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The Syntax and Semantics of Tongan Noun Phrases

A thesis submitted in partial fulfillment of the requirement
for the degree of Bachelors of Arts in Linguistics from
The College of William and Mary

by

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Accepted for _____
(Honors, High Honors, Highest Honors)

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1. Introduction

The purpose of this paper is to describe the grammatical patterns of noun phrases in Tongan.¹ This includes a variety of areas, ranging from very simple single-noun constructions up to complex phrases involving three nouns. My interest in this topic was motivated by the aura of mystery surrounding the language: Tongan's lack of overt morphology makes an in-depth analysis of the grammar and lexicon difficult, and the relatively small body of previous literature on the language gave me a minimal foundation on which to build.

In the fall of 2006, I spent a semester working on Tongan as part of a class project. My classmates and I collaborated to elicit data from a native speaker and to sketch tentative patterns of grammar. The descriptive grammar that resulted from the class was preliminary and shallow, but served as a model and basis for this paper.

All of the data used in this paper were elicited by me or by my classmates from our native Tongan speaker, Saane Saafi. This paper contains four sections: background information on general Tongan grammar, followed by descriptions of simple noun phrases, complex noun phrases, and extra complex noun phrases. My goal is to describe these patterns, account for the choices a native speaker must make, and propose possible structural accounts of each.

¹ Tongan has the following phonemes: /a e f h i k l m n ŋ o p r s t u v ?/ These sounds are represented using traditional Tongan orthography, which matches the phonemic symbols with two exceptions: for the glottal stop, an inverted apostrophe is used in place of ?; ŋ is replaced by 'ng'. I use the following abbreviations in this paper: PRES = present; PL = plural; AN = animal; NUM = numeric; ERG = ergative; ABS = absolutive; TOP = topic; POS = possessive; REF = referential; NRF = nonreferential, CP = case-marker phrase; AP = article phrase; NP = noun phrase; VP = verb phrase; AdjP = adjective phrase; S = sentence.

1.1 Tongan background

Tongan is a member of the Malayo-Polynesian branch of the Austronesian language family. It is an Oceanic language and is related to Niuean, Maori, Hawaiian, and Samoan. Tongan is spoken by about 100,000 people worldwide. It is the official language of the country of Tonga, a group of islands located in the Pacific Ocean near Australia and New Zealand. It became known to Europeans in the 1700s, the same time period in which they discovered other languages of the same family.

1.2 Speaker biography

My primary data are from Saane Saafi, a native speaker of Tongan. Because of her background growing up in Tonga and moving to the United States at a young age, she is fluent in both English and Tongan and also aware of common difficulties that arise in the translation process.

Saane Saafi was born on an island in the Vava'u group of Tonga and lived in the country until she was 16. Tongan was her native language, but she was exposed to English at an early age because her parents taught at Methodist schools. Her high school education was all in English with a class in Tongan, which was her poorest subject. At the age of 16, she received a scholarship which enabled her to move to Vermont to finish high school and then attend three years of college in New York. She did not graduate from college because she married. She and her Tongan husband traveled a lot because of his job in construction.

Since moving to the US, Saane has had several clerical jobs, all using only English, and currently she and her husband run a construction company. She has three children, of whom the oldest two learned Tongan as a first language, but not the third. Tongan is the primary language of the home, unless her English-speaking daughter is around. Her family still lives in or near Tonga, and they all meet at least once a year on the island at a home they own. Outside of family, she also keeps in touch with other Tongans in the United States, most of whom are located on the west coast.

1.3 Overview of the language

1.3.1 Word categories

Because of Tongan's relative lack of morphology and flexibility of word order and usage, parts of speech are very difficult to identify. For the purposes of this paper, I have determined the following parts of speech: noun, verb, adjective, adverb, case-marker, article, and pronoun.

Nouns were primarily distinguished by semantic content, as well as their lack of inflection and position in the sentence: after the articles and before most adjectives. Tongan nouns include common nouns and proper nouns. Common nouns refer to objects and abstract ideas and require a marker for referentiality, which will be explicated later. Proper nouns include names, are always capitalized, and cannot be found with the referential article. Common Tongan names that came up in my research are *Pulotu*, *Kakala*, *Sione*, and *Uheina*.

Verbs fall into two categories: auxiliary verbs and main verbs. Auxiliary verbs show tense and are almost always the first word in the sentence. Tongan

shows a strong preference for keeping the auxiliary and main verbs together, only interrupting this sequence with subject pronouns.

- (1) *na'a ku kaukau he vai*
 PAST I swim REF water
 'I swam in the water.'

The ambiguity as to where to draw category lines can be illustrated by several words that can be used as both nouns and verbs with no discernible change in form. In the following sentences, *'ofa* serves as a verb and then as a noun, with the only change being its placement in the sentence.

- (2a) *'oku 'ofa 'a e tamai (i) he 'ofefine*
 PRES love ABS REF father in REF daughter
 'The father loves the daughter.'

- (2b) *ko e 'ofa 'a e tamai (i) he 'ofefine*
 TOP REF love ABS REF father in REF daughter
 'The father's love for the daughter.'

