the town
 'his destruction of the town'
- b. ei distrywiad gan Siôn
 its destruction by
 'its destruction by John'

In (120a), the actor Siôn is unmarked, which according to Sproat is the way nouns mark genitive in "NP NP" constructions. The case of the undergoer is glossed "of-the", one may assume then that it is marked genitive. (120b) shows that when the undergoer is adjacent to the DN, it too is unmarked. The actor is then marked oblique. (121) shows that both actor and undergoer (in (a-b) respectively), can appear prenominally as possessive clitics. The Welsh gerunds appear in constructions involving the auxiliary "be" in aspects such as the continuous. They contrast with the DNs in that their argument can only be interpreted as the undergoer, not as the actor. Sproat (1985:185) cites the example gweld Siôn 'see-VN John' where Siôn can only be interpreted as the person seen, not the person seeing. The gerunds do resemble the DNs in that they also assign genitive case (unmarked for nouns, marked for clitics) to the undergoer. However, Sproat also provides evidence that these gerunds are verbal (that is, they are VPs, in his terminology). But he is then forced to stipulate that their genitive case-marking of the undergoer is a marked fact about Welsh and other Celtic languages. The assimilation of gr2 gerunds to Welsh gerunds allows Tuller too to view them as VPs, but dismiss their genitive case-marking as a trivial fact about Hausa, while in fact their consistent genitive case-marking clearly sets gr2 gerunds apart from gr1 gerunds.

In the standard GB view (based on English examples such as 'the enemy's destroying the city'), it is not predicted that gerunds assign genitive case to undergoers. In the LSC-based analysis, the genitive case-marking by gerunds is the default state of affairs. So, gerunds in Welsh and other Celtic languages can be regular core gerunds and yet assign genitive case if they are not interferred with by the FCP. Although intuitively they look like Hausa gr2 gerunds, there is unfortunately no clear evidence that they are necessarily nuclear gerunds (such evidence may be the existence of a different gerund, with different properties, or the

existence of a nuclear cosubordination construction with the two predicates in a genitive relation).

In conclusion, predication at the NUC node in Hausa gives a gerund intermediary between the gr1 gerund (or core gerund) and the DN. The resulting category shares some properties with the gr1 gerund as well as the DN, but it also has its own characteristics. For example, both gerunds appear with mà, but only the gr2 gerund marks it as genitive. This is indeed the main piece of direct evidence in support of the nuclear status of the gr2 gerund. Unlike the gr1 gerund or the DN, the gr2 gerund does not appear with the actor as sole argument, and appears only very marginally with both arguments. Thus, it is best with only the undergoer argument expressed.

6.2.2.5 Predication at the predicate node

With the PO applying at the PRED node on the LSC, one obtains the categories of regular nouns and DNs. I assume the constituents under the PRED node to be morphemes. A problem here is the assumption that the constituents under the level at which PO applies are not subsumed. In the hypothetical case where say, a DN and a gerund take the same suffix, logically, one may expect the suffix to show up differently with the gerund (where it is subsumed) than with the DN (where it is not). However, because the predicate node is in the domain of morphosyntax, one can consider the contrast in marking of subsumed elements irrelevant for our purposes here. A cross-categorial inflectional morpheme will affix equally to a nominal, a nuclear or core gerund, or a verb. So, the PRED node constituents cannot be directly used to provide evidence of the distinction between nuclear gerunds on the one hand (with PO applying at the NUC node), and DNs or nouns on the other hand (where PO applies at the PRED node).

There is plenty of other types of evidence available though, to distinguish gr2 gerunds and DNs in Hausa. As already seen in the previous subpart, the DNs cannot appear with mà or dà, while gr2 gerunds can, as seen in (112) above. DNs, like regular nouns can be undergoer arguments of the verb yi 'do', while gr1 and gr2 gerunds can't. DNs are also distinctive from gerunds in undergoing the total reduplication pattern of pluralization, whereas gerunds and verbs can only partially reduplicate. We have also seen that DNs can appear in "product/ resultative adverbial" construction and in the "defaultive" maràC construction, both of which exclude gerunds and verbs (on all these points, see section 6.1.2.3 discussion of (20-21,27-28), and section 6.1.3.4, discussion of (33-34)). There are two more important differences between the DN and the nuclear gerund which are addressed below in more details.

6.2.2.5.1 Argument inheritance

As seen previously, gr2 gerunds can only take the undergoer argument, which they mark as genitive. DNs however can occur equally well with the undergoer only, the actor only, or both arguments simultaneously. By far the most frequent cases involve occurrence with one argument only. This is illustrated below:

- (122) a. kaamùn Abdù
 catch-DN-of Abdu
 'Abdu's catching (of s.o.)' or '(s.o.'s) catching of Abdu'
- b. bugùn Abdù
 hit-DN-of Abdu
 'Abdu's hitting (of s.o.)' or '(s.o.'s) hitting of Abdu'

In both examples in (a-b) above, the argument Abdu can be interpreted as the actor or the undergoer. Notice that both types of argument are marked genitive. This is indeed what one would predict in the LSC-based account. Thus, one cannot have *kaamùu Abdù or *bugùu Abdù instead of (122a-b) respectively, just as one cannot have in English *'the destruction city'.

Beside taking one or the other argument, Hausa DNs can appear with both arguments, although this ability is marginal and, not surprisingly, controversial in Hausa works. But in fact it is attested. For example, there is a figure of speech which probably any Hausa speaker knows about and which makes use of the double genitive construction. The metaphor is given below:

- (123) jiràn gàawon shaanuu
 wait-DN-of fruit-of cows
 'unrealistic expectations' lit: 'cows' waiting of the fruit'

The metaphor refers to the habit of animals to lie under the "gàawoo" tree or other trees and eat any fruit or leaves that may fall. Syntactically, the DN occurs with its actor and undergoer arguments in a double genitive construction. Semantically however, the sentence does not refer to the action described by the DN. This case is given only as a grounding of the double genitive construction as an attested linguistic behavior. There are similar constructions which have, among other senses, the normal action nominalization sense. So, I personally find the examples below adapted from Bagari (1971:200) as acceptable:

- (124) a. kàràatun littaafìn Abdù
 read-DN-of book-of Abdu
 'the reading of Abdu's book'
 'Abdu's reading of the book'

- b. kashìn macijin Abdù
kill-DN-of snake-of Abdu
'the killing of Abdu's snake'
'Abdu's killing of the snake'

Both the examples in (124) above have an ambiguous sense, as indicated. With most verbs, the action nominalization reading and the other competing readings are suggested by the context. If the context is really unclear, the interpretation where the second argument is possessor is dominant. This is illustrated below:

- (125) a. sunàa sàràaren [kàràatun Kùrù'aanìn Abdù].
3ms-CONT listen-VN-of [read-DN-of Koran-of Abdu]
'They are listening to Abdu's reading of the Koran.'
- b. baanàa sòn [kàràatun Kùrù'aanìn Abdù].
NEG-CONT.1s want-VN-of [read-DN-of Koran-of Abdu]
'I don't like reading into Abdu's Koran.'
'I don't want listening to Abdu's reading the Koran.'
'I don't want Abdu's reading of the Koran.'

