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EMPHASIS, CERTAINTY, AND INTERDICTION:
PARTICLES IN GISIDA ANII


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# Abstract

This thesis presents novel fieldwork and the first analysis of the adverbials *shʊ, cɔɔ,* and *caa* in Anii, an understudied Ghana-Togo-Mountian language spoken in Togo and Benin. *Shʊ* is a marker of aspectual emphasis, and emphasizes the aspectual reference of the clause. *Cɔɔ* is a marker of aspectual certainty, and marks that the speaker is certain of the aspectual reference of the clause. *Caa* is a marker of interdiction and mockery, and indicates that the speaker acknowledges that the action or state denoted by the predicate is contrary to the listener's wants. Syntactically, these adverbials merge in the specifier position of the functional head they semantically relate to, following Cinque (1999). *Shʊ* and *cɔɔ* enter into a spec/head relation with AspP, and *caa* enters into a spec/head relationship with ModP. This analysis accounts for the semantic meaning of each adverbial, as well as accurately predicting the observed word order of the markers.

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# Glossing Abbreviations

| | | | | |
|---|---|---|---|---|
| 1 | first person | | IRR | irrealis |
| 2 | second person | | NEG | negative |
| 3 | third person | | NFUT | non-future |
| AGR | agreement | | OBJ | object |
| ASP | aspect | | PERF | perfect |
| CERT | certainty | | PL | plural |
| EMPH | emphasis | | POSS | possessive |
| FOC | focus | | REAL | realis |
| FUT | future | | REL | relative |
| IMPF | imperfective | | SBJ | subject |
| INORD | in order to | | SG | singular |
| INTD | interdiction | | SUB | subordinate clause marker |

# Acknowledgements

# Chapter 1

# Introduction

## 1.1   Introduction

This thesis will serve as the first inquiry into the adverbials *shɩ*, *cɔɔ*, and *caa* in Anii, an understudied language spoken in Togo and Benin. Within this work, I will demonstrate that *shɩ* is a marker of aspectual emphasis, *cɔɔ* is a marker of aspectual certainty, and *caa* is a marker of interdiction and mockery. I will also present a syntactic analysis of the three adverbials as entering into spec/head relationships with the head they modify, following Cinque (1999), and will further show that Cinque's Hierarchy can accurately predict the position of the adverbials within the clause based on their meaning.

This thesis will be presented in five parts. The current chapter will introduce the work, and note any considerations regarding methods, presentation, and limitations of the analysis and data. The second will present a background on Anii, as well as any theoretical frameworks, assumptions, and definitions used within this thesis. Chapter 3 will present the adverbials, and illustrate their meaning with fieldwork data. Chapter 4 will present an analysis of *shɩ*, *cɔɔ*, and *caa* within the framework of Cinque's Hierarchy, and demonstrate the predictions such a model would make. Finally, Chapter 5 will summarize the data and analysis presented herein and detail the implications of this thesis and future work that needs to be done.

## 1.2   Methods

The data presented in this thesis is entirely collected from five native speakers of the Gɩsɩɖa dialect, all of whom participated in elicitation sessions over Zoom video calling between Bassila and Pennsylvania (State College and Levittown) in the United States. All of the speakers were also fluent in French, which was the language used in elicitation, as well as the government and schooling language of Benin. All could also read and write French and Anii.

Elicitation sessions lasted 1-2 hours, and were done with myself, Deborah Morton, and either one or two speakers with occasional technical assistance from Stefanie or Martin Zaske, two language development workers living in Bassila.[1] Sessions were digitally recorded via Zoom, and elicitation notes were made visible in real-time to all participants through screen-share for verification of French and Anii transcriptions and translations. All speakers as well as Stefanie and Martin Zaske work with the language development NGO LINGO-Bénin.

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[1]Also of great help in scheduling and technical set-up was ISSIFOU S Moustapha, who served as a point of communication and assisted other consultants in logistical matters.

## 1.3 Transcription Issues

This thesis follows standard glossing conventions, with - representing a morpheme boundary and . representing two glosses within a single morpheme. A table of the glossing abbreviations used in this thesis is included in the frontmatter for reference.

For the purposes of this thesis, data is presented in the orthography in order to make grammatical features clear without being overshadowed by phonological processes. For segments, the orthography generally follows the IPA, with the following exceptions:

| Anii | IPA |
|------|-----|
| c | [ts], [tʃ] |
| j | [dʒ] |
| ι | [ɪ] |
| ə | [ə], [ɨ] |
| ḍ | [d] |
| sh | [ʃ] |

Table 1.1: Equivalencies between Orthography and IPA

(1) illustrates some differences between the orthography and the IPA. Note the difference in the vowels [ɪ], which is written as <ι>, and [ɨ], written as <ə>[2]. This is to match the standardized national orthography with only 10 vowel options.

For an example of the differences between orthography and IPA, see (1) below:

(1)  ń   tə̀ŋè tə̀ŋə̀ àlèé àm-ì-káʃɪ      káńtìmá     bùkɔ́ɔ̀  má   ʃɪ́ˈ
     **n   təŋə təŋə alee am-ɪ-kashɪ     kantəma     bʊkɔ ɪ  ma   shɪ**
     1SG truly truly did  1SG.POSS-PL-force 3SG.POSS.work thing REL 1SG.IRR EMPH
     sírá àlèé mà
     **sə̂ra alee ma**
     can  do  SUB
     'I really really gave the work of my effort to do what I could do.'
     (i.e. 'I worked as hard as I could.')

Note a few differences between the orthography and the IPA above. First, note the vowel difference between [ɨ] and <ə> in *kantəma*, '3SG.POSS.work'. Additionally, the orthography does not show all vowel processes, so *bʊkɔ ɪ*, 'thing REL', is pronounced as one

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[2]Note that <ə> is also used to write [ə].

phonological word [bùkɔ̀ɔ̀]. Also notice that tone is only marked in certain irrealis contexts, such as *sêra*, 'can', above.

The orthography generally excludes most tones if a tonal distinction is not ambiguous to a native speaker (e.g., there is not a minimal pair that could be confused with the intended word). A notable exception to this is that in certain irrealis contexts, such as the future, there is a grammatical tone that is marked with a circumflex. This is illustrated in (2) below:

(2)   àmá àmú    ń    tí<sup>!</sup>    má     lɔ́   wàà ń   kɔ̀ɔ̀   dá sòòtʃì àdúwàà àmú
    **ama amʊ    n    tə    ma     lə̂   waa n   kɔɔ   ɖa soocɪ aɖʊwaa amʊ**
    but   1SG.OBJ 1SG FUT 1SG.IRR say that 1SG even be better because 1SG.OBJ
    ń     ʃì      dóó ŋ́kə̀ŋ̀ mà
    **n    shɪ    ɖoo ŋkəŋ ma**
    1SG EMPH go   there SUB
    'But me, I would say that I'm even better, because (me) I went out there.'

Notice the tonal marking on *lɔ̂*, 'say'.

While the verbal tonology of Anii is important grammatically, it has been thoroughly analyzed by Morton (2014), which is briefly summarized in the subsection below.

### 1.3.1   Verbal Tonology

Anii exhibits both lexical and grammatical tone. There are only two tone levels that are phonemic, H and L, and all four potential two-tone contours (HH, HL, LH, and LL) are possible lexical tones in the language. For nouns with two tone-bearing-units, all four are possible melodies. For verb stems, there is a two-way distinction between stems that have an H tone and those which do not. In H-toned stems, the H tone attaches at the second tone-bearing-unit[3] and spreads rightward.

The major grammatical tone that is relevant to this thesis is the high tone introduced by certain Tense/Aspect/Modality (TAM) markers, including the adverbials *shɪ*, *cɔɔ*, and *caa*.[4] This tone surfaces on the second tone-bearing-unit of an L-tone verb and the first of an H-tone verb, as illustrated in (3) and (4) below:

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[3]In Anii, the tone-bearing-unit is typically the mora, see Morton (2014) for more.

[4]Morton hypothesizes that these markers were historically verbs, and that the H tone is a feature of what was originally a serial verb construction.

(3) L-Toned Verb Stem

    a. ń   sàrà
       **n   sara**
       1SG walk
       'I walked.'

    b. ń   ʃì   sàrá
       **n   shı   sara**
       1SG EMPH walk
       'I walked.'

    c. ń   tʃɔ̀ɔ̀   sàrá
       **n   cɔɔ   sara**
       1SG CERT walk
       'I walked.'

    d. ń   tʃáà   sàrá
       **n   caa   sara**
       1SG INTD walk
       'I walked.'

(4) H-Toned Verb Stem

    a. ń   kìdé
       **n   kiɖe**
       1SG watch
       'I watched.'

    b. ń   ʃì   kídé
       **n   shı   kiɖe**
       1SG EMPH watch
       'I watched.'

    c. ń   tʃɔ̀ɔ̀   kídé
       **n   cɔɔ   kiɖe**
       1SG CERT watch
       'I watched.'

    d. ń   tʃáà   kídé
       **n   caa   kiɖe**
       1SG INTD watch
       'I watched.'

Note that the tone introduced by *shı*, *cɔɔ*, and *caa* is the same tone for H- and L- toned verb stems; It simply surfaces in a different position.

Because the nuances of tone do not affect the semantic and syntactic analyses of this thesis, and because they have been analyzed in detail by Morton (2014), data is presented in orthography for clarity.

## 1.4 Other Notes

There are a few factors limiting the depth of analysis of this thesis. The most limiting factor is a lack of a robust body of literature on the Anii language; This thesis is not only the first examination of *shı*, *cɔɔ*, and *caa*, but one of the only syntactic analyses of the language. As such, many phenomena that may influence the analysis presented here are not understood, such as Anii's tense morphology and what may be a reality status distinction.

While a lack of previous syntactic analyses may be limiting, this thesis represents the first look at the adverbial syntax of an understudied language, which can open the

door for future research and theoretical insight. The questions that remain unanswered may alter this analysis, but nevertheless the data presented herein and the analysis of *shɪ, cɔɔ,* and *caa* is a substantial contribution to the understanding of Anii, and provides further literature for potential comparison to similar markers in other languages.

# Chapter 2

# Background:
# Anii, Aspect, and Adverbials

## 2.1  About Anii

Anii is an understudied Ghana-Togo Mountian (GTM) language spoken in Togo and Benin; Gɪsɪɖa is the dialect spoken in Bassila, Benin. It is spoken by around 50,000 people, with the majority living in Bassila. The majority of linguistic inquiry into Anii has been into the Gɪsɪɖa dialect, which this thesis also examines. Most Anii speakers are multi-lingual, and commonly speak other African languages such as Nago (Yoruba), Kotokoli (Tem), or French (the language of government and schooling in Togo and Benin). Those who have spent a large amount of time in Ghana or Nigeria often speak English as well (Morton, 2014).
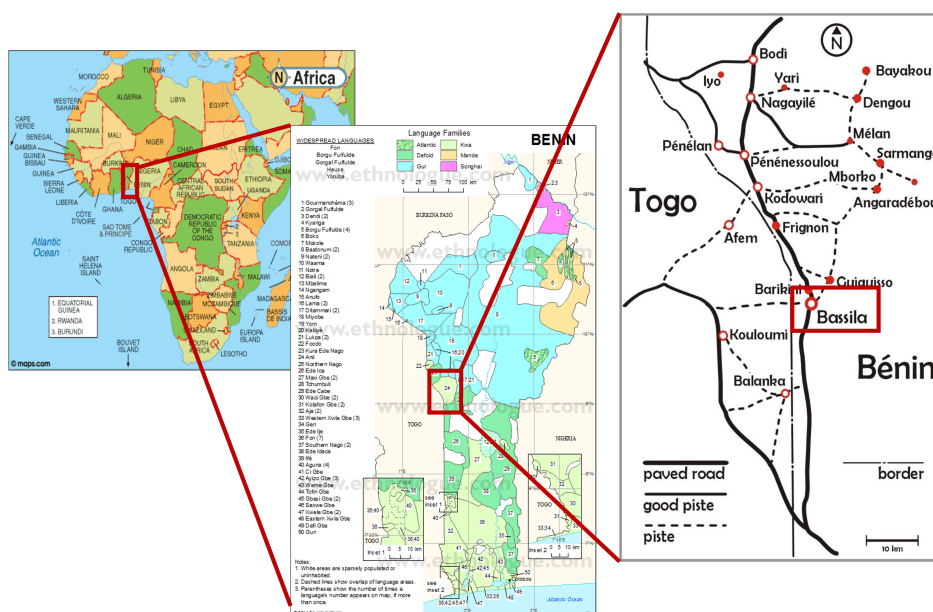


Figure 2.1: Location of Bassila on a Map of Africa and Benin (Eberhard, 2022), Local Map Credit: Martin Zaske

Anii has seen an increase in development from 2001 onward due to the efforts of the NGOs SIL and LINGO-Bénin. Previous government efforts to promote Anii literacy included classes spearheaded by the work of M. GOMON Idikoukou Yacoubou (commonly referred to as Papa Saharabar) and a small handful of written material. While many attended these classes, they did little to expand usage of written Anii and had mixed reception, as many Anii felt that it was strange to learn how to write their language when they could write French. With the advent of published Anii reading materials, computer software adaptations, and the launch of the Anii-language magazine Gʊgʊ, Anii has been revitalized in the eyes of its speakers (Morton & Zaske, 2017). This team, many of whom

participated in the research presented in this thesis, continues to publish and teach Anii today.

## 2.2 Theoretical Background for Tense, Aspect, and Aktionsart

### 2.2.1 Temporal and Aspectual Reference

For this thesis, I use the framework of Reichenbach (1947) and Klein (1994) in discussing temporal and aspectual reference. Temporal and aspectual reference are two major ways in which languages anchor events to time. Temporal reference refers to the relation between the time being discussed and the time of the utterance, and is often thought of in terms of past, present, and future. Aspectual reference concerns the structure of the event being discussed in relation to the time being discussed.