Auxiliary verbs are a closed category that marks the tense of a sentence. Churchward lists only four tenses, some with multiple variations of the auxiliary verb: *'oku* for present; *kuo* for perfect; *na'e*, *na'a*, and *ne* for past; and *te* and *'e* for future (Churchward 1953: 37).

Adjectives can be broken down into two categories: pre-nominal and post-nominal. Pre-nominal adjectives include plural classifiers, possessive pronouns, and several other miscellaneous words, such as *ki'i* and *fu'u* ('small' and 'big',

respectively). As the name implies, they occur before the noun, but after the article. Post-nominal adjectives make up the vast majority and are consistently after both the article and noun. Predicative adjectives seem to replace the verb, either creating a new verb meaning ‘to be (adjective)’ or simply omitting the expected form of ‘to be’. There is no form of inflection to favor either explanation.

(3) *na’e lotomamahi ‘a Sione*
 PAST (to be) sad ABS John
 ‘John was sad.’

The classes of case-marker and article are closely related, but ultimately separate. They are always found together in the sentence before the noun or any pre-nominal adjectives, but express different grammatical and semantic relations. The case-marker, often called a preposition by Polynesian scholars, marks grammatical case within a sentence or noun phrase. With a range of forms that will be discussed later, the case-marker shows the grammatical role of the corresponding noun in the sentence. The article also has regular morphology and is a functional word related to referentiality and definiteness.

Pronouns differ in placement depending on grammatical function. Subject pronouns come after the tense marker and often interact phonologically with it.

(4a) *na’e tuli ‘e he sikulele e kulii*
 PAST chase ERG REF squirrel REF dog
 ‘The squirrel chased the dog.’

(4b) *na’a ku tuli ‘a e kulii*

PAST I chase ABS REF dog

‘I chased the dog.’

Object pronouns are generally after the verb, but before the subject.

(5) *na’e tuli au ‘e he kullii*

PAST chase me ERG REF dog

‘The dog chased me.’

They differ from nouns in that they are never found with a case marker or article and exhibit a nominative-accusative system instead of the ergative-absolutive cases assigned to nouns via case-markers. Subjects of both transitive and intransitive sentences have the same nominative form, which is separate from the accusative object.

There is certainly a pattern in the morphology of pronouns, but it is not entirely regular, especially in the singular: repeated morphemes are linked to each person, to the dual and plural, and to the object form. The forms of both subject and object are outlined in Table 1.

Table 1 Subject and Object Pronouns

| | Singular (1) | | Dual (2) | | | | Plural (3+) | | | |
|-----------------|--------------|-----|-----------|------|-----------|------|-------------|----------|-----------|----------|
| | Subj | Obj | Exclusive | | Inclusive | | Exclusive | | Inclusive | |
| | Subj | Obj | Subj | Obj | Subj | Obj | Subj | Obj | Subj | Obj |
| 1 st | ku/ou | au | ma | maua | ta | taua | mau | mau tolu | tau | tau tolu |
| 2 nd | ke | koe | mo | moua | to | toua | mou | mou tolu | tou | tou tolu |
| 3 rd | ne | ia | na | | naua | | nau | | nau tolu | |

1.3.2 Sentence structure

Tongan's basic word order is verb-subject-object.

- (6) *na'e tuli 'e he manupuna 'a e sikulele*
PAST chase ERG REF bird ABS REF squirrel
'The bird chased the squirrel.'

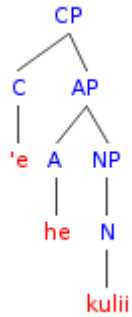
This VSO structure is not rigid; there is some variation:

- (7a) *na'e mohe e kului 'i he hala*
PAST sleep REF dog in REF street
'The dog slept in the street.'

- (7b) *'i he hala na'e mohe e kului*
in REF street PAST sleep REF dog
'The dog slept in the street.'

Tongan is consistently a head-initial language. Barring cases of preposing, verb phrases always begin with a tense-marking auxiliary verb. Within noun phrases, nouns are only preceded by the exceptional prenominal adjectives; all other adjectives, relative clauses, and nominal possessors follow the noun.

Because of this strong tendency towards head-initial syntax, it seemed odd that case-markers and articles are always found immediately before the noun. However, this supports an analysis of the noun phrase as being directly under a Case-marker Phrase and Article Phrase. This makes each case-marker, article, and noun the head of its own phrase and upholds the head-initial pattern, as in the tree below.



- (8) *'e he kullii*
 ERG REF dog
 'The dog.'

Case-markers and articles can be assimilated into the head-initial philosophy, but pronouns also pose a problem. Subject pronouns interrupt the auxiliary-verb sequence, resulting in an auxiliary-subject-verb-object order.

- (9) *na'a ku tuli 'a e kullii*
 PAST I chase ABS REF dog
 'I chased the dog.'

Object pronouns are found after the verb phrase, but before the subject, yielding a verb-object-subject order.

- (10) *na'e tuli au 'e he kullii*
 PAST chase me ERG REF dog
 'The dog chased me.'

Even possessive pronouns disrupt canonical word order, being found before the described noun, unlike the majority of adjectives. In these cases, the head of the noun phrase is no longer in the initial position.