In sentence (a) above, the situation is described where some people are listening to Abdu actually reading the Koran. The readings where Abdu is possessor or author of the Koran are less likely. In (b), the first interpretation is where Abdu is possessor of the Koran. It is also possible to have the interpretation where the DN refers to Abdu's manner of reading the Koran. Finally, when the external context calls for it (say, if the atheist father of Abdu is the speaker), then the action nominalization interpretation is also possible, as indicated. Overall, the double genitive constructions exist and cannot be dismissed. They are just not frequent enough to be heard in a daily basis, or for speakers to enthusiastically accept them. Also, they are usually outcompeted by the constructions involving gr1 gerund with an accusative undergoer and a genitive actor (cf. karàntà Kùrù'aanìn Abdù 'Abdu's reading the coran').

Other examples of acceptable Hausa double genitive constructions are:

- (126) a. halbìn bàreewar Abdù (or halbìn bàreewaa na Abdù)
shoot-DN-of gazelle-of Abdu
'Abdu's shooting of a gazelle'
- b. yankan naamàn Abdù
cut-DN-of meat-of Abdu
'Abdu's cutting of the meat'
- c. bugùn hatsin Abdù
hit-Dn-of millet-of Abdu
'Abdu's winnowing of the millet'

- d. hòoran Diyaa na Abdù
train-DN-of children of Abdu
'Abdu's training of his children'
- e. ban kaashin Abdù
give-DN-of punishment-of Abdu
'Abdu's giving of punishment '
- f. tuuKìn mootàr Abdù (or tuuKìn mootàa na Abdù)
stir-DN-of car-of Abdu
'Abdu's driving of the car'
- g. kallon watàn Abdù
look-DN-of moon-of Abdu
'Abdu' watching of the moon'
- h. rufìn Daakìn Abdù
cover-DN-of room-of Abdu
'Abdu's roofing of the room'
- i. rùbùutun wàsiiKàr Abdù (or rùbùutun wàsiiKàa na Abdù)
write-DN-of letter-of Abdu
'The writing of a letter for Abdu (by a literate person)'
'Abdu's writing of a letter'

As with the gr1 gerund, there may be question whether structurally in the examples above one has a nominalized predicate followed by two arguments, or whether the first two nominals form a unit which is then in relation to the third noun as complement. In the last case, the two dependent nominals will not be in the same core, unlike verbal arguments.

Notice that the second genitive linker in (126a, f, i) is agreeing in gender (and number) with the undergoer nominal only when it is bound to it. In the alternative, less frequent case where the second linker is separate, then it necessarily agrees with the DN, not with a phrase. This can be clearly seen with feminine-gender DNs, as well as regular feminine possessed nouns:

- (127)
- a. jiifàr KunKun Abdù.
throw-DN.f-of.f stone.m-of.m Abdu
'Abdu's throwing of the stone'
'the throwing of Abdu's stone'
 - b. jiifàr KunKuu ta Abdù.
throw-DN.f-of.f stone.m of.f Abdu
'Abdu's throwing of the stone'
NOT: 'the throwing of Abdu's stone'
 - c. jiifàr KunKuu na Abdù.
throw-DN.f-of.f stone.m of.m Abdu

NOT: 'Abdu's throwing of the stone'
 'the throwing of Abdu's stone'

- d. taayàr kèeken Abdù
 tire.f-of.f bike.m-of.m Abdu
 'bike-tire of Abdu'
 'tire of Abdu's bike'
- e. taayàr kèekee ta Abdù
 tire.f-of.f bike.m of.f Abdu
 'bike-tire of Abdu' (this reading only)
- f. taayàr kèekee na Abdù
 tire.f-of.f bike.m of.m Abdu
 'tire of Abdu's bike' (this reading only)

Example (a) shows that the clitic linker must agree with the gender of its host, KunKuu 'stone', which is masculine. The reading is ambiguous however, as indicated. When the linker is separate, as in (b), then it must agree in feminine gender with the DN jiifäa in order for Abdù to be understood as the actor. With a true possessive construction, the clitic linker must also agree with the gender of the second nominal on which it is cliticized, as seen in (d), although the head noun taayàa 'tire' is feminine. Note that the sense is again ambiguous. If the linker is separate, then agreement with either the head or the second nominal is possible, but then, the meanings are distinct, as indicated in (e-f) above. So, the actor nominal Abdù in the examples (126-127a-c) structurally relates to the head, not to a phrase. One may recall that our assumption is that in the DN nominalization cases, the core arguments bear the genitive linking because PO applies only at PRED for DNs, and thus does not subsumes core elements.

Modern Hebrew is of a particular significance to the LSC-based account in that it presents a language change which is well handled in the model proposed here. The main claim is that formal/ written Hebrew allow only one genitive core argument with the DN while colloquial Hebrew allows two such genitive arguments. One may recall that Hebrew is traditionally said to have three types of possessive structures, the "bound" type, the "separate" and the "double possessive" construction type. We will consider only the first two types (cf. note 7 for examples of all). According to Comrie and Thompson (1985), when the Hebrew DN (or "action nominal") occurs with the actor or the undergoer alone, either argument appears in the genitive, as it can be seen below (adapted from Comrie and Thompson 1985:381):

- (128) a. knisa shel yeled
 entrance of boy
 'the entrance of the boy'
 (or the compound: knisat yeled)
- b. ha-bitul shel ha-xoq
 the-cancellation of the-law
 'the cancellation of the law'
 (or the compound: bitul ha-xoq)

In example (a), yeled 'boy' is the actor and is marked genitive. In example (b), the undergoer ha-xoq 'the law' also takes the genitive marker. Still according to Comrie and Thompson (1985), if both actor and undergoer appears with the DN, then the undergoer must be marked accusative, while the actor is marked genitive. This is illustrated below (adapted from Comrie and Thompson 1985:382):

- (129) ha-dxiya shel dan et ha-hacaa
 the-rejection of Dan ACC the-offer
 'Dan's rejection of the offer'
 (or the compound: dxiyat dan et ha-hacaa)

