Chapter 1
Introduction

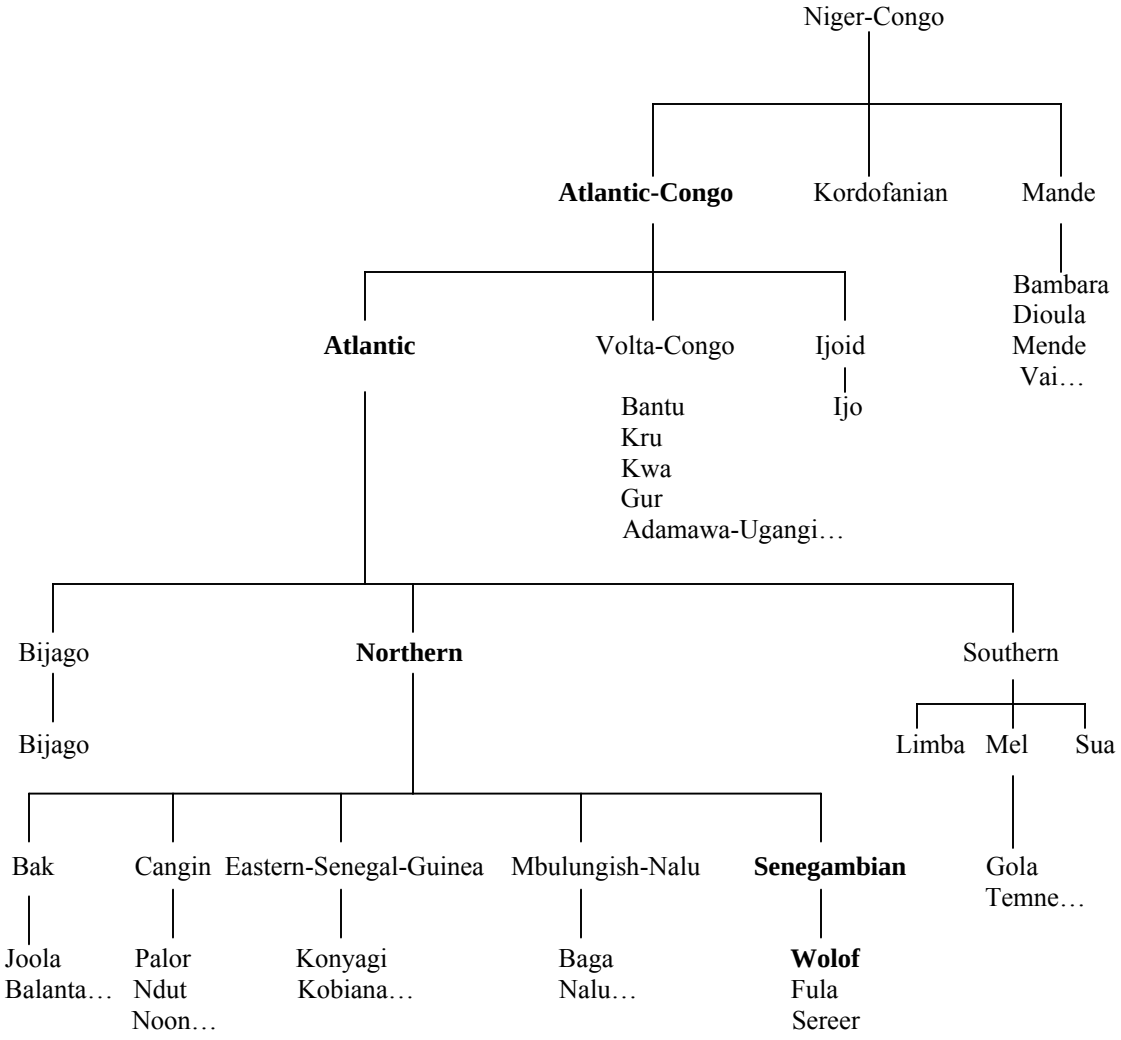
1.1 Overview of the West Atlantic Languages

As Wolof has not been widely studied in the generative tradition, this section will serve to situate it in phyletic and geographic context. Wolof is a member of the Atlantic (or "West Atlantic") sub-branch of the Niger-Congo family. Although classification schemes differ, it is generally agreed that the Atlantic subfamily represents one of the earliest branchings within the Niger-Congo phylum (Greenberg 1963, Ruhlen 1991, Heine and Nurse 2000). In fact, as a group, the Atlantic languages are unfortunately largely understudied. With the exception of Fula, linguistic materials on the Atlantic languages are typically scarce and scattered. These range from descriptions and traditional traditional grammars to pedagogical works, word lists, and dictionaries. Within the descriptive tradition, detailed linguistic works and grammars have been written for Fula (Sylla 1992), Kissi (Childs 1995), and Noon (Soukka 2000), for example. The most widely studied Atlantic language is Fula, which has a descriptive literature and a fair number of analytical works. Note though, that it has been the phonological system of Fula that has attracted the attention of most scholars. After Fula, the number of analytical and descriptive works drops precipitously. Even Wolof, one of the national languages of Senegal, has been little investigated overall. Within the literature on Wolof, it has been the phonological system that has been the center of study, especially vowel harmony (Ka 1989, Ndiaye 1995, Sy 2003).[1] Descriptive works on Wolof include Diagne 1971, Mangold 1977, Church 1981, Dialo 1981, and Ka 1981. The only extensive analytical treatments of Wolof syntax are Njie 1981 and Dunigan 1994.[2]

Wolof is a member of the Senegambian group of the Northern branch in Atlantic. Fula and Sereer are Wolof's closest relatives (Sapir 1971, Doneaux 1978, Wilson 1989):

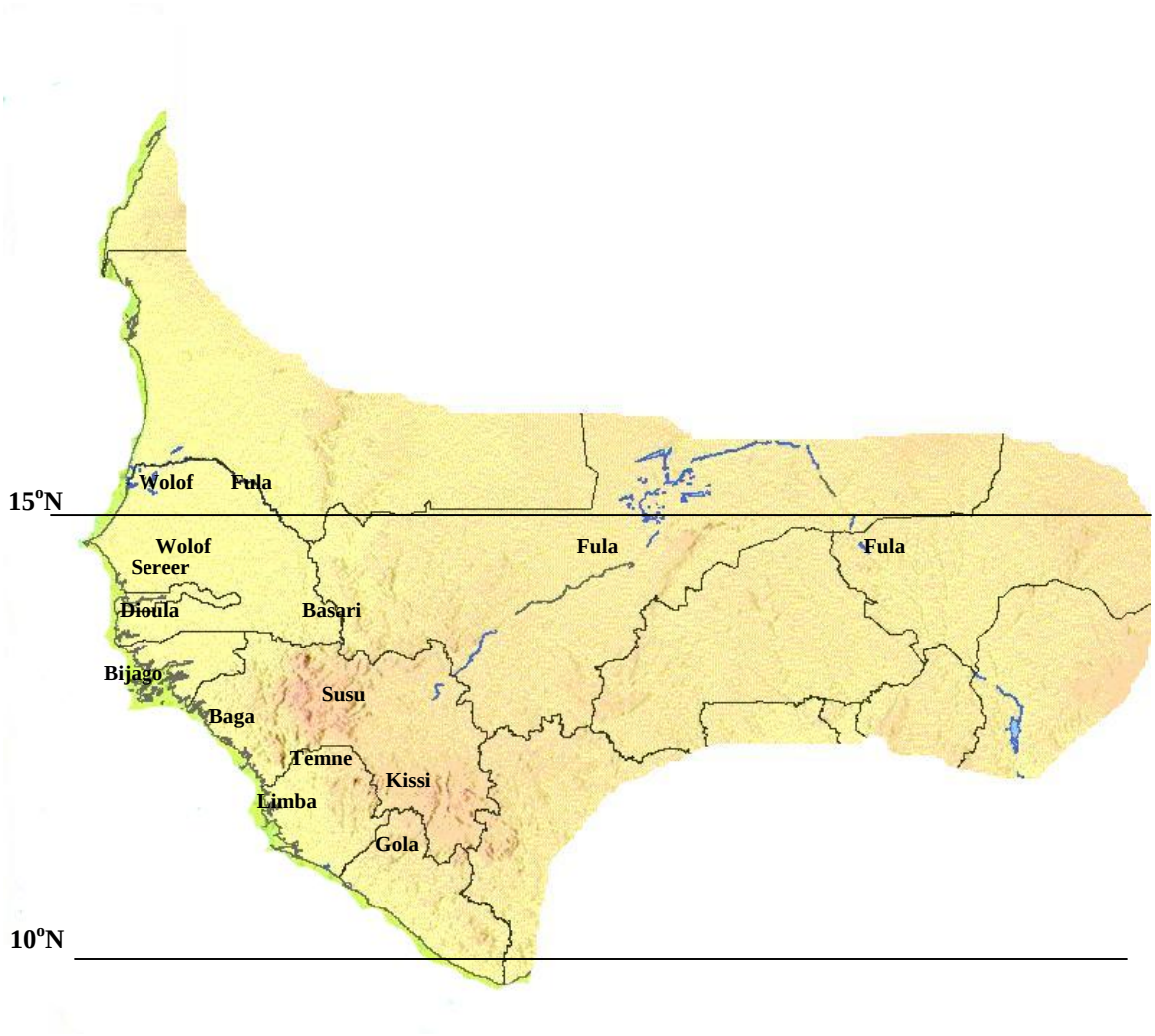
[1] There are a fair number of pedagogical (second language and literacy oriented) works and some literature on and in Wolof. These are generally difficult to obtain, even in Senegal.
[2] Ka 1982 is a syntactic analysis, but I have been unable to obtain a copy of this work.

Chart 1. Wolof Within the Niger-Congo Family
(Based on *Ethnologue*)



There are approximately forty Atlantic languages, and, with the exception of Fula, all are found within approximately 300 Km of the Atlantic coast of Africa (Sapir 1971, Wilson 1989). In the north, they extend from the Senegal-Mauritania frontier region (17ºN) southward into Liberia (6ºN). Fula is exceptional in being spoken from Senegal eastward to the Sudan and as far south as northern Cameroon.

Map 1: Geographic range of Atlantic languages



The numbers of speakers of Atlantic languages range from 600 (Kobiana) to more than 12 million (Fula, also called Pulaar).[3]

From a synchronic linguistic perspective, the Atlantic languages are rather diverse.[4] Some Atlantic languages are tone languages (for example, Konyagi, Temne, Bijogo, and Bassari), others, like Wolof, are not.

All Atlantic languages are noun class languages. In fact, this is one of the features that first lead linguists to class these languages as a separate group (Migeod 1911). Although the concord systems are ultimately inherited from Proto-Niger-Congo, they have undergone significant innovation and restructuring, often making it difficult to relate the Atlantic classes to those found in languages outside of Atlantic. Even within the group, though, there is much diversity (Sapir 1971, Santos 1978). Sapir 1971 found that the class markers within the Senegambian subgroup are not comparable. The semantic correlates of the noun classes vary greatly among the languages. The number of classes and their productivity vary greatly by subgroup. Thus, Kobiana has thirty-one noun classes; some dialects of Fula, twenty-five; Jola, twenty; Pajade, fourteen; Temne, eleven; Wolof, ten; and Nalu, three. The exponents of class membership differ too. In some languages, like Fula and Sereer, the noun and its dependents are all marked. In others, like Wolof, only the dependents of the noun productively reveal the class of the noun. In some of the Cangin langauges, such as Ndut and Palor, concord has been lost altogether.

A second characteristic found in Atlantic is the presence of grammatically conditioned consonant mutation. Consonant mutation occurs in many languages of the Northern

[3] From Ethnologue, *www.ethnologue.com*.
[4] See: Kisi (Childs 1995), Noon (Soukka 2000), Wolof (Njie 1982, Samb 1983), Fula (Arnott 1970), Baga (Ganong 1998), Seereer (Faye 1982, Makela 1989), Palor (D'Alton 1987), Ndut (Morgan 1996), Gola (Fachner 1990, Koroma 1994), Temne (Wilson 1961, Hutchinson 1969, Yillah 1992), Balanta (Fudeman 2000), Konyagi (Santos 1977, Ferry 1991), Bassari (Ferry 1991), Bedik (Ferry 1991), Bijogo (Segerer 2000), Biafada (Wilson 1993), and Joola (Wintz 1968, Sapir 1965).

branch, and in all of Eastern Senegal-Guinean (except Pajade and Banhum). The mutating consonant is typically initial:[5]

(1) a. **s**oow "yell" (Wolof)
b. **c**oow "loud talk" (Wolof)

Across Atlantic, the grammatical function of consonant mutation varies. In many cases it is operative in the noun class system. But, mutation also functions in verbal agreement, and verbal derivation (Sapir 1971, Pichl 1972, Faye 1982, McLaughlin 1992, Sy 2003):

(2) Wolof

a. **g**óór **g**i	"the man"	Nominal Derivation
b. **ng**óór **s**i	"the little man"	(Cf. Pichl 19672, Sy 2003)
c. **b**ëgg	"want, love" (v)	
d. **mb**ëgg-éél	"love, desire" (n)	
e. **f**ecc	"dance" (n,v)	
f. **p**ecc-in	"way of dancing" (n)	

(3) Sereer

a. mexe **r**etaa	"I leave"	Verbal Inflection
b. oxe **r**etaa	"he leaves"	
c. inwe **nd**etaa	"we leave"	
d. owe **nd**etaa	"they leave"	

(4) Biafada[6]

		Noun Class
a. **s**aagə	"this" (noun class 20)	
b. **nc**aagə	"that" (noun class 20)	

A third common characteristic of the Atlantic languages is their very rich verbal morphology (Arnott 1970, Ka 1981, Faye 1982, McIntosh 1984). Across the family,

[5] Mutating consonants are usually described in terms of "series" and a "grade/degree". A set of consonants that alternate form a series. These are always homorganic. For example, in Fula, **y/g/ng** form a series, as do **w/b/mb**. At the same time, *y* and *w* belong to Grade 1:

(i) Initial Consonant Mutation in Fula

	y/g/ng Series	w/b/mb Series
Grade 1	**y**ɪtere "eye"	**w**aare "beard"
Grade 2	**g**itel "little eye"	**b**ahel "little beard"
Grade 3	**ng**iton "little eyes"	**mb**ahon "little beards"

In terms of the grammatical distribution, "Grade 1" consonants are found in the basic singular noun, Grade 2 consonants are in the singular diminutive, while Grade 3 consonants are used in the plural diminutive.

[6] Adapted from Sapir 1971. This data is the Cubisseco dialect.

causative, applicative, and reversive affixes are the most common affixes. (See Section 1.5.8 for details about the verbal morphology.)

(5) a. Gàllaay bind-**ló-ól**-në gan gi xale yi taalif[7]
gallaay write-cause-ben-*na* visitor the child the.pl poem
"Gallaay made the children write the visitor a poem"

b. Faatu ak Yusëfë dóór-**ënté-waat-ëg**-u-ñu
faatu and yusafa hit-recip-rep-yet-neg-3pl
"Faatu and Yusafa had not hit each other again yet"

Atlantic languages typically display head-initial characteristics: SVO, prepositions, post-nominal relative clauses, post-nominal adjectives, and the noun precedes the genitive. At the same time, the verbal and nominal morphology is often suffixing.