- (11) *na'e motu'a 'eku tohi*
PAST old my book
'My book was old.'

If the morphology of the possessive pronoun is broken down thoroughly, each word contains morphemes related to case-markers, articles, and subject pronouns.

- (#) *ha- -'a- -mau ngoue*
NRF POS we garden
'Our garden.' (Macdonald 2006:6).

Given this analysis, it is easy to see the parallel between subject pronouns interrupting the verb phrase and the subject pronoun morpheme interrupting the noun phrase, filling in the position directly between the case-marker/article construction and the noun itself. This position can only be occupied by plural classifiers, a very small number of adjectives, and these pronouns.

It has been suggested that personal pronouns are cliticized (Macdonald 2006): the pronoun attaches itself to the front of a phrase, where the head would normally be found. Following this argument through, if a clitic is generated first as a NP and then undergoes movement to its ultimate position, this allows Tongan to remain head-initial at deep structure, although surface structure

appears otherwise. On the other hand, Macdonald (2006) rejects the idea of movement based on the presence of double clitics.

My research gives me no explanation for this trend, but it is certainly worth deeper investigation at a later time. Perhaps these aberrations can also be reconciled with the head-initial structure, but in this paper, I will treat them as exceptions.

1.3.3 The case-marking system

An important feature of Tongan is the ergative-absolutive pattern of its case markers. This makes the differentiation between transitive and intransitive verbs very salient. Often, these verbs can be surprising because Tongan assigns the intransitive grammar pattern to verbs that are considered transitive in English. For example, in English, the verb “to see” requires two arguments: a subject and a direct object. In Tongan, however, the verb of seeing assigns the absolutive case to the subject and an indirect locational case-marker to the object.

(12) *na'e sio ('a) e kulii ki he sikulele*
PAST see ABS REF dog to REF squirrel
'The dog saw the squirrel.'

This fascinating distinction can be best illustrated by a pair of verbs with the same English translation but with different grammatical consideration in Tongan: *'ofa* and *'ofeina* both describe the action of loving, but the former is intransitive while the latter is transitive.

- (13a) *'oku 'ofa 'a e tamai 'i he 'ofefine*
 PRES love ABS REF father in REF daughter
 'The father loves the daughter.'
- (13b) *'oku 'ofeina'e he tamai 'a e 'ofefine*
 PRES love ERG REF father ABS REF daughter
 'The father loves the daughter.'

In sentence 13a, what would be considered the direct object in English, *he* *'ofefine*, is assigned an oblique case in Tongan. Compared to 12 above, the oblique noun takes a different case-marker. Both *'i* and *ki* involve spatial relations or positions, so it is possible that they are semantically related, but the particulars will not be broached in this paper.

There are many similar verb pairs that reflect the same distinction such as the transitive *'itengia* and its intransitive counterpart *'ita*, both meaning 'to be angry at.' The precise semantics of these pairs is unclear, although Saane offers her perspective: according to her, *'ita* and *'ofa* are short-term states, while *'itengia* and *'ofeina* continue for a prolonged period.

The concept of transitivity will become very important in the discussion of nominalizations in section 4.

Case-markers carry a great portion of the grammatical weight in any given sentence. Through a variety of forms, they express relationships between constituents, and produce a very complex system of tiny words.

Again, the case-markers follow an ergative-absolutive system: the subject of a transitive sentence is marked with ergative *'e* while the subject of an

intransitive sentence and the object of a transitive sentence are marked with absolutive 'a.

(14a) *na'e tuli 'e he manupuna 'a e sikulele*
PAST chase ERG REF bird ABS REF squirrel
'The bird chased the squirrel.'

(14b) *na'e tangutu 'a e pusi 'i he funga maka*
PAST sit ABS REF cat in REF top rock
'The cat sat on top of the rock.'

Somewhat confusingly, one form of the possessive case-marker is identical to the absolutive 'a. A possessive relationship can be indicated with either 'a or 'o. The distinction is closer to a nominative-accusative system than to ergative-absolutive: subjects of both intransitive and transitive sentences have the same marking, while objects have another. The semantics of the possessive dichotomy will be explored further in section 3.2.

This initial case-marking position can be filled by other markers, which are more easily confused with other parts of speech. In fact, Churchward generalizes them as prepositions (Churchward 1953:100). This is possibly because many of them involve location or movement, such as *ki* which indicates movement toward something and *i*, which shows position. Other grammatical cases include *mei* and *mo*, roughly equivalent to 'from' and 'with', respectively.

Lastly, the most difficult case marker is *ko*. This small word seems to serve several functions in the sentence, and has been described in many ways in the literature. Otsuka (2006:441) labels it a "nominal predicate marker". Shumway

(1971:100) cites Churchward's explanation of his use of the term "functional preposition": "the relationship expressed by *ko* is that of identity... its primary function is simply to indicate who or what it is to which our attention is now directed." While this is a very common word in Tongan, and very important to discourse, it is less relevant to the subject of this paper; thus I will simply refer to it as the topic marker.

The uniting factor of all of these case markers is their position in the sentence and in the nominal phrase. These short words are, like 'e, 'a and 'o, followed immediately by the article and the rest of the noun phrase.