In the example above, both arguments are present and the actor Dan is marked genitive, while the undergoer ha-hacaa 'the offer' is marked accusative. The undergoer cannot be marked genitive, as far as written Hebrew is concerned. Nevertheless, for Comrie and Thompson, the DN would have two arguments in the example above. An RRG account approach will have a different formulation. Although semantically the nominals Dan and ha-hacaa 'the law' are argument of the VN, formally, they are not of the same status. In (129), only the genitive argument Dan is the (nominal) direct core argument. The undergoer is some type of peripheral or indirect core argument. If the undergoer were a real accusative argument, then this would imply that the DN in Hebrew, like "-ing" nominals in English, can be recategorized to a more verbal state. The alternative to this unsatisfactory conclusion is to see the marker et as an adjunct (or indirect core) argument marker, both with regular verbs and with the DN. Indeed, according to Berman (1978), what she call the verb-governed preposition et occurs with verbs only when the undergoer is definite, as illustrated below (adapted from Berman 1978:123)

- (130) a. david natan matana le-rina.
 'David gave (a) present to-Rina.'
- b. david natan et ha-matana le-rina.
 'David gave OM the-present to-Rina.'

In sentence (a), the undergoer nominal is indefinite and et is not used. The undergoer is truly accusatively marked. In (b) however, et is obligatory because the undergoer is definite. For Berman herself, the preposition et is semantically empty and it would alternate with zero to mark the accusative case. Generally, zero elements are avoided in RRG. Therefore, a rule will be assumed in Hebrew by which definite undergoer are demoted to an indirect core position or possibly to an adjunct status, although this quasi detransitivization does not show up morphologically on the verb. The point then is that the DN in (129) is intransitive and has only one direct core argument. This avoids positing the correspondent of English *'the barbarians' destruction Rome'. This analysis is supported by the behavior of other deverbal categories with respect to the et particle. Beside DNs, Hebrew also has infinitives and gerunds. Infinitives, as in most other languages, have their actor unexpressed, but otherwise, and according to Berman (1978:290), they take all the other complements that a regular verb takes, including the et and the non-et undergoer arguments. The gerund on the other hand is *obligatorily* followed by the actor argument (or the pivot in general), with which it is in a genitive construction. Following the genitive actor, the et or the non-et undergoers can be expressed. DNs however can only take the et undergoer, not the accusative, non-et indefinite argument (the issue was left unclear in Berman). The three categories are illustrated below (the (a) sentences are adapted from Berman 1978:277-278; the (b) versions are from informants):

- (131) a. ligmor **et** haavoda ze xashuv lánu.
 to finish OM the-work it(is) important for-us
 'To finish the work is important for us.'
- b. ligmor avoda ze xashuv lánu.
 to finish (a)work it(is) important for-us
 'To finish a work is important for us.'
- (132) a. bigmor Dan **et** haavoda hu shav habáyta.
 on-finishing Dan OM the-work he return home
 'On Dan's finishing the work, he returned home.'
- b. bigmor Dan avoda hu shav habáyta.
 on-finishing Dan (a) work he return home
 'On Dan's finishing a/some work, he returns home.'
- (133) a. gmirat Dan **et** haavoda garma lo sipuk.
 finishing Dan OM the-work give him satisfaction.
 'Dan's completion of the work gave him satisfaction.'
- b. *gmirat Dan avoda garma lo sipuk.
 finishing Dan (a)work give him satisfaction.
 'Dan's completion of a/some work gives him satisfaction.'

(131) shows the infinitive li-gmor 'to finish' with an unexpressed actor, but taking both the accusative and the demoted et nominal. In (132), the gerund gmor 'finishing' has a genitive actor expressed in the compound construct state. It can be followed either by the accusative or the demoted et undergoer. Finally, in (133), the DN gmirat 'completion' has a genitive actor argument, but it can only take the demoted et undergoer, not the accusative nominal, as indicated in (133b). Thus, it clear that it is only the (core) gerund which can be (partially) recategorized to take an (indefinite) accusative undergoer argument. For Hebrew, one again sees the same cline of verb/ infinitive, gerunds, DNs that is exhibited in many other languages.

Still according to Comrie and Thompson (1985), the example in (129) has a variant where it is the undergoer argument which appears in the genitive, while the actor is expressed as complement of the oblique marker al ydey 'by'. This is illustrated below (from Comrie and Thompson 1985:382):

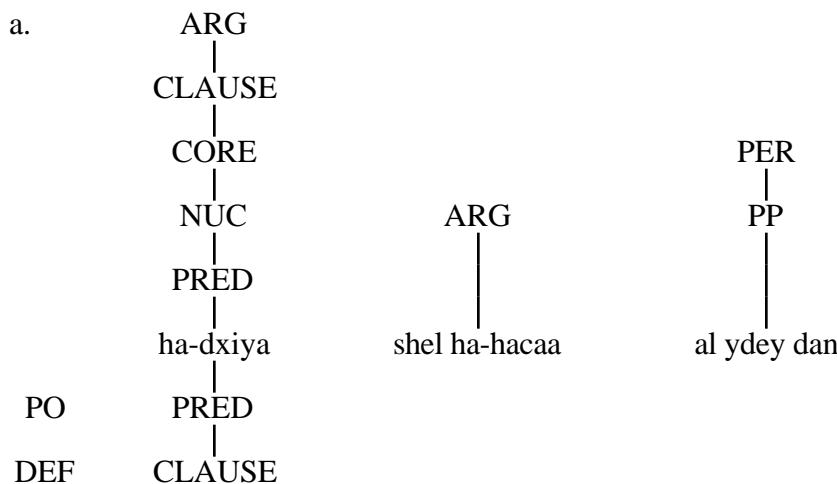
- (134) ha-dxiya shel ha-hacaa al ydey dan
 the-rejection of the-offer by Dan
 'Dan's rejection of the offer'
 (or the compound: dxiyat-ha-hacaa al ydey dan)

Comrie and Thompson (1985) identified al ydey 'by' in nominalized clauses with the oblique marker that appears with demoted passive agents. In their typology, the example in (134) is an instance of an action nominal retaining both the sentential and the nominal syntax: the genitive marking on the undergoer from the NP syntax, and the oblique marker on the actor from passive clauses syntax. The problem with this analysis is that languages which do not have clausal passive can still mark an actor argument as oblique in nominalized constructions. Koptjevskaja-Tamm (1988:138) cites Hixkaryana, Samoan, Tongan, and Classical Arabic as languages where this independent oblique marking occurs, and she characterizes them as "oblique-possessive". This means that their action nominal marks the undergoer as genitive, and the actor as oblique. These languages, in her system, contrast with the "sentential-possessive" languages, which pattern like the "oblique-possessive", the difference being that the "sentential-possessive" languages have a clausal passive construction using the same oblique marker as the action nominal (hence the "sentential").