1.2 Senegambian

It will be useful here to point out some of the salient features more specific to the Senegambian branch of Atlantic, the members of which are Wolof, Fula, and Sereer. There are several striking features which are common to the Senegambian languages (and may perhaps be found in other branches).

First, all three Senegambian languages have very rich inflectional (See 1.5.8 *Verbal and Nominal Morphology* and 1.5.9 *Tense and Aspect*) and derivational (5)a-b) verbal morphology.

Second, they have very complex nominal agreement and pervasive concordial systems (Section 1.5.3.2.1 on noun classes and concord). As we will see, agreement will play a role throughout this thesis.

Third, Senegambian languages possess grammaticalized, syntactic means of expressing focus (at least subject, non-subject, and verb/predicate). Consider the following from Wolof:

[7] Adapted from Buell and Sy 2004, number (15).

(6) a. lekk-na-a ceebujën — neutral focus
eat-*na*-1sg rice.fish
"I ate fishrice"

b. ma-a lekk ceebujën — subject focus
1sg-*a* eat rice.fish
"it's me who ate fishrice"

c. ceebujën l-a-a lekk — non-subject focus
rice.fish xpl-*a*-1sg eat
"it's fishrice that I ate"

d. da-ma-a lekk ceebujën — verb focus
do-1sg-*a* eat rice.fish
"I DID eat fishrice", "eat fishrich is what I did", "what I did to the fishrice was eat it"

The differences between these focus types are discussed in more detail Sections 1.5.4 and 1.5.7, where I introduce subject marking and clause types. Note the differences in word order and the presence versus absence of particular morphemes. For example, while the non-subject focus is marked by the presence of an expletive, *l-*, this is absent in subject focus. Verb focus, on the other hand, is signaled by the presence of a dummy verb, a grammaticalized form of the verb 'do', *da-*, which only appears in this construction.

Fourth, vowel harmony is pervasive in the Senegambian group. I discuss this phenomenon in Wolof briefly in Section 1.5.1.2.

1.3 Wolof and Its Dialects

Wolof is spoken principally in Senegal, the Gambia, and Mauritania, with small numbers of speakers in Mali and Guinea-Bissau. There are approximately 3.2 million first language speakers of Wolof in all countries, with the total number of speakers being 7 million (Ethnologue). Wolof is one of the national languages of Senegal and the Gambia. However, in no country is it a language of formal education at any level (, although there

are materials for literacy programs). There are significant immigrant communities of speakers in France and the United States.

Map 2 Senegambia and Environs

The Wolof dialects mentioned in the literature (Sauvageot 1965, Dialo 1983, Gamble 1991a, 1991b) typically correspond to present and/or former states, kingdoms, or provinces, such as Waalo, Njamboor, Cajor, Jolof, Bawol, Presque'île (Cape Verde), Saalum, and Gambia. Sauvageot 1965 notes that there are numerous dialects and that these differ principally phonetically and lexically, but also to a lesser extent in the morphology and syntax. However, these differences are claimed to not, generally, inhibit mutual intelligibility. In this dissertation, I will be concentrating on the St. Louis (Ndar) dialect, but bringing in data from the Dakar, Ziguinchor, Gambian, and Mauritanian dialects (See Map 2.)[8] There have been very few studies of specific dialects of Wolof (Sauvageot 1965 (Jolof), Njie 1982 (Gambia), and Halaoui 1984 (Mauritania)). This is understandable given the relatively understudied nature of Wolof. I will use terms like "Ziguinchor dialect", "St. Louis dialect", etc. so that the reader can geographically situate the speech variety (See Map 2 Senegambia and Environs above). I will note here that there is often a distinction made between "Senegalese" and "Gambian" Wolof. I try and avoid these terms where possible because they are potentially misleading. A look at the map of Senegal and The Gambia shows that the nation of The Gambia is surrounded, except for its Atlantic coast, by Senegal. Impressionistically, the Wolof of the Ziguinchor region of Senegal, which lies south of the Gambia (River), seems to be "closer" to Gambian Wolof than it is to Senegalese Wolof, as expected, even though the Ziguinchor region is in Senegal.

"Standard Wolof" is typically said to be the Dakar dialect, although the term "standard" should be used with caution. This is because Wolof, certainly in Senegal, is simply not written a great deal. Speakers do often have a notion of "deep Wolof", which

[8] Many thanks to all of my Wolof consultants for their time and effort spent helping me in my studies of Wolof: Maryam Sy, Seynabou Ndoye, Mustapha Djigo, Fallou Ngom, Omar Ka.

preserves all of the noun classes, in particular. However, in Dakar, this is not the form that speakers typically use. In other words, it is the Dakar variety which is often not considered to be the "good" or "pure" form of the language. Wolof is used on the radio and in some television programming. In Senegal, Wolof-French codeswitching is pervasive, especially among educated speakers, who are invariably fluent in French. This is because all levels of education are conducted in French. However, literacy materials for Wolof have been created specifically for adults. French/Wolof and English/Wolof dictionaries are available (Diouf 2003, Fal, Santos and Doneaux 1990, Munro and Gaye 1997, Gamble 1991 (Gambian dialect)), but, there is only one monolingual dictionary (Sekk 1999). There exist a number of English and French pedagogical works for second language learners. Senegalese Wolof has an official orthography (*Transcription des Langues Nationales* 1972) and in the Gambia, government agencies have developed an orthographic system (Williams 1982). There are no regularly published Wolof language newspapers or magazines. Some short novels, collections of stories, and poetry have been published. There is also an active hip-hop music scene centered in Dakar in which Wolof, French, and English are used.

1.4 Previous Work on Wolof

Diagne 1971 is a wide-ranging descriptive work, covering the phonology, syntax, and morphology, with copious examples. Mangold 1977 provides paradigms and informal meanings for many basic verbal forms and represents the most systematic description of the Wolof verbal system. Similarly, Church 1981 is an extensive descriptive work on the verb system. It gives paradigms and examples of how many verb forms are used. Church also describes the derivational morphemes and presents some interesting dialectal data. Ka 1981 is the only work on Wolof to be devoted exclusively to derivational processes (both nominal and verbal). In it, he gives a template where the various verbal

affixes fit. Njie 1982 and Dunigan 1994 are the only extensive analytical studies of the syntax of the Wolof language that I know of. Njie examined both nominal and clausal syntax, while Dunigan concentrated on the analysis of focus/cleft constructions, clitic placement, and double object constructions. Robert 1991 and Moore 2000 both concentrate on the semantics, pragmatics, and conceptual structure associated with verbal constructions. Robert gives a semantics/pragmatic account of the basic verb forms. Moore looks at the metaphoric relations in the expression of spatial and temporal notions. Torrence 2000 takes a syntactic view of the verbal morphology and presents a unified analysis of a small subset of verbal forms. Sy 2003 looks at noun classification in Wolof and provides the most thorough description of nominal derivation in Wolof. Voisin 2002 presents a detailed examination of the syntax and semantics of some of the Wolof verbal affixes, causatives, the reflexive, applicatives, and the participative, in particular.

1.5 Wolof Overview Grammatical Features

1.5.1 Phonology

1.5.1.1 Phonemic Inventory and Orthographic Conventions

Wolof has seventeen surface vowels, of which the nine short vowels are shown here (Ka 1989):

(7) Wolof Vowels

i u
e o
ɛ ɔ
ə
a ʌ

These have long counterparts, except for ʌ.[9] Orthographically, these are represented as follows (both conventionally and in this thesis):

(8) Orthographic Representation of Wolof Vowels

sound	symbol	sound	symbol
[i]	<i>	[ii]	<ii>
[u]	<u>	[uu]	<uu>
[e]	<é>	[ee]	< éé>
[o]	<ó>	[oo]	<óó>
[ɛ]	<e>	[ɛɛ]	<ee>
[ɔ]	<o>	[ɔɔ]	<oo>
[ə]	<ë>	[əə]	<ëë>
[a]	<à>	[aa]	<aa>
[ʌ]	<a>		

The basic consonants of Wolof can be represented as below, abstracting away from dialectal variation.[10]

(9) Wolof Consonants

	Labial	Alveolar	Palatal	Velar	Uvular	Glottal
Stop	p b	t d	c j	k g	q	ʔ
Fricative	f	s		x	(χ)	(h)
Nasal	m	n	ñ	ŋ		
Prenasalized	mb	nd	nj	ng		
Glide			y	w		
Liquid		l r				
Affricate					qχ[11]	

(Based on Ka 1989, Ndiaye 1995, and Williams 1982)

All consonants except fricatives, prenasalized stops and affricates can be phonemically long. The orthographic representation of the consonants is unremarkable.

[9] Long *əə* is rare.

[10] The consonants in parenthesis are not found in the speech of my principal consultant (Other dialects have slightly different inventories (Williams 1982, Ngom 2004).

[11] This is supposed to represent a voiceless uvular affricate. I have only heard this word finally and perhaps word-medially.

1.5.1.2 Phonological Processes

The main phonological processes which will be relevant herein are vowel harmony and vowel coalescence. It is important to have an understanding of these processes because undoing them will give a clearer picture of the basic units present. Thus, decomposition of the morphology must be preceded by an undoing of the phonology, given that it may add considerable opacity to the system.

Vowel coalescence occurs when certain vowels are adjacent and yields evidence as to the underlying forms of morphemes. This is opposed to deletion or epenthesis:

(10) pingu + -am → pingóóm
syringe $3sg_{poss}$ "his syringe"

Based on the description in Ka 1989 and Ndiaye 1995, the following informal rules sum up the vowel coalescence configurations:

(11) a. [i] + [ʌ] → éé
b. [u] + [ʌ] → óó
c. [e] + [ʌ] → éé
d. [ɛ] + [ʌ] → ee
e. [o] + [ʌ] → óó
f. [ɔ] + [ʌ] → oo
g. [a] + [ʌ] → aa

(See Ka 1989 and Ndiaye 1995 for other vowel combinations, details, etc.) Vowel deletion does occur in some contexts, but it will not play a role in the morphosyntactic decomposition.

Vowel harmony is pervasive. Canonically, harmony spreads from left to right (Ka 1989, Ndiaye 1995):

(12) a. lekk-**oon-ngeen** [ɔɔnŋgɛɛn] -ATR verb stem
eat-past-*na*+2pl
"y'all ate"

b. dóór-**óón-ngéén** [oonŋgeen] +ATR verb stem
hit-past-*na*+2pl
"y'all hit"

In the examples above, harmony spreads from the verb root to the tense and subject clitics to the right. The long and short non-high vowels, except *à* and *aa*, have ±ATR counterparts. Although [i] and [u] lack –ATR counterparts, all of the +ATR vowels may trigger harmony. The alternating vowels are these and their long counterparts, except for ʌ.:

(13) Vowel Harmony Vowels

-ATR	+ATR
ʌ	ə
ɔ	o
ɛ	e

Surprisingly, as reported in Ka 1989, +ATR vowels in functional morphemes do *not* trigger harmony, nor do they block harmony:

(14) a. door-**u**-m**a**-l**ee**n-f**a** -ATR clitics
begin-neg-1sg-3pl-loc
"I did not begin them there"

b. *door-**u**-m**ë**-l**éé**n-f**ë** *+ATR clitics
begin-neg-1sg-3pl-loc

c. d**u**y-**ë**l-n**ë**-l**éé**n-fa +ATR clitics
draw.water-ben-*na*-3pl-loc
"he drew water there for them"

d.*d**u**y-**a**l-n**a**-l**ee**n-f**a** *-ATR clitics
draw.water-ben-*na*-3pl-loc

The examples in (14) show that the presence of the negative functional morpheme, *u(l)*, which contains a +ATR vowel, does not trigger or block harmony on the clitics to its right ((14)a-b)). When the +ATR vowel [u] is in a lexical verb, however, it triggers harmony, as can be seen by comparing (14)c and d.

It is important to keep in mind that vowel harmony provides evidence for phonological phrasing, not wordhood. Ka 1989 and Ndiaye 1995 observe that vowel harmony applies to strings which are unlikely to be analyzed as "words" (although they do not state it in this way). For example, in a subject cleft, all of the clitics are harmonic to the ATR specification of the clefted subject:

(15) a. +ATR Subject
+ATR Domain
góór **ë-léén-léén-kó-fë** won-al keroog clefted subject
man *a*-3pl-3pl-3sg-loc show-appl recently
"it's a man who showed it to them for them there recently"

b. –ATR Subject
–ATR Domain
jànq **a-leen-leen-ko-fa** jóx-ël démb clefted subject
woman *a*-3pl-3pl-3sg-loc give-appl yesterday
"it's a womanwho showed it to them for them there yesterday"

In (15)a, the +ATR specification of the clitics could not have come from the verb or adverb since they are both –ATR. Similar reasoning applies to (15)b. Ka and Ndiaye take cases like those in (15) as evidence that the phonological rules do not operate over syntactic structures. This is because the domain of rule application does not correspond to a single syntactic constituent according to their assumptions about the syntactic structure. I will not pursue this issue here, but note that recent work (Sy 2003,

forthcoming) has shown that the vowel harmony system is considerably more complex than the relatively simple cases analyzed in the literature, with regressive harmony and long distance harmony being attested, for example.

(16) a. **góór** g.u Sàmba xool-oon **góógëlé** Long Distance Harmony
man cl.*u* samba look.at-past dem
"the aforementioned man who Samba looked at"

b. **xale** b.u Bintë gis-óón **boobale** Long Distance Harmony
child cl.*u* binta see-past dem
"the aforementioned child who Binta saw"

c. b.i **më léén kó dóór**-ël-éé Regressive Harmony
cl.*i* 1sg 3pl 3sg hit-ben-perf
"when I hit him for them"

d. b.i **ma leen ko door**-al-ee Regressive Harmony
cl.*i* 1sg 3pl 3sg begin-ben-perf
"when I began it for them"

In (16)a, an example of long distance harmony, the demonstrative on the right edge of the relative clause, *góógëlé*, is +ATR, which could only have come from the head noun, *góór*, since everthing else is –ATR and the complementizer, *-u-*, a functional morpheme, does not trigger harmony. Similar reasoning applies in (16)b, where the right peripheral demonstrative *boobale* harmonizes with *xale* 'child'. In the examples of regressive harmony ((17)c and d), the verb determines the harmony specification of the clitics that precede it. (This is a simplification of these phenomena, see Sy (forthcoming) for a detailed description and analysis.) Both coalescence and harmony can apply:

(17) ñëy wóó xool
ñëy w.u *a* xool
elephant cl.*u* 2sg look.at
"an elephant that you looked at"

Comparing the data in the first line of (17), the *wóó* string in particular, to the decomposed string in the second line, it is seen that the more abstract corresponding string is "*w.u a*". That is, it is composed of a class marker, *w*-, an *–u*- element, and a subject marker. The +ATR quality of the coalesced vowels is due to the +ATR specification of the head noun, *ñëy*, not the *–u*-.