Case-markers are almost always closely attached to the article, the semantics of which are more hotly debated. This time, there are two forms (*he* and *ha*), but the semantics are unclear. Some scholars, including Hendrick (2005:908), write that this word, in combination with stress accent indicates definiteness. In this case, there are three levels of definiteness: definite (*he* plus accent on the final syllable), semi-definite (*he* with no accent), and indefinite (*ha* with no accent). Others, like Otsuka (2006:436) maintain that Tongan does not show definiteness, but that *he* and *ha* represent referentiality and nonreferentiality, respectively. Otsuka credits the stress accent with designating definiteness, but gives these words independent meaning. What is clear is that Saane uses *he* when given a sentence with 'the', *ha* for a sentence with indefinite 'a', and neither in a construction with a proper noun.

As stress accent and detailed semantic analysis are outside of the scope of this research, and as both approaches are only different in nuances, I will continue to call the article referential in the interest of simplicity.

Despite the complexity of the case-marking system, it is the backbone of structure in Tongan, and will play a significant role in later discussion about noun phrase interaction.

2. A closer look at simple noun phrases

Simple noun phrases in this section involve only one noun and its corresponding modifiers.

2.1 Noun phrase grammar

The NP at its simplest consists of three components: a case-marker, article, and the noun itself.

The absolutive ‘*a* can often be omitted. This can occur both in transitive and intransitive sentences.

(15a) *na'e ongo'i 'e he kulii ('a) e manupuna*

PAST hear ERG REF dog ABS REF bird

‘The dog heard the bird.’

(15b) *na'e fanongo ('a) e kulii ki he manupuna*

PAST listen ABS REF dog to REF bird

‘The dog listened to the bird.’

According to Hendrick (2005:910) the dropping of the absolutive ‘*a* is obligatory before the nonreferential *ha*.

(16) *na'e kakau ha fonu kovi ki Tongatapu*
 PAST swim NRF turtle bad to Tongatapu
 'A bad turtle swam to Tongatapu.'

This should not be confused with possessive 'a before the nonreferential, which is not always dropped.

(17) *ko e 'ofeina 'a ha tamai hono 'ofefine*
 TOP REF love POS NRF father his daughter
 'A father's love for his daughter.'

The referential article, *he*, often appears in its shortened form of *e*, especially when preceded by the absolutive 'a, as in sentence 18a. However, the nonreferential *ha* always remains intact, as in 18b.

(18a) *na'e teke'i 'e he tamasi'i 'a e ta'ahine*
 PAST push ERG REF boy ABS REF girl
 'The boy pushed the girl.'

(18b) *na'e siofi 'e ha sikulele 'a Pulotu*
 PAST watch ERG NRF squirrel ABS Pulotu
 'A squirrel watched Pulotu.'

The vast majority of adjectives are found after the noun, with a few exceptions, such as *ki'i* ('small'), *fu'u* ('large'), and plural classifiers.

(19a) *na'e teke'i 'e ha fu'u kuli ha ki'i ngoue*
 PAST push ERG NRF big dog NRF small farmer
 'A big dog pushed a small farmer.'

(19b) *na'e teke 'e he kau tangata*
 PAST push ERG REF PL.PEOPLE man
'a e kau ngoue
 ABS REF PL.PEOPLE farmer
 'The men pushed the farmers.'

These classifiers generally come after the article and before any other adjectives that may be used, and are determined by the category of the noun. The four categories are as follows: *kau* refers to humans, *fanga* to animals, *'u* and *ngahi* to inanimate objects.

Relative clauses are more complex than simple noun phrases, but still involve one main noun and then a sentence attached to it. Tongan expresses these by placing a full sentence directly after the described noun with no additional marking.

(20) *na'e mohe 'a e tangata na'a ne kai e*
 PAST sleep ABS REF man PAST 3rd.sing eat REF
sisi
 cheese
 'The man who ate the cheese slept.'

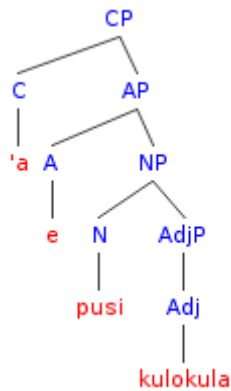
In simple sentences, Tongan prefers the normal VSO structure, but there is also a strong tendency to keep the relative clause and its corresponding noun at the very end of the sentence.

(21) *na'e kaka he 'akau 'a e sikulele na'e tuli 'e*
 PAST run upREF tree ABS REF squirrel PAST chase ERG
he kuli
 REF dog

'The squirrel that the dog chased ran up a tree.'