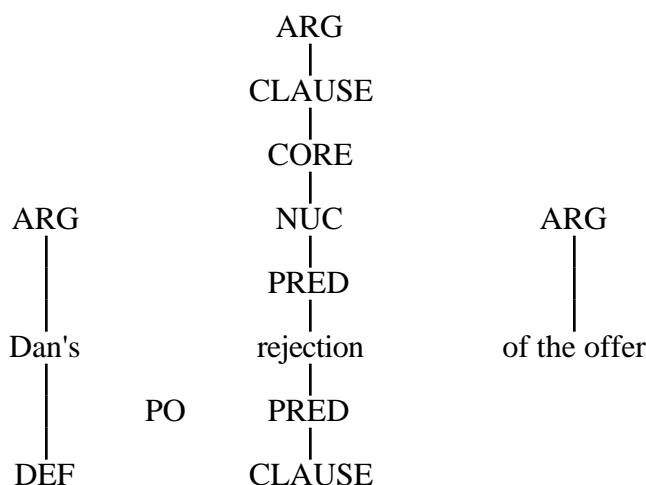
Whatever the relation between oblique-marked agents in sentences and in action nominal constructions, in both cases they are peripheral adjuncts, not direct core arguments. So, there is a difference between a genitive-marked actor and an oblique-marked actor in nominal

constructions. The Hebrew sentence in (134) and its English translation can be represented as shown below in (a-b) respectively:

(135) a.



b.



Notice then that the translation of the Hebrew sentence should really be 'the rejection of the offer by Dan'. In this work then, all oblique-marked arguments will not be counted as relevant to the categorization of a predicate. Indeed, one of the assumptions here is that peripheral elements are not subsumed by any category, even that with the highest predication, the verb. Also, according to Berman (1978:137), the "preposition" al ydey literally means 'at the hand of', and it alternates with bidey 'at the hands of'. This source is consistent with the interpretation of the preposition as a peripheral device.

So far then we have seen that in written/ formal Hebrew, the DN is intransitive and takes only one core argument marked genitive, the actor or the undergoer. But the limitation concerns only the formal register of the language. In colloquial Hebrew, it is possible for

the DN to take both actor and undergoer as genitive-marked arguments. This is illustrated below (repeating 129-134 for comparison purposes):

- (136) a. ha-dxiya shel dan et ha-hacaa
 the-rejection of Dan ACC the-offer
 'Dan's rejection of the offer'
 (or the compound: dxiyat-dan et ha-hacaa)
- b. dxiyat- dan shel ha-hacaa
 rejection-of Dan of the-offer
 'Dan rejection of the offer'
- (137) a. ha-dxiya shel ha-hacaa al ydey dan
 the-rejection of the-offer by Dan
 'Dan's rejection of the offer'
 (or the compound: dxiyat-ha-hacaa al ydey dan)
- b. dxiyat- ha-hacaa shel dan
 the-rejection-of- the-offer of Dan
 'Dan's rejection of the offer'

The (a) examples above show the more formal usage with one genitive argument. The (b) examples are valid only for the colloquial Hebrew and were actually cited as ungrammatical in Berman (p.131). But the text clearly states that the (b) examples are fine for the general colloquial usage and also for native Hebrew-speaking college students ((xxb) is ambiguous with the nominal Dan being also understood as "possessor" of ha-hacaa 'offer'). These examples show that the arguments' order can be actor+undergoer, as in (136b), or undergoer+actor, as in (137b). Presumably, with a reversible relation any order can be ambiguous. This is consistent with the analysis that the two arguments are structurally on a same stand as arguments present in the core of the DN. So, apparently, written/ formal Hebrew has a rule turning a core direct argument of the DN into an indirect or peripheral argument (marked et for undergoer and al ydey for actor). The rule is optional for colloquial Hebrew. It should be noted that speakers familiar with colloquial Hebrew rejected the constructions with two separate shel particles. Instead of (136b) and (137b) above, one cannot have respectively ha-dxiya shel dan shel ha-hacaa or ha-dxiya shel ha-hacaa shel dan. Regardless of any extra-linguistic reason there may have been for the difference between the language's registers, the final account of the resulting structures should be linguistic. The RRG account proposed here works quite well in predicting the double genitive constructions.

The best known case of double genitive construction is that of the English DN. Actually it is thought that only English displays a genuine case of double genitive construction (cf. Comrie and Thompson (1985). This is one reason why an alternative RRG-based account

of the DN assumes that English DNs have only one direct core argument which can be the actor or the undergoer according to an undergoer > actor selection hierarchy (Nunes 1990, 1992). Thus if one considers the following:

- (138) the enemy's destruction of the city'

According to Nunes, the only genitive argument that is in the core is the undergoer 'the city'. The genitive actor nominal 'the enemy' would be in the LDP, taking genitive "'s" to be the marker of the nominal equivalent of the LDP. The key argument for the LDP status of the actor is the fact that time adverbs like yesterday can occur in the same slot (cf. 'yesterday's destruction of the city'). This fact can still be made compatible with a double genitive analysis of (138). It is possible that the adverb and the actor are in two structurally different positions, which would be marked with the same morpheme. The pre-nominal adverb would be in the LDP, while the actor argument would occur in the core. A possible indication that one has two different pre-nominal "'s's" is the fact that the pre-nominal actor argument can appear with a partially recategorized gerund, but not the adverb. This is illustrated below:

- (139) a. John's claiming immunity annoyed the prosecution.
b. *yesterday's claiming immunity annoyed the prosecution.
c. [(John's) claiming immunity yesterday] annoyed the prosecution.

The gerund in (139) above would have a pre-nominal core argument slot, but not a nominal LDP, as it is indicated by the inability of the adverb to appear (cf. sentence (b)). Instead, the adverb must be expressed peripherally, as seen in (c).