1.5.2 Orthographic Conventions

Although both Senegalese and Gambian Wolof have government sponsored orthographies, actual written texts can differ significantly in the representation of phenomena such as vowel harmony and wordhood. One especially common difference concerns which strings get written together as "words". For example, one finds various ways of representing strings of verbs and clitics:

(18) a. gisnëñuléén
b. gisnëñu léén
c. gis nëñuléén
d. gis nëñu léén
e. gis në ñu léén
see *na* 3pl 3pl
"they saw them"[12]

Notice that while *léén* is a clitic, and ATR harmonic to the root *gis* 'see', it may be written as a separate "word". This is true even in linguistic descriptive and pedagogical works written in the standard orthography.[13] The upshot of this is that, for Wolof especially, one must of course be rather careful in going from orthography to linguistic analysis. I will often depart from the standard orthography when it decreases readability

[12] In addition, vowel harmony may or may not be indicated.
[13] Williams 1982 states, "When they precede the radical verb, personal pronouns, auxiliary verbs, and particles should be separated from them" (p14). One of the examples he gives is:
(i) Omar a ko wax
omar *a* 3sg say
"it's Omar who said it"
Phonologically, both the *–a*- and the 3sg pronoun *ko* are clitics on *Omar* and harmonic to it.

and/or otherwise creates analytical confusion. I will write most clitics as single dashed units with the elements on which they lean. That is, I use "-" to indicate morpheme boundaries, not words per se. Consider the following:

(19) xale baa dem
xale b a a dem
child cl-def-*a* leave
"it's the child who left"

In the example above, the string *baa* is composed of three morphemes, often written together. From an analytical perspective, this is confusing and potentially misleading. The orthography suggests that *baa* is a single lexical item. However, the syntactic bracketing is:

(20) [$_{DP}$ xale b a] **a** dem

The second *–a-* (in bold) is a raising predicate (argumentation for which conclusion is presented in Chapter 4 *Clefts*) that is incorporated into the *phonological* phrase to its left. That is, *-a-* is ATR harmonic to the DP that immediately precedes it. The string *xale baa* does not form a syntactic constituent at any level, even though they are commonly written together. Cases like (19) will be represented here as:

(21) xale b.a a dem
child cl.the *a* leave
"it's the child who left"

Similarly, in (22) the string on the left side of the arrow could be written as on the right side of the arrow, since that is how it is pronounced:

(22) góór gi a dem → góór géé dem
man the *a* leave
"it's the man who left"

Herein, these will be written as on the left of the arrow.

1.5.3 Morpho-Syntax

1.5.3.1 Agreement

The agreement system of Wolof, as in the other Senegambian languages is quite intricate. Agreement varies according to several variables in both the nominal and verbal systems. In the nominal system, agreement typically takes the form of class agreement on a dependent with a governing noun or plural agreement. Class agreement is seen on adjectives, determiners, demonstratives, relative clauses, etc. (See *1.5.3.2.1 Noun Classes*.) The expression of agreement is dependent on the linear order in some cases and not in others. These are seen in the following contrasts:

(23) a. (***b**) iléér b-ii
cl hoe cl-this
"this hoe"

b. b-ii (**b**) iléér[14]
cl-this cl hoe
"this hoe"

The class agreement on the demonstrative, *b-*, is obligatory, whether the demonstrative precedes or follows NP. The optional class agreement, *b-* (in bold), can only surface when the demonstrative precedes NP. (I do not know of any interpretive differences that arise depending on whether the agreement is present.)

In the verbal system, agreement, when present, is always for person and number of the subject, never for class. There is no object agreement (See *Appendix 1 Clitic Doubling*) The linear position of subject agreement varies according to clause type, tense, negation, and mood (See 1.5.9 *Tense and Aspect* and 1.5.10 *Negation*). As will be detailed in 1.5.4 *Subject Marking*, the surface forms of most of the subject markers are morphologically

[14] When the demonstrative precedes the noun *and* has the extra agreement, it is not interpreted as focused. If the demonstrative precedes the noun and does not have the agreement, it is interpreted as focused.

complex. As will be seen, the linear position and morphological spellout of subject agreement varies according to clause type.

(24) a. dem-na-**a** *na*-clause
leave-*na*-1sg
"I left"

b. da-**ma** dem verb cleft
do-1sg leave
"I DID leave", "what I did was leave"

c. dem-**nga** *na*-clause
leave-*na*.2sg
"you left"

d. **ya**-a dem subject cleft
2sg-*a* leave
"it's you that left"

In the examples above, the form of subject agreement varies in form and in its position relative to the main verb. In (24)a, the subject marker follows V, while in (24)d, it precedes the verb. In addition, in (24)c the form of subject marker is *nga*, while in (24)d, the subject marker is *ya*-.

Certain types of manner adjuncts trigger a suffix on the verb, *–e* (which I will consider to be a type of adjunct agreement). This occurs specifically with adverbs of the *ni*-class, a defective noun class. These contrast with other types of manner adverbs, *bu*- and *lu*-types, which do not trigger agreement when in situ:

(25) a. tabax-*(**e**)-na-nu kër gë **n**-u **gaaw-e** *ni*-adverb
build-mann-*na*-1pl house the cl-*u* quick-mann
"we built the house quickly"

b. tabax-(***e**)-na-nu kër gë **b**-u **gaaw** *bu*-adverb
build-mann-*na*-1pl house the cl-*u* quick
"we were quick to build the house"

c. tabax-(***e)**-na-nu kër gë ci **l**-u **gaaw** l*u*-adverb
build-mann-*na*-1pl house the P c l-*u* quick
"the event of our building the house was quick"

However, when A'-extracted, manner adverbs obligatorily trigger the *–e* suffix:

(26) [**b**-u gaaw] l-a-nu tabax-*(**e**) kër gë fronted *bu*-adverb
cl-*u* quick xpl-*a*-1pl build-mann house the
"it's quickly that we built the house"

This property is important because it can be used as a diagnostic for A'-movement.[15]

1.5.3.2 DP Structure

1.5.3.2.1 Noun Classes

St Louis Wolof has ten canonical noun classes, eight singular and two plural:

(27) Noun Classes

xaj **bi**	'the dog'	*bi-cl*ass
gaal **gi**	'the boat'	*gi*-class
ndap **li**	'the pot'	*li*-class
wax **ji**	'the talk'	*ji*-class
jën **wi**	'the fish'	*wi*-class
ndaw **si**	'the young woman'	*si*-class
saw **mi**	'the urine'	*mi*-class
nit **ki**	'the person'	*ki*-class
ja **yi**	'the markets'	*yi*-class
góór **ñi**	'the men'	*ñi*-class

The number of active classes varies according to dialect.[16]

Noun class membership is productively indicated only on dependents of the noun:

[15] This is much the same way that adjunct extraction works in Vata, a Kru language (Koopman 1984, Koopman and Sportiche 1986).

[16] The Dakar dialect, for example, essentially uses the *bi*, *yi*, *ki*, and *ñi* classes for the most part. See Thiam 1987, Mclaughlin 1997, and Sy 2003 for details about the noun class system.

(28) Noun class on nominal dependents

a. xaar "a sheep"	b. xaal "a melon"
c. xaar **m**-i sheep cl-def "the sheep"	d. xaal **w**-i melon cl-def "the melon"
e. xaar **m**-u réy **m**i sheep cl-*u* big cl-def "the big sheep	f. xaal **w**-u réy **w**-i melon cl-*u* big cl-def "the big melon"
g. xaar **m**-oo-**m**-u sheep cl-dem-cl-*u* "aforementioned sheep"	h. xaal **w**-oo-**w**-u melon cl-dem-cl-*u* "aforementioned melon"

Sy 2003 looked at the factors involved in noun class membership and is the most comprehensive study of the noun class system of Wolof. It has long been noted that in Wolof, the initial consonant of a noun often correlates in *some* way to class membership. Sy elucidated the (quite complex) phonological constraints active in the system. She also looked at derived nominals and presented an Optimality Theoretic analysis of their classification.

In addition to the canonical noun classes, there are three vestigial or defective noun classes. These noun classes occur only with silent place, location, and manner nouns. However, these silent nouns can be otherwise modified with demonstratives, determiners, etc:

(29) Defective Noun Classes

Class	Demonstrative	Wh
fi-class 'locative'	**f**-oo-**f**-u 'aforementioned place'	**f**-an "where?"
ci/si-class 'prepositional'	**c**-oo-**c**-u 'in/at/on aforementioned place"	**c**-an "in/at/on where?"
ni-class 'manner'	**n**-oo-**n**-u 'aforementioned way'	**n**-an 'how, in what way?"

Wolof also has diminutive and collective (human) noun classes:

(30)	a. góór	**g**.i	"the man"	singlular, non-diminutive
	b.(**n**)góór	**s**.i	"the little man"	singular, diminutive
	c. góór	**ñ**.i	"the men"	plural
	d. góór	**y**.i	"the men"	plural
	e. góór	**j**.i	"the (group of) men"	collective[17]
	f. alxuraan	**j**.i	"the Koran"	*ji*-class non-collective

The *si*-class is the diminutive class. Comparing (30)a to (30)b, it can be seen that placement in the diminutive class may be accompanied by initial consonant mutation ($g \rightarrow ng$). In the plural, a human noun like *góór* can be in the *ñi*- or *yi*-class ((30)c and d). The collective human noun in (30)e is by itself not morphologically distinguished from a regular noun in the *ji*-class, as in (30)f.

1.5.3.2.2 Determiners

Wolof has a number of determiner types (See *Appendix 2 Determiners and Demonstratives*). All of these display obligatory class agreement with the noun. However, in the unmarked case, some of these precede the noun while others follow:

(31)	a.	xaj **b**i	"the dog"	singular definite
	b.	xaj **y**i	"the dogs"	plural definite
	c.	a**b** xaj	"a dog"	singular indefinite
	d.	a**y** xaj	"some dogs"	plural indefinite

Definite determiners invariably follow the noun, while the indefinite determiner invariably precedes the noun. Other determiners may precede or follow the noun. When a determiner can appear either preceding or following a noun, there is often an unmarked order. The proximal and distal demonstratives follow the noun in the unmarked order, suggesting NP movement into the left periphery of DP. However, when focused, they precede the noun:

(32) a. xaj b.ii
dog cl.this
"this dog"

[17] The collective class takes plural subject marking on verbs. In this way, it contrasts with non-collective *ji*-class nouns, which take the singular (Thiam 1987).

b.b.ii xaj
cl.this dog
"THIS dog(, not that one)"

In other cases, though, speakers do not report any interpretive difference between a prenominal or postnominal determiner. This is true for "which N" phrases:

(33) a. xaj b.an
dog cl.which
"which dog?"

b.b.an xaj
cl.which dog
"which dog?"

Other determiner-like elements have different meanings depending on whether they precede or follow the noun, and in a singular or plural class:

(34) a. **b**-epp xaj — cl-epp N = every N
cl-∀ dog
"every dog"

b. xaj **b**-epp — N cl-epp = the entire N
dog cl-∀
"the entire dog"

c. **y**-epp xaj — cl-epp N = all Ns
cl.pl-∀ dog
"ALL dogs"

d. xaj **y**-epp — N cl-epp = all Ns
dog cl.pl-∀
"all dogs"

When cl-*epp* takes singular class agreement (*b*-) and precedes the noun, it means "every N", but when it follows the noun it means, "the entire N". When it takes plural noun class agreement though (e.g. *y*-), as in (34)c and d, it can either precede or follow the noun, with no apparant change in meaning.

1.5.4 Subject Marking

Wolof has twelve different series of subject markers, most of them clearly morphologically related to others. These are shown below.

(35) Table 1. Subject Agreement Markers-Surface Forms

	1sg	2sg	3sg	1pl	2pl	3pl
Subj	ma	nga	mu	nu	ngeen	ñu
i/a Rel	ma	nga	mu	nu	ngeen	ñu
u Rel	ma	a	∅/mu	nu	ngeen/aleen	ñu
SC	maa	yaa	moo	noo	yeena	ñoo
NSC	laa	nga	la	lanu	ngeen	lañu
Neut	naa	nga	na	nanu	ngeen	nañu
Neg	ma	oo	∅	nu	leen/ngeen	ñu
Opt	naa/nama	nanga	na	nanu	nangeen	nañu
ONeg	buma	bu	bumu	bunu	buleen	buñu
Str	man	yow	moom	ñun	yeen	ñoom
Gen	sama	sa	-am	sunu	seen	seen
VC	damaa	dangaa	dafaa	danoo	dangeena	dañoo

It appears that some of these are fused or contracted forms. This is especially clear in the second person forms. The usefulness of undoing the phonology can now be seen. For example, all the subject cleft forms can be decomposed into a pronominal base followed by an *–a-*:

(36) Decomposition of Subject Cleft Subject Markers

	Form		pron		
a.	maa	→	ma	+	a
b.	yaa	→	ya	+	a
c.	moo	→	mu	+	a
d.	noo	→	nu	+	a
e.	yeena	→	yeen	+	a
f.	ñoo	→	ñu	+	a

This decomposition simply falls out from the regular vowel coalescence rules of the language.

(37) a. u + a → óó

b. mu + a → moo[18]
b'. mo-o daan-e ca asamaan sa
3sg-*a* fall-from P sky the
"it fell from the sky!"
c. saabu + a → saabóó
c'. saabó-ó daan-e ca asamaan sa
soap-*a* fall-from P sky the
"it was soap that fell from the sky!"

If the full forms are decomposed, by stripping off some of the morphological layers and undoing the phonology, this yields the following abstract forms:

[18] Recall that vowels in functional morphemes do not trigger harmony.

(38) Table 2. Subject Agreement Markers-Underlying Forms ("Vocabulary Items")

	1sg	2sg	3sg	1pl	2pl	3pl
Subj	ma	nga	mu	nu	ngeen	ñu
i/a Rel	ma	nga	mu	nu	ngeen	ñu
u Rel	ma	a	mu/∅	nu	a leen/ ngeen	ñu
SC	ma	ya	mu	nu	yeen	ñu
NSC	a/ma	nga	∅	nu	ngeen	ñu
Neut	a/ma	nga	∅	nu	ngeen	ñu
Neg	ma	oo/a	∅	nu	leen/ngeen	ñu
Opt	a/ma	nga	∅	nu	ngeen	ñu
ONeg	ma	∅	mu	nu	leen	ñu
Str	ma	yow	mu	ñu	yeen	ñu
Gen	ma	a	-am	nu	een	een
VC	a/ma	nga	∅	nu	ngeen	ñu

Looking down the columns in (38), it can be seen that the forms are quite similar, although some morpho-phonological irregularities remain, with some context-sensitive spellouts (perhaps analyzable along the lines of Distributed Morphology (Noyer 1997)). I will assume that these can be listed using feature combinations (i.e. +subj,+2pl → ngeen), though an exact breakdown in feature terms is beyond the scope of this dissertation.[19,20,21]

The subject markers then are decomposable into a single set of pronouns:

(39) Table 2. Subject Markers-Underlying Forms

	Singular	Plural
1	a/ma	nu
2	a/ya/nga /∅	yeen/ngeen/ a leen
3	mu/∅	ñu

[19] Fal 1999 concludes that the subject markers can be reduced to a single set.

[20] Cross dialectal and cross-linguistic comparison might be of some use in further analyzing these forms, for example, the 2sg Subjunctive, *nga*, and 2sg Subject Cleft, *ya*, pronouns. In Fula, *y* and *ng* are parts of a productive consonant mutation series.