2.3 An attempt at syntactic structure

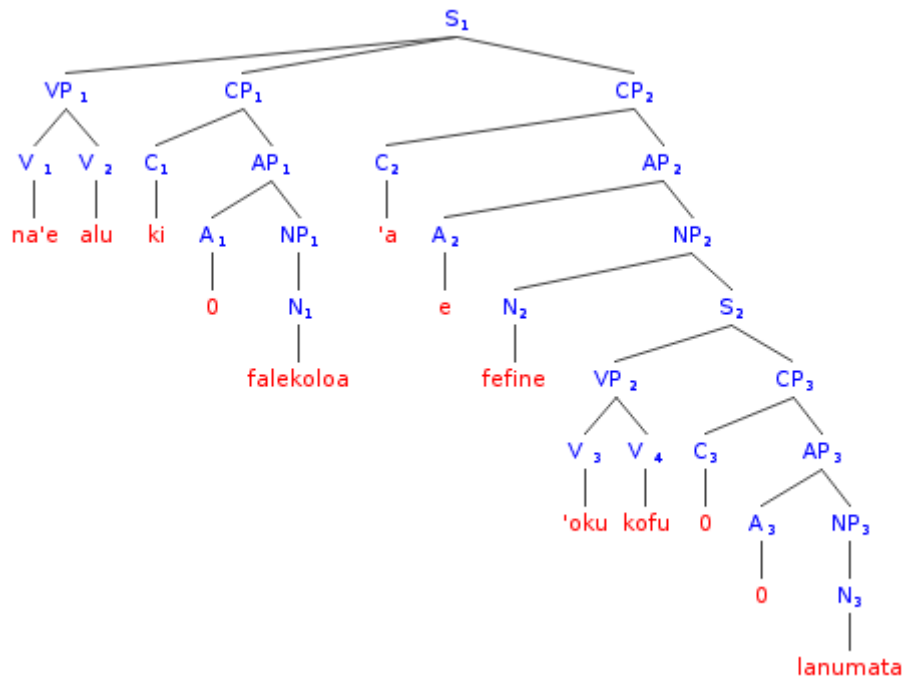
Because of the limited scope of this paper and the difficulties presented by Tongan and the insufficient literature on the subject, any proposal for the syntactic structure of the language is only tentative.



(22) *'a e pusi kulokula*
 ABS REF cat red

'The red cat.'

In the tree above, I have isolated the case-marker and article in their own levels. Thus the head of the noun phrase is still in the initial position, and there is no threat to the head-initial pattern.



(23) *na'e alu ki falekoloa 'a e fefine 'oku kofu*
 PAST go to store ABS REF womanPRES wear
lanumata
 green

'The woman who is wearing green went to the store.'

Usually, syntax trees follow the binary X' structure. This theory places an intermediate node, X', between the XP and X levels, allowing more deeper analysis of constituency and relationships. However, Tongan shows no evidence for or against X' and lacks the tests English uses to show constituency. In the interest of simplicity, I will continue using flat structures, like the tree above.

3. Complex noun phrases

To go beyond single-noun constructions, phrases including two nouns are much more complicated. Two-noun constructions include adjunct phrases and possessive nouns and vary in the way in which they show their relationship to the main noun.

We have a variety of ways in which English adjuncts and possessives are expressed:

- (24) 'The girl with the red hair.' (prepositional phrase)
- (25) 'The girl on the bus.' (prepositional phrase)
- (26) 'The man's wallet.' (possessive s marking)
- (27) 'The wallet of the man.' (prepositional phrase)

Tongan's strategies bear some resemblance to English, but in other areas the fluidity of word categories makes comparison difficult.

3.1 Adjunct phrases

In Tongan, an adjunct can be described as a modifier that is not integral to the meaning of the phrase; rather, it is added information. In English, adjuncts could be explained as structurally different from other phrases using X' Theory, but this is not the case for Tongan.

Adjunctive relationships encompass two markedly different types of relationships: attributive and locational. Both are expressible in Tongan, but each has a unique grammatical construction.

Attributive adjuncts describe a feature of the main noun, and, like mass and general complement nouns, place the second NP directly after the first with no kind of article or other unique morphology.

(28) *ko e ta'ahine 'ulu kulokula*
 TOP REF girl hair red
 'the girl with the red hair'

If the second noun is plural, the plural classifier is dropped.

(29) *ko e kuli telinga loloa*
 TOP REF dog ear long
 'the dog with the long ears'

These phrases seem roughly equivalent to changing the adjunct noun into an adjective, as in English: 'the red-haired girl'. However, Tongan has no morphology that distinguishes nouns, verbs, and adjectives, so this phenomenon cannot be precisely defined.

Unlike complement phrases, where the article is optional but possible, attributive adjuncts do not normally allow the article at all.

(30a) *ko e ta'ahine 'ulu kulokula*
 TOP REF girl head red
 'the girl with the red hair.'

(30b) **ko e ta'ahine mo e 'ulu kulokula*
 TOP REF girl with REF head red
 'the girl with the red hair.'

There are two exceptions to this rule. The first is when the adjunct noun is human. In these cases, the case-marking *mo* is obligatory.

(31) *ko e fefine mo hono mali nounou*
 TOP REF woman with her husband short
 ‘the woman with the short husband’

A possible explanation for this is that Tongan does not consider this an attributive construction, but considers it semantically different in some way. Again, drawing a parallel with English, it is possible to say, ‘the red-headed girl’, but it is not possible to say, ‘the short-husbanded woman.’

The second is when the attributive adjunct occurs separated from the head noun, after an intervening locational adjunct, as will be seen later. This is the only time the case marker *mo* can be found with an attributive adjunct phrase, in order to avoid confusion in the more complex construction. The purpose of this is to clarify the meaning for the hearer and to avoid confusion. Saane compares the phrase without *mo e* in 30a to ‘the red-headed girl’, whereas 30b is the more explicit ‘the girl with the red hair.’