It is also the case that many more languages allow the double genitive construction. Koptjevskaja-Tamm (1988) claims that Finnish and Japanese also exhibit the double marking. The two languages are respectively illustrated below (adapted from Koptjevskaja-Tamm 1988:148):

- (140) a. vanhempien taloudellisen tuen antamisen on
parents-GEN economic support-GEN give-VN is
riippuvaista tuloista.
dependent incomes-PART

'Parents' giving of economic support is dependent on their income.'
(originally from Hakulinen and Karlsson 1979:395)

- b. Tanaka-shushoo no keisatsu no shirabe dá.
 Prime Minister GEN police GEN investigate-VN cop
 'It is an investigation, by the Prime Minister, of the police.'
 'It is an investigation of the Prime Minister by the police.'
 (originally from Martin 1975:869)

As indicated in sentence (b) above, the Japanese double genitive construction is ambiguous structurally. Nonetheless, in both cases, an action nominalization reading obtains. Other languages with a double genitive construction include German (but with rare occurrences exp: Herrn Dührings Umwälzung der Wissenschaft 'Mr Dühring's overturning of science', (Comrie and Thompson 1985:373), and Gbadi (a Kru, Niger-Congo, Koptjevskaja-Tamm 1988:147 --citing Koopman1984(?)--, and for which she gives no example). These languages resemble English in that they have two formally different genitive case-marking. Hausa, Japanese and Finnish on the other hand use one and the same genitive case-marking twice.

In Swahili also, the DN can occur with two genitive arguments, but the phenomena seems quite marginal. Carsten (1992) gives the following example:

- (141) uharibifu wa mfalme wa maadui
 14destruction 14of 1king 14of 2enemy
 'the king's destruction of the enemies'
 'the enemies' destruction of the king'

The situation is then similar to Japanese and colloquial Hebrew where the order of the arguments seems irrelevant, which produces ambiguity. This particular examples however was met with reluctance from other Swahili speakers. They all accept the data of (141), but most would assign it the reading 'the king's destruction of himself because of the enemies'. Thus the problem seems to be the choice of the verb, and indeed speakers were willing to accept the double construction with the relevant sense with other verbs, as seen below:

- (142) a. wangamizi wa maadui wa mfalme
 destruction of king of enemy
 'the king's destruction of the enemies'
 'the enemies' destruction of the king'
- b. usomi wa Ali wa kurani
 reading of Ali of Koran
 'Ali's reading of the Koran'

The examples in (a) above is fine although the construction with a "by phrase" is still preferred (cf. wangamizi wa maadui na mfalme 'the destruction of the enemies by the king'). The example in (b) above is judged as quite normal.

There are doubtless many more other languages where the double genitive construction is acceptable. Most languages though would allow only one argument. The theoretical account however must handle all the cases, in particular because the double construction is not so rare after all. The main point then is that the potentiality exists, structurally speaking, for languages to have DNs (or gerunds) with two genitive arguments. Languages differ in how they realize this potentiality, giving the various patterns of argument-inheritance one finds cross-linguistically (cf. Comrie and Thompson 1985 and Koptjevskaja-Tamm 1988). Which inheritance pattern a language exhibits certainly would depend on its particular rules of linking semantics to morphosyntax. The next part brings us back to Hausa.

6.2.2.5.2 Adjectives

Another clear difference in Hausa (and certainly in most languages) between DNs/nouns and gerunds or verbs is the fact that the former categories can appear with an adjective, while the latter ones takes only adverbs. The difference between nouns, DNs and gerunds with respect to adjectives is illustrated below:

- (143) taa sàyi jar mootàa.
 3fs.PERF buy-II red-of car
 'She bought a red car.'

- (144) a. Indoo taa màa yaaròo jan kaamùu.
 Indo 3fs.PERF MA child red-of catch-DN
 'Indo gave the boy a firm grasp.'

- b. *yaaròn dà Indoo kèe jar kaamaawaa.
 Child-DEF that Indo REL CONT red-of catch-I-VN
 *'The boy Indo is firm grasping.'

- (145) a. taa màa kàree jan halbii.
 3ms.PERF IX dog red-of kick
 'She gave the dog a violent kick.'

- b. *tanàa jar halbar kàree.
 3ms-CONT red-of kick-II-VN-of dog
 *'She is violent kicking the dog.'

In sentence (143) above, the adjective jaa 'red' modifies the noun mootàa 'car'. (144a) presents a DN kaamùu 'catch', where an adjective is possible, while a gr1 gerund kaamaawaa

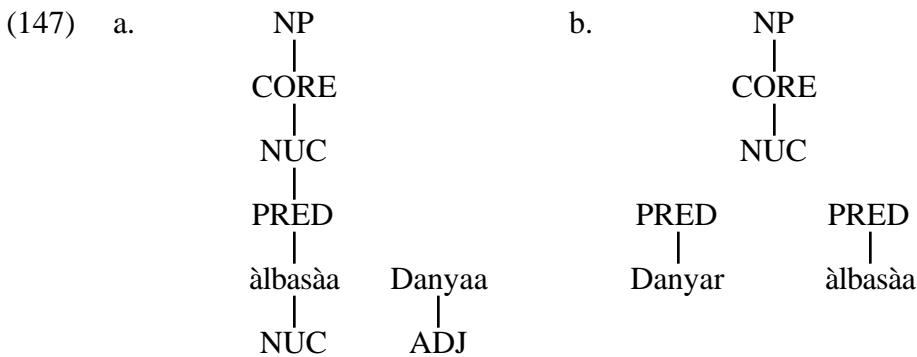
'catch' in (144b), is ungrammatical with the adjective. Similarly, in (145a), the same adjective can modify the DN halbi 'kick', but not the gr2 gerund halbaa 'kick' in (145b).

Notice that the adjective jaa 'red' in (143-145) takes the possessive linker before the noun it modifies. As is quite well known, Hausa has the two orders Noun+Adjective and Adjective+Noun. In the first order, there is no special morphology. In the second order however, the adjective must carry the linker -n/ -r. In both cases the adjective also agrees in gender and number with the head noun. This is illustrated below with a noun and a DN:

- (146) a. àlbasàà Danyaa/ Danyar àlbasàà
onion fresh-f/ fresh-f-of onion
'fresh onion (uncooked)'
- b. kaamùu muugùu/ muugùn kaamùu
catch-DN bad-m / bad-m-of catch-DN
'an unsafe handling (of baby)'

There is no semantic difference between the two orders in the examples of (146) above. Tuller (1986:33-39) analyzes the order Noun+Adjective as the basic order, on the ground that the order Noun+modifier is also found elsewhere (cf. relative clause: yaaròn dà akà haudà ràaKumii 'the boy thay was put on a camel', where yaaròn 'the boy' can only appear NP initially). As for the order Adjective+Noun, Tuller considers it as a construction where the noun incorporates the adjective in a compounding process. In this respect, she cites 'red car', discussed in Stowell (1981), as a comparable English compound construction. The problem is that she has no principled explanation for why the linker shows up, and hypothesizes that the linker attaches to the compound construction by analogy with the 'Noun+Noun' compound structure, such as in gidan wayàa 'post office', lit. 'house of wire'.