[21] The weak subject pronouns are also used with the DP coordinator *ak*:

(i) moom ak Isaa
$3sg_{str}$ and isaa
"him and Isaa"

(ii) mook Isaa
mu ak isaa
3sg and isaa

Subject markers vary with clause type in both form and linear position.[22] All paradigms distinguish first, second and third person, singular and plural. These subject marker paradigms vary according to three variables. The first factor is whether a Wh/focused constituent is present in the clause and if the focused constituent is a subject, non-subject, or verb.

(40) a. xaj yi **ñu a** màtt jigéén ji — subject cleft
dog the.pl 3pl *a* bite woman the
"it's the dogs that bit the woman"

b. xaj yi jigéén ji **l-a-ñu** màtt — non-subject cleft
dog the.pl woman the xpl-*a*-3pl bite
"The dogs, it's the woman that they bit"

c. xaj yi **da-ñu** a màtt jigéén ji — verb cleft
dog the do-3pl *a* bite woman the
"what the dogs did is bite the woman"

The second variable is whether the clause is affirmative or negative.

(41) a. Lekk-**na-ma/a** — *na*-clause
eat-*na*-1sg
"I have eaten"

b. Lekk-u-**ma/*a** — negative
eat-neg-1sg
"I have not eaten"

Note that while in the affirmative in (41)a, the subject marker may surface as either *-ma* or *–a*, in the negative, only *–ma* is possible.

"him and Isaa"

[22] There is also an "arbitrary" subject marker, *-ees/eef*, which is a verbal affix. I will not discuss this here:

(i) d-**ees**-na lekk ceebujën bës bu nekk
di-impers-*na* eat fishrice day bu exist
"people eat fishrice everyday"

(ii) di-na-**a** lekk ceebujën bës bu nekk
di-*na*-1sg eat fishrice day bu exist
"I eat fishrice everyday"

Third, the form of subject agreement varies with mood (indicative, subjunctive and optative, which are distinctive in Wolof).

(42) a. Toog-**na**-∅ *na*-clause
sit-*na*-3sg
"He sat"
b. Bëgg-na-a [$_{CP}$ **mu**[23] toog] subjunctive
want-*na*-1sg 3sg sit
"I want him to sit"

c. **Na**-∅ toog optative
na-3sg sit
"Would that he sit!", "(I wish) he would sit"

There is typically no subject agreement in running narrative contexts with an identical subject, as below, where only the first verb is marked for subject agreement. These casees are probably analyzeable as covert coordinations below the subject markers:

(43) xale yi jënd-na-**ñu** ñam, togg ko (te) lekk (ko).
child the.pl buy-*na*-3pl food cook 3O and eat 3O
"the children bought some food, cooked it, and ate it"

In other cases, a subject marker is optional. This arises in cases of object control typically:

(44) aaye-na-a-**leen** (**ñu**) dem
prevent-*na*-1sg-3pl 3pl leave
"I prevented them from leaving"

Note, however, in these cases, the object (clitic or not) in the higher clause is never optional (as expected with null objects):

Note that the impersonal subject marker precedes *na*, while a canonical subject marker follows *na*. This suggests that the arbitrary subject marker is lower than the subject markers.

[23] In (42)b, *mu* is not an object since the corresponding object form is *ko*. Further, object control verbs in the language, as far as I know, always have an object in the main the clause and then an overt subject in the embedded clause.

(45) aaye-na-a-*(**leen**) **ñu** dem
prevent-*na*-1sg-3pl 3pl leave
"I prevented them from leaving"

The obligatoriness of subject agreement is also dependent on the presence of a complementizer in some cases:

(46) a. tinu-na-a-**léén** (**ñu**) tox yàmbaa ji *tinu* + C^0 = ∅
beg-*na*-1sg-3pl 3pl smoke marijuana the
"I begged them to smoke the marijuana"

b. tinu-na-a-**léén** *ci *(ñu)* tox yambaa ji *tinu* + C^0 = ci
beg-*na*-1sg-3pl C 3pl smoke marijuana the
"I begged them to smoke the marijuana"

Comparing the examples in (46), it can be seen that when the complementizer is null, the subject marker in the embedded clause is optional ((46)a). However, when the (prepositional) complementizer *ci* is present, a subject marker is obligatory in the embedded clause in (46)b.

The obligatoriness of an overt subject, either a DP or a subject marker, varies according to clause type. In neutral clauses, for example, subject markers are obligatory, while DP subjects are optional:

(47) a. dem-na-*(ñu) *na*-clause
leave-*na*-3pl
"they left"

b. xale yi dem-na-*(ñu) *na*-clause
child the.pl leave-*na*-3pl
"the children, they left"
"the children left"

When present, an overt DP subject is typically interpreted as a topic. Some non-finite embedded clauses do not permit an overt subject, as in Romance control infinitival CPs:

(48) a. bëgg-na-a (*ma) dem
want-*na*-1sg 1sg leave
"I want to leave"

b. bëgg-na-$\varnothing_i$ $mu_{*i/j}$ dem
want-*na*-3sg 3sg leave
"he wants him to leave"

1.5.5 Object Marking

The object markers in Wolof are:

(49) Object Markers

	Singular	Plural
1	ma	nu
2	la	leen
3	ko[24]	leen

The object markers are clitics and are more like Romance clitics than the object markers found in the Bantu languages, for example. They do not vary according to the class of the object. There are also prepositional/locative clitics, which encode location and distance. These are transparently related to the defective *fi-* locative and *ci-* prepositional noun classes:

(50) Locative Clitics

	f-series	c-series
proximal	fi	ci
distal	fa	ca

(51) a. ma-a-**ca** teg tééré bi
1sg-*a*-loc put book the
"it's me who put the book over there on/in that"

b. da-ma-**ko-fi** teg démb
do-1sg-3sg-loc put yesterday
"I PUT it here yesterday"

[24] In the St. Louis dialect the 3sg clitic has four different pronunciations, two +ATR and two -ATR:
(i) <ko> = [ko]
[kë]
[kɔ]
[k∧]
I will not include the dialect specific pronunciations here.

ci is also a partitive clitic:

(52) a. di-na-a lekk ñeent i màngo
di-na-1sg eat four det mango
"I will eat four mangos"

b. di-na-a-**ci** lekk ñeent
di-na-1sg-part eat four
"I will eat four of them"

Object clitics always follow subject markers and locative clitics always follow object clitics.

(53) Clitic Ordering[25]

Subject > Object > Locative

1.5.6 Strong Pronouns

The strong pronouns are:

(54) Strong Pronouns

	Surface Form		Underlying Form
1sg	man	←	ma + n
2sg	yow/yaw	←	ya/yo + w
3sg	moom	←	mu + am
1pl	nun	←	nu + n
2pl	yeen	←	ya + een
3pl	ñoom	←	ñu + am

All of the strong pronouns are at least bimorphemic and contain some form of the subject markers. Sauvageot 1965, Church 1981 and Njie 1982 observed that the non-2nd person strong pronouns all end in nasals:

[25] The order of the non-subject, non-locative clitics can be complicated. I will not discuss this here. I note only that the 3sg clitic, *ko*, is always the last non-subject, non-locative clitic, irrespective of grammatical role.

(55) Strong pronouns

	Singular	Plural
1st	man	nun
2nd	yow	yeen
3rd	moom	ñoom

If the phonology is undone, it yields:

(56) Decomposed Strong Pronouns

	Singular	Plural
1st	ma-**n**	nu-**n**
3rd	mu-**am**	ñu-**am**

(Based on Sauvageot 1965 and Njie 1982)

It is revealing that the pieces preceding the final nasal elements above are identical to the basic subject markers (even for the 2nd person forms: *ya* = 2; *ya* + *een* = 2pl).[26] It is also significant that strong pronouns (proper human names, and a set of derived human nouns) fall into the *mi-* noun class. That is, a class whose marker is a nasal:

[26] The Senegalese dialect of Fula shows almost this same pattern. That is, all but the 3rd person strong pronouns for humans are transparently decomposable into the "short" subject pronouns plus a nasal element:

(i) Pulaar Pronouns

	Short Subject Pronoun	Strong Pronoun
1sg	mi	mi-**in**
2sg	a/aa/ˬaa	aa-**n**
3sg	o	kank-**o**
1plxcl	min	min-**en**
1plincl	edˬen	en-**en**
2pl	onˬon	on-**on**
3pl	≡e	kam-**≡e**

(The table is based on data from Sylla 1993, but the decomposition is mine. *1plxcl* = 1pl exclusive, *1plincl* = 1pl inclusive.) The 3rd person endings, *-o* and *-≡e* are identical to the human noun class definite articles, singular and plural respectively (in addition to being identical to the short subject pronouns). These are postnominal.

(57) yow **m**-i, di-na-a-la gis pronoun + *mi*-class agreement
$2sg_{ind}$ cl-def di-*na*-1sg-2sg see
"you, I will see you"

In terms of linear order, the nasals in (56) occur on the right edge, where definite determiners are found. I have no explanation for the *m/n* difference in these forms. It seems plausible that the final nasal is itself a determiner-like/pronominal element.

1.5.7 Clause Types and Verb Movement

Issues related to clause type will be a running theme throughout this thesis. This is because complementizers, the subject matter, are typically associated with different "constructions" or clause types. The basic problems related to clause type here can be seen in the following:

(58) a. that boy
b. I think that you love me
c. I'm not that tired
d. I like Greg, but that bitch has a mouth like a sailor
e. That Leston is pretty cool

(58) shows various constructions where *that* appears: demonstrative ((58)a), complementizer ((58)b), with an adjective ((58)c), in an epithet ((58)d), and with a proper name ((58)e). One question that arises is whether and how the five *that*'s are related in (58)a-e. A standard answer would be that there are various *that*'s in English, or alternatively, that the lexical entry is ambiguous. That is, (58)a-e represent (at least two) cases of accidental homophony. This is based on notions concerning the complements that the *that*'s occur with, for example. Compounding this problem is the fact that it is not obvious what the common underlying semantics of these constructions could be, if the *that*'s represent a single lexical item. Analogous to the English data, Wolof has several different constructions which seem to have elements in common, even though the

constructions themselves appear to be quite diverse, morphologically, syntactically, and interpretively:

(59) a. xale b.**a** — DP
child cl.*a*
"the distal child"

b. xale b.**a** ñu xool — relative clause
child cl.*a* 3pl look.at
"the child there that they looked at"

c. b.**a** ñu dem-ee — temporal clause
cl.*a* 3pl leave-perf
"when they left"

d. xale l-**a**-ñu xool — non-subject cleft
child xpl-*a*-3pl look.at
"it's a child that they looked at"[27]

e. xaj-**a** — copula
dog-*a*
"it's a dog"

f. tàmbali-na-a-leen **a** jéém **ë** lekk — restructuring
begin-*na*-1sg-3pl *a* try *a* eat
"I began to try to eat them"

g. da-ñu mer-**a**-mer — emphatic reduplication
do-3pl angry-*a*-angry
"they are really angry"

h. **a**-ka ya-**a** dof! — exclamative subject cleft
a-ka 2sg-*a* crazy
"how crazy you are!"

It is not immediately apparent whether the *a*'s in (59)a-f are all instances of the same element. To show this, one must look at the range of properties associated with *–a-* in each construction. Demonstrating the converse requires the same. For example,

[27] The *xpl* is an expletive found in cleft constructions. See Chapter 4 *Clefts* for motivation and discussion.

comparing (59)a to (59)e, the *–a-* that occurs in the determiner displays obligatory class agreement, while the *–a-* in the copula *cannot* show class agreement.

(60) a. xale a
child *a*
"it's a child"
*"the child"

b. xale b-**a**
child cl-*a*
"the child"
*"it's the child"

However, it seems non-coincidental that there is an *–a-* that occurs in both determiners and nominal predication. Taking the diversity of the constructions above as indicative of the more general state, it is thus often difficult to determine whether one is dealing with accidental homophony or with a single element that occurs in multiple environments (and whose semantics may be rather opaque). Regarding the *–a*'s in (59), it will be argued in the upcoming chapters that there are (at least) two *a*'s. One, *-a-* is a D^0/C^0, occurs in DPs, relative clauses, attributive adjectival clauses, and temporal clauses. The second *a* is a raising predicate that occurs in clefts (See Chapter 4 *Clefts*). The *a*'s that occur in reduplication, restructuring, and other constructions, I will only mention because the status of *a* in those constructions is not clear.

There are three essential problems related to clause type, two of which have been shown so far. The first problem is determining the identity of elements across constructions. The second problem is that a single item may occur with complements of distinct categories. The third problem is that a putative single element seems to have different syntactic effects that depend on its position in a clause. Let us consider each in more detail.

There is an *–a-* associated with three different clause types in (59), clefts, restructuring, and copulas. Therefore, analyzing this data requires an understanding of the range of clause type variation and parameters that determine it.

There are several different clause types in Wolof:[28]

(61) Wolof Clause Types

Type	Example	**Use**
Neutral	a. xale yi lekk-na-ñu gato bi child the.pl eat-*na*-3pl cake the "the children ate the cake"	The entire clause is new information. No subconstitutent is in focus. No negation
Negative	b. xale yi lekk-u-ñu gato bi child the.pl eat-neg-3pl cake the "the children did not eat the cake"	No emphasis on anything.
Subject Cleft	c. xale yi a lekk gato bi child the.pl *a* eat cake the "it's the children who ate the cake"	Subject in focus
Non-Subject Cleft	d. gato bi l-a xale yi lekk cake the xpl-*a* child the.pl eat "it's the cake that the children ate"	Non-Subject in focus
Subjunctive	e. bëgg-na-a ñu lekk-ko want-*na*-1sg 3pl eat-3sg "I want them to eat it"	CP complement of predicates of desire, command, wish, etc.
Adverbial[29]	f. tusuur ñu lekk-ko always 3pl eat-3sg "they always eat it'	CP/TPs that are introduced by certain adverbs in the left periphery.
Optative	g. xale yi na-ñu lekk gato bi child the.pl opt-3pl eat cake the "the children, may they eat the cake!"	Wish or desire of speaker.

There are several dimensions along which clause types are distinguished. These include:

[28] In the literature, these are given names like "subject focus", "presentative", "predicate focus", etc. Some of these names are not retained here.

[29] In more complex cases, it can be seen that the Adverbial and Subjunctive differ; for example, in the position of clitics and the distribution of tense.

- the morphological form of the subject markers.
- the position of subject and non-subject clitics
- co-occurrence restrictions on tense and negation
- extraction possibilities
- presence of complementizers, adverbs, etc. in the left periphery of a clause
- height of verb movement

I showed earlier that there are several different surface forms of the subject markers and noted that they vary according to clause type:

(62) a. **maa** lekk gato bi — Subject Cleft
ma a lekk gato bi
1sg-*a* eat cake the
"it's me who ate the cake"

b. gato bi **laa** lekk — Non-subject Cleft
gato bi l a a lekk
cake the xpl *a* 1sg eat
"it's the cake that I ate"

c. **naa** lekk gato bi — Optative
na a lekk gato bi
na-1sg eat cake the
"I should eat the cake!"

As the glosses indicate, the subject marker in (62)a, a subject cleft, is *maa*. This contrasts with the subject markers in (62)b and (62)c, *laa* and *naa* respectively. These differences suggest that different clause types are related to, or correspond to, different left peripheral structures; whether distinct overt morphemes are present or not.