Adjunct phrases expressing location are very similar to their English counterparts. In discussing times, places, and abstract ideas, Tongan uses case-markers and articles.

(32a) *ko e siana mei Lonitoni*
 TOP REF guy from London
 ‘the guy from London’

(32b) *ko e fakataha 'i Tisema*
 TOP REF meeting in December
 'the meeting in December'

(32c) *ko e fakakaukau 'i ho'o 'esai*
 TOP REF idea in your essay
 'the idea in your essay'

When two adjunct phrases are involved, it is typically one attributive and one locational. In these cases, speakers use the same grammatical patterns as outlined above: attributive adjuncts have the option of being introduced by the case-marker and article combination *mo e*, but are often simply juxtaposed next to the main noun, and locational adjuncts utilize case markers like *ki* and *'i* but can sometimes appear only with the referential *he*. These rules are unchanged by the presence of a second adjunct.

(33) *ko e ta'ahine 'ulu kulokula ('i) he pasi*
 TOP REF girl head red in REF bus
 'The girl with the red hair on the bus.'

Tongan gives these types of sentences some measure of flexibility in phrase order. They can fairly easily be reversed.

(34a) *ko e fakataha mo e kalaieni 'i Tisema*
 TOP REF meeting with REF client in December
 'The meeting with the client in December.'

(35b) *ko e fakataha 'i Tisema mo e*
 TOP REF meeting in December with REF
kalaieni
 client
 'The meeting with the client in December.'

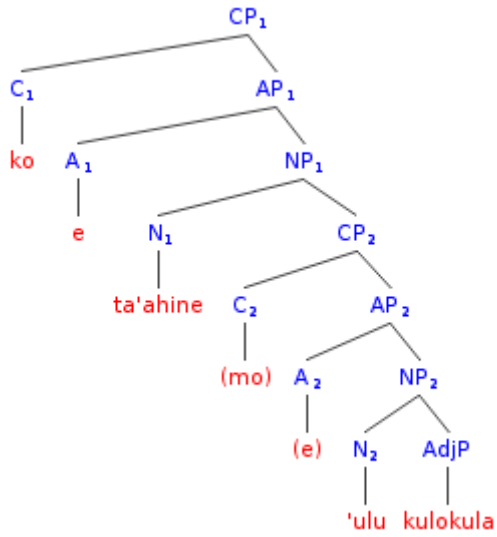
When the attributive adjunct describes a property, physical or otherwise, of the main noun, the optional *mo e* becomes obligatory in secondary position.

(36a) *ko e ta'ahine he pasi mo e 'ulu kulokula*
 TOP REF girl REF bus with REF head red
 'The girl with the red hair on the bus.'

(36b) **ko e ta'ahine he pasi 'ulu kulokula*
 TOP REF girl REF bus head red
 'The girl with the red hair on the bus.'

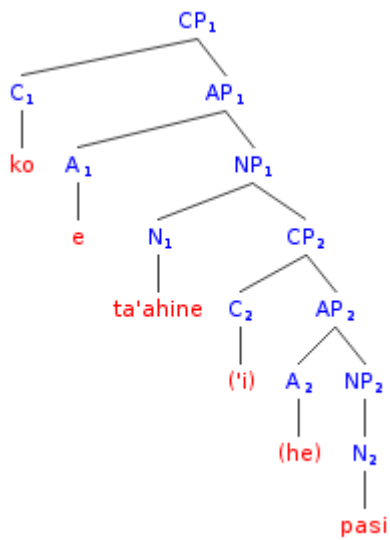
In English, adjuncts can be identified with the “one” test: by replacing groups of words with “one”, this test shows which groups form constituents and at what level in the tree they are related. However, Tongan does not have such a test, and I have not been able to determine constituency. Keeping in line with my analysis without X', I propose the following trees to describe the structure of nouns with adjuncts.

Attributive adjunct:



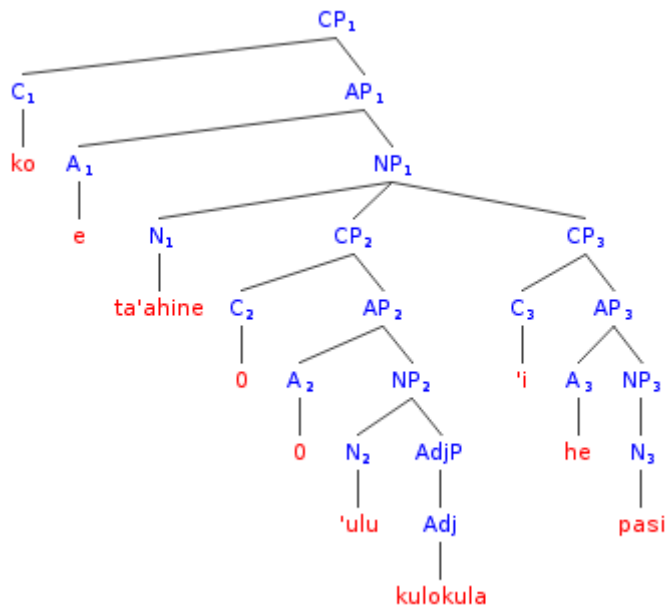
- (37) *ko e ta'ahine (mo) (e) 'ulu kulokula*
 TOP REF girl with REF hair red
 'The girl with the red hair.'