Hausa, like most other languages, has many ways of creating compounds (Hausa: hàlbaa rùugaa lit. 'shoot run' = 'one-shot gun', bìùDà bàaki lit. 'open mouth'= 'fast-ending meal' ; English: 'coat-of-arms', 'can opener', 'hit and run', etc). In short, there are numerous other compound constructions that do not involve the linker. One possible analysis of the Adjective+Noun construction is that it is a cosubordination structure. In this analysis, the formation would still be in the realm of syntax, just like all other cases involving the possessive linker. Thus one can represent the examples in (146a-b) as shown below in (147a-b) respectively:



The cosubordination analysis would handle many of Tuller's arguments for considering Adjective+Noun as a compound. For example, it is possible to insert a modal element in the regular construction, but not in the cosubordination structure (yaarò fa Kàramii and *Kàramin fa yaarò 'a small boy indeed'). Also, it is possible to freely stack many adjectives in the regular construction, but in the cosubordination structure, the stacking is severely limited (mootàa jaa zungureeriyyaa and *zungureeriyyar jar mootàa 'a long red car'). Beside this however, the cosubordination analysis allows us to explain why the linker appears. It does so because a noun's PO applies only at the PRED node and the noun or DN does not subsume the adjective, or any constituent in the nucleus. Hence, the adjective's being marked with the linker. Notice that there is no way of ruling out the possibility that the PO applies at the NUC node, because in both cases the adjective, as a nuclear constituent, would not be subsumed and will take the linker.

Also, the adjectival construction is not totally parallel to gr9 or gr5 cosubordination. There, the predicate precedes the subsumed constituent (gr5 halbar dà 'kick away') and carries the linker. Here, the adjective, the subsumed constituent, precedes and carries the linker. The expected structure should be: *àlbasàr Danyaa, instead of Danyar àlbasàa 'fresh onion'. The first structure would be parallel to the regular noun+noun genitive construction, and one may speculate that there is an avoidance of a possible ambiguity. For example, gida-n farii means 'house of whiteness' and is a different concept from gidaa farii 'a white house', therefore, Hausa may have avoided the cosubordination structure *gida-n farii for the distinctive fari-n gidaa 'a white house' (which also means 'White House', as Tuller notes).¹⁴ The linker may have ended up on the adjective if there is a rule which says 'place the linker on the first constituent of the cosubordination structure'. Nonetheless, this particular case and the general question of NP structure are aspects not clarified here, and they may be later approached and solved using the RRG framework.

In conclusion, one can have only indirect evidence on the distinction between DNs and nouns on the one hand and nuclear gerunds on the other hand. The constituents under PRED are morphemes, and syntactic marking is quite irrelevant for them. Thus, for Hausa, which exhibits the nuclear gerund, the distinction between DN and the nuclear gerund can only be based on other types of behaviors. This include ability to appear with certain inheritance patterns, with adjectives, etc, as seen above.

Conclusion to chapter 6

In the first section, we have seen how inadequate the current conception of Hausa nominalization is. Instead of the two categories of gerund and DN previously posited, we have seen that one needs to distinguish two types of gerunds, in addition to the DN. Also, two previously unsuspected nominalization contexts are shown to be the system of the syntactic Forms and the cosubordination constructions. These are indeed the places where one finds the true gerund forms. While the reasons for the presence of a gerund in gr9 and gr5 are explored in chapter 5, the syntactic Forms are shown to be the result of a process by which predicates tend to be most prototypically verbal only to the extent that they are followed by a noun undergoer. The functional categorization process manifests itself most clearly in Hausa and other Chadic languages. However, it can also be found affecting the nominalized forms of other languages. It is the combination of the FCP and the projection of the predication operator over the LSC nodes which accounts for the behavior of syntactic categories crosslinguistically. By the PO projection over the LSC, all categories except verbs are predicted to case-mark their arguments as genitive. The FCP on the other hand allows core gerunds to fail to mark the genitive case.

This chapter closes our survey of Hausa morphosyntax in the framework of Role and Reference Grammar. Throughout the work, various RRG constructs allowed new analyses of Hausa. In chapter 2 the notion of head- vs. dependent-marking languages is used to explain the relation between the "subject" NP and the preverbal pronoun. Chapters 4 and 5, based on the lexical decomposition of verbs, present a revision of Parsons' Grade System, a system which, although criticized and improved (cf. Newman 1973), did not have a significant structural overhaul since it was proposed some thirty years ago. Finally, in chapter 6, a new and more detailed analysis of Hausa verbal nouns is put forth. That analysis, combined with RRG's view of the clause structure achieves a comprehensive formal representation of the noun-verb continuum.

Notes to Chapter 6

¹ Newman (1973:330 n39, 1974:72) claims that zoo 'come' is not the gr6 of jee 'go'. Historically, according to him, the two verbs are unrelated and zoo is the gr6 of jee only synchronically. The historical analysis seems to be supported by the fact that zoo in many dialects (but not Katsinanci) can mean either 'go' or 'come' (cf. note 5).

² The identificational construction with nàa seems to be limited to past states of affair. So, to say that 'Gowon is Nigeria's former president', the construction with nee is used: Gòwôn tsoofan gomnàn Nàajeeriyyàa nee, where nee appears sentence finally.

³ Tuller (1986) argues against the position that nàa is a defective verb, and she shows, among others, that nàa cannot have an understood argument (cf. kanàa Daakìi yànz-u? 'are you building a house now?', *ii! inàa 'yes I am', instead one must use the verb yì 'do' or its contracted form: ii! inàa yìi or ii! inài 'yes I do'). Two other arguments of Tuller are problematic. According to her another indication that nàa is not a verb is the fact that it cannot be preceded by a modal element or be left-dislocated. Thus, one cannot have *ta fa nàa Dakà 'she indeed is in the room'. The problem with this argument is that the ta in the preceding example is a person marking only and is an unfelicitous form when standing alone, as contrasted to the full PTAM taa '3fs.PERF' which can be followed by fa 'indeed', as in taa fa shìga Daakìi 'she indeed went into the room'. Finally, even Tuller has to agree that nàa is able to assign a theta-role and an objective case, two properties associated with regular verbs. Because nàa does not behave like a regular verb, Parsons (1960) qualified it as a defective verb. This is essentially the position Tuller arrives at, but in GB terms. In the end, one must recognize the fact that nàa fulfills two roles. First, it is an aspect marker and complements the person marker to form a PTAM. This fact motivates the representation of nàa before gerund and DNs as an aspect operator in RRG trees in chapter 1 and chapter 2. At the same time, and in all contexts, it is also the main predicate, being able to take various complements, as seen in section 6.1.2.1.