The subject markers and non-subject clitics occur in three configurations: preverbal, postverbal, or split, as shown in the examples below:[30]

(63) a. (xale yi) dóór-ël-në-**ñu-lë-kó-fë** — *na*-clause
child the.pl hit-ben-*na*-3pl-2sg-3sg-loc
"the children, they hit him for you there"

[30] There are clause types where the position of clitics is variable, for example, the non-subject focus progressive:

(i) coof g-àng-ii ma di-**leen** togg-al — *di*-clitic
sea.bass cl-prog-? 1sg di-3pl cook-ben
"it's the seabass that I am cooking for them"

(ii) coof g-àng-ii ma-**leen** di togg-al — clitic *di*
sea.bass cl-prog-? 1sg-3pl di cook-ben
"it's the seabass that I am cooking for them"

In the non-subject focus progressive, non-subject clitics can either precede or follow the auxiliary *di*.

b. démb l-ë-**ñu-lë-kó-fë** dóór-ël-óón non-subject cleft
yesterday xpl-*a*-3pl-2sg-3sg-loc hit-ben-past
"it's yesterday that they hit him for you there"

c. démb l-ë-**lë-kó-fë** xale yi dóór-ël-óón non-subject cleft
yesterday xpl-*a*-2sg-3sg-loc child the.pl hit-ben-past
"it's yesterday that the children hit him for you there"

d. xale yi démb l-ë-**ñu-lë-kó-fë** dóór-ël-óón non-subject cleft
child the.pl yesterday xpl-*a*-3pl-2sg-3sg-loc hit-ben-past
"the children, it's yesterday that they hit him for you there"

e. bëgg-na-a **ñu** dóór-ël-**lë-kó-fë** subjunctive[31]
want-*na*-1sg 3pl hit-ben-2sg-3sg-loc
"I want them to hit him for you there"

---

[31] The *ñu* in (63)e is in the embedded clauses, not the matrix. First, *ñu* has the morphological form of a subject marker, not that of an object of the matrix verb:

(i) bëgg-na-a-**léén/*ñu**
love-*na*-1sg-$3pl_{obj}$/$3pl_{subj}$
"I love them"

(ii) bëgg-na-a ***léén/ñu** dem
want-*na*-1sg $3pl_{obj}$/$3pl_S$ go
"I want him to go"

Second, below in (iii) and (iv), the subject marker, *mu*, a clitic, does not appear in the clitic position of the matrix clause:

(iii) di-na-a (***mu**) bëgg **mu** dem *mu* must follow verb
imperf-*na*-1sg 3sg want 3sg go
"I will want him to go"

(iv) di-na-a-**ko** bëgg-(***ko**) *ko* object clitic must precede verb
imperf-*na*-1sg-3sg love-3sg
"I will love him"

Third, the distribution of adverbials indicates that the *ñu* is in the embedded clause:

(v) bëgg-óón-na-a-**kó** **ëllëg**
want-past-*na*-1sg-3sg tomorrow
"I would like/want it tomorrow"
*"I wanted it tomorrow"

(vi) bëgg-óón-na-a **ñu** dem **ëllëg**
want-past-*na*-1sg 3pl go tomorrow
"In the past, I wanted them to go tomorrow"
"I would like them to go tomorrow"

(vii) bëgg-óón-na-a, **ëllëg**, **ñu** dem
want-past-*na*-1sg tomorrow 3pl go
"In the past, I wanted them to go tomorrow"
"I would like them to go tomorrow"

Example (v) shows that when the adverb *ëllëk* 'tomorrow' is in the same clause as *bëgg* 'want' in the past tense, only the conditional interpretation is possible. Example (vi) shows that when *ëllëk* is in the embedded clause, a pure past tense interpretation of *bëgg* is possible. In (vii), where the adverb precedes the subject marker, a past reading of *bëgg* is possible. This indicates that the subject marker is in the embedded clause, not the matrix clause.

f. bëgg-na-a xale yi dóór-ël-**lë-kó-fë** subjunctive
want-*na*-1sg child the.pl hit-ben-2sg-3sg-loc
"I want the children to hit him for you there"

In a neutral *na*-clause in (63)a, all of the clitics are post verbal. In contrast, in a non-subject cleft, all of the clitics precede the verb, as in (63)b-d. These differ from subjunctive clauses where the clitics are split ((63)e-f). Object and locative clitics always cluster together, but the subject marker may be separate. This variation can be represented as:

(64) a. V…...[clitics] neutral
b. [clitics]…V non-subject cleft
c. [clitic]…V…[clitics] subjunctive
Clt_S Clt_O-Clt_{Loc}

Putting together (64)a-c yields:

(65) (**V**) C^0 Clt_S (**V**) Clt_O Clt_{Loc} (**V**)

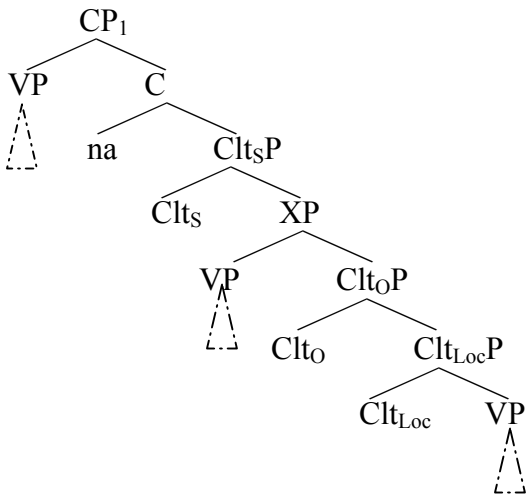
With clitic positions kept constant, and the subject clitic just to the right of C^0, the linear order differences are readily analyzable as following from different heights of VP movement (Sportiche 1995):

(66) dóór-ël-në-**ñu-lë-kó-fë** Post-verbal Clitics
hit-appl-*na*-3pl-2sg-3sg-loc
"they hit him for you there"

(67) bëgg-na-a **ñu** dóór-ël-**lë-kó** Split Clitics
want-*na*-1sg 3pl hit-appl-2sg-3sg
"I want them to hit him for you"

(68) démb l-a-**ñu-lë-kó-fë** dóór-ël Preverbal Clitics
yesterday xpl-*a*-3pl-2sg-3sg-loc hit-appl
"it's yesterday that they hit him for you"

(69)



= postverbal clitics

= split clitics

= preverbal clitics

Under such a view, the fact that all of the clitics are postverbal in a neutral *na*-CP is because the verb surfaces in a very high structural position (CP_1), one higher than all of the clitics. The subjunctive represents a case where verb movement is intermediate in height relative to the neutral and non-subject cleft. This position, XP, is between the subject clitic and the non-subject clitics. In the non-subject cleft (abstracting away from the presence of *l-a*), the verb raises (it raises higher than the lower tense (See 3.5 *Status of the Relative Markers* for related discussion), for example), but to some position rather low in the structure, lower than the lowest clitic position.

The height of verb movement itself is related to the structure of the left periphery. Consider two different clause types in which the past adverbial *laata* 'before' occurs:[32]

(70) a. b.i ma-ko **laata**-(a) gis
cl.*i* 1sg-3sg before-perf see
"before I saw him"

b. **laata** ma gis-ko
before 1sg-see-3sg
"before I saw him"

[32] See Chapter 3 *Relative Clauses*, Appendix 3 *"Before" Clauses* for further details of this construction.

The relevant contrast between the two clauses can be seen in the relative positions of the main verb, *gis*, the adverb, and the clitics (*ma* '1sg, *ko* '$3sg_{obj}$). (70)a has a relative clause structure, with the complementizer *–i-* followed by the clitic string, *ma-ko*. Both the adverb and the verb follow the clitics. In the second construction, the adverb occurs in the C-region. This correlates with verb raising to a position such that it precedes the non-subject clitic. This alternation seems to be akin to English alternations such as this one:

(71) a. **if** you had left early…
b. **had** you left early…
c. #you had left early… (*counterfactual interpretation)
d. ***if had** you left early

where the presence of the complementizer *if* blocks V-to-C movement of the auxiliary ((71)a and b versus (71)d). Comparing (71)b to c shows that if the complementizer is silent/absent, V-to-C is obligatory.

An important related issue is exemplified by the adverb *léégi* 'now, soon', which can occur with various types of clauses and displays position dependent properties. Specifically, the clause type depends on the position of the adverb:

(72) a. **léégi** mu jàng-al-leen téére bi *léégi* + subjunctive
soon 3sg read-ben-3pl book the
"soon he will read them the book"
*"now, he is reading them the book"

b. *mu jàng-al-leen téére bi **léégi** *léégi* + subjunctive
3sg read-ben-3p book the soon
"he will read them the book soon"
*"he is reading the book now"

c. **léégi** mu-ngi-leen di jàng-al téére bi *léégi* + progressive
now 3sg-prog-3pl *di* read-ben book the
"he is now reading them the book"
*"soon he will be reading the book"

d. mu-ngi-leen di jàng-al téére bi **léégi** *léégi* + progressive
3sg-prog-3pl *di* read-ben book the now
"he is reading them the book now"
*"he will be reading the book soon"

The examples show that when *léégi* means 'soon', it can appear in the left periphery of a subjunctive-like clause ((72)a, as evidenced by the split clitics). But, it cannot appear on the right edge ((72)b). As the translations indicate in(72)c and d, when *léégi* means 'soon', it cannot appear with a progressive clause at all. This is different from when *léégi* means 'now'. In that case, it can appear on the left or right edge of a progressive clause. The dependency can be with elements lower down in the clause:

(73) a. xale bi l-a-a gis-(**oon**) **démb**
child the xpl-*a*-1sg see-past yesterday
"it's the child that I saw yesterday"

b. **démb** xale bi l-a-a gis-***(oon**)
yesterday child the xpl-*a*-a see-past
"yesterday, it's the child that I saw"

When *démb* follows the verb, as in (73)a, past tense on the verb is optional. However, when *démb* precedes the verb ((73)b, past tense on the verb is obligatory. Note that in neither case in (73) is the adverb in focus.

A third phenomenon related to basic cases of *–a-* in (70), is characterized by a single element taking different types of complement. Consider the adverbial verb *yàgg* 'be a long time':

(74) a. yàgg-[$_{CP}$ na-ñu-**leen-ko** jéém-ë togg-al] *yàgg* + restructuring CP
be.long- *na*-3pl-3pl-3sg try-*a* cook-ben
"it's been a long time that they have been trying to cook it for them"

b. yàgg-[$_{CP}$ na ñu jéém-**léén-kó** togg-al] *yàgg* + subjunctive CP
be.long-*na* 3pl try-3pl-3sg cook-ben
"it has been a long time since they have tried to cook it for them"

The examples above show that *yàgg* can select for either a non-finite restructuring CP ((74)a), or a subjunctive CP ((74)b, where the subject and non-subject clitics are split across the verb). It will be seen repeatedly in the coming chapters that a single C^0-like element can select for different types of TP/FinP. This property will be especially critical

in the analysis of clefts in Chapter 4. In particular, it will be shown that a single C-field element can select for TP/FinPs of different sizes, even in cases where the meaning across construction types seem to be rather uniform.

From looking at some of the variables that distinguish the different clause types, it is plausible that all can be related to the geometry of the left periphery. That is, all of properties mentioned can be related to how high the verb moves in the C-field, or which complementizers or adverbs are present in the left periphery.

1.5.8 Verbal and Nominal Morphology

As noted earlier, Wolof, like many other West Atlantic languages, has very rich verbal morphology, both inflectional and derivational (Church 1981, Ka 1981, Sy 2003). Morphological processes include consonant mutation, suffixation, reduplication (always total), and gemination. The verb morphology is almost exclusively suffixing. Wolof has approximately 30 distinct verbal affixes encoding a number of notions, including applicative, instrumental, reversive, and causative (See Voisin 2002 for a detailed study of some of these.) I give examples of some of these below:

(75) a. xale yi sàcc-na-ñu gato bi
child the.pl steal-*na*-3pl cake the
"the children stole the cake"

b. xale yi sàcc-**i**-na-ñu gato bi — **-i-** allative suffix
child the.pl steal-allative-*na*-3pl cake the
"the children went and stole the cake"

c. xale yi sàcc-**si**-na-ñu gato bi — **-si-** illative
child the.pl steal-illative-*na*-3pl cake the
"the children came and stole the cake"

d. xale yi sàcc-**ante**-na-ñu — **-ante** reciprocal
child the.pl steal-recip-*na*-3pl
"the children stole each other"

e. xale yi **sàcc-sàcc-lu**-na-ñu gato bi — **V-V-lu** pretendive
child the.pl steal-steal-?-*na*-3pl cake the
"the children pretended to steal the cake"

f. xale yi sàcc-**e**-na-ñu gato bi (ak) sémmiñ — **-e-** instrumental
child the.pl steal-instr-*na*-3pl cake the with hatchet
"the children stole the cake with a hatchet"

g xale yi **tëj**-në-ñu bunt bi
child the.pl close-*na*-3pl door the
"the children closed the door"

h. xale yi **tijji**-në-ñu bunt bi — reversive
child the.pl un.close-*na*-3pl door the
"the children unclosed the door"

These affixes can be combined. Ka 1981 and Buell and Sy (**forthcoming**) are the only works that I know of that looked at the ordering of derivational verb morphemes in Wolof. Ka 1981 identifies twenty-five distinct verbal affixes (as noted, there are others), formulates descriptive generalizations concerning them, gives meanings for each, and provides a template of the verbal complex with twelve affixal positions.

(76) Template of Verbal Suffixes

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
ar	e_1 i_1 i_2 ali anti andi at aan	u oo	adi antu ante	andoo	aale	i_3 si	al_1	le lu	e_2	al_2	aat ati

(The abbreviations in the table in (76) are adapted from Ka 1981 (p.8) I have changed some of the names in the translations: *ar* = effort, e_1/*te* = verbalizer, i_1 = inversive , i_2 = vebalizer , *ali* = achievement, *andi* = meanwhile , *at* = intensive, *aan* = discontinuative, *u*= middle/reflexive/passive, *oo* = together, *adi* = privative, *antu* = depreciative, *ante* =

reciprocal, *andoo* = collective, *aale* = associative, i_3 = go , *si* = come, al_1 = causative stative, *le* = help x Verb/Verb together/have N + Adj, *lu* = causative benefactive reflexive, e_2 = locative/instrumental/objective, al_2 = benefactive, *aat* = iterative, *ati* = iterative). Some of the homophonous affixes in (76) can be distinguished by the stems they select for. Consider a difference between al_1, the causative stative, and al_2, the benefactive (Ndiaye 2004):[33]

(77) a. xonq "be red"
b. xonq-al "redden (cause to be red)"/ "be red for (someone)"
c. togg-al "cook for (someone)"/*"cause to cook"
d. so**nn** "be tired"
e. so**nn**-al "be tired for (someone)"
f. so**n**-al "tire (cause to be tired)"

The causative stative *al* only combines with stative predicates ((77)b versus (77)c). The benefactive *al* occurs with stative and non-statives ((77)b,c). When the benefactive combines with *sonn* "be tired", it selects for the "long" stem, which ends in a geminate consonant, *-nn* ((77)e). The causative stative selects for the "short" stem, which ends in a single consonant, *-n* ((77)f).

A purely templatic view of Wolof verbal morphology is inadequate. This is because the derivational morphemes interact with each other, with the tense/aspect/mood morphology and with the linear order of arguments.[34] A template is built around the notion that there are 'slots' into which morphemes can be dropped. For Wolof though, the idea of a slot or position, aside from a descriptive tool, is problematic, for at least two reasons. First, items that go in the same slot can co-occur, as *ati* and *aat*, in position XII in (76):

[33] Ndiaye does not describe these altenations in the terms that I use here.
[34] Some of the suffixes in the table are probably polymorphemic. For example, the *–andoo* suffix seems to be composed of the verb root *and* 'go, walk', and the 'together' suffix *–oo*. Similarly, the causative benefactive reflexive suffix *lu* is probably composed of the applicative *–al* and the middle/reflexive/passive *–u*. As a final example, based on it's syntactic distribution, e_2, the locative/instrumental/objective, behaves as three distinct affixes.

(78) a. lekk-**ati-waat**-na-ñu
eat-iter$_1$-iter$_2$-*na*-3pl
"they ate for the second time again"
aat "again", *ati* "2nd time, once again"

b. *lekk-**aat-ati**-na-ñu
eat-iter$_2$-iter$_1$-*na*-3pl
"they ate again for the second time"

Perhaps more problematically, a single item can be iterated:

(79) lekk-**até-éti**-na-ñu
eat-iter$_1$-iter$_1$-*na*-3pl
"they ate again for the second time"

Furthermore, what seems to be verbal morphology can appear with nouns:

(80) a. [kan] l-a-ñu dóór-**ëti-wóón**
who xpl-*a*-3pl hit-again-past
"who did they hit again?"

b. [kan-**ati-woon**] l-a-ñu dóór
who-again-past xpl-*a*-3pl hit
"who did they hit again?"

Finally, the verbal morphology interacts with non-verbal constituents:

(81) a. togg-(**e**)-na-a yaasa bi **ak kuddu gi**
cook-instr-*na*-1sg yaasa the with spoon the
"I cooked the yaasa with the spoon"

b. *togg-**e**-na-a **ak kudu gi** yaasa bi
cook-instr-*na*-1sg with spoon the yaasa the
"I cooked with the spoon the yaasa"

c. togg-**e**-na-a yaasa bi **kuddu gi**
cook-instr-*na*-1sg yaasa the spoon the
"I cooked the yaasa with the spoon"

d. togg-**e**-na-a **kuddu gi** yaasa bi
cook-instr-*na*-1sg spoon the yaasa the
"I cooked the yaasa with the spoon"

(81)a shows that an instrument can be introduced by a preposition, *ak*, with an optional instrumental suffix on the verb, *-e*. (81)b shows that the PP containing the instrument must appear on the right edge of CP. (81)c-d show that when the instrumental suffix alone is present on the verb, the instrument is free to intervene between the verb and the object.[35] Under a templatic view such interactions are simply mysterious. If the derivational morphology is part of the syntactic component, dependencies and interactions like those in (81) are expected.

Wolof lacks a true passive, instead, a 3pl subject marker or arbitrary marker is used to express the idea. There is also a middle/reflexive marker, *u/eeku*, and an object suppressing marker, *e*, the distribution of neither of which is clear at this point:

(82) a. góór ñi gor-na-ñu garab gi
man the.pl cut.down-*na*-3pl tree the
"the men cut down the tree"

b. gor-na-**ñu** garab gi — 3pl subject
cut.down-*na*-3pl tree the
"the tree was cut down"
"they cut down the tree"

c. gor-**ees**-na garab gi — arbitrary subject
cut.down-arb-*na* tree the
"people cut down the tree"
"the tree got cut down"

d. tëj-na-a bunt bi — active
close-*na*-1sg door the
"I closed the door"

e. bunt bi tëj-**éék**u-në — reflexive/middle
door the close-refl-*na*
"the door closed (itself)"

[35] Ordinarily, a PP can intervene between a verb and a definite argument.

f. won-na-a xale yi nataal bi ditransitive
show-*na*-1sg child the.pl picture the
"I showed the children the picture"

g. won-**e**-na-a (*xale yi) nataal bi argument suppressor
show-arg-*na*-1sg child the.pl picture the
"I displayed the picture"

Like verbs, nominal morphology is almost exclusively suffixing (with the exception of initial consonant mutation). The only prefix is the diminutive *sin-*, which is optional:[36]

(83) a. golo gi 'the monkey' N
b. **ngolo** si 'the little monkey' C+N
c. **siŋ**golo si 'the little monkey' sin+N

1.5.9 Tense and Aspect

The tense and aspectual system of Wolof is extremely complex (See Mangold 1977, Torrence 2000/2003). This is true not only of the interpretations, but also of the distribution of the tense and aspect morphemes. Therefore, I will present only the bare bones necessary to give the reader an idea of how the tense and aspect system operates and how this is encoded in the syntactic structure.[37] One of the basic divisions is between stative and active verbs. Stative verbs with no overt tense marking are interpreted as present (i.e. that the eventuality holds at the time of speech.) Active verbs with no tense marking are interpreted as (present) perfect or (recent) past:

(84) a. tiit-na-a Stative Predicate
be.afraid-*na*-1sg
"I am afraid"
*"I was afraid"
*"I have been afraid"

[36] Note that the simple diminutive in (83)b triggers initial consonant mutation. Historically, the West Atlantic languages are thought to have had prefixal class marking and determiners (Greenberg 1970)
[37] I refer the interested reader to Ferris and Jah 1989 (Banjul, Gambia dialect), Robert 1991, Moore 2000, and Torrence 2000 for further discussion of tense and aspect.

b. dem-na-a — Active Predicate
go-*na*-1sg
"I left"
"I have left"
*"I leave"

When past tense, *(w)oon*, occurs with a stative predicate, it entails that the state no longer holds in the present. When past tense occurs in with an active predicate it entails that the action is completely finished and has no connection to the present, or as past perfect:

(85) a. tiit-óón-na-a — Stative Predicate
be.afraid-past-*na*-1sg
"I was afraid (but I am not now)"

b. dem-oon-na-a — Active Predicate
go-past-*na*-1sg
"I left"
"I had left"

Only temporal clauses show an overt perfective marker, *–ee*:[38]

(86) b-i-ma gis-**éé** Bintë, da-ma-a daw
cl-*i*-1sg see-perf binta do-1sg-*a* run
"when I saw Binta, I ran"

The auxiliary *di* appears in a wide variety of clauses that I will call "imperfective". When preceded by a vowel, *di* may appear as *-y*. For our purposes here, "imperfective" covers present, progressive, habitual, and future meanings, depending on the clause type. In the simple case, when *di* occurs with an active predicate, it yields a habitual or future reading. Typically, when *di* occurs with a stative predicate, it yields only a future reading:

(87) a. di-na-ñu jàng ay taalif — Active Predicate
di-*na*-3pl read indef poem
"they read poems"
"they will read (some) poems"

[38] See Chapter 3 *Relative Clauses and Their Kin*, Appendix 1 *Temporal and Conditional Clauses* and Appendix 2 *The Perfective Suffix* for futher discussion.

b. di-na-ñu mer Stative Predicate
di-*na*-3pl angry
"they will be angry"

The structural realization of tense in Wolof in terms of linear order and spell out are dependent on three variables: tense type, clause type, and co-occurrence restrictions. First, Wolof has multiple tense and aspect positions, which may be simultaneously filled. (The precise meaning of these is often unclear.):

(88) a. d-**aa-woon**-na-a lekk ceebujën
di-pasthab-past-*na*-1sg eat fishrice
"I used to eat fishrice"

b. **di**-na-a **d**-oon lekk ceebujën
di-*na*-1sg *di*-past eat fishrice
"I was eating fishrice"

c. **d-aan**-na-a **woon** ***(di)** lekk ceebujën
di-pasthab-*na*-1sg past *di* eat ceebujën
"I used to eat ceebujën"

In the example in (88), both past habitual and definite past co-occur. Clause type restrictions can be seen with the past habitual marker, *–aan*. In most matrix clause types, *-aan* must occur with *di*:

(89) a. **d-aan**-na-a tóx yàmbaa *di* present
di-pasthab-na-1sg smoke marijuana
"I used to smoke marijuana"

b. *tóx-**aan**-na-a yàmbaa *di* absent
smoke-pasthab-*na*-1sg marijuana
"I used to smoke marijuana"

Depending on what is in the left periphery, *-aan* may occur without *di* in a matrix clause:

(90) **tusuur** ma togg-al-**aan** Isaa ceebujën
always 1sg cook-ben-hab isaa fishrice
"I always used to cook Isaa fishrice"

Co-occurrence restrictions occur, for example, when the past habitual and definite past are separated in a verbal complex:

(91) a. d-**aa-woon**-na-a lekk céébujën
di-pasthab-past-*na*-1sg eat fishrice
"I used to eat fishrice"

b. d-**aan**-na-a **woon** *(**di**) lekk céébujën
di-pasthab-*na*-1sg past *di* eat fishrice
"I used to eat fishrice"

Comparing the examples in (91), it can be seen that the past tense, *woon*, can either precede or follow the *na* + subject marker. However, when past tense follows the *na* + subject marker, as in (91)b, a second instance of *di* must occur before the main verb.

Cooccurrence restrictions on tense can also be seen from the fact that tense cannot, in the simple case, occur in an optative clause:

(92) a. na-nu jënd aw jën optative
opt-1pl buy a fish
"we should buy a fish!"

b. *na-nu jënd-**óón** aw jën optative + past tense
opt-1pl buy-past a fish
"we should have bought a fish!"

In addition to the tense morphemes, there are also high and low merge positions for *di*. Thus, there may be more than one *di* in a simple clause. In that case, the only reading is a present habitual one, not a future:

(93) a. **di**-na-ñu jàng ay taalif *di...V*
di-*na*-3pl-di read indef poem
"they read poems (habitually)" ✓habitual
"they will read (some) poems" ✓future

b. **di**-na-ñu-**y** jàng ay taalif *di...di...V*
di-*na*-3pl-*di* read indef poem
"they read poems (habitually) ✓habitual
*"they will read (some) poems" *future

As a final note in this section, the position of tense is also dependent on the presence of certain verbal affixes:

(94) a. lekk-**oon**-na-a (✓St. Louis, ✓Dakar)
eat-past-*na*-1sg
"I had eaten"

b. %lekk-na-a **woon** (*St. Louis, ✓Dakar)
eat-*na*-1sg past
"I had eaten"

c. lekk-**andi-woon**-na-a (✓St. Louis)
eat-while-past-*na*-1sg
"I ate in the meanwhile"

d. lekk-**andi**-na-a **woon** (✓St. Louis)
eat-while-*na*-1sg past
"I ate in the meanwhile"

Comparing (94)a and b, in the St. Louis dialect *na* precedes past tense *woon*, although in the Dakar dialect either order is possible.[39] Interestingly, when the adverbial affix *–andi* "meanwhile" is present, in the St. Louis dialect past tense can either precede or follow *na-*. I do not know of any meaning difference between (94)c and d.

1.5.10 Negation

There are three basic forms of negation:[40] affixal, auxiliary, or *d-u*. Each of these has a different distribution. The affix, *-u(l)*[41] has the widest occurrence and is found in the neutral, subject cleft, object cleft, verb cleft, modal, and relative**.** The *-u(l)* affix is in complementary distribution with the *na* marker. It also attaches to the highest verbal element in a clause:

[39] Note that (94)a is the preferred over (94)b in the Dakar dialect.
[40] There is also a form found in poetry, *-ti* (Fal 1999).
[41] In some dialects this is ***ut***.

(95) a. lekk-na-ñu gato bi — *na*-clause
eat-*na*-3pl cake the
"they ate the cake"

b. lekk-**u**-ñu gato bi — negative
eat-neg-3pl cake the
"they did not eat the cake"

c. ya-a lekk gato bi — perfective subject cleft
2sg-*a* eat cake the
"it's you who ate the cake"

d. ya-a lekk-**ul** gato bi — negative perfective subject cleft
2sg-*a* eat-neg cake the
"it's you who did not eat the cake"

e. ya-a-y lekk gato bi — imperfective subject cleft
2sg-*a*-di eat cake the
"it's you who will eat the cake"

f. ya-a d-**ul** lekk gato bi — negative imperfective subject cleft
2sg-*a* di-neg eat cake the
"it's you who will not eat the cake"

The *–ul* affix is in complementary distribution with *na*-. The linear position of negation with respect to tense and other affixes varies according to clause type:

(96) a. lekk-**u**-ñu **woon** gato bi — negative
eat-neg-3pl past cake the — *neg....tense*
"they did not eat the cake"

b. *lekk-**oon**-**u**-ñu gato bi — negative
eat-past-neg-3pl cake the — *tense...neg*
"they did not eat teh cake"

c. d-**oon**-**u**-ñu lekk gato bi — negative
di-past-neg-3pl eat cake the — *tense...neg*
"they were not eating the cake"

d. d-**u**-ñu **woon** lekk gato bi — negative
di-neg-3pl past eat cake the — *neg...tense*
"they were not eating the cake"

In the neutral perfective, negation always precedes tense. However, in the *na*-imperfective, negation may precede or follow tense. Torrence 2000 looked at a subset of these and analyzed them in terms of head (imperfective) versus remnant VP (perfective) movement.

The negative auxiliaries *bañ* and *ñàkk* occur in progressive and subjunctive, and other clause types:

(97) a. nu-angi-leen di togg-al kànja — progressive
1pl-prog-3pl di cook-ben okra
"we are cooking okra for them"

b. xale y-à-ngi-leen di togg-al kànja — progressive
child cl.pl-def+?-prog-3pl di cook-ben okra
"the children are cooking the okra for them"

c. nu-angi-leen di **bañ**/**ñ*àkk***-a togg-al kànja — *AuxV* + negative progessive
1pl-prog-3pl di refuse/fail-*a* cook-ben okra
"we are not cooking okra for them'

d. *nu-angi-leen d-**ul** togg-al kànja — *ul* + negative progressive[42]
1pl-prog-3pl di-neg cook-ben okra
"we are not cooking okra for them"

Progressives are highly complex periphrastic constructions that merit further study.[43] In (97)b, for example, the plural definite article, *yi*, has contracted with the initial vowel of the progressive marker, *angi*, to yield *yà*-. However, the expected outcome of *i* + *a* is *éé,* not *à*. Thus, this construction is subject to portmanteau spellouts, for example. (97)d shows that the affixal negative *–ul* cannot occur in a progressive. Thus, one of the auxiliaries is used.

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[42] Robert 1991 reports that the affixal negative is ungrammatical by itself in this construction, but is fine in more complex clauses:

(i) mi-ng-i lekk-**ul** *(te bëgg dem)
3sg-prog-det eat-neg and want leave
"he's not eating and wants to leave!" (based on Robert 1991, page 285)

[43] Although I call them "progressive", these clauses have perfective and imperfective forms. The meaning of the perfective forms is not clear.

Both *bañ* and ñ*àkk* are independently attested verbal forms, participating in restructuring, taking tense, negation, clitics, etc:[44]

(98) **bañ**-oon-na-nu-leen-fa-a jéém-ë dimbali — bañ = "refuse"
refuse-past-*na*-1pl-loc-*a* try-a help
"we had refused to try to help them there"

(99) a. ceebujën daf-a **ñàkk** xorom — ñàkk = lack
rice.fish do-*a* lack salt
"the fishrice lacks salt"

b. **ñàkk**-na-a-leen a téél ë jéém ë jënd — ñàkk = fail
fail-*na*-1sg-3pl *a* early *a* try *a* buy
"I failed to try to buy them early"

Since subjunctives are always embedded clauses, the negation can be in the matrix clause or the subjunctive itself, with consequent interpretive changes:

(100) a. bëgg-na-a xale yi **bañ/ñàkk**-a toj ndap li — embedded negation
want-*na*-1sg child the.pl refuse/fail-*a* break jar the
"I want the children to not break the jar"
(lit. "I want the children to refuse/fail to break the jar")

b. bëgg-**u**-më xale yi toj ndap li — matrix negation
want-neg-1sg child the.pl break jar the
"I don't want the children to break the jar"

The particle *d-u*/*d-ul* seems to be composed of the auxiliary *di* and the negative affix *u(l)*, but this not certain. This is because the expected full form *d-ul* and the particle *d-u* have different distributions:

[44] Note that both *bañ* and *ñàkk* both occur in other negative idiomatic constructions:
(i) ñàkk-*(ul) ma gis-kó
lack-neg 1sg see-3sg
"it's not impossible for me to see him"
(ii) bañ-na-a dem
refuse-*na*-1sg leave
"I don't want to leave"
In (i), *ñàkk* in the negative takes a CP complement. In (ii), *bañ* is the negative of 'want', *bëgg*.

(101) a. **d-u(*l)** ubbi bunt bi — negative imperfective
di-neg open door the
"he does not open the door"

b. **d-u(*l)** bunt bi l-a-a ubbi — high negative
di-neg door the xpl-*a*-1sg open
"it's not the door that I opened"

c. mo-o **d-u*(l)** ubbi bunt bi — subject cleft (imperfective)
3sg-*a* di-neg open door the
"it's not him who opens the door"

The long form, *d-ul*, cannot appear in (101)a, a negative imperfective clause, nor can the long form appear as the "high" negative in (101)b. However, the short form, *d-u*, cannot appear internal to the imperfective subject cleft clause in (101)c.[45] The presence of the final *–l* is plausibly related to the syntactic constituency and is not a morphologically arbitrary fact of the language. In (ii), even if the verb is consonant initial, the *–l* is obligatory:

(102) mo-o **d-u*(l)** tëj bunt bi — consonant-initial verb
3sg-*a* di-neg close door the
"it's not him who closes the door"

When a clitic follows *–ul*, either subject or object, the *–l* is dropped:

(103) a. lekk-ul
eat-neg
"he did not eat"

b. lekk-u**(*l)**-ko
eat-neg-3sg
"he did not eat it"

[45] See Chapter 4 Clefts, Appendix 1 *The Particle du* for further information on the distribution of this particle.

1.5.11 Left Periphery Overview

1.5.11.1 Complementizers

Complementizers in the St. Louis dialect typically occur towards the left edge of the clause. The most common declarative subordinator, *ne*, is used in a construction expressing 'say':

(104) a. xam-na-a **ne** dem-ngeen — embedded declarative
know-*na*-1sg *ne* leave-*na*+2pl
"I know that y'all left"

b. ma **ne** (***ne**) dem-ngeen — *DP* + *ne* = 'say'
1sg *ne* *ne* leave-*na*+2pl
"I said that y'all left"

Embedded yes/no questions are introduced by *ndax* or *ndegem*:

(105) a. xam-na-a **ndax** dem-ngeen
know-*na*-1sg whether leave-*na*+2pl
"I know whether y'all left"

b. xam-na-a **ndegem** dem-ngeen
know-*na*-1sg whether leave-*na*+2pl
"I know whether y'all left"

Several of the clause types mentioned in 1.5.7 *Clause Types and Verb Movement* are introduced by overt complementizers. I analyze the *na-* that occurs in clauses with neutral or wide focus as a complementizer:

(106) [$_{TP}$ gis-óón]-**në**-ñu-fë Isaa
see-past-*na*-3pl-loc isaa
"they saw Isaa there"

Torrence 2000 argued that in a *na*-clause like (106), a TP remnant has raised to a position quite high in the left periphery of the clause. In Chapter 2, it will be shown that *na-* is in complementary distribution with other complementizers. The clitic string, *ñu-fë*, immediately follows the complementizer, a property *na* has in common with other types

of relatively low complementizers in the language. In addition, *na* displays co-occurrence restrictions with tense, for example. In a nutshell, habitual past can only appear in a *na* clause if the imperfective auxiliary *di* is also present.

(107) a. *tóx-**aan**-na-a
smoke-habpast-*na*-1sg
"I used to smoke"

b. **d-aan**-na-a tóx
di-habpast-*na*1sg smoke
"I used to smoke"

In Chapter 3 *Relative Clauses*, I relate this property to the height of verb movement inside of the TP selected by a C^0.

While there is a set of complementizers that *na* does not occur with, a *na*-clause can occur with the subordinator *ne*:

(108) foog-na-a [$_{CP}$ **ne** [$_{CP}$ togg-**na**-ñu yaasa]]
think-*na*-1sg *ne* cook-*na*-3pl yaasa
"I think that they cooked yaasa"

Thus, multiple complementizer elements may occur in different positions.

A silent complementizer introduces certain types of clauses, such as subjunctive:

(109) bëgg-na-a ∅ ñu togg-ko
want-*na*-1sg C 3pl cook-3sg
"I want them to cook it"

Complementizers select for particular types of TPs. For example, *ne* cannot occur with a subjunctive TP, while *-a-* cannot occur with a finite TP:

(110) a. %bëgg-na-a **ne** ñu togg-ko *ne + subjunctive*[46]
want-*na*-1sg ne 3pl cook-3sg
"I want that they cook it"

[46] Sy (p.c.) and some of my other consultants report that *bëgg + ne* is possible. However, it is not grammatical for the speakers that I worked with.

b.*foog-na-ño **o** dem-na-ñu *a + na (neutral)*
think-*na*-3pl *a* leave-*na*-3pl
"they think that they left"

c. bëgg-na-ñó **ó** dem *a + non-finite CP*
want-*na*-3pl *a* leave
"they want to leave"

A CP headed by a prepositional complementizer is selected by certain verbs:

(111) a. da-ma-a sonn **ci** tóx póón
do-1sg-*a* tired P smoke tobacco
"I'm tired of smoking tobacco"

b. da-ma-a sonn **ci** tóx-kó
do-1sg-*a* tired P smoke-3sg
"I'm tired of smoking it"

1.5.11.2 wh-Phenomena

In this section, I give a skeletal outline of wh phenomena in Wolof. Chapter 2 *Wh Phrases that aren't: the u-Construction* deals with wh contructions in more detail.

Most of the basic wh-words in Wolof are integrated into the system of noun classes and clearly polymorphemic:

(112) k-an "who"
l-an "what"
f-an "where"
n-an "how"

The wh-words above are composed of a noun class consonant followed by *–an*. The *li*-class is one of the default non-human classes. It is therefore *l-* which precedes the *wh*-morpheme *–an* to mean "what". Similarly, the defective *fi*-class is the locative class and *f-* is the consonant that precedes *–an* in "where". The data in (112) is a bit misleading since it gives the impression that *l-an* is the only way to ask "what", for example. However, Wolof has a complete set of class agreeing wh-words:

(113) m-an "what (*mi*-class)"
j-an "what (*ji*-class)"
b-an "what (*bi*-class)"
s-an "what (*si*-class)"
ñ-an "who.pl (*ñi*-class)"
etc…

The wh expressions in (113) are probably more appropriately translated as "which *x*-class one". This can be seen from the fact that all of the wh-words that correspond to regular noun classes can combine with overt nouns, yielding a *which* interpretation. *which* agrees in class with the noun and ATR specification and may precede or follow the noun.[47]

(114) a.	**m-ën** muus / muus **m-ën**	"which cat"	(*muus* ***m****i* "the cat")
b.	**g-ën** góór / góór **g-ën**	"which man"	(*góór* ***g****i* "the man")
c.	**l-an** ndap / ndap **l-an**	"which jar"	(*ndap* ***l****i* "the jar")
d.	**j-an** jaan / jaan **j-an**	"which snake"	(*jaan* ***j****i* "the snake")
e.	**y-an** jaan / jaan **y-an**	"which snakes"	(*jaan* ***y****i* "the snakes")

The role of noun class can be seen in the following contrasts:

(115) a. **k**-an "who(sg)"
b. **ñ**-an "who(pl)"
c. **f**-an "where"
d. **n**-an "how"

The *ki*-class is the default singular human noun class, while the *ñi*-class is the default human plural class. The combination of these class markers with *–an* corresponds to the expected meaning difference. The *fi*-class is the locative class, while the *ni*-class is the manner class. Thus, the meanings of (115)c and d are unsurprising. Determiners and determiner-like elements can occur with wh-words. The meanings of these are sometimes quite subtle:

(116) a. k-an **k-i** mu a dem — wh + definite article
cl-*an* cl-def 3sg *a* leave
"who is it that left?"

[47] I do not know of any meaning difference between *which* NP and NP *which*.

b.k-an **k-enn** mu a dem — wh + one/some
cl-*an* cl-one 3sg *a* leave
"who is it that left?"
"who alone is it that left?"

c. k-an k-eneen mu a dem — wh + "other"
cl-*an* cl-other 3sg *a* leave
"who else is it that left?"

d.k-an **k-oo-k-u** mu a dem — wh + demonstrative
cl-*an* cl-dem-cl-dem 3sg *a* leave
"who is it that left?"

e.k-an **moom** mu a dem — wh + strong pronoun[48]
cl-*an* $3sg_{str}$ 3sg *a* leave
"who is it that (would have had the nerve to have) left?"

There is a set of forms, the *u*-forms, which are also used in asking wh-questions. I analyze these in Chapter 2:

(117) k.u dem
cl.*u* leave
"who left?"

Other wh-words, which do not alternate according to noun class, include:

(118) a. ñaata (ci) "how much, how many"
b. kañ "when"
c. naka "how"
d. ana "where"

There is no single word in Wolof that corresponds to "why". Instead, there is a family of constructions:

(119) a. **l.u tax** mu dem
cl.*u* cause 3sg leave
"why did he leave?"
(lit. "what caused that he leave?")

[48] This is not a rhetorical question. *kan* and *moom* are pronounced as a single unit, with very high pitch.

b.(**l.u**) **tee** mu dem
cl.*u*. prevent 3sg leave
"why didn't he leave?"
(lit. "what prevented he leave?")

c. **ngir l.an** mu a tax mu dem
for cl.*an* 3sg *a* cause 3sg leave
"why did he leave?"
(more literally, "for what is it that caused him to leave?")

As noted earlier, there are a number of morpho-syntactically distinct clause types in Wolof. Only a subset of these allow for true wh questions. Consider the following contrasts:

(120) a. nag yi yëy-në-ñu ñag mi *na*-CP
cow the.pl chew-*na*-3pl grass the
"the cows chewed the grass"

b. nag yi yëy-në-ñu **lan** *na*-CP + wh
cow the.pl chew-*na*-3pl what
"the cows chewed what?" echo wh question
*"what did the cows chew?" *true wh question

The examples above show that a *na*-clause cannot also be a wh-clause.

To question the object in (120)a, wh-movement occurs, yielding a non-*na* clause type:

(121) **lan$_i$** l-a nag yi yëy **t$_i$** ?
what xpl-*a* cow the.pl chew
"what is it that the cows chewed?"

CP pied piping is also possible (with both wh and non-wh focus):

(122) a. foog-na-ñu [$_{CP}$ ne **tééré bi** l-a-a jóx Isaa]
think-*na*-3pl *ne* book the xpl-*a*-1sg give isaa
"they think that it was the book that I gave Isaa"

b. **lan$_i$** l-a-ñu foog ne **t$_i$** l-a-a jóx Isaa
what xpl-*a*-3pl think *ne* xpl-*a*-1sg give isaa
"what is it that they think that it was that I gave Isaa?"

c. [$_{CP}$ **lan** l-a-a jóx Isaa]$_{i}$ l-a-ñu foog **t$_{i}$**
what xpl-*a*-1sg give isaa xpl-*a*-3pl think
"that it was what that I gave Isaa is t that they think?"

d. [**tééré bi**]$_{i}$ l-a-ñu foog [$_{CP}$ ne **t$_{i}$** l-a-a jóx Isaa]
book the xpl-*a*-3pl think *ne* xpl-*a*-1sg give isaa
"it's the book that they think that it was that I gave Isaa"

e. [$_{CP}$ **tééré bi** l-a-a jóx Isaa]$_{I}$ l-a-ñu foog **t$_{i}$**
book the xpl-*a*-1sg give isaa xpl-*a*-3pl think
"that it was a book that I gave Issa is what they think"

An optional wh question particle, *an-a*, occurs only on the left edge:[49]

(123) (**an-a**) lan l-a-ñu togg
Q what xpl-*a*-3pl cook
"what did they cook?"

This particle may also introduce embedded Wh questions:

(124) xam-na-a (**an-a**) lan l-a-ñu togg
know-*na*-1sg Q what xpl-*a*-3pl cook
"I know what they cooked"

The presence of the wh particle does *not* correlate with the absence of Wh movement (cf. Cheng 1991). In fact, the wh particle is in complementary distribution with clause/construction types that do not independently allow for wh movement, such as simple *na*-clauses, even though these can have an echo wh in the left periphery:[50]

(125) a. gis-na-nu **kan** *wh + na*
see-*na*-1pl who
"we saw who?" = echo only

[49] The particle *an-a* is composed of *–an*, the "wh" and *–a*, which is a D^0/C^0. The *an-a* alternates with *an-i* and *an-u* (rare). See 3.2 *Wolof Determiners: a First Pass* for discussion of the determiner system, which is characterized by an *u/i/a* alternation.

[50] Diagne 1972 reports sentences like:

(i) da-ño-o gis **kan** Verb Cleft
do-3pl-*a* see who
"who they SEE?"

as examples of interrogative sentences. However, he does not say whether these are true wh questions or echo questions. For my consultants, cases like (i) can only be echo questions.

b. **kan** gis-na-nu-***(ko)** *wh + na*
who see-*na*1pl-3sg
"we saw who?" (echo only)

c. ***ana** gis-na-nu **kan** *ana + na*
Q see-*na*-1pl who
"we saw who?"

d. ***ana kan** gis-na-nu-**ko** *ana + na*
Q who see-*na*-1pl-3sg
"who did we see?"

In certain clause types, a wh need not occur on the left edge of the clause. Though *an-a* can occur in these clause types, this is not possible if the wh is not in the left periphery:

(126) a. (**ana**) **lan** l-a-ñu sàcc-oon démb
Q what xpl-*a*-3pl steal-past yesterday
"it's what that they stole yesterday?"

b. (***ana**) démb l-a-ñu sàcc-oon **lan**
Q yesterday xpl-*a*-3pl steal-past what
"it's yesterday that they stole what?"

1.5.11.3 Questions and Illocution

In addition to the wh-question particle *an-a*, Wolof has various other question particles. Consider the string below, which can be a declarative or a neutral yes/no question:

(127) jàngalekat yi, tox-na-ñu yàmbaa ji
teacher the.pl smoke-*na*-3pl marijuana the
"the teachers, did they smoke the marijuana?"
"the teachers, they smoked the marijuana"

To the ear, the declarative is marked by either steady low pitch throughout, or slightly rising pitch towards the end of the utterance. The question is quite distinct, being marked by low pitch on the topic subject, followed by extra high pitch on the verb. Immediately after the verb the pitch drops again.[51]

[51] For further details see Rialland and Robert 2001.

The particle *ndax*, which introduces embedded yes/no questions can also introduce matrix neutral yes/no questions, where it appears on the left or right edge:[52]

(128) a. **ndax** **[$_{CP}$** tox-na-ñu yàmbaa ji] Q [$_{CP}$]
Q smoke-*na*-3pl marijuana the
"did they smoke the marijuana?"

b. [$_{CP}$ tox-na-ñu yàmbaa ji] **ndax** [$_{CP}$] Q
smoke-*na*-3pl marijuana the Q
"did they smoke the marijuana?"

More complex yes/no questions can be indicated by a number of particles, some clearly polymorphemic. Depending on the particle, these may occur on the left, right, or either edge of the clause. It is not clear whether or what meaning differences follow from different positions of these particles:

(129) a. **d-u** gis-u-nu Isaa? ✓du [$_{CP}$][53]
di-neg see-neg-1pl isaa
"we saw Isaa, right?"

b. *gis-u-nu Isaa **d-u**? *[$_{CP}$] du
see-neg-1pl isaa *di*-neg
"we saw Isaa, right?"

c. **te-d-u** gis-u-nu Isaa? ✓tedu [$_{CP}$]
and-*di*-neg see-neg-1pl isaa
"we saw Isaa, right?"

d. gis-u-nu Isaa **te-d-u** ✓[$_{CP}$] tedu
see-neg-1pl isaa and-*di*-neg
"we saw Isaa, right?"

Clauses with the particles, *d-u* and *te-d-u* are translatable into English as tag questions expecting agreement with the speaker. The particle *tedu* contains the VP/CP coordinator

[52] The other complementizer that introduces embedded yes/no questions, *ndegem*, does not introduce matrix questions. An intonational yes/no question, as in (127), cannot occur in embedded clauses.
[53] See 4.4.2 *The Cleft Periphery* and Chapter 4 Appendix 1 *The Particle du* for further discussion.

te. These typically occur with negative clauses. Another particle, *mbaa*, typically expects agreement, but occurs with affirmative clauses:[54]

(130) a. **mbaa** gis-na-nu Isaa
Q see-*na*-1pl isaa
"we saw Isaa, right?"

b. gis-na-nu Isaa, **mbaa**
see-*na*-1pl isaa Q
"we saw Isaa, right?"

Other particles exist.

1.5.11.4 Topic and Focus

In this section, I provide some information on the C-field in Wolof. Wolof is interesting in having very rich peripheral structures, with various types of topic, focus, and "emphasis" constructions along with question and other illocutionary particles. These have not been investigated or described in any detail. Here, I introduce some of these to give the reader some idea of the complexity of the constructions that I will be analyzing here. However, I make no systematic attempt at description or analysis of these constructions.

Subjects and non-subjects may participate in Clitic Left Dislocation (CLLD) constructions. Overt DP subjects are usually interpreted as topics. In the simple case, subjects are resumed by subject clitics:

(131) xale yi, dem-na-**ñu**[55] Subject CLLD
child the.pl leave-*na*-3pl
"the children, they left"

A non-subject topic must be resumed by one of the non-subject clitics :

[54] In some dialects *mbaa* also means "whether,if".
[55] The pause indicated by the comma may be very short.

(132) a. xale bi, gis-na-a-***(kó)** DO CLLD
child the see-*na*-1sg-3sg
"the child, I saw him"

b. kër gë, gis-na-a-ko-***(fë)** Loc CLLD
house the.dist see-*na*-1sg-3sg-loc
"the house, I saw him there"

Multiple CLLDing is possible:

(133) xale bi, garab yi, jox-na-a-**leen-ko**
child the tree the.pl give-*na*-1sg-3pl-3sg
"the child, the trees, I gave them to him"

The CLLDed elements can appear in any order, although the resumptive clitics are not freely ordered:

(134) garab yi, xale bi, jox-na-a-**leen-ko** (cf. (133))
tree the. pl child the give- *na*-1sg-3pl-3sg
"the trees, the child, I gave them to him"

Strong pronouns can be CLLDed:

(135) **ñoom**, sàcc-al-na-a-*(**leen**)-fa gato bi
$3pl_{str}$ steal-ben-*na*-1sg-3pl-loc cake the
"as for them I stole the cake for them there"

Strong pronouns may occur with the topic object, either preceding or following. Often, when a strong pronoun occurs in this type of CLLD, to the ear, it forms a single prosodic unit with the adjacent DP:[56]

(136) a. moom-xale bi, gis-na-a-***(kë)**
$3sg_{str}$-child the see-*na*-1sg-3sg
"he the child, I saw him"

b. xale bi-moom, gis-na-a-***(kë)**
child the-$3sg_{str}$ see-*na*-1sg-3sg
"the child he, I saw him"

It is not clear what meaning differences, if any, exist between these constructions.

[56] See Chapter 1 Appendix 1 *Clitic Doubling* for properties related to the doubling of clitics.

Clitic Right Dislocation (CLRD) is also possible, however, this is generally permissible only with strong pronouns:

(137) gis-na-a-***(léén)** démb, **ñoom**
see-*na*-1sg-3pl yesterday $3pl_{str}$
"I saw them yesterday, them"

CLRD and CLLD can occur together:

(138) **xale yi**, gis-na-a-***(léén)** démb, **ñoom**
child the.pl see-*na*-1sg-3pl yesterday $3pl_{str}$
"the kids, I saw them yesterday, them"

The exact semantic/pragmatic import of these phenomena is not known. Rather complex left peripheral chains similar to (138) can also be formed:

(139) **xale yi**, **ñoom**, **ño-o** dem kër gë
child the.pl $3pl_{str}$ 3pl-*a* go house the.dist
"the children, they, it's them who went to the house"

Reconstruction effects can be detected in certain instances of fronting (Cinque 1990, Cechetto 1990). This will be important because reconstruction will be used throughout as a test for movement versus base generation. Consider first a neutral na-clause with an indefinite object:

(140) a. gis-na-a b-enn xaj
see-*na*-1sg cl-1 dog
"I saw one dog"
"I saw a certain dog"

b. gis-u-më b-enn xaj
see-neg-1sg cl-1 dog
"I didn't see a single dog"
*"I didn't see a certain dog"

In the affirmative, an indefinite like *benn xaj* can be interpreted as either a specific or non-specific indefinite. However, when in object position with a negative verb, it only has a non-specific interpretation. Thus, it is obligatorily interpreted within the scope of

negation. In CLLD, the indefinite can be interpreted both within or outside of the scope of negation. Witness the examples below:

(141) b-enn xaj, gis-u-më-kó
cl-one dog see-neg-1sg-3sg
"a single dog, I didn't see" ~ > ∃
"a certain dog, I didn't see" ∃ > ~

The two readings are distinguished intonationally. In the first reading, where the existential is in the scope of negation, the string *b-enn xaj* is pronounced with noticibly higher pitch than in the second reading, where the existential outscopes negation. In both cases, the CLLDed element must be resumed by a clitic pronoun, irrespective of the scope.[57] In the first reading, ~ > ∃ , the CLLDed item is pronounced with extra high pitch, which immediately falls after a (possibly very) short pause. Impressionistically, for the second reading, ∃ > ~, the CLLDed item is pronounced at the same pitch as the rest of the sentence.

Wolof also has a large number to topic and emphasis marking particles: *nag*, *kat*, *de*, *kaay*, *naam*, *gaa*, *kañ*, etc. The semantic/pragmatic import of these is generally unclear. However, they always follow the DP, which is resumed by a clitic (either subject or non-subject). The syntactic distribution of these particles can be quite complicated. This is because the topic/emphasis markers interact with the question particles, for example. Multiple topics marked with *nag*, for instance are not permitted in the simple case.

(142) ??góór gi **nag**, xale yi **nag**, dàq-na-ñu-(ko)[58]
man the TOP child the.pl TOP chase-*na*-3pl-3sg
"as for the man, as for the children, they chased him"

A *nag*-topic and a bare topic are fine:

[57] Some of the Wolof constructions I refer to as "CLLD" may not be exactly like CLLD in Romance. Instead, they suggest a richer bestiary of "dislocation" constructions.
[58] The ordering of the topics does not affect the grammaticality in (142) and (144)b or c.

(143) a. góór gi **nag**, xale yi, dàq-na-ñu-***(ko)**
man the TOP child the.pl chase-*na*-3pl-3sg
"as for the man, the children, they chased him"

However, if the question particle *ndax* is present, then two *nag*-topics are fine, as long as *ndax* intervenes between the two *nag*-topics:

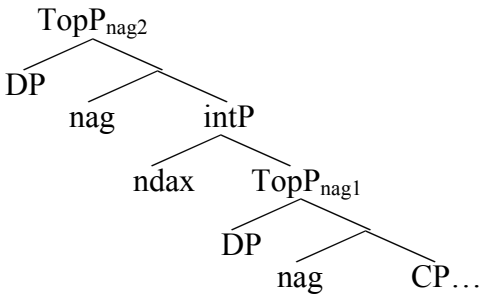
(144) a. góór gi **nag** ndax xale yi **nag**, dàq-na-ñu-***(ko)**
man the TOP Q child the.pl TOP chase-*na*-3pl-3sg
"as for the man, as for the children did they chase him?"

b. ??góór gi **nag** xale yi **nag** ndax dàq-na-ñu-***(ko)**
man the TOP child the.pl TOP Q chase-*na*-3pl-3sg
"as for the man, as for the children did they chase him?"

c. ??ndax góór gi **nag** xale yi **nag** dàq-na-ñu-***(ko)**
Q man the TOP child the.pl TOP chase-*na*-3pl-3sg
as for the man, as for the children did they chase him?"

This distribution is amenable to a structure in which there is a *nag*-topic position above and below *ndax*:

(145)



A particle like *nag* can also appear lower in the clause:

(146) di-na-nu-leen **nag** togg-al coof gi
di-*na*-1pl-3pl TOP cook-ben sea.bass the
"we WILL cook them the seabass"

In (146), *nag* appears lower than the clitics and yields a polarity focus interpretation.

There are ordering restrictions on some fronted elements:

(147) a. xaj bi **gaa**, muus yi **nag**, démb l-ë-léén dàq ✓*gaa…nag*
dog the TOP, cat the.pl TOP yesterday xpl-*a*-3pl chase
"the dog indeed, as for the cats, it was yesterday that he chased them"

b. *muus yi **nag**, xaj bi **gaa** démb l-ë-léén dàq **nag... gaa*
cat the.pl TOP dog the TOP yesterday xpl-*a*-3pl chase
"as for the cats, the dog indeed, it was yesterday that he chased them"

Finally, I noted earlier that clitic right dislocation is generally only possible for strong pronouns ((137)). However, clitic right dislocation becomes possible for lexical DPs if the question particle is on the right edge:

(148) a. *gis-ngë-**kó**, **xale bi nag**
see-*na*+2sg-3sg child the TOP
"you saw him, the child"

b. gis-ngë-**kó** ndax **xale bi nag**
see-*na*+2sg-3sg Q child the TOP
"did you see him, the child?"

Together, these data suggest a highly differentiated left periphery (Rizzi 1994, Cinque 1999), with dedicated positions for various elements that are topicalized, emphasized, foregrounded, backgrounded, thematic, rhematic, etc. I will not pursue an analysis of these phenomena any further here. However, they make the important point that, at least for Wolof, we need highly complex peripheral structures, which may involve an element, a *nag*-topic, for instance, being merged in or raised to different parts of the structure. Sometimes, more than one of these elements will be able to appear, but only in a particular configuration (cf. (144)a versus (144)b and c). In fact, the existence of this possibility will be crucial in some of the argumentation for phenomena such as CP raising.

1.6 Summary

This chapter has provided the necessary background for the analyses to be pursued in the following chapters. The major grammatical categories and processes have been introduced. These will be expanded as various constructions are introduced.

Appendix 1 Clitic Doubling

Clitic doubling of an object is possible when a strong pronoun immediately precedes the doubled object:

(149) a. gis-na-a-**kë** ***(moom)**-xale bi[59] strong pronoun precedes[60]
see-*na*-1sg-3sg 3sg/str-child the
"I saw him he the child"

b.*gis-na-a-**kë** xale bi-**(moom)** strong pronoun follows
see-*na*-1sg-3sg child the-3sg/str
"I saw him the child he"

Object agreement, as in the Bantu languages, where an object marker co-occurs with a DP object is not found in Wolof:

(150) a. ni-li-(**mw)**-ona **mlima** Swahili
1sg-past-obj0see farmer
"I saw the farmer"

b. gis-na-a-**(*kë)** beykat bi Wolof
see-*na*-1sg-3sg farmer the
"I saw the farmer"

The semantic/pragmatic import of clitic doubling is not clear.[61] It does not seem to be related to topichood/familiarity because it is possible even if the object is indefinite, even a non-specific indefinite:[62]

(151) a. gis-na-a-**kë** *(moom)-xale
see-*na*-1sg-3sg $3sg_{str}$-child
"I saw a child"

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[59]The strong pronoun and DP are pronounced together, as a unit.
[60]I will completely ignore here the different intonations that occur with clitic doubling, right dislocation, topicalization, reconstruction, etc.
[61] Speakers say that the clitic doubled sentence is just another way of saying the non-clitic doubled sentence.
[62] In this sense, Wolof is like Swahili, where object agreement with a non-specific indefinite is possible (Ngonyani 1996):
(i) si-ku-**m**-ona **mtu**
1sg.neg-past.neg-cl-see person
"I didn't see any one"

b. gis-u-më-**kë** *(moom)-xale
see-neg-1sg-3sg $3sg_{str}$-child
"I didn't see any child"

A clitic doubled object cannot undergo A'-extraction:

(152) *moom-xale bi l-a-a-**ko** gis clefted clitic-doubled object
3sg/str-child the xpl-*a*-1sg-3sg see
"it's he the child that I saw him"

However, a topic pronoun-noun under CLLD is possible:

(153) moom-xale bi, gis-na-a-*(**kë**)
$3sg_{str}$-child the see-*na*-1sg-3sg
"the child, I saw him"

In the simple case, clitic resumption of an A'-extracted non-subject is ungrammatical:

(154) *xale bi l-a-a-**ko** gis
child the xpl-*a*-1sg-3sg see
"it's the child that I saw him"

Appendix 2 Determiners and Demonstratives

Some of the Wolof determiners include:

Determiner	Form	Example
Definite determiner	N cl.*i*/a	xaj b.i 'the dog'
Indefinite determiner	a.cl N[63]	a.b xaj 'a dog'
Proximal demonstrative	N cl.ii	xaj b.ii 'this dog'
Proximal demonstrative	N cl.ile	xaj b.ile 'this dog'
Distal demonstrative	N cl.ale	xaj b.ale 'that dog'
Which	N cl.an/ cl-an N	xaj b.an/b.an xaj 'which dog'
Every	cl.epp N	b.epp xaj 'every dog'
All	N cl.pl-epp/cl.pl-epp N	xaj y-epp/y-epp xaj
Entire/whole	N cl.epp	xaj b.epp 'the whole dog'

[63] The indefinite article has an alternate form: u.cl N.