Locative Adjuncts:



- (38) *ko e ta'ahine (i) he pasi*
 TOP REF girl in REF bus
 'The girl on the bus.'

Structurally, these two trees are identical. The only distinguishing feature is the case-marker of the adjunct phrase.



- (39) *ko e ta'ahine 'ulu kulokula (i) he pasi*
 TOP REF girl head red in REF bus
 'The girl with the red hair on the bus.'

In trees like the multiple-adjunct structure above, the flat structure may seem overly simple, but I hesitate to suggest anything more complex because of the flexibility in phrase order. Even in English there can be variation in the order

of adjuncts, but I have no reason to speculate on the involvement of syntactic movement in Tongan.

3.2 Possessives

3.2.1 The structure of nominal phrases in the possessive

The structure of possessive phrases in Tongan is fairly regular when using two nominals: the possessor, with a corresponding article, comes directly after the possessum. However, the form of the article changes. Tongan speakers must choose between ‘a and ‘o, as seen in sentences 40a and 40b.

(40a) *na'e fanongo 'a e kullii 'a pulotuki he pusi*
 PAST hear ABS REF dog POS Pulotuto REF cat

'a kakala

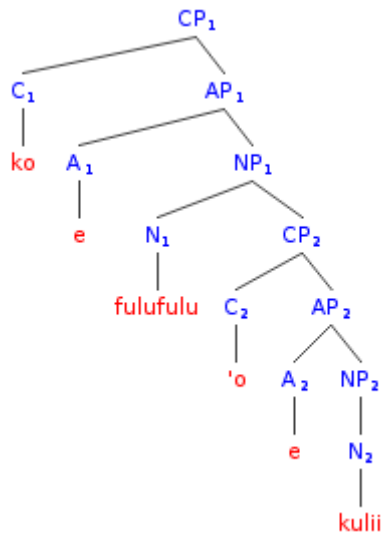
POS Kakala

‘Pulotu’s dog heard Kakala’s cat.’

(40b) *na'e viku 'a e fulufulu 'o e kullii*
 PAST wet ABS REF fur POS REF dog

‘The dog’s fur was wet.’

I propose the following tree to show the structure of the possessive:



- (41) *ko e fulufulu 'o e kulii*
 TOP REF fur POS REF dog
 'The dog's fur.'

This structure is identical to that of the adjunct construction, and again, it is only the case-marker form that expresses the intended relationship. Like adjuncts, adjectives, and relative clauses, the possessive DP is sister to the main noun, preserving the head-initial pattern already established.

3.2.2 The case-marking of possessive nominals

As mentioned before, a possessive relationship can be expressed through the use of either 'a or 'o, the semantics of which will be discussed later but do not affect the description of the grammar in this section. This dichotomy applies to pronouns, as well: the 'eku pronouns correspond to the possessive 'a, while the hoku pronouns correspond to possessive 'o.

(42a) *na'e motu'a 'a ho'o tohi*
 PAST old ABS your notebook
 'Your (1) notebook was old.'

(42b) *na'e viku 'a ho lou'ulu*
 PAST wet ABS your hair
 'Your (1) hair was wet.'

These possessive pronouns are grouped with plural classifiers as rare prenominal adjectives. As such, they are found before the noun, but after the case-marker and article.

The influence of the referentiality of the article manifests itself in different ways in each pronoun system. In the *hoku* pronouns, it is incorporated into the pronoun itself, as seen in Table 2. The morphological patterns of this system are clearly regular and the incorporation of the nonreferential *ha* is obvious.

Table 2 The *hoku* system

| | | Singular | Dual | Plural |
|-------------------------------------|----------------|----------|------|--------|
| 1 st person exclusive | Referential | hoku | homa | homau |
| | Nonreferential | haku | hama | hamau |
| 1 st person inclusive | Referential | hoto | hota | hotau |
| | Nonreferential | hato | hata | hatau |
| 2 nd person | Referential | ho | homo | homou |
| | Nonreferential | hao | hamo | hamou |
| 3 rd person | Referential | hono | hona | honau |
| | Nonreferential | hano | hana | hanau |

In contrast, the *'eku* system keeps the article on the outside of the possessive pronoun, as seen in Table 3. In this system, both *he* and *ha* are

prominent, and the irregularities of the second person forms are reminiscent of the morphophonology of the *hoku* system.

Table 3 The *'eku* system

| | | Singular | Dual | Plural |
|-------------------------------------|----------------|----------|--------|---------|
| 1 st person exclusive | Referential | he'eku | he'ema | he'ema |
| | Nonreferential | ha'aku | ha'ama | ha'amau |
| 1 st person inclusive | Referential | he'ete | he'eta | he'etau |
| | Nonreferential | ha'ate | ha'ata | ha'atau |
| 2 nd person | Referential | ho'o | ho'omo | ho'omou |
| | Nonreferential | ha'o | ha'amo | ha'amou |
| 3 rd person | Referential | he'ene | he'ena | he'enau |
| | Nonreferential | ha'ane | ha'ana | ha'anau |

Possessive pronouns are problematic not only in word order and structure, as explained in section 1.3, but also in semantics. Aside from the variation in form, these possessive systems also convey a difference in meaning. While many common nouns are consistently found with only one or the other, more abstract ideas can show subtle yet important semantic differences. In nominalizations, when the possessor is the subject, it takes the *'eku* system. On the other hand, when the possessor is the object of the action, it uses the *hoku* system. This can lead to contrasting pairs like *'eku tohi* 'my book (a book that I own or have written)' and *hoku tohi* 'my book (a book about me)'; *'eku tamate* 'my murder (a murder that I committed)' and *hoku tamate* 'my murder (I am murdered)'; *'eku fakatata* 'my picture (a picture that I own or made)' and *hoku fakatata* 'my picture (a picture of me)'; and *'eku hiva* 'my song (a song sung by me)' and *hoku hiva* 'my song (a song about me)'.

These slight linguistic differences can have large effects on the semantic interpretation of the possessive phrase, but in some cases, I did not find the distinction I had expected. For example, according to Saane, *'eku* would be used with *ma'u* 'ownership' whether the possessor is the owner or the owned. There were several other exceptions like this, but I must take into account the very clear pattern shown by words like *fakatata*. Overall, this suggests great flexibility in meaning, assumedly leading to heavy reliance on context.

This is one of the most perplexing puzzles of Tongan, so my research gave me an in-depth look at how these differences manifest themselves in modern Tongan. Saane worked with me to generate lists of words and classified them as either *hoku* or *'eku*, noting the few exceptions that could switch. Remarkably, even when she couldn't think of the word for the noun, she knew immediately which possessive pronoun it would take. This ruled out the possibility of a phonological basis for the decision. However, she could not describe why she chose one over the other.

Table 4 *'Eku* words

| | |
|----------|---|
| fa'e | mother/maternal aunt |
| tohi | book |
| tama | child, (woman referring to her) offspring |
| tamai | father/paternal uncle |
| peni | pen |
| pepa | paper |
| 'akau | plant |
| kato | basket |
| fonu | turtle |
| laulau | tray |
| ta'ahine | girl, (woman referring to her) daughter |
| tamasi'i | boy, (woman referring to her) son |
| kui | grandparent |

| | |
|--------------|----------------|
| fa'e tangata | maternal uncle |
| ngaue | job, employee |
| kulii | dog |
| puaka | pig |
| pusi | cat |
| laapisi | rabbit |
| letio | radio |
| telefoni | telephone |
| faiako | teacher |
| iukulele | ukelele |
| me'aifi | trumpet |
| piano | piano |

Table 5 *Hoku* words

| | |
|-------------|---------------------------------|
| sioata | glasses |
| tesi | desk |
| mata | eye |
| ulu | head |
| va'e | foot |
| uma | arm |
| kete | stomach |
| ihu | nose |
| telinga | ear |
| ngutu | mouth |
| kia | neck |
| fatafata | chest |
| lonima | finger |
| mehikitanga | paternal aunt |
| kaume'a | friend |
| fonua | country |
| fale | house |
| ofisi | office |
| vaka | boat |
| hingoa | name |
| tokoua | cousin |
| famili | family |
| kainga | extended family |
| kakai | people |
| foha | (man referring to his) son |
| ofefine | (man referring to his) daughter |
| mokopuna | grandchild |
| tui | king |
| pule | boss |
| hoa | spouse |
| mali | spouse |

| | |
|-----------|-----------|
| uaifi | wife |
| kaungaako | classmate |

These tables show the process I used for determining some kind of semantic basis for the grouping. At first, I hoped to see a parallel between the possessives and the plural classes, which have separate categories for humans, animals, and inanimate objects. However, as *faiako* ‘teacher’ and *kaungaako* ‘classmate’ are separated, this does not seem to be the explanation. The next likely basis for possessive distinctions was alienability. Pawley (1973) describes the historical significance of alienability in Polynesian languages, but Tongan classifies typically alienable phrases differently: *tohi* ‘book’ is ‘*eku* class, while *tesu* ‘desk’ is *hoku*.

In particular, the kinship terms show the breadth of this conundrum. A paternal aunt, *mehikitanga*, is *hoku* class while a paternal uncle, *tamai*, is ‘*eku*. Furthermore, both *tamai* ‘father’ and *fa’e* ‘mother’ are ‘*eku* class, indicating that linguistic boundaries do not coincide with normal familial lines.

Several theories have been proposed in attempts to explain this mysterious phenomenon. Briefly, these approaches include Churchward’s subjective-objective split, Wilson’s theory of control, and Taumoefolau’s metaphoric interpretation.

The ‘*a*’*eku* class is linked to action in all three theories. Churchward focuses on nominalizations and gives the ‘*a* group the label of ‘subjective’. He generalizes this analysis of nominalizations to common nouns by saying the possessor is "active, influential, or formative, &c. towards the thing mentioned" (Churchward 81). Similarly, Wilson