⁴ Adjectives, adverbs, and propositions too do appear following yì 'do' as in yaa yi Kàramii 'it is too short' (lit: 'it did small'), sun yi sànnu sànnu 'they proceeded slowly'.

⁵ Some verbs do seem to occur as LH-aa in the continuous in Katsinanci. Most of these verbs (such as bìDa 'search, seek') have also a LH-aa DN, and may be using this DN (and not the A-form) because they lack a gerund form. It is not unusual for gr2 verbs to lack a gerund form.

⁶ On the other hand, while they clearly behave as DNs in undergoing the total reduplication, in appearing in the adverbial construction, and in appearing as argument of yì 'do', the gr3 DNs can also undergo the partial reduplication, like gerunds (cf. sunàa fiffitaa 'they are going out consistently')

⁷ This is to the partial exception of Caron (1987:151) who identified the gr2 LH-aa A-form with the Standard Hausa LH-aa gr2 gerund. However, he does not generalize his identification to other forms of gr2 and other grades, nor does he posits any process akin to the FCP.

⁸ An alternative to the FCP is to say that Hausa lacks the category "verb". In this analysis, most of Hausa predicates would fundamentally be VNs and nouns. When the VNs/ nouns are followed by an argument, they are contracted into a compound construction (or a possessive construction) with the argument. Hausa clause structure would be: (NP) + PTAM + VN/N-ARG. But the analysis would work well only for ga 'see' and san 'know',

and for the Intransitive Genitive Copy Pronoun constructions (cf note 9 below). One would have to explain why gr3, gr7 and intransitive verbs of other grades appear "contracted" although they have no following argument. Similarly, a host of other derived forms would have to be based on the presumed non-basic "contracted" forms (agentive nouns, Statives, deverbal adjectives, etc, --cf. from yankà / yànki 'cut': mayànkii 'cutter', yànkau 'cutting-prone', mayankaa 'slaugther house', yànke 'cut-Stative', yànkakkee 'cut-adjective', yankeekèe 'big', etc, as compared to the gr1 VN yankàawaa which is basis for no derivational process). Also, the notion of the predicate being contracted before arguments would not be compatible with the relatively rich system of morphological alternations that signal the various grades. It would also be incompatible with the fact that insertion of modal particles can take place in the presumed compound construction (cf. Indoo taa maidoo fa kèeken Abdù 'Indo-she-returned-indeed-bike-of-Abdu'). Also, the argument sometimes can be a proposition, even with ga 'see' (cf. ka ga yaa cèe baayàa sòn shàKìiyàntakà, lit. 'you see he said not-he like insolence' which means 'be advised that he said he dislikes insolence'). It seems then that even the contracted gà 'see' and san 'know' have to be conceived as free occurring verbal forms. Denominal verbs too would be quite problematic for the compound analysis (cf. tsòoroo 'fear' but yaa tsòoratà 'he became afraid', and not *yaa tsòoroo). There are certainly many more arguments against the compound/ incorporation analysis.

⁹ Hausa has almost lost the Chadic intransitive copy pronoun (ICP), as it has lost any anaphoric marker. According to Newman and Schuh (1974:34-35), one can still find remnants of the Chadic ICP with the imperative of motion verbs such as yaa 'come' and jee 'go'. No verb takes the 2nd person singular (referring to the imperative addressee), but yaa 'come' (obligatorily) and jee 'go' (optionally) are followed by the person marker (cf. yaa kà! '2ms-come!', yaa kì! '2fs-come!', jèe ka! (or jee!) '2ms-go!', jèe ki! (or jee!) '2fs-go!' --note that yaa 'come' is a verb exclusively found in the imperative). Another remnant of the ICP is, still according to Newman and Schuh, the person marking found in the future, where the future tense marker precedes the person marking (zâa su cîn àbinci -FUT-3p eat-DN-of food- 'they are going to eat' --zaa the future marker is usually related to the verb jee 'go' which would have grammaticalized into a tense marker). However, there is at least two dialects of Hausa where the ICP is appended in non-imperative contexts with the verbs zoo 'go, come' and jee 'go'. Thus, in Damagaranci (Zinder, Niger) one has: naa zoo nì gidaa 'I came home/ I went home' (lit: 'I came I home/ I went I home'). Bagari (1982:250) reports for Guddiranci examples such as (with tones added): kà jee kà kà gaisi minì kwanwàataa --2ms go 2ms 2ms greet-II IX-1s sister-1s-- 'go greet my sister for me', or: yakàn jee shì kàasuwaa --3ms-HAB go 3ms market-- 'he usually go to the market'.

Hausa-wide, a phenomenon similar to the original Chadic ICP is taking place whereas even in non-continuous tenses/ aspects, intransitive verbs assume a VN form and take the linker (or its full separate version) followed by a pronoun referencing the pivot. This phenomenon, one may dub "intransitive genitive copy pronoun" (IGCP), is illustrated below:

- (i) a. Abdù yaa tafi.
 Abdu 3ms.PERF go
 'Abdu left.'
- b. Abdù yaa tafiyàrshi.
 Abdu 3ms.PERF go-VN-of-3ms
 'Abdu left.'
- c. Abdù yaa tafiyàa tâi.
 Abdu 3ms.PERF go-VN 3fs-3ms
 'Abdu left.'

In the examples above, all the sentences are in the perfect and mean the same, but only (a) has a verbal form. Sentence (b-c) have the VN form followed obligatorily by the linker and the pivot-referring pronoun (the form in (c) tài is a contraction of the possessive pronoun taayà '3fs (of) 3ms' --the VN is feminine). Usually (b-c) are analyzed as involving a yì 'do' deletion, and in fact this verb is possible with the VN tàifyàà 'going', as seen below:

The verb yi 'do' can contract and appear on the preceding PVP, as seen in sentence (a) (cf Tuller 1982, 1986). The full form appears in (b). There are problems with the yi deletion analysis. With tàfi, yi is possible only because the verb has no true gerund and the DN is used in all environments requiring a VN. Verbs with a real gerund can appear in the IGCP construction, but not with the yi (gerunds in general cannot be complement of yi --cf discussion of (20) above). This is illustrated below:

- (iii) a. Aali yaa (*yi) ruugàawarshì
 Ali 3ms.PERF (do) run-I-VN-of-3ms
 'Ali set off running.'
 (also: Aali yaa ruugàawaa tài)

b. Aali yaa/ *yai koomàawarshì
 Ali 3ms.PERF/ 3ms.PERF-do return-I-VN-of-3ms
 'Ali returned.'
 (also: Aali yaa koomàawaa tài)

c. Indoo taa (*yi) zamnàawartà.
 Indo 3fs.PERF do sit-I-VN-of-3fs
 'Indo sat.'