In Reichenbach and Klein's framework, temporal and aspectual reference are modeled by the relation of three different times. The three times are the speech time, the reference time, and the eventuality time.[1] These definitions are summarized below:

(5) Definitions of Times by Reichenbach (1947):

**Speech Time (S):** The time at which an utterance is produced

**Reference Time (R):** Time time that is being discussed

**Eventuality Time (E):** The time in which the eventuality denoted by the predicate holds true

As an example of how this system works, take the English sentence "Yesterday, I walked to the store." For this sentence, $S$ is the time it was uttered, $R$ is yesterday, and $E$ is the time in which the speaker walked. Note that the reference time does not have to be given in the sentence, and may be a part of the situational context. For example, if someone were to ask what you did yesterday, and you responded with just, "I walked to the store.", the reference time is still yesterday, despite not being present in the sentence itself.

In this system, temporal reference (which is often expressed by tense marking) is the relationship between $S$ and $R$, and refers to past, present, and future. I take the

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[1]This is the terminology used by Reichenbach— Klein utilized the terms 'Utterance Time' and 'Topic Time' in lieu of speech and reference times.

following to be definitions of temporal reference:

(6) Definitions of Temporal Reference:

**Past:** $R < S$

**Present:** $R = S$

**Future:** $S < R$

Likewise, aspectual reference is defined as the relationship between $R$ and $E$, and is categorized as follows:

(7) Definitions of Aspectual Reference:

**Perfective:** $R \supset E$

**Imperfective:** $E \supseteq R$

**Perfect:** $E < R$

Note the definition of perfect as $E < R$. While this is Reichenbach's definition of perfect aspectual reference, it is notable that perfect aspectual reference also includes instances where $E$ begins before $R$, but may end at some point *during* $R$. This expanded definition, originally proposed by Dowty (1979), is known as the "Extended Now" perfect, or as I will refer to it in this thesis, the "continuative" perfect. As such, the perfect can be reformulated as shown in (8) below:

(8) Definitions of the Perfect Aspect (Dowty, 1979):

**Non-Continuative Perfect:** $E < R$

**Continuative Perfect:** $E_{start} < R_{Start}, R_{start} < E_{end} \leq R_{end}$

These definitions and time points provide a standard way to discuss how utterances and events relate to the time they occur, and how they relate to the time being referenced in speech. For the purposes of this thesis, I utilize the terminology and definitions presented above when discussing temporal or aspectual reference.

## 2.2.2 Aktionsart

Aktionsart (pl. Aktionsarten), also known as Lexical Aspect, refers to the intrinsic temporal properties of a predicate. It is also referred to as situation type, and it concerns

how the lexical properties of the predicate contribute to the temporal and aspectual interpretations of a clause. One definition of Aktionsart, by Dowty (1986, p. 42), defines it in terms of whether or not a predicate is true during sub-intervals of its eventuality time. He gives the following definitions:

(9) Definitions of Situation Types by Dowty (1986):

**Stative:** A predicate $S$ is stative iff it follows from the truth of $S$ at an interval $I$ that $S$ is true at all sub-intervals of $I$

**Activity:** A predicate $S$ is an activity iff it follows from the truth of $S$ at an interval $I$ that $S$ is true at all sub-intervals of $I$, down to a certain limit in size.

**Accomplishment/ Achievement:** A predicate $S$ is an accomplishment or achievement iff it follows from the truth of $S$ at an interval $I$ that $S$ is false at all sub-intervals of $I$.

So, a state is true for all portions of its eventuality time, an activity is true for all portions of its eventuality down to a certain point, and an accomplishment or achievement is not true for any subset of the eventuality. In addition, Smith (1991) divides Aktionsart into three features: stativity, duration, and telicity.

Stativity refers to if the predicate does or does not denote a change in state. If it does, it is said to be eventive (also called dynamic), and if it does not, the predicate is stative. Duration refers to the length of time an event takes; If it takes time to occur, it is durative, and if it is actually or virtually instantaneous (e.g., a sneeze), it is punctual. Note that this means that states are inherently durative. Finally, telicity refers to if an event has a 'goal' or endpoint. If a predicate is true before it is entirely complete it is atelic, and if it must be complete before being true, it is considered telic. Telicity is similar to the distinction between an activity and an accomplishment, in Dowty's terms.

While Anii predicates have all three features of Smith (1991) and can be any of the three situation types of Dowty (1986), it has been established by Morton (2014) that the most important distinction in Anii is between stative and eventive predicates.

It is important to make clear that Aktionsart is a distinct category from aspectual reference, despite being occasionally referred to as lexical aspect. Throughout this thesis, I discuss interactions that occur between Aktionsarten and markers of aspectual reference, however this is not meant to imply that the two are equivalent. In Anii, Aktionsart restricts the potential aspectual references a predicate is compatible with, but is not equivalent to an aspect marker.

## 2.3   The Basics of Anii Tense and Aspect

Anii has a somewhat complex system of marking temporal and aspectual reference, which involves the interaction between the Aktionsart of the predicate and overt morphemes marking imperfective and perfect aspects. In terms of temporal reference, Anii seems to have a future/non-future distinction, with the non-future being unmarked and the future being marked with *tə*. While the exact nature of this marking is a matter for future research, for the purposes of this thesis I assume that it is a tense marker. For a full discussion of the temporal and aspectual semantics of Anii, see Morton (2014), the crucial points of which are summarized below.

### 2.3.1   The Aspectual Effects of Aktionsarten in Anii

The interpretation of the aspectual reference in an Anii clause is not solely based on the aspect marker the clause may contain. The predicate Aktionsart, specifically the stative/eventive distinction, further restricts the potential aspectual interpretations of an utterance. For an unmarked clause, eventive predicates are only compatible with a perfective aspectual reference, and stative predicates are only compatible with an imperfective episodic aspectual reference.

Additionally, predicates with an overt aspect marker are still sensitive to Aktionsarten; Stative predicates marked for imperfective are restricted to the habitual, and eventive predicates marked for the perfect are restricted to the non-continuative perfect. These restrictions are summarized in table (2.1) below:

| Aspect Marker | Eventive Predicate | Stative Predicate |
|:---:|:---:|:---:|
| Unmarked | Perfective | Imperfective Episodic |
| *tı* or *na*[2]<br>IMPF | Imperfective | Imperfective Habitual |
| *cee*<br>PERF | Perfect (Non-Continuative) | Perfect |

Table 2.1: Aspectual References of Anii Clauses

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[2]While *tı* is used in most cases, *na* is used with certain types of focus, subordinate clauses, and irrealis constructions. See Morton (2014, pp. 205-214) for more discussion.

Morton (2014) models the Aktionsart restrictions with a covert Akt marker, which is placed within AspP. She further argues that an overt marker replaces the covert one, and that the additional restrictions on the imperfective stative are due to a Gricean Blocking Principle which was originally conceived by Dowty (1979), summarized (as quoted by Morton, 2014, p. 132) in (10) below:

(10) A Gricean Blocking Principle:

> If a language has two (equally simple) types of syntactic structures A and B, such that A is ambiguous between meanings X and Y while B has only meaning A, speakers of the language should reserve structure A for communicating meaning Y, since B would have been available for communicating X unambiguously and would have been chosen if X is what was intended.

In short, this principle means that if a marking is not required, it should not be used.

I depart from this and propose that the covert marker actually composes with the overt marker. This is in order to have a unified analysis of the Aktionsart restrictions of the imperfective and perfect markers. I propose this for two reasons. Firstly, adverbials which act on aspectual reference (such as *shɪ* and *cɔɔ*, discussed in this thesis) appear to act on the fully restricted interpretation which takes into account both overt marking and Aktionsart. Secondly, all predicates have Aktionsarten; Therefore it follows that a covert marking of Aktionsart is obligatory for all predicates, if it is assumed to exist in unmarked predicates. While a full analysis of this composition is outside of the scope of this thesis, I assume in all cases that the head $Asp^0$ represents, underlyingly, a composition of aspect and Aktionsart, and that the aspectual reference denoted by $Asp^0$ is restricted by both the covert marking and overt marking.[3] This assumption is necessary for the analysis of the aspectual adverbials presented herein, as they act on the aspectual reference of the utterance, as opposed to just the aspectual reference denoted by the overt marking.

## 2.4   Two Forms of Subject Markers

Another brief consideration that will be of note to this thesis is Anii's use of two different sets of subject markers, which appear to agree with respect to "reality status"

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[3]To reiterate, this is a *composition* of two different semantic markers: aspect and Aktionsart. I do not claim that they are equivalent, but that the Akt marker further restricts the aspectual reference of the Anii clause.

(Morton, 2014; Morton & Blanchette, under revision). While reality status as a cross-linguistic category is still a matter of debate, I use the term irrealis and the gloss IRR when discussing these markers as this appears to be the best currently available analysis for their use. Regardless of the terminology used, there does appear to be a distinct morphology used in future, negative, and "wishing" contexts, among others, which triggers agreement. The two groups of subject markers are detailed below. Note that they are given in IPA, due to the tonal distinctions of the two sets of markers.

|  | Realis | Irrealis |
|---|---|---|
| 1SG | [ń] | [má] |
| 2SG | [ó] | [á] |
| 3SG | [à] | [à] |
| 1PL | [gí] | [gì] |
| 2PL | [í] | [ì] |
| 3PL | [bà] | [bà] |

Table 2.2: Realis and Irrealis Subject Markings

In addition to subject agreement, the irrealis morphology in the language also consists of a floating grammatical high tone, which surfaces on the next available mora, as illustrated for the future in (11). This tone is indicated orthographically by a circumflex for the future only, and is unmarked elsewhere.

(11)　ń　tí᷄　má　sárá
　　　**n**　**tə**　**ma**　**sâra**
　　　1SG FUT 1SG.IRR walk
　　　'I will walk'

## 2.5　Syntactic Conventions and Functional vs. Lexical Heads

For the purposes of this thesis, I model syntactic structure using the X'-schema, from the Generative tradition (Chomsky, 1970). This assumes that each phrasal projec-

tion XP is headed by a head $X^0$, which optionally takes a specifier YP and a complement ZP, as shown in (12) below:

(12)

```
              XP
            /    \
        (YP)      X'
                /    \
              X⁰      (ZP)
```
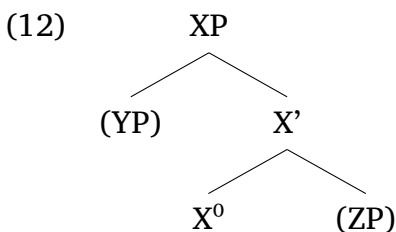
In this framework, the specifier (YP) is an element which modifies the head it enters into a relationship with, while the complement (ZP) is the projection that $X^0$ merges with when the structure is built. For the purposes of structures presented here, I assume that $X^0$ is the lexical or functional element which projects, and that XP is the maximal projection (i.e., there will be no further projections) of the head.

An important distinction to make in this thesis is the category of a "functional head" as compared to a lexical one. I follow Chomsky (1995, pp. 48-49) in defining these terms, which he distinguishes by claiming that lexical heads have "substantive content", while functional heads do not. In essence, lexical elements (NP, VP, AP, PP) participate in θ-assignment; Functional elements (Tens, Asp, Modal, etc.) do not.

The functional heads examined in this thesis are those presented in Cinque's (1999) Hierarchy, which is discussed in the following section.

## 2.6   Adverbials

Adverbials are a wide class of markers that modify non-nominal expressions. There are two major theories in use to describe the syntactic placement of adverbials: Ernst's (2002) Scopal Theory, and Cinque's (1999) Cartographic Theory, commonly referred to as Cinque's Hierarchy. The Scopal Theory presumes that adverbials are adjuncts licensed by their scope, which is taken to be a lexical/semantic property of the adverbial. Cartographic Theory takes a generative approach, and claims that adverbials are positioned as specifiers of distinct functional heads, which are considered to be rigidly ordered by Universal Grammar (UG). As a generalization, Scopal Theory proposes that semantic well-formedness licenses adverb placement, while Cartographic Theory assumes that the syn-

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[3]There are several "directional" terms in use within the Minimalist enterprise and syntactic theory in general: the left periphery, left- and right-adjunction, etc. It is important to note that these terms are based off of the representations on paper, and are not meant to imply that language as a concept has direction; they are mainly to aid in description.

tactic structure fixed by UG licenses the meaning of adverbials.

For the purposes of this thesis, I will describe the three adverbials *shʋ*, *cɔɔ*, and *caa* within Cinque's (1999) Hierarchy, mapping them to clausal functional heads. I do this for two reasons: the hierarchy's functional heads of Asp(ect) and Mod(al)$_{necessity}$ accurately predict the linear order of the adverbials (which I will show in Chapter 4), and because mapping the adverbials to clausal functional heads mirrors the extremely close semantic relationship that *shʋ* and *cɔɔ* have with aspectual reference (which I will demonstrate in Chapter 3).

### 2.6.1   An Introduction to Cinque's Hierarchy

Cinque (1999) proposes a universal order of clausal functional heads, which is rigidly fixed by Universal Grammar. He further claims that Adverbial Phrases (AdvPs) enter into a spec/head relation with the head they are semantically related to. The order of the clausal heads therefore determines the order of the associated AdvPs. Cinque arrives at this conclusion, and derives the hierarchy, through cross-linguistic comparison. He first demonstrates that the functional heads have a universal ordering, based on data from languages which realize those heads through overt suffixes and particles. He then does the same for the relative order of AdvPs. Finally, he demonstrates that the clausal heads and AdvPs share a universal order, and claims that the AdvP enters into a spec/head relationship with the functional head that it is semantically related to. These heads include Tense, Aspect, and Modality, among others.

This hierarchy is assumed to fit under the X' framework, and as such the structure of a functional head (when it takes an AdvP) is as shown in (13):

(13)   The Internal Structure of A Functional Head:

```
                    XP
              _____|_____
             |             |
         (AdvP)           X'
            |           ___|___
            |          |       |
        (Adv⁰)        X⁰      ...
```
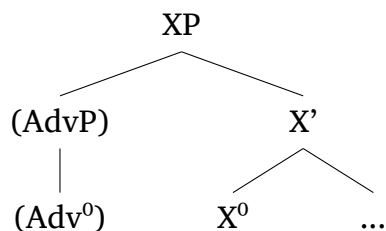
Notice that the AdvP is marked optional, while $X^0$ is not. This follows from the X'-schema, which allows for phonologically null heads that take an optional specifier.

# Chapter 3

# Data:
# Defining Shɪ, Cɔɔ, and Caa

## 3.1 Introduction

This chapter presents the adverbials *shɩ, cɔɔ,* and *caa,* and illustrates their meaning, function, and usage. I will demonstrate that *shɩ* is a marker of aspectual emphasis, *cɔɔ* is a marker of aspectual certainty, and *caa* is a marker of interdiction and mockery. This chapter will be divided by the three adverbials. *Shɩ* and *cɔɔ,* the aspectual adverbials, will be presented by aspect marking and predicate Aktionsart, given their interaction with aspectual reference. *Caa,* on the other hand, is presented by first demonstrating its meaning and then showing that it does not interact with aspectual reference.

## 3.2 Shɩ: Aspectual Emphasis

In this section I will present *shɩ,* pronounced [ʃɩ], and show that it is a particle used to give emphasis to the aspect reference of a clause. *Shɩ* can precede either an overt aspectual marker or a verb. In both cases, the aspectual reference of the marked predicate is interpreted with a sense of emphasis that would not be present without the use of *shɩ.* Below, I detail the usages of *shɩ* in clauses with various aspectual references, in order to show that *shɩ* acts on the aspectual reference of the clause.

### 3.2.1 Shɩ in Unmarked Clauses

Recall from section 2.3.1 that predicates without an overt aspect marker are restricted to particular aspectual references. This restriction is dependent on the Aktionsart of the verbal predicate, and is licensed by a phonologically null marker. These restrictions result in eventive predicates only being compatible with perfective aspectual reference, and stative predicates only being compatible with an imperfective aspectual reference. As such, interpretations of *shɩ* in unmarked predicates co-vary with the Aktionsart of the predicate. This subsection will detail the use of *shɩ* in unmarked eventive predicates and stative predicates, and demonstrate that the use of *shɩ* emphasizes the "default" aspectual reference of such clauses.

#### 3.2.1.1 Eventive Predicates

When used with *shɩ,* an unmarked eventive predicate (which has a perfective aspectual reference) will receive an interpretation that focuses on and emphasizes the completeness and "done-ness" of the event denoted in the predicate. In some way, this is

similar to the English emphatic *did*, such as "I DID run" compared to "I ran". One scenario that utilizes this type of emphasis is to refute someone questioning if an action has truly been completed. This usage is demonstrated by comparing (14a) and (14b), where the speaker uses *shɪ* to refute the claim that their mother made about the apparent lack of sweeping.

(14)  a. Context: Someone asked what you did yesterday. You respond:

n    shɛr    gaka
1SG sweep courtyard

'I swept the courtyard.'

b. Context: Your mother sees your courtyard and asks if you *really* swept it. Slightly annoyed, you respond:

n    shɪ    shɛr    gaka
1SG EMPH sweep courtyard

'I DID sweep the courtyard.'

In the example above, the speaker chooses to emphasize the completion of sweeping because they are annoyed with the request, and perhaps to indicate to the listener that the answer will not change and that they should stop asking. This has a very similar sense to the English usage of *did* in an emphatic context.

The use of *shɪ* does not require that there is a claim to refute, however. *Shɪ* can be used in any situation where there is emphasis on the completion of the act. For example, in (15), the speaker swept for a guest that never arrived. In this case, the emphasis created by *shɪ* on the perfective aspectual reference produces an interpretation of "anyway". The point is that the speaker still did complete the action even though it was not needed.

(15)  Context: You swept in preparation for a guest, but they never show up. Someone asks what happened, as your courtyard looks like you were ready for them. You reply:

n    shɪ    shɛr    gaka
1SG EMPH sweep courtyard

'Well, I swept the courtyard anyway.'

Examples (14) and (15) show that *shɪ* can be used with an unmarked eventive predicate in a wide range of contexts as long as there is emphasis on the completion of the act.

If, however, emphasizing the completed nature of an event is judged as unnecessary or excessive, *shɪ* is infelicitous. This is evident from the minimal trio in (16), where *shɪ* is only felicitous when the context licenses this emphasis.

(16) a. Context: Someone asks "Did you eat?" You ate mangoes.

    # n    shɩ    kəm ɩ-maŋo
      1SG EMPH suck PL-mango

    'I ate mangoes.'

b. Context: Someone asks "Did you eat?" You were very hungry, so you ate mangoes.

    n    shɩ    kəm ɩ-maŋo
    1SG EMPH suck PL-mango

    'I ate a lot of mangoes.'

c. Context: Someone asks "Did you eat?" You feel sick and think it may be the mangoes that you ate.

    n    shɩ    kəm ɩ-maŋo
    1SG EMPH suck PL-mango

    'I unfortunately ate mangoes.'

In (16), the use of *shɩ* is only felicitous if there is some reason to emphasize that mangoes were eaten. Because this emphasis is unnecessary in (16a), *shɩ* is infelicitous. In (16b), the speaker is emphasizing that they are done eating mangoes, because they ate a lot of them, and are no longer hungry. In (16c), the speaker is emphasizing that they are done eating mangoes because they are sick, and do not wish to have any more.

    *Shɩ* can also be used in negative contexts, in which case it emphasizes that the action did not occur, as in (17).

(17) a. Context: When you went to the market, you didn't buy mangoes. Before you left, your sister asked you to buy them. When you return, she asks if you bought mangoes. You respond:

    kə ma    ŋə ɩ-maŋo a-shɩ    na
    NEG 1SG.IRR find PL-mango INORD-buy NEG.FOC

    'I didn't find mangoes to buy.'

b. Context: Same as (17a), but you are slightly annoyed at her request.

    kə ma    shɩ    ŋə ɩ-maŋo a-shɩ    na
    NEG 1SG.IRR EMPH find PL-mango INORD-buy NEG.FOC

    'I did NOT find mangoes to buy.'

Notice that the context allows for *shɩ* to be used or not used. The use of *shɩ* coveys annoyance, because the speaker is insisting that they did not find any mangoes, and perhaps to hint that the person should stop asking. Because this context is perfective, *shɩ* can be said to emphasize the completed nature of "find" (i.e., it is over, whether the

finding was successful or not), which is then negated with the same sense of emphasis that any other *shɩ* marked predicate would receive.

The above examples demonstrate that *shɩ* in combination with an unmarked eventive predicate emphasizes the perfective aspectual reference of a predicate— the action denoted by the predicate is complete in its entirety. With negation, the non-action is completed. Now, I will turn to stative predicates to demonstrate that *shɩ* emphasizes the aspectual reference of the clause it marks, even if that aspectual reference is not perfective.

### 3.2.1.2 Stative Predicates

Recall that an unmarked stative predicate is interpreted with an episodic imperfective aspectual reference. As such, *shɩ* would be expected to emphasize that a predicate is ongoing, if *shɩ* emphasizes the aspectual reference. As I will demonstrate below, this is exactly what the data shows. Note that the unmarked predicates below are episodic, not habitual; the habitual imperfective will be discussed later, with marked predicates.

Take the sentence (18) below, in which the speaker uses *shɩ* to indicate that their being at home is ongoing, and that they do not plan to leave:

(18)   a.   Context: Someone calls you and asks where you are. You are at home, so you respond:
  n ɖa  afal
  1SG be.there home

  'I'm at home.'

  b.   Context: Someone calls you and asks where you are, because they tried to come by earlier and didn't see you. You are home until something else comes up, so you reply:
  n shɩ ɖa  afal
  1SG EMPH be.there home

  'I'm at home for now.'

In the above, the difference between (18a), which does not contain *shɩ*, and (18b), which does, is that there is emphasis on the fact that the speaker is at home *now*, and intends to stay there for the person calling.

A similar sense is found in (19), where the speaker uses *shɩ* to emphasize that their being there is ongoing when the fire started. Importantly, the locative copula *ɖa*, 'to be there', is what is being emphasized in this instance, not the dancing. This construction,

*ɖa na X*, where *X* is a verb, is quite common, but the main element emphasized by *shɩ* is the speaker being there.

(19)   a.   Context: You are telling a story about a time you were dancing when a fire began. During your story, a listener asks what you were doing when the fire started. You say:

       n     ɖa      na   rɩ     gʊcəma
       1SG be.there IMPF dance a.dance

       'I was there dancing.'

    b.   Context: Same as (19a)

       n   shɩ   ɖa      na   rɩ     gʊcəma
       1SG EMPH be.there IMPF dance a.dance

       'I was in the middle of dancing.'

The contrast between (19a) and (19b) is that in (19b), *shɩ* emphasizes that the speaker was currently there while dancing at the time of the fire, and that their being there was ongoing. Because this ongoing nature of the predicate is the definition of the imperfective, I hold that *shɩ* is emphasizing the aspectual reference.

In this section, I have demonstrated that *shɩ* applied to an unmarked stative predicate in Anii (whether the only verb in the predicate or as part of a construction) emphasizes the ongoing nature of the state denoted by the predicate. Because unmarked stative predicates in Anii receive imperfective episodic aspectual interpretation, I argue that this is evidence that *shɩ* emphasizes the aspectual reference of the clause it marks. This, in addition to the evidence presented for eventive predicates in the preceding section, provides support to my claim that *shɩ* is a marker of aspectual emphasis.

Now, we can turn our attention to clauses with an overt aspect marker, which will further confirm that *shɩ* emphasizes the aspectual reference of the clause it marks.

### 3.2.2   Shɩ in Marked Clauses

This section will detail how *shɩ* is interpreted in a clause that contains an overt aspect marking. If *shɩ* emphasizes aspectual reference, as I claim, it is expected that the emphasis will be on the aspectual reference denoted by the marked predicate. I will demonstrate that this is the case. For this section, the focus will be on the meaning of a *shɩ* marked clause with an overt aspect marking. Recall that I assume that there is a covert Aktionsart marker that composes with the overt aspect marker.

### 3.2.2.1 The Imperfective Markers Tɩ and Na

Recall as well that there are two imperfective markers, *tɩ,* and *na. Tɩ* is used in most cases, while *na* is utilized in certain focus constructions, irrealis sentences, and subordinate clauses.

For an imperfective marked predicate, the aspectual reference is interpreted as imperfective, with the additional restriction that a stative predicate must be read as habitual. Therefore, *shɩ* can be expected to emphasize the ongoing nature of an imperfective marked eventive predicate, or the habitual aspect of an imperfective marked stative predicate. This section will demonstrate that this is the case for both eventive and stative predicates, which further supports the analysis that *shɩ* is a marker of aspectual emphasis.

First, consider an eventive predicate, which is not restricted to the habitual.[1] For example, take (20), which is marked for the imperfective with *na*, because it is in a subordinate clause:

(20)  a.  Context: You enter a room, and when you arrive someone leaves. After, you are explaining what happened to your friend.

n   na    kpa   ŋku  ma,  ʊɖən     aɖe         a   tɩ    ɖoo
1SG IMPF arrive room SUB someone that.person AGR IMPF leave

'When I was entering, someone was leaving.'

       b.  Context: Same as (20a)

n   shɩ   na   kpa   ŋku  ma,  ʊɖən     aɖe         a   tɩ    ɖoo
1SG EMPH IMPF arrive room SUB someone that.person AGR IMPF leave

'At the moment I was entering, someone was leaving.'

In the above, the speaker uses *shɩ* to emphasize the fact that the timing of the other person's leaving (the reference time of the utterance) was identical to the time the speaker was entering (the eventuality time of the predicate *kpa*, 'arrive'). Therefore, *shɩ* serves to emphasize that the eventuality denoted by the predicate began and ended at the same moment as the reference time, which would fall under imperfective aspectual reference.[2] This provides support for the claim that *shɩ* emphasizes aspectual reference.

For an imperfective marked stative predicate (which is restricted to a habitual interpretation), *shɩ* emphasizes the habitual nature of the predicate. For example, compare

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[1] Note that eventive predicate may be either episodic, or habitual. However, data is not available for the adverbials with eventive predicates that have habitual aspectual reference, and this is a matter for further research.

[2] Recall from section 2.2.1 that the imperfective is not only when $E$ precedes and follows $R$, but also when $E$ is equivalent to $R$.

(21a) and (21b) below:

(21)   a.  Context: You are waiting for a visitor, but they haven't told you what day they'll arrive. So, you are at home each day.

| n | tɩ | ɖa | afal |
|---|---|---|---|
| 1SG | IMPF | be.there | home |

'I'm usually at home.'

      b.  Context: Same as (21a)

| n | shɩ | tɩ | ɖa | afal |
|---|---|---|---|---|
| 1SG | EMPH | IMPF | be.there | home |

'I'm always at home.'

Without *shɩ* in (21a), the interpretation is simply that the speaker is usually at home, with no additional emphasis. In (21b), however, the speaker uses *shɩ* to emphasize the habit of being home; They are *always* home. This is consistent with the habitual imperfective aspectual reference, which indicates that the state denoted by the predicate occurs regularly— when emphasized, the state occurs even more regularly.

The above examples (20) and (21) show that *shɩ* emphasizes the aspectual reference of a clause that is overtly marked for the imperfective, whether episodic or habitual. This pattern provides additional empirical support for *shɩ* being a marker of aspectual emphasis. Now, consider predicates that are marked for the perfect aspect.

### 3.2.2.2  The Perfect Marker Cee

An Anii predicate marked with the perfect marker *cee* is interpreted with perfect aspectual reference. Recall that in the perfect, as with the imperfective, there is a further restriction based on Aktionsart: eventive predicates are only compatible with a non-continuative reading (where the eventuality time of the predicate begins and ends prior to the reference time), while stative predicates have no such restriction (the eventuality time must start before the reference time, but may end before or during the reference time). If *shɩ* is truly a marker of aspectual emphasis, as I claim, it would be expected to emphasize that the eventuality time begins before the reference time. Additionally, it would be expected to emphasize the lack of continuation with an eventive predicate, which is what is seen in the data.

For example, consider the sentences in (22), where the speaker utilizes *shɩ* to emphasize that the event of someone else leaving occurred right after they had arrived.

(22)   a.   Context: You enter a room, and when you arrive someone leaves. After, you
             are explaining what happened to your friend.
             n    cee   kpa   ŋku   ma,   ʊɗən   aɗe          a    tɪ    ɗoo
             1SG  PERF  arrive room  SUB   someone that.person AGR  IMPF  leave

             'When I had arrived, someone was leaving.'

       b.   Context: Rahina left something in a room and saw you go in. When they
             returned, the item they left is gone, so they ask if you took it. You explain
             that you did not, but Moustapha left the room when you entered.
             n    shɪ   cee   kpa   ŋku   ma,   ʊɗən   aɗe          a    tɪ    ɗoo
             1SG  EMPH  PERF  arrive room  SUB   someone that.person AGR  IMPF  leave

             'Right after I had arrived, someone was leaving.'

In (22b), *shɪ* draws attention to the fact that the speaker had arrived directly prior to the
point that the item was taken. They emphasize this to assert that they actually were there
to see Moustapha leaving. They use this to imply that since they saw Moustapha leaving
right before the item was taken, he must have been the one to take it.

      For a perfect marked stative predicate, recall that there is no restriction on con-
tinuation; the eventuality time must still begin before the reference time but it is able
to end during the reference time as well. To illustrate how *shɪ* is used to emphasize this
ambiguity, compare (23a) and (23b) below:

(23)   a.   Context: You are telling a story about a time you were dancing when a fire
             began. During your story, a listener asks what you were doing when the fire
             started. You say:
             n    cee   ɗa       na   rɪ    gʊcəma
             1SG  PERF  be.there IMPF dance a.dance

             'I had been there dancing.'

       b.   Context: You are telling a story about a time you were dancing when a fire
             began. During your story, a listener asks what you were doing when the fire
             started. You think it was while you were dancing, but are not entirely certain.
             You say:
             n    shɪ   cee   ɗa       na   rɪ    gʊcəma
             1SG  EMPH  PERF  be.there IMPF dance a.dance

             'I may have been there dancing.'

Note that in (23b) there is a sense of uncertainty. In this scenario, the reference time is
when the fire began, and the eventuality denoted by the predicate is when the speaker

was there dancing.[3] Because the locative copula is stative, it is not restricted to a non-continuative reading. As such, there is ambiguity of whether the speaker's being there while dancing ended prior to the fire beginning, or when the fire began. The presence of *shι* emphasizes that the aspectual reference of the clause is ambiguous, which is why the interpretation of uncertainty surfaces.

Examples (22) and (23) show that *shι* is used to emphasize the perfect aspectual reference of a *cee* marked clause, further supporting the hypothesis that *shι* is a marker of aspectual emphasis. This subsection and the subsection preceding it have shown that when *shι* is used in clauses with an overt aspect marking, the aspectual reference of the clause as a whole is emphasized, as opposed to just the aspect denoted by the marker. The following subsection will show that *shι* emphasizes only aspectual reference and not temporal reference.

### 3.2.2.3 The Future

While *shι* is compatible with future temporal reference, it does not emphasize it; *Shι* acts only on aspectual reference. This follows from the position of *shι* within the sentence, which occurs after the irrealis marking that is a part of the future construction, and before the aspectual marking as usual. The ordering of a *shι* marked sentence with future temporal reference is given below in (24):

(24)   SBJ.REAL tə SBJ.IRR **shι** (ASP) VERB.IRR...

Note that *shι* appears in between tense and aspect markings. If *shι* takes the specifier position of the head it modifies, as I claim, this order would suggest that *shι* does not modify tense. Additionally, the future construction does not appear to affect aspectual reference (Morton, 2014, p. 105). This is precisely the pattern shown by the data, which further supports the hypothesis that *shι* does not act on temporal reference.

For example, take the situation in (25), where the speaker uses *shι* to indicate that sweeping the courtyard is something they need to do.

(25)   a.   Context: Your friend calls you and asks what you are doing tomorrow morning. You respond that you are going to sweep the courtyard.
n    tə    ma    shêr    gaka
1SG FUT 1SG.IRR sweep courtyard
'I am going to sweep the courtyard.

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[3]Recall that the verb *ɖa* refers to the speaker being there, not the dancing as a whole

b.  Context: Your friend calls you and asks what you are doing tomorrow morning. You respond that you are going to sweep the courtyard.

n  tə  ma  shι  shêr  gaka
1SG FUT 1SG.IRR EMPH sweep courtyard

'I WILL sweep the courtyard.'

Notice that in (25b), there is emphasis on the future completion of the sweeping. In discussion, speakers reported that there is a strong sense that the speaker wants to sweep; The emphasis on future completion implies that it needs to be completed, however this sense of need is from the future, and not from *shι*. Compare (25b) to (26) below, which has past temporal reference:

(26)  Context: Your mother sees your courtyard and asks if you *really* swept it. Slightly annoyed, you respond:

n  shι  shɛr  gaka
1SG EMPH sweep courtyard

'I DID sweep the courtyard.'

Without future temporal reference, there is not the same sense of need, however the emphasis on completion remains. This supports the hypothesis that *shι* affects aspectual reference, and does not affect temporal reference.

To further show that the future does not affect the aspectual interpretation of *shι*, consider (27) below, which receives imperfective episodic aspectual reference. With *shι*, there is a doubt as to the exact timing of when the speaker will be home.

(27)  a.  Context: You see a friend at the market and they ask what you are doing later that night. You respond that you are going to be home.

n  tə  ma  ɖâ  afal
1SG FUT 1SG.IRR be.there house

'I will be at home.'

b.  Context: You see a friend at the market and they ask what you are doing later that night. You are going to be home, but you may have to go out to do something, so you respond:

n  tə  ma  shι  ɖâ  afal
1SG FUT 1SG.IRR EMPH be.there house

'I will probably be at home then.'

In the above, (27b) has an additional sense of uncertainty not present in (27a). This is because *shι* emphasizes the ongoing nature of being home, which is more difficult to

predict in the future. Because (27a) is not emphasized, the phrase is less specific and therefore able to be said with more certainty. To show that *shɩ*'s emphasis is what gives this more narrow sense of when the speaker is there, consider (28), repeated from (18b) below:

(28)  Context: Someone calls you and asks where you are, because they tried to visit you and didn't see you. You are home until something else comes up, so you respond:

n    shɩ    ɖa    afal
1SG  EMPH  be.there  home

'I'm at home for now.'

Notice that there is still a sense that the speaker being home is ongoing during the time being discussed. This supports that *shɩ* is emphasizing the ongoing nature of the predicate, and is not emphasizing the future in (27b) above.

The above examples demonstrate that temporal reference does not interact with *shɩ*, and that *shɩ* only emphasizes aspectual reference. This provides further support to my claim that *shɩ* is a marker of aspectual emphasis.

### 3.2.3   Summary of Shɩ

In this section, I have demonstrated that *shɩ* emphasizes the aspectual reference of the predicate it marks. In the perfective, *shɩ* emphasizes the completed nature of the action. In the perfect, it emphasizes that the eventuality denoted by the predicate began before the reference time, and also emphasizes the non-continuative restriction on eventive predicates and the ambiguity between continuative and non-continuative perfect for statives. In the imperfective, *shɩ* emphasizes the ongoing or habitual nature of the predicate. I argue that this data points to *shɩ* being an adverbial that modifies aspectual reference, which syntactically enters into a spec/head relationship with AspP. This syntactic relation will be demonstrated in chapter 4.

The following section will present the similar marker *cɔɔ*, which I argue is also an aspectual adverbial.

## 3.3   Cɔɔ: Aspectual Certainty

This section will present the marker *cɔɔ*, pronounced [tʃɔ̀ɔ̀], and demonstrate that it is an aspectual adverbial. I will show that *cɔɔ* means that the speaker is certain of the aspectual reference of the clause it marks. As with *shι, cɔɔ* appears before an overt aspectual marker or the verb, and is grammatical with all aspect markers.

### 3.3.1   Cɔɔ in Unmarked Clauses

Recall again that predicates without overt aspect marking are restricted to either perfective aspectual reference (eventive predicates) or imperfective episodic aspectual reference (stative predicates) based on predicate Aktionsart. This section will detail how *cɔɔ* provides certainty to this "default" aspectual reference in unmarked predicates.

#### 3.3.1.1   Eventive Predicates

Because an unmarked eventive predicate receives perfective aspectual reference, it would be expected that *cɔɔ* would be interpreted as the speaker being sure that the event denoted by the predicate was started and fully completed within the reference time. For example, in (29b), compared to (29a) below, the speaker can use *cɔɔ* in a scenario where they have been meaning to sweep for a while and finally got around to it the day before:

(29)  a.  Context: Someone asks you what you did the day before, and you swept the courtyard. You reply:
    n   shɛr   gaka
    1SG sweep courtyard
    'I swept the courtyard.'

    b.  Context: Someone asks you what you did the day before, and you swept the courtyard after meaning to do so for a while. You reply:
    n   cɔɔ  shɛr   gaka
    1SG CERT sweep courtyard
    'I finally swept the courtyard.'

Note that in (29b), the speaker is using *cɔɔ* to assert that the sweeping was definitely done yesterday. This assertion is appropriate because there may be an expectation that they wouldn't sweep, since they hadn't gotten around to it for so long.

As with *shι,* temporal reference in clauses that are not overtly marked for aspect does not interact with *cɔɔ.* This is illustrated by comparing (30a) and (30b) below:

(30)    a.  Context: Your friend calls you and asks what you are doing tomorrow morn-
            ing. You respond that you are going to sweep the courtyard.

            n   tə   ma      shêr   gaka
            1SG FUT 1SG.IRR sweep courtyard

            'I am going to sweep the courtyard.

       b.   Context: A friend calls and they ask what you are doing tomorrow morning.
            You reply that you will sweep your courtyard.

            n   tə   ma      cɔɔ  shêr   gaka
            1SG FUT 1SG.IRR CERT sweep courtyard

            'I am definitely going to sweep the courtyard.'

In the above, *cɔɔ* gives (30b) an additional sense of certainty that the speaker intends for
the sweeping to definitely be completed the following morning. I will note, however, that
there is a very strong sense of wishing, almost to the point that the speaker wanted to do
it earlier. I claim that this is due to the speaker's commitment to the fact that they will
sweep the following morning, which is from the certainty of completion.

The examples in (29) and (30) above show that *cɔɔ* means that the speaker is certain
of the completion of the marked predicate, which is consistent with the hypothesis that
*cɔɔ* is a marker of aspectual certainty.

### 3.3.1.2   Stative Predicates

Recall that an unmarked stative predicate is restricted to an imperfective episodic
interpretation. Therefore, for an unmarked stative predicate, *cɔɔ* marks that the speaker
is certain that they have been, currently are, and will be in the state denoted by the
predicate for the entirety of the reference time. For example, see the situation in (31),
where the speaker may use *cɔɔ* in a situation where they are sure they will not be leaving
the house:

(31)    a.  Context: Someone calls you and asks where you are. You are at home, so you
            respond.

            n   ḍa      afal
            1SG be.there house

            'I am at home.'

    b. Context: Someone calls you and asks where you are. You are at home and do not plan on leaving the house, so you respond.

n    cɔɔ    ɖa        afal
1SG  CERT  be.there  house

'I am just at home.'

Note that in (31b), there is a sense that the speaker has no plans to leave the house. This shows that *cɔɔ* provides certainty of the ongoing nature of the predicate.

    In the future, *cɔɔ* also gives a sense of definiteness, which is to be expected if *cɔɔ* is a marker of certainty. To illustrate this, take example (32) below:

(32)    a. Context: You see a friend at the market and they ask what you will be doing that night. You will be at home, so you respond:

n    tə  ma    ɖâ        afal
1SG  FUT  1SG.IRR  be.there  house

'I'll be home.'

    b. Context: You see a friend at the market and they ask what you will be doing that night, since they tried to visit you and couldn't find you. You will be at home and are sure of it, so you respond:

n    tə  ma    cɔɔ  ɖâ        afal
1SG  FUT  1SG.IRR  CERT  be.there  house

'I'll definitely be home.'

Note the difference in scenario and interpretation between (32a) and (32b) above, which is that the speaker is responding to the friend's wish to see them and failure to find them earlier in (32b). I argue that this is of a similar sense to an exchange in English: "Sorry I wasn't home then, I'll definitely be there tonight." So, because the speaker wishes to convey that they are certain they will be home for all of that night (i.e., the entire reference time), they choose to use *cɔɔ*. Note as well that both (32a) and (32b) are both in the future, and that *cɔɔ* does not change this.

    The current section has demonstrated that *cɔɔ* is utilized when the speaker wishes to convey that they are certain about the aspectual reference of the clause. It has also demonstrated that this meaning is consistent in both future and non-future temporal reference, which indicates that *cɔɔ* is a marker of aspectual certainty, and is not affected by tense.

### 3.3.2   Cɔɔ in Marked Clauses

If *cɔɔ* is indeed a marker of aspectual certainty, it would be expected that it empha-
sizes the aspectual reference of a marked predicate as well. This assumption is supported
by the data, which will be detailed in this section. Recall again that the aspectual ref-
erence of the clause is restricted both by overt markings and predicate Aktionsart— *cɔɔ*
affects the aspectual reference compatible with both, and is not limited to the aspect
denoted by the overt marker.

#### 3.3.2.1   The Imperfective Markers Tɪ and Na

With an imperfective marked eventive predicate, which can receive an imperfec-
tive episodic interpretation, *cɔɔ* can be used in situations where the speaker is sure that
they were, are, and will be doing the action denoted by the predicate for the entire ref-
erence time. For example, see (33) below, in which the speaker is sweeping despite their
sisters' protest:

(33)   Context: You are sweeping after your sister told you not to, and while you are
       sweeping she asks angrily 'What are you doing?' You are sweeping because you
       need to, and respond:

       n    cɔɔ   tɪ    shɛr   gaka
       1SG  CERT IMPF sweep courtyard

       'I'm sweeping the courtyard anyway.'

Notice that in (33), *cɔɔ* makes certain that the speaker is sweeping and intends to continue.
They assert this because they need to sweep, and point out that they will continue to do
so regardless of their sister not wanting them to. As such, I claim that when a speaker
uses *cɔɔ*, they are marking certainty of the imperfective.

Another example of *cɔɔ* being used in the imperfective is in (34), in which the
speaker is making an excuse as to why they didn't see what happened with Rahina's stuff:

(34)   Context: Rahina leaves something in a room and comes back later. While they
       were gone, you enter the room while Moustapha is leaving. Rahina returns and
       asks if you took their stuff, and you explain why you didn't see what happened.

       n    cɔɔ   na   kpa   ŋku  ma, ʋɖən    aɖe        a    tɪ    ɖoo
       1SG  CERT IMPF arrive room SUB someone that.person AGR IMPF leave

       'As I was entering, they [Moustapha] were leaving.'

In this scenario, the speaker uses *cɔɔ* to assert that they are certain that they were entering the room when Rahina's stuff was taken. They then point out that Moustapha was leaving, and try to blame him.

With an imperfective marked stative predicate (which receives a habitual interpretation), there is again a sense of certainty when a speaker chooses to use *cɔɔ*. This is seen below in (35), where the speaker is responding to a question about where they usually spend their time. While responses with and without *cɔɔ* are felicitous for the situation, *cɔɔ* was reported to provide a sense of certainty in the speaker's response.

(35)    a.  Context: Someone asks where you normally spend your time. You are usually at home, so you respond:

n    tɩ    ɗa    afal
1SG IMPF be.there house

'I stay at home.'

        b.  Context: Someone asks where you normally spend your time. You are usually at home, so you respond:

n    cɔɔ    tɩ    ɗa    afal
1SG CERT IMPF be.there house

'I definitely stay at home.'

The data presented above has demonstrated that *cɔɔ* will give a sense of certainty to the aspectual reference of an imperfective marked clause. In other words, *cɔɔ* marks certain the ongoing or habitual nature of the predicate. This provides empirical support to the claim that *cɔɔ* is a marker used when the speaker wishes to express certainty of the eventuality denoted by the predicate's relation to the time being discussed.

### 3.3.2.2  The Perfect Marker Cee

Recall from previous sections that the perfect marker *cee* restricts the interpretation of an eventive predicate to a non-continuative perfect aspectual reference, while stative predicates have no such restriction (i.e., they may be continuative or non-continuative). It would then be expected that *cɔɔ* provides certainty that the eventuality of an eventive predicate marked with *cee* begins prior to the reference time and ends prior to or at the start of the reference time. *Cɔɔ* would also be expected to provide certainty that a *cee* marked stative predicate begins before the reference time, and may end before or during the reference time. This is precisely the case.

To illustrate this, take example (36) below, where the speaker forgets to mention

something to Mounifa because she left the room.

(36)  a.  Context: When you entered a room, someone else was leaving. Later, you are telling a friend what happened. You say:

    n   cee   kpa   ŋku  ma,  ʋɗən     aɗe         a   tɪ   ɗoo
    1SG PERF enter room SUB someone that.person AGR IMPF leave

    'It was when I had entered the room that someone was leaving.'

    b.  Context: When you entered a room, Mounifa was leaving, and you forget to mention something to her. Later, you are telling a friend what happened. You say:

    n   cɔɔ   cee   kpa   ŋku  ma,  ʋɗən     aɗe         a   tɪ   ɗoo
    1SG CERT PERF enter room SUB someone that.person AGR IMPF leave

    'It was just when I had entered the room that someone was leaving.'

Note that in (36b), there is a sense that the event of the speaker leaving definitely ends while Mounifa was leaving. The implication is that Mounifa leaving was so close to the speaker's arrival that they had no time to say anything to her. By contrast, (36a) is less definite, and potentially allows for more overlap.

When a perfect marked stative predicate (which may be continuative or non-continuative) is marked with *cɔɔ*, it indicates that the speaker is sure that they were in the state denoted by the predicate prior to and until the time being discussed. For example, compare (37a) and (37b) below, where the speaker chooses to use *cɔɔ* in the scenario where they were interrupted by a fire:

(37)  a.  Context: You are telling a story about a time a fire broke out. While you are telling the story, someone asks what you were doing during the fire, and you say that you were dancing.

    n   cee   ɗa       na   rɪ     gʋcəma
    1SG PERF be.there IMPF dance a.dance

    'I was there while dancing'

    b.  Context: You are telling a story about a time a fire broke out. While you are telling the story, someone asks what you were doing during the fire. You were dancing and got interrupted by the fire, so you say:

    n   cɔɔ   cee   ɗa       na   rɪ     gʋcəma
    1SG CERT PERF be.there IMPF dance a.dance

    'At that moment, I was there while dancing.

Note that (37b) has a sense that there is an interruption to the speaker being there by the fire; This is compatible with being certain of the continuative perfect reading, as the

eventuality denoted by the predicate (the speaker being there) ends when the fire broke out. By using *cɔɔ*, the speaker can assert that they are sure that they were there before the fire, and that their being there was ended by the fire. This carries the implication that they were interrupted.

This subsection has demonstrated that using *cɔɔ* with an overt aspect marker indicates that that the speaker is certain of the clauses aspectual reference. This supports the conclusion that *cɔɔ* is a marker of aspectual certainty.

### 3.3.3 Summary of Cɔɔ

The above data suggests that *cɔɔ* is a marker of aspectual certainty. By using *cɔɔ*, a speaker asserts that they are sure of the relationship between the event being discussed and the time being discussed, which is the definition of aspectual reference. Given that *cɔɔ* acts on aspectual reference, I propose that it shares a position with *shɩ* in the specifier of AspP, and further conclude that it is an adverbial. The structure of clauses with *cɔɔ*, as well as how this structure reflects its function, will be detailed in chapter 4.

## 3.4 Caa: Inderdiction and Mockery

This section will present *caa*, pronounced [tʃáà], and illustrate that it marks that the speaker acknowledges that what they are doing is in some way contrary to the listener's wants or needs. Additionally, I will demonstrate that *caa* has a strong connotation of mockery, and show that it does not affect aspectual reference, despite its shared position with *shɩ* and *cɔɔ*.

### 3.4.1 Caa as a Marker of Interdiction

In this subsection, I will demonstrate that *caa* is used when the speaker wishes to acknowledge that what they are doing (or will do) is in some way against the listener's wants or needs. First, let us turn our attention to the most commonly reported use of *caa*: to flaunt an explicit prohibition.

In the instance that there is an explicit prohibition against the speaker doing something, *caa* can be used to convey that the speaker is willfully flaunting it. For example, take the scenarios in (38) below:

(38)  a. Context: Someone calls you and asks where you normally spend your free time. You are usually at home, so you respond:

      n    tɪ   ɖa       afal
      1SG IMPF be.there house

      'I stay at home.'

    b. Context: Someone calls you and asks where you normally spend your free time. They had previously told you to not spend all of your time at home, but you do anyway. You reply:

      n   caa  tɪ   ɖa      afal
      1SG INTD[4] IMPF be.there house

      'I'm still usually at home!'

Notice that the distinction between (38a) and (38b) is the fact that the listener had previously prohibited the speaker from spending all of their time at home. By doing so, the speaker is disregarding this and can use *caa* to indicate that they know that they should not be at home. If this does not go against the wishes of the listener, *caa* is infelicitous, as shown in (39):

(39)  Context: Someone calls you and asks where you normally spend your free time. They do not care where you are, and you are usually at home, so you respond:

    # n   caa  tɪ   ɖa      afal
       1SG INTD IMPF be.there house

    'I'm still usually at home.'

Examples (38) and (39) show that *caa* may only be used if the action denoted by the predicate is contrary to the listener's wants. In a scenario where the listener does not care, *caa* is infelicitous.

    Another example of *caa* being used to flaunt a prohibition is shown in (40) below, where the speaker is sweeping the courtyard despite their sister telling them not to:

(40)  a. Context: Someone asks you what you did yesterday morning. You swept the courtyard, so you reply:

      n   shɛr  gaka
      1SG sweep courtyard

      'I swept the courtyard.'

---

[4]INTD = interdiction

b.  Context: Your sister tells you not to sweep the courtyard, but you decide to do so anyway. Later, she sees the courtyard and angrily asks 'What did you do?' You reply:

n    caa   shɛr   gaka
1SG INTD sweep courtyard

'I swept the courtyard anyway!'

Notice again that the speaker sweeping is expressly against their sister's wishes, and that the speaker knows this.

While a common usage of *caa* is to indicate a flaunted prohibition, the listener does not have to have explicitly stated their wishes for *caa* to be felicitous, as long as the speaker believes that the action denoted by the predicate is upsetting, they may use *caa*. For an example of this, see (41) below, where a girl is bragging that she slapped her brother in the back of the head:

(41)  Context: A brother and sister are playing, and the sister slaps the brother from behind. (She is proud of this.) The brother exclaims 'What was that?', and the sister replies:

n    caa   kə  akɪ
1SG INTD hit 2SG.OBJ

'I hit you!'

In (41), the brother had not previously stated that he would not like to be slapped. Realistically, however, it can be assumed that anyone would be somewhat upset if they were slapped in the back of the head, and that the sister knows this and is acknowledging it with her use of *caa*.

Simply doing something or being somewhere that is against the listener's wants is not sufficient to license the use of *caa*; The speaker must acknowledge that they know that the listener is upset. In a non-future context, this carries a strong implication that the action or state that is upsetting to the listener is intentional. As such, *caa* is incompatible with an apologetic tone or accidental act. This can be seen in the counterpart to (41) in which the slap is accidental and the sister is sorry, shown below in (42):

(42) Context: A brother and sister are playing, and the sister **accidentally** hits the brother from behind. The brother exclaims 'What was that?', and the sister apologetically replies:

    # n    caa  kə akı
       1SG INTD hit 2SG.OBJ

     'I hit you!'

The fact that *caa* is not felicitous with an apologetic tone strongly indicates that *caa* means that the speaker knows and is acknowledging that what they are doing is contrary to the listener's wants.

    It is important to note that it is the listener's wants that determine when *caa* is felicitous, not general social convention or cultural expectation. For example, see (43) below, where the speaker is telling their sister that they've been home and saw that she was watching TV:

(43) Context: Your sister is not allowed to touch the TV because she is young and may break it. You go out, and when you return she is watching TV and does not see you. You stand there watching her until she hears a noise and rushes to turn it off and attempts to act nonchalant. You tell her that you've been there for a while:

    n  caa cee ḍa      afal
    1SG INTD PERF be.there house

    'I've been at home!'

The above illustrates that *caa* can be used when the speaker is doing something the listener does not want them to do, regardless of if the listener is *also* doing something they should not be doing, and the speaker is not doing anything wrong. It is the wants of the listener that must be violated.

    Notice that the above examples are not limited to any particular aspectual reference or Aktionsart. *Caa* does not affect the aspectual reference of the clause, and its interpretation remains constant regardless of aspectual reference. This is illustrated by (44) for eventive predicates and (45) below for statives:

(44) Eventive Predicates:
    a. Context: Your sister told you not to sweep the courtyard because she wanted to grab something she left there, but you do anyway. After you swept, she sees the courtyard and asks 'What did you do?' You reply:

> n   caa  shɛr  gaka
> 1SG INTD sweep courtyard
>
> 'I swept the courtyard!'

b. Context: Your sister told you not to sweep the courtyard because she wanted to grab something she left there, but you sweep anyway. While you are sweeping, she sees and angrily asks 'What are you doing?' You reply:

> n   caa  tɪ   shɛr  gaka
> 1SG INTD IMPF sweep courtyard
>
> 'I'm sweeping the courtyard!'

c. Context: Your sister tells you not to sweep the courtyard because she wanted to grab something she left there, but you already did. You respond:

> n   caa  cee  shɛr  gaka
> 1SG INTD PERF sweep courtyard
>
> 'I already swept!'

Notice that in the above examples the speaker sweeping always is upsetting to their sister, regardless of the aspectual reference. In (44a), the speaker is acknowledging that they swept the courtyard even though their sister said not to. In (44b) the speaker does the same, except they are still sweeping when they say it. In (44c), the speaker acknowledges that they had already swept, and implies that they do not care if their sister is upset by this. Despite differences in aspectual reference, each example with *caa* demonstrates that *caa* is used to acknowledge that the speaker knows and is willfully disregarding their sister's feelings. The same is true for stative predicates:

(45) Stative Predicates:

a. Context: Someone calls and asks where you are, and the person had previously told you not to stay home. You reply:

> n   caa  ɗa     afal
> 1SG INTD be.there house
>
> 'I'm still at home!'

b. Context: Someone calls and asks where you usually spend your free time. They previously told you not to spend all of your time at home. You respond:

> n   caa  tɪ   ɗa     afal
> 1SG INTD IMPF be.there house
>
> 'I stay at home!'

    c.  Context: Your sister is not allowed to touch the TV because she is young and may break it. You go out, and when you return she is watching TV and does not see you. You stand there watching her until she hears a noise and rushes to turn it off and act nonchalant. You tell her that you've been there for a while:

| n | caa | cee | ḍa | afal |
|---|-----|-----|-----|------|
| 1SG | INTD | PERF | be.there | house |

'I've been at home!'

The examples in (45) also demonstrate that *caa* does not affect aspectual reference. In each, the speaker being at home is against the wishes of the listener, whether used in clauses with the imperfective episodic, imperfective habitual, or perfect aspectual reference.

    In addition to not interacting with aspectual reference, *caa* does not interact with temporal reference. In the future, *caa* still indicates that the speaker knows that the action or state denoted by the predicate is contrary to the listener's wants, however it does not carry the same offense, given that the speaker has not yet violated the listener's wishes. For example, take (46) below, where the speaker cannot go out with their friends because they need to do the laundry:

(46)  Marked for Future:

Context: You are doing laundry and someone asks if you want to go out after. You can't , because you have to sweep the courtyard after you finish the laundry. You respond:

| n | tə | ma | caa | shêr | gaka |
|---|-----|-----|-----|------|------|
| 1SG | FUT | 1SG.IRR | INTD | sweep | courtyard |

'I need to sweep!'

Notice that in this instance, the listener's wants are not yet slighted. In this case, the speaker is using *caa* to acknowledge that something they are *going* to do will be upsetting to the listener. This is consistent with my proposed definition of *caa*, which is that it means the speaker is acknowledging that the action or state denoted by the predicate is contrary to the listener's wants.

    Another example of this type of usage is shown in (47) below, where the speaker is sick and believes that it is better that they stay home:

(47) Marked for Future:

Context: Someone asks you to go out but you are sick and think it might be better for you to stay at home, so you reply:

n tə ma caa ḍa afal
1SG INTD be.there house

'I should stay at home.'

In (47), the speaker's staying home is against the listener's wishes. Note again that this use does not carry the same offense as a non-future context, since the speaker is not currently upsetting the listener.

The above data demonstrates that *caa* is used when the speaker wishes to acknowledge that the action or state denoted by the predicate is contrary to the listener's wants. I have also shown that *caa* does not affect temporal or aspectual reference. Notice additionally the strong sense of offense and mockery that comes with using *caa*, particularly in a non-future context. *Caa* is used frequently in order to mock the listener, which I will detail in the following subsection.

## 3.4.2 Caa as an Indicator of Mockery

Because *caa* is specifically used when the speaker is aware that what they are doing is contrary to the listener's wants, there is typically a sense of mockery when *caa* is used. This is particularly true in a non-future context, since the speaker either has already done something to upset the listener, or is currently doing something upsetting to the listener. In addition, the data suggests that *caa* is incompatible with a sense of sincerity or an apologetic tone, which is shown in (48), repeated below from (41) and (42), where siblings are playing and mocking each other.

(48) a. Context: A brother and sister are playing, and the sister slaps the brother from behind. The brother exclaims 'What was that?', and the sister replies:[5]

n caa kə akı
1SG INTD hit 2SG.OBJ

'I hit you!'

b. Context: A brother and sister are playing, and the sister **accidentally** hits the brother from behind. The brother exclaims 'What was that?', and the sister apologetically replies:

# n caa kə akı
1SG INTD hit 2SG.OBJ

'I hit you!'

The above examples illustrate that *caa* is only felicitous with a sense of mockery or rudeness, which further supports the hypothesis that it means the speaker is acknowledging that what they are doing is upsetting to the listener. In addition, this suggests that there is an element of intentionality to *caa*, and that the speaker wishes to upset the listener.

Given its mocking tone, this particular marker is considered rude or impolite in most contexts, however between two people who know each other well it was reported that *caa* could be used in a joking manner. For the scenario in (49), it was reported that one could use *caa* with their sibling or someone they knew well, but it would be considered extremely rude to use it with someone such as a parent:

(49)  Context: You are dancing when someone walks into the room. They previously had told you not to dance. Mockingly, you say to them:

n    caa    ɖa        na    rɪ      gʊcəma
1SG  INTD   be.there  IMPF  dance  a.dance

'I'm still dancing!'

The data presented above demonstrates that *caa* can be used as an indicator of mockery, and is more often than not interpreted to be mocking the listener. This data provides additional support to the idea that *caa* is used to indicate that the speaker knows that what they are doing is upsetting to the listener, and that they acknowledge and intend this.

### 3.4.3   Summary of Caa

In this section, I have shown that *caa* indicates that the speaker acknowledges that the action or state denoted by the predicate is contrary to the listener's wants, and that *caa* typically implies that this offense is intentional. I have also shown that this marker does not interact with temporal or aspectual reference. In addition, I have demonstrated that *caa* is used to indicate mockery, and that it is usually interpreted as rude. Because of *caa*'s lack of relation to aspectual reference, I claim that it does not have a syntactic position under AdvP, and that it instead must merge elsewhere, which will be discussed in detail in Chapter 4.

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[5]As a native speaker of English, I would also consider 'na na na boo boo' felicitous in this context.

## 3.5   Conclusions on Data

This chapter has presented the adverbials *shʋ, cɔɔ,* and *caa,* and has detailed their meaning and usage. *Shʋ* is a marker of aspectual emphasis, and emphasizes the aspectual reference of the predicate it marks, regardless of the presence of an overt aspect marking or the Aktionsart of the predicate, which composes with overt markers. *Cɔɔ* is a marker of aspectual certainty, and is used when the speaker is sure of the relationship between the time of the event being discussed (the eventuality denoted by the predicate) and the time being discussed (the reference time), which is by definition the aspectual reference. *Caa* is a marker of interdiction and mockery; It indicates that the speaker acknowledges that the action or state denoted by the predicate is contrary to the listener's wants, and often carries a mocking tone. These findings are summarized in (50) below:

(50)   Definitions of *Shʋ, Cɔɔ,* and *Caa*:

      **shʋ:**  Emphasizes the aspectual reference of the marked clause.

      **cɔɔ:**  Marks certainty of the aspectual reference of the marked clause.

      **caa:**  Marks the speaker's acknowledgment that the action or state denoted by the predicate is contrary to the listener's wants.

While each marker is an adverbial, I propose that *shʋ* and *cɔɔ* target aspect, while *caa* targets a covert modal functional head, which will be discussed in the following chapter. The next chapter will present a syntactic analysis of the three markers as adverbial heads that enter into a spec/head relationship with the clausal functional heads of Aspect and Mod$_{necessity}$, through examining Cinque's (1999) hierarchy of AdvPs and clausal functional heads.

# Chapter 4

# Analysis:
# Syntactic Structure

## 4.1    Introduction

The preceding chapters introduced the markers *shʋ, cɔɔ,* and *caa,* and demonstrated their meanings; *Shʋ* emphasizes the aspectual reference of the marked predicate, *cɔɔ* provides a sense of certainty of the aspectual reference, and *caa* means that the speaker acknowledges that the action denoted by the predicate is contrary to the listener's wants. This chapter will provide a potential analysis of the location of these adverbials following Cinque's (1999) hierarchy, and discuss the implications of applying such a theory to Anii. If the hierarchy is truly universal, the order and position of *shʋ, cɔɔ,* and *caa* should be predictable based on the element they modify.

This chapter will be organized as follows. First, I will provide an overview of Cinque's hierarchy. Then, I will detail the predictions such a theory would make regarding the order and structure of adverbials in Anii. Finally, I will demonstrate that these predictions are empirically supported by the data collected for *shʋ, cɔɔ,* and *caa.*

## 4.2    Cinque's Hierarchy

Recall from section 2.6.1 that Cinque (1999) proposes a universal order of functional projections, and that AdvPs enter into a spec/head relation with the functional head that they are semantically related to.[1] This hierarchy of functional heads and the association of semantically-related AdvPs is well supported empirically with cross-linguistic evidence from languages which vary in terms of which functional heads and AdvPs they realize morphologically. Through this comparison, Cinque arrives at the following hierarchy (Cinque, 1999, p. 106):

(51)    Cinque's Hierarchy of Functional Heads:

$\text{Mood}_{\text{speech act}} < \text{Mood}_{\text{evaluative}} < \text{Mood}_{\text{evidential}} < \text{Mod}_{\text{epistemic}} < \text{T}_{\text{past}} < \text{T}_{\text{future}}$ $< \text{Mood}_{\text{irrealis}} < \text{Mod}_{\text{necessity}} < \text{Mod}_{\text{possibility}} < \text{Asp}_{\text{habitual}} < \text{Asp}_{\text{repetitive(I)}}$ $< \text{Asp}_{\text{frequentative}} < \text{Mod}_{\text{volitional}} < \text{Asp}_{\text{celerative(I)}} < \text{T}_{\text{interior}} < \text{Asp}_{\text{terminative}} <$ $\text{Asp}_{\text{continuative}} < \text{Asp}_{\text{perfect}} < \text{Asp}_{\text{retrospective}} < \text{Asp}_{\text{proximative}} < \text{Asp}_{\text{durative}} <$ $\text{Asp}_{\text{generic/progressive}} < \text{Asp}_{\text{prospective}} < \text{Asp}_{\text{SgCompletive(I)}} < \text{Asp}_{\text{PlCompletive}} < \text{Voice} <$ $\text{Asp}_{\text{celerative(II)}} < \text{Asp}_{\text{repetitive(II)}} < \text{Asp}_{\text{frequentative(II)}} < \text{Asp}_{\text{SgCompletive(II)}}$

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[1]This is a slight oversimplification. While Cinque recognizes the semantic relation, he makes his argument on purely syntactic grounds. However, semantic meaning is a useful tool in determining functional categories, so I have chosen to use this verbiage.

Because this hierarchy is meant to be applied to all languages, it is extensive. For the purposes of this analysis, however, we can narrow our focus down to the functional heads that are potential positions for *shɩ*, *cɔɔ*, and *caa*.

## 4.3 The Functional Heads Compatible with Shɩ Cɔɔ and Caa

In order to evaluate Cinque's hierarchy's predictions for *shɩ*, *cɔɔ*, and *caa*, it must be determined which functional heads are potential candidates for accommodating *shɩ*, *cɔɔ*, and *caa*. Many heads may be discarded because there is not sufficient data to include them in an analysis of Anii, and others may be combined because they do not occur in the same clause and have no potential heads between them (i.e., distinguishing them would not change the structure). This section will determine which heads may accommodate *shɩ*, *cɔɔ*, and *caa*.

This section will be in two parts. I will first demonstrate the linear position of *shɩ*, *cɔɔ*, and *caa*. Then, I will narrow down the functional heads that can possibly accommodate the adverbials without causing ordering or syntactic issues, and combine heads for which a distinction would be superfluous.

### 4.3.1 The Linear Position of Shɩ, Cɔɔ, and Caa

The data presented in Chapter 3 demonstrated that *shɩ*, *cɔɔ*, and *caa* always appear directly before aspect markers, or the verb if there is no overt aspect marker. To illustrate this, consider the examples below:

(52)   a. n    shɩ    tɩ    shɛr    gaka
          1SG EMPH IMPF sweep courtyard
          'I am sweeping the courtyard.'

       b. n    shɩ    shɛr    gaka
          1SG EMPH sweep courtyard
          'I did sweep the courtyard.'

In (52) the marker *shɩ* appears directly before the imperfective marker *tɩ* when it is present, and before the verb when aspect is unmarked. Note that the same position is shared by *cɔɔ* and *caa*, and with all aspectual markers. Recall also that the adverbials appear after the future marker *tə*:

(53)  n        tə ma   cɔɔ shɛr  gaka
      1SG.REAL FUT 1SG.IRR CERT sweep courtyard
      'I am definitely going to sweep the courtyard.'

From these two facts, it can be determined that the adverbials *shɪ, cɔɔ,* and *caa* appear between tense and aspect. So, the linear order of a clause is as follows:

(54)  The Linear Order of The Adverbials:

      SBJ – (TENS) – **ADV** – ASP – VP…

Note that ASP is not listed as optional; This is to account for the covert Aktionsart morpheme, discussed in section 2.3.1, which takes the place of the aspect marker when an overt one is not present, and adjoins to the head when there is an overt marker. Additionally, note that what I have labeled as (TENS) is in fact the future 'construction' *tə SBJ.IRR ´*.[2] I treat them as a single morpheme here for simplicity, as a full analysis of the second morpheme is outside of the scope of this thesis, and the future marker presupposes the inclusion of the second morpheme.[3]

With the linear position of *shɪ, cɔɔ,* and *caa* established, we can revisit Cinque's hierarchy and determine which functional heads allow the merging of *shɪ, cɔɔ,* and *caa*.

## 4.3.2  Narrowing the Potential Heads

The central claim of Cinque (1999) is that AdvPs merge to the specifier of the functional head they modify; This positioning is what licenses the meaning of the adverbial. Given the linear position of *shɪ, cɔɔ,* and *caa*, the range of Cinque's Hierarchy that can accommodate one of the three adverbials is narrowed to those after the future tense. This range is given below:

(55)  Cinque's Hierarchy (Narrowed):

~~Mood~~$_{\text{speech act}}$ < ~~Mood~~$_{\text{evaluative}}$ < ~~Mood~~$_{\text{evidential}}$ < ~~Mod~~$_{\text{epistemic}}$ < ~~T~~$_{\text{past}}$ < ~~T~~$_{\text{future}}$ < ~~Mood~~$_{\text{irrealis}}$[4] < **Mod**$_{\text{necessity}}$ < **Mod**$_{\text{possibility}}$ < **Asp**$_{\text{habitual}}$ < **Asp**$_{\text{repetitive(I)}}$ < **Asp**$_{\text{frequentative}}$ < **Mod**$_{\text{volitional}}$ < **Asp**$_{\text{celerative(I)}}$ < **T**$_{\text{interior}}$ < **Asp**$_{\text{terminative}}$ < **Asp**$_{\text{continuative}}$ < **Asp**$_{\text{perfect}}$ < **Asp**$_{\text{retrospective}}$ < **Asp**$_{\text{proximative}}$ < **Asp**$_{\text{durative}}$ < **Asp**$_{\text{generic/progressive}}$ < **Asp**$_{\text{prospective}}$ < **Asp**$_{\text{SgCompletive(I)}}$ < **Asp**$_{\text{PlCompletive}}$ < **Voice** < **Asp**$_{\text{celerative(II)}}$ < **Asp**$_{\text{repetitive(II)}}$ < **Asp**$_{\text{frequentative(II)}}$ < **Asp**$_{\text{SgCompletive(II)}}$

---

[2]Be sure to note the floating H tone, which surfaces on the next available mora.

[3]It is interesting to note, however, that what is potentially an irrealis marking appears in the position predicted by Cinque's hierarchy. See Blanchette and Morton (forthcoming) and Morton and Blanchette (under revision) for more on these markers, and an analysis of the irrealis mood in Anii.

(55) shows that any functional head prior to the necessity modal is unable to merge *shɪ*, *cɔɔ*, or *caa*. Doing so would violate the linear order of the markers by placing the adverbial before the future marker. This range is also empirically supported by the functions of *shɪ*, *cɔɔ*, and *caa*, since all aspectual functional heads are included.

To further simplify the hierarchy for the purposes of this analysis, we can remove certain functional heads. Because the hierarchy is based on the relative order of functional heads and their associated AdvPs, a head is irrelevant (i.e., will not affect structure or analysis) if there is neither evidence of the head nor evidence of its associated adverbial surfacing in Anii.[5] For example, there is not existing knowledge of any functional morpheme or adverbial concerning the interior tense, and Anii does not appear to have any voicing distinctions (Morton, 2014). In addition, because there is not data to support the distinction between aspectual reference beyond perfective, imperfective, and perfect, these functional heads can be combined for explanatory purposes. With these considerations, we are left with the following potential heads for merging *shɪ*, *cɔɔ*, and *caa*:

(56)   The Range of Functional Heads Capable of Accommodating The Adverbials:

$$\text{Mod}_{\text{necessity}} < \text{Mod}_{\text{possibility}} < \text{Asp}_{\text{IMPF}} < \text{Mod}_{\text{volitional}} < \text{Asp}_{\text{PRFV}} < \text{Asp}_{\text{PERF}}$$

One final adjustment to be made is the elimination of the volitional modal. The motivation for this is twofold. First, *shɪ* and *cɔɔ* are clearly closely related (semantically) to aspect. Secondly, even though *caa* is not clearly related to aspect, it cannot merge in this position without causing an ordering issue with the imperfective. As such, I hold that the volitional head is irrelevant to and/or incompatible with an analysis of *shɪ*, *cɔɔ*, and *caa*. This omission also allows the combination of the aspectual heads, since there is no evidence to support any syntactic difference between the three in Anii. Therefore, the final list of functional heads that could potentially support *shɪ*, *cɔɔ*, and *caa* is the one shown in (57):

(57)   Potential Functional Heads for *Shɪ, Cɔɔ*, and *Caa*:

$$\text{Mod}_{\text{necessity}} < \text{Mod}_{\text{possibility}} < \text{Asp}$$

With the three candidates above, the meaning and function of the adverbials can be used to determine which functional category each adverbial merges with.

---

[4]Note that I am treating the Mod$_{\text{irrealis}}$ as a part of the future construction.

[5]In Cinque's original formulation, the functional heads are always present and are rigidly fixed by the Universal Grammar. This elimination is not to discard this analysis, it simply serves to simplify the representation of Anii by excluding phonologically null elements.

# 4.4 Mapping Shι, Cɔɔ, and Caa to the Functional Heads

Recall from chapter 3 the meanings of *shι*, *cɔɔ*, and *caa*: *shι* emphasizes the aspectual reference of the clause, *cɔɔ* marks that the speaker is certain of the aspectual reference of the clause, and *caa* is used when the speaker wishes to acknowledge that the action or state denoted by the predicate is contrary to the wants of the listener. With the potential heads narrowed down to necessity modal, possibility modal, and aspect, we can turn back to the data to determine which head each adverbial merges with.

## 4.4.1 Shι and Cɔɔ: The Aspectual Adverbials

In the previous chapter, I illustrated that *shι* and *cɔɔ* act on the aspectual reference of the clause they mark; *Shι* emphasizes the aspectual reference, and *cɔɔ* marks that the speaker is certain of the aspectual reference. As such, I argue that *shι* and *cɔɔ* enter into a spec/head relation with AspP, mirroring their semantic relationship. In addition, there does not appear to be any semantic evidence to support that they would be merged under a root modal head, as neither has a deontic, dynamic, or bouletic interpretation. As such, I claim that the phrasal projections of *shι* and *cɔɔ* take the specifier position of AspP.

## 4.4.2 Caa: The Necessity Adverbial

While *caa* takes the same linear position and category (an adverbial) as *shι* and *cɔɔ*, it does not have the same relation to aspectual reference, as was detailed in section 3.4. Taking into account *caa*'s meaning, note that there is a deontic flavor to *caa*; *Caa* in some way marks the speaker should not or cannot do what they are doing, from the perspective of the listener. Therefore, I suggest that *caa* enters into a spec/head relation with the necessity modal head, as opposed to modeling it as an aspectual adverbial. To illustrate that this position would not result in a word-order error, recall the simplified hierarchy in (58), repeated below from (57):

(58)   Simplified Hierarchy for The Adverbials:

$\text{Mod}_{\text{necessity}} < \text{Mod}_{\text{possibility}} < \text{Asp}$

Note that there is nothing between the modal heads and the aspectual heads.

With this in mind, the only item that could cause an error in word order would be a possibility modal. As no data exists for possibility modals in Anii, I propose that *caa*

is in fact a necessity adverbial and enters into a spec/head relation with the Mod$_{\text{necessity}}$ head.

### 4.4.3   Summary of the Clausal Heads

To recap, this section has illustrated that there are only three clausal heads capable of accommodating *shı*, *cɔɔ*, and *caa* on syntactic grounds: Mod$_{\text{necessity}}$, Mod$_{\text{possibility}}$, and Asp. From these three functional heads, the semantic meanings of the adverbials point to a position in the specifier of AspP for *shı* and *cɔɔ*, and Mod$_{\text{necessity}}$ for *caa*. Note that from this point on, I will refer to the necessity modal projection simply as ModP for brevity, given that there is no evidence suggesting a need to distinguish it from the possibility modal head for this analysis.

It is worth reiterating a key point about the simplification of Cinque's Hierarchy used in this paper; The functional heads which were removed or combined for illustrative purposes are still underlyingly present in the syntax, if a strong position is taken with regards to a rigid Universal Grammar.[6] I have simply chosen to not represent them when they are not central to the analysis presented.

With the spec/head relationships for the adverbials defined, we can turn to the syntactic structure.

## 4.5   Syntactic Representation

The above sections demonstrate that *shı*, *cɔɔ*, and *caa* enter into a spec/head relationship with Asp and the necessity modal head. This section will model this representation and discuss how the syntax of this phrase licenses the adverbials' meaning.

### 4.5.1   Shı and Cɔɔ: AspP

Recall that *shı* and *cɔɔ* semantically relate to aspectual reference; As such, I claim that they enter into a spec/head relationship with AspP. To model this, consider the following structure, which shows an AdvP in the specifier position of the aspectual head:

---

[6]I remain agnostic as to whether the functional heads are always present in Anii, as there is not enough data on the language to form a definite conclusion on this matter.

(59)  Position of AdvP within AspP:

```
              ...
               |
             AspP
            /    \
        AdvP      Asp'
         |        /   \
       Adv⁰    Asp⁰    VP
     (shɪ, cɔɔ)         △
                        ...
```
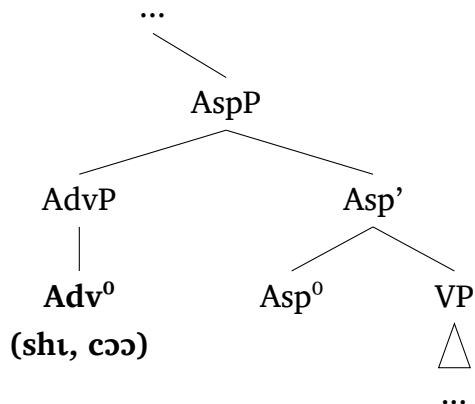
  If adverbials are assumed to act on the head that they enter into a relationship with, this structure would accurately reflect that the aspectual adverbials modify the aspectual reference of the clause they mark. In addition, placing *shɪ* and *cɔɔ* in this position would accurately account for the word ordering in Anii, which is demonstrated in (60) below with no tense or aspect marking (60a) and with an aspect marker (60b):

(60) a. n shɪ sara
    1SG EMPH walk
    'I had walked.'

```
              IP
            /    \
         NP       I'
         △       /   \
         n     I⁰      AspP
               |       /    \
               ∅    AdvP     Asp'
             [NFUT]   |      /    \
                    shɪ   Asp⁰     VP
                           ∅       △
                                  sara
```
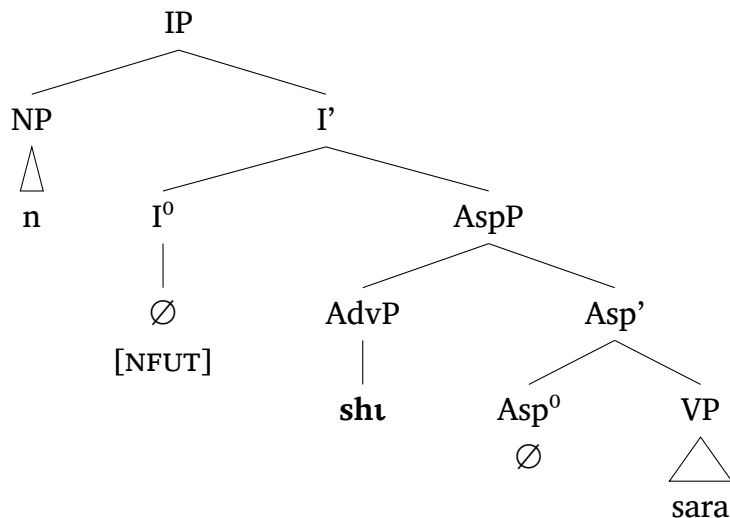
b. n  cɔɔ  tɪ  ɗa  afal
   1SG CERT IMPF be.there home
   'I definitely stay at home.'

```
                    IP
            ┌───────┴───────┐
           NP              I'
           △        ┌──────┴──────────┐
           n       I⁰               AspP
                    │          ┌──────┴──────┐
                    ∅         AdvP          Asp'
                  [NFUT]       │        ┌────┴────┐
                              cɔɔ       tɪ        VP
                                                  △
                                               ɗa afal
```
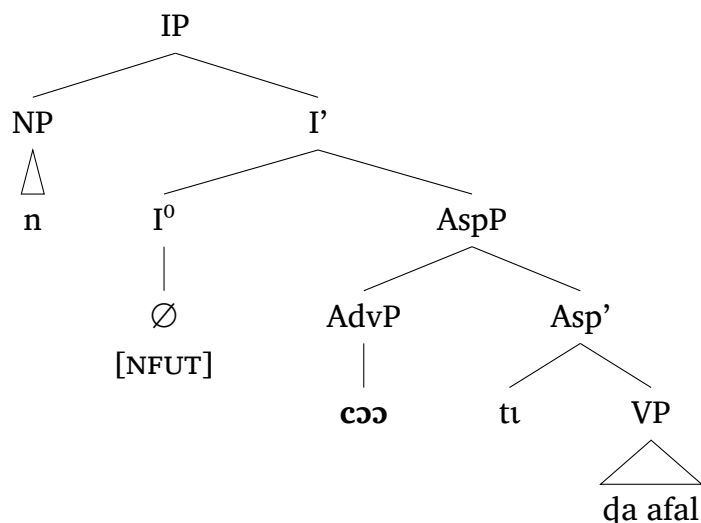
Notice that the aspectual adverbials' position within the specifier of AspP generates the correct word order. This is true for both (60a) and (60b), which demonstrates that this structure allows *shɪ* and *cɔɔ* to appear in the correct linear position. Notice as well that the adverbial is below tense, which produces the correct order in the future, as shown in (61) below:

(61)  n  tə  ma  shɪ  shêr  gaka
      1SG FUT 1SG.IRR EMPH sweep courtyard
      'I WILL sweep the courtyard.'

```
                     IP
            ┌────────┴────────┐
           NP                I'
           △        ┌─────────┴──────────┐
           n       I⁰                  AspP
                    │             ┌──────┴──────┐
                  tə ma ´        AdvP          Asp'
                                  │        ┌────┴────┐
                                 shɪ      Asp⁰        VP
                                          ∅           △
                                                   shêr gaka
```
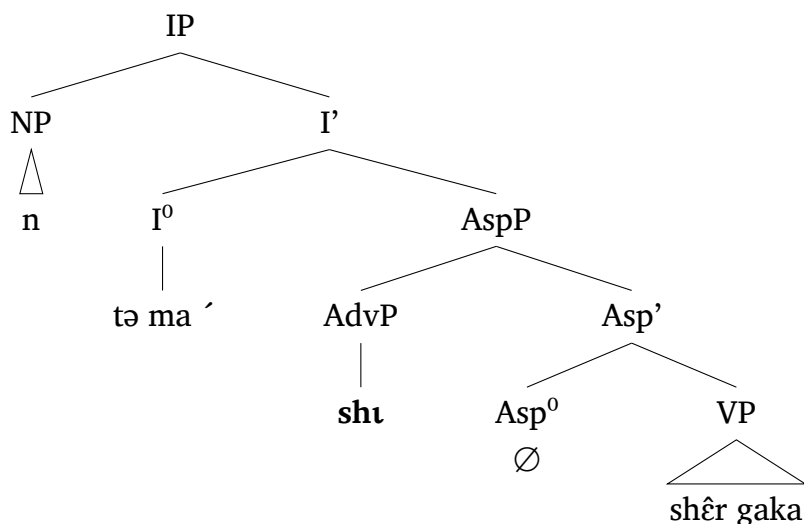
Note that I have combined the future marker *tə*, the first person singular irrealis morpheme *ma*, and the floating tone; there is evidence to support *ma* as an agreement marker,

and there is no evidence to suggest that *tə* ever appears in isolation without an agreement morpheme (and high tone) after it. As such, I have combined them to avoid making theoretical assumptions about the nature of the irrealis subject marker. For a more thorough explanation of this, see Morton and Blanchette (under revision). With this consideration, (60) and (61) show that placing the aspectual adverbials within the specifier of AspP allows them to appear in the correct linear order, and models the close semantic relationship that the adverbials have with aspectual reference.

## 4.5.2   Caa: ModP

Modeling *caa* as entering into a spec/head relation with the necessity modal head will also produce the correct linear order between tense and aspect markers, as shown in (62) below:

(62)   Position of AdvP within ModP:
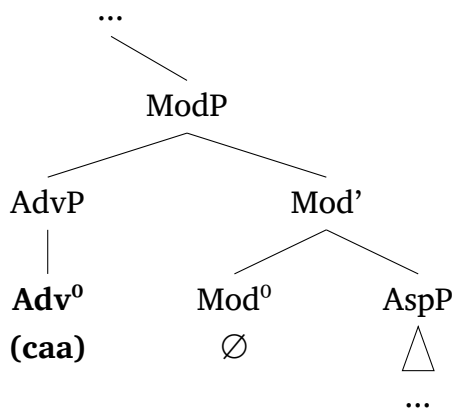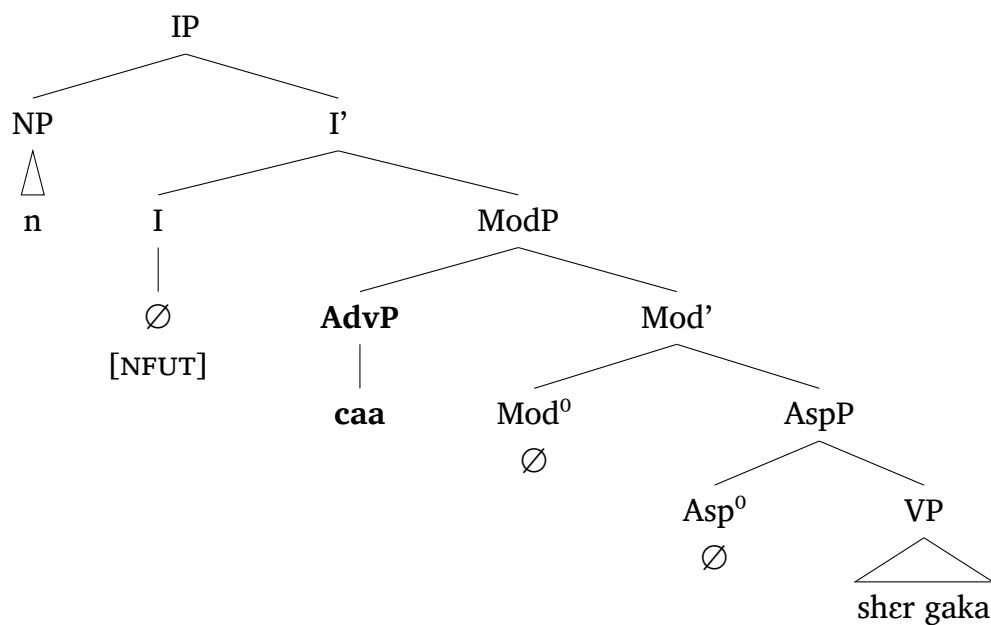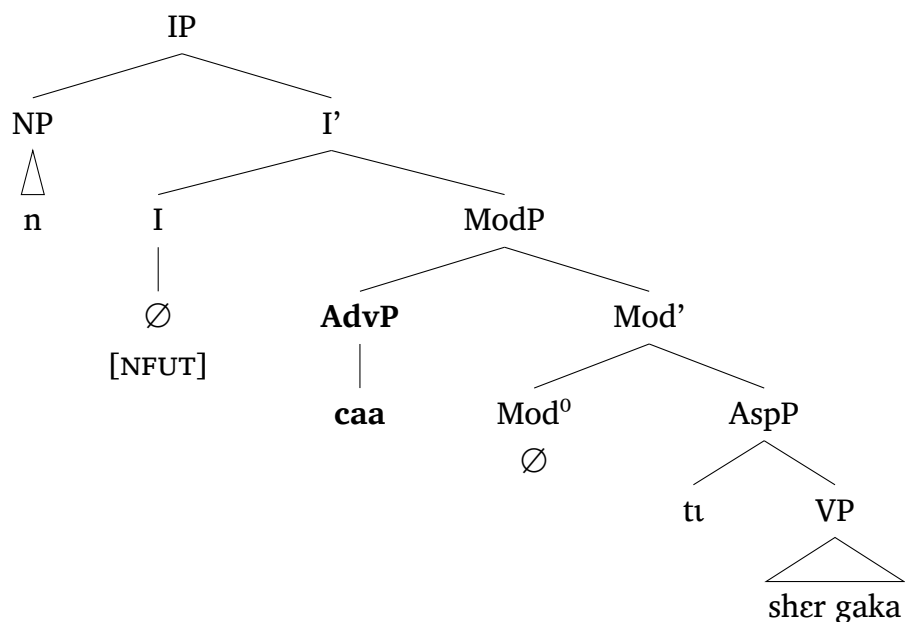


Notice that I have marked $Mod^0$ as phonologically null; There does not seem to be any evidence of a morpheme that occupies this head in Anii. Also note the position of ModP directly above AspP, as opposed to VP.

The structure in (62) accounts for the proper word order of *caa*. By placing *caa* above AspP, the correct word order is still generated, as illustrated in (63) below:

(63) a. n  caa  shɛr  gaka
1SG INTD sweep courtyard

'I swept the courtyard anyway!'

```
              IP
        ┌──────┴──────┐
       NP            I'
       △        ┌────┴────────┐
       n        I           ModP
                │        ┌────┴────┐
                ∅      AdvP      Mod'
              [NFUT]     │    ┌────┴────┐
                        caa  Mod⁰     AspP
                              ∅     ┌───┴───┐
                                  Asp⁰     VP
                                   ∅       △
                                        shɛr gaka
```

b. n  caa  tɪ  shɛr  gaka
1SG INTD IMPF sweep courtyard

'I'm sweeping the courtyard anyway!'

```
              IP
        ┌──────┴──────┐
       NP            I'
       △        ┌────┴────────┐
       n        I           ModP
                │        ┌────┴────┐
                ∅      AdvP      Mod'
              [NFUT]     │    ┌────┴────┐
                        caa  Mod⁰     AspP
                              ∅     ┌───┴───┐
                                    tɪ      VP
                                            △
                                         shɛr gaka
```
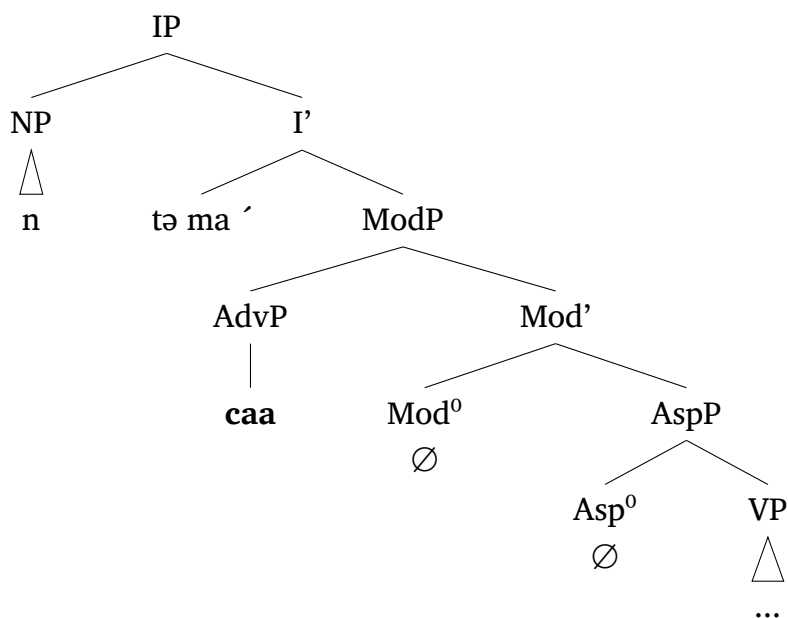
Note that with or without an overt aspect marker, the structures in (63) produce the correct linear order. Note also that I do not draw the specifier position of AspP in these examples; There is currently no data to suggest that the aspectual adverbials and *caa* can

co-occur, nor is there evidence to suggest which order would surface if they could. That being said, if they were to co-occur, it would be expected that *caa* would precede the aspectual adverbials, and that *shɩ* and *cɔɔ* would not occur together. This is a matter for future research.

This structure would also correctly place *caa* after the future marker *tə*, as demonstrated in (64) below:
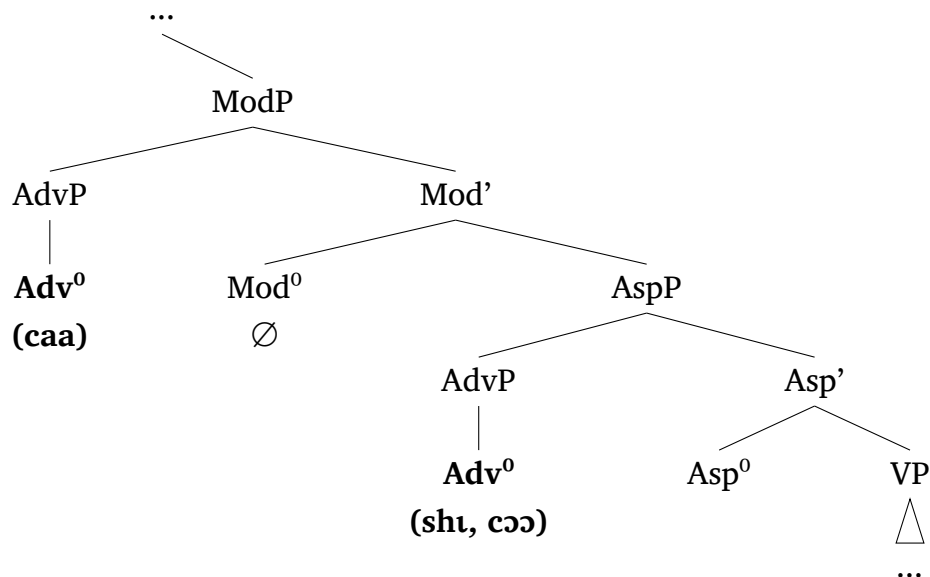
(64)  n    tə   ma      caa  ɖâ           afal
     1SG  FUT  1SG.IRR  INTD  be.there.FUT  afal
     'I should be at home.'

```
                    IP
                   /  \
                 NP     I'
                 /\    /  \
                /__\  tə ma´  ModP
                 n        /      \
                       AdvP       Mod'
                        |        /    \
                       caa    Mod⁰     AspP
                               ∅      /    \
                                   Asp⁰     VP
                                    ∅      /\
                                          /__\
                                           ...
```

## 4.6   Final Remarks on Analysis

The analysis presented in this chapter has demonstrated that *shɩ* and *cɔɔ* enter into a spec/head relationship with AspP, while *caa* enters into a relationship with ModP. The proposed clausal "map" of an utterance containing either *shɩ, cɔɔ,* or *caa* is shown in (65) below:

(65) The Relative Positions *Shɩ, Cɔɔ,* or *Caa*:

```
                    ...
                     |
                  ModP
          _____/    _____
       AdvP                    Mod'
        |                _____/    \_____
       Adv⁰           Mod⁰              AspP
      (caa)            ∅          ____/      \____
                              AdvP                Asp'
                               |              ___/    \___
                              Adv⁰          Asp⁰        VP
                           (shɩ, cɔɔ)                   △
                                                        ...
```

The relative order and structure presented above accounts for both semantic meaning and linear order. In addition, because any head may optionally take a specifier in this framework, it is extensible; Other adverbials would be expected to enter into the same type of relationship, and their order may be predictable based on Cinque's hierarchy.

# Chapter 5

# Conclusions

## 5.1 Summary of Analysis

Within this thesis, I have presented the adverbials *shɩ, cɔɔ,* and *caa* and detailed their meaning, usages, and syntax. This thesis has presented novel data on previously unstudied markers, as well as providing the first analysis of adverbial syntax in Anii. This analysis concludes that *shɩ* is a marker of aspectual emphasis, *cɔɔ* is a marker of aspectual certainty, and *caa* is a marker of interdiction and mockery. Syntactically, *shɩ* and *cɔɔ* enter into a spec/head relation with Asp, while *caa* enters into a relationship with Mod$_{necessity}$. This analysis accounts for the semantic meaning of the adverbials, and also accurately predicts the word order they surface in.

The results of this thesis are summarized in (66) and (67) below:

(66) **Definitions of *Shɩ, Cɔɔ,* and *Caa*:**

    **shɩ:**  Emphasizes the aspectual reference of the marked clause.

    **cɔɔ:**  Marks certainty of the aspectual reference of the marked clause.

    **caa:**  Marks the speaker's acknowledgment that the action or state denoted by the predicate is contrary to the listener's wants.

(67) **The Relative Positions of *Shɩ, Cɔɔ,* and *Caa*:**
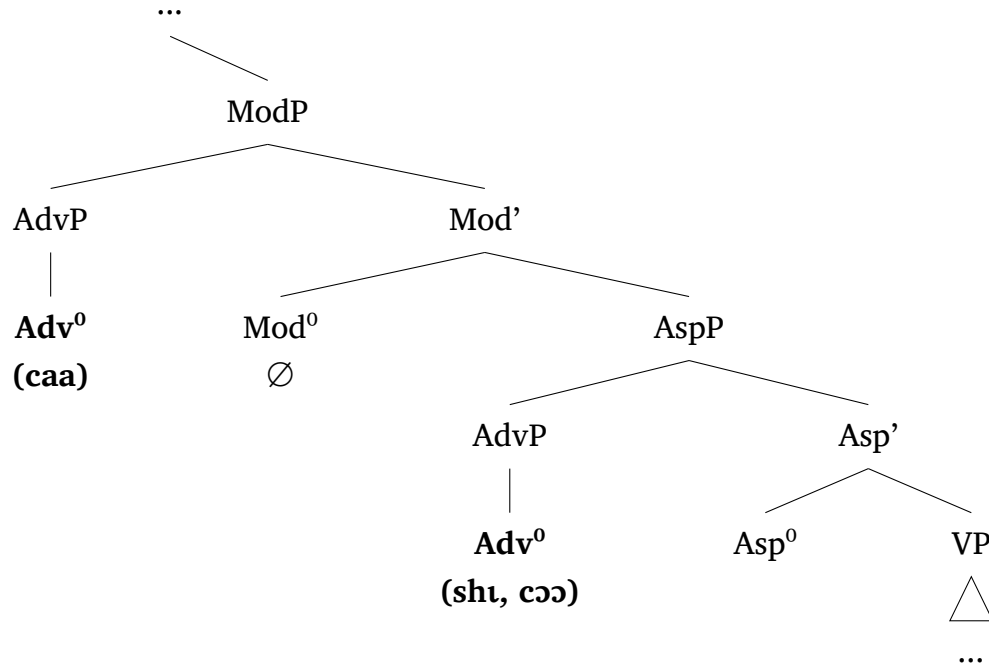
## 5.2   Implications and Further Work

This thesis represents the first inquiry into the adverbials *shι, cɔɔ,* and *caa,* and contributes a substantial amount of data to the literature on Anii. In addition, it presents an analysis of adverbials in Anii, which has never been examined in detail prior to this work. The data and analysis presented herein will provide a starting point for the analysis of similar markers in Anii and in other languages. Additionally, since Anii was not one of the languages used by Cinque (1999) to create the hierarchy, this analysis extends Cinque's theory to a new language. This provides additional empirical support for placing adverbials in the specifier of the head they modify.

In terms of future inquiry into the adverbials *shι, cɔɔ,* and *caa,* a formal semantic analysis of their emphatic and pragmatic nature is a potential avenue for a better understanding of Anii and aspectual reference. In addition, a wider scoping analysis of adverbials in Anii may allow for a more robust comparison of relative adverbial positioning and point more directly to taking either a scopal or cartographic approach to their placement. In addition, there is a possibility of similar makers and emphatic particles in other languages, which may provide more insight as to how the languages in this region and family mark tense, aspect, and adverbials, and how these phenomena may be modeled. Finally, this analysis has shown that the inflectional layer of Anii syntactic structure has a number of unanswered questions, such as the true nature of the future marking, irrealis morphology, and other adverbials. All of these are open to further inquiry, and with time more insights will be gained about Anii, adverbials, and syntax as a whole.

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|---|---|
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| 2022 | **Erickson Discovery Grant**, The Pennsylvania State University. $3500 in research funding for "A Semantic Analysis of Markers in Gısıɖa Anii: Shı and Cɔɔ" (Undergraduate Thesis, title since changed). |

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