As one can see, none of the gerunds above (from ruugàa 'run', koomàa 'return', and zamnàa 'sit') takes neither yì or its contracted form. Yet these gerunds can appear in the perfect with the IGCP. These sentences then are genuine ICP-like constructions and cannot be explained by the yì deletion even in a framework which assumes deletions or empty categories. Of the three verbs in (iii), only zamnàa has a DN, zamaa, and, predictably, when the DN appears in the IGCP construction, yì is an option (cf. yâara sun (yì) zamansù bisà teebùr -children 3p.PERF (do) sitting-of-3p on table- 'the children sat on the table').

Another pandialectal formulaic expression with an irregular pronoun is kin gan kì! 'there you are!, look at you!, stop that!' (lit: 'you saw you').

¹⁰ As one can see, the Hebrew construction para shel ikar 'a farmer's cow' lends itself to the same analysis as the corresponding Hausa construction. Very likely, shel ikar 'that-of a farmer' is the nuclear construct state; the nominal para being peripheral (a CEP nominal). Indeed, in Berman's work, one can note occurrences of seli 'mine', which shows that shel+NP 'that of NP' can stand on its own, similar to Hausa ta Abdu/ taashì 'that of Abdu/ that of him'(cf. shel dan 'that of Dan'). The Hebrew "head" nominal is in fact so peripheral that it can take a pronoun referencing the dependent noun, in a construction called "double smixut", as seen below:

- (i) parato shel ikar
 cow-his of farmer
 'a farmer' cow'

Parato 'cow-his' would be in apposition to the basic smixut, shel+NP. Hausa does not have the equivalent of the double construction. A string such as rìigarshì, ta Abdù 'gown-his, of Abdu', involves a pause and would function like an afterthought structure. On the other hand, it is likely that in Hausa as well as in Hebrew, constructions such as rìigaa ta Abdù 'gown of Abdu' and báyit shel rina 'house of Rina' are the source of the contracted rìigar Abdù 'gown of Abdu' and bet-rina 'house of Rina'. In the contraction process, Hausa resorts to juxtaposing the two nominals with the linker -n/-r (reinterpreted as case marker), while Hebrew resorts to a N+N compounding strategy. The relationships can be diagrammed as follow:

- | | | | |
|---------|--------------------|------------------|-------------|
| (ii) | Basic construction | Apposition (CEP) | contracted |
| Hausa: | ta Abdù | rìigaa ta Abdù | rìigar Abdù |
| Hebrew: | shel rina | báyit shel rina | bet-rina |

Synchronously, the apposition structure and its derived contracted structure should not be viewed as rule-related. In both languages, some contracted constructions are idiomatic and do not have a corresponding appositional form (cf. Hebrew bet-séfer -lit. 'house-of books'- 'school', but *báyit shel séfer; Hausa gidan wayàa -lit. 'house-of wire'- 'post office', but *gidaa na wayàa, --cf. also Galadanci 1969, 1972, Tuller 1986).

¹¹ The complete paradigm is, for masculine/ feminine singular possessed referent: 1s nàawa(a) (or nau)/ tàawa(a) (or tau), 2ms naakà/ taakà, 2fs naakì/ taakì, 3ms naashì, naasà, naayà (or nâi)/ taashì, taasà, taayà (or tâi), 3fs taatà/ naatà, 1p naamù/ taamù, 2p naakù/ taakù, 3p naasù/ taasù. The plural has no gender distinction and uses naa+pronoun for masculine and feminine referents alike.

¹² This multiple suffixation however, may not be taken as a synchronically "dynamic" or "active" process. Caron 1987:149 reports that some Adiranci speakers of the Barmou area can have the -aa-w-aa form even before nominal and pronominal undergoer arguments, but with the linker suffixation. This is illustrated below:

- (i) a. shinàa lugulgùdaawàl lèemuu.
 3ms-CONT squash-I-VN-of lemon
 'He is squashing the lemon.'
- b. shinàa kaawòowal littaafii
 3ms-CONT bring-I-VN-of book
 'He is bringing the book.'

¹³ There exist very few cases where the actor too seems to drop its possessive marking and appears either unmarked or with the preposition dà. This is illustrated below:

- (i) a. yâara ?(dà) zuwâa sùlmâa bâi dà
children (with) go-VN movies NEG.3ms.CONT with

kyaaawòo.
goodness

"Children's going to the movies is not appropriate.'

- b. sàayii! 'yan maataa ?(dà) tankè Kuugùu!
shame little women (with) tying hips
'What a shame! girls are now wearing belts!'

Note that in the sentences above, the preposition dà is optional but strongly preferred. So, I would hesitate to call this a genitive-marked actor construction. The most frequent context of use of the construction is associated with the expression of surprise, disbelief, irony, outrage (as in (ib) above), etc. With this context, actually one can get a non-genitive marked actor and a genitive-marked undergoer with a DN: sàayii! yâara ?(dà) neeman kuDii!'what a shame!', children are now seeking money!'. One can also consider the following frozen expressions (also cited in Parsons 1960:125n5) raanaa taashii 'sunrise' lit: 'sun rising', raanaa faaDùwaan 'sunset' lit: 'sun falling'.

¹⁴ Tuller (1986) claims that most Hausa adjectives can also function as nouns. Thus, farii can be 'white' or 'whiteness', baKii can be 'black' or 'blackness'. However, most adjectives I have tested (and there are only a few basic ones) can derive a noun by taking the suffixes -taa or -takàa: fârîntakàa 'whiteness', gàjârtaa 'shorteness' (<gàjeeree), mâkamtâa 'blindness' (<mâkaahòo), shéegântakàa 'insolence' (<sheegèe), shâKiiyântakàa 'insolence' (<shâKiiyìi), gûrguntakàa 'lame-ness' (<gurgùu), Dânyântakàa 'freshness' (<Danyee), saakarcìi 'fecklessness' (<saakarai). Some have a suppletive noun form doogoo 'tall', but tsawoo 'height', bâbba 'big' but girmaa 'big-ness'. Only some color terms are restricted to using the same form as adjective and noun: jaa 'red' and 'redness', tsanwaa 'green' and green-ness', etc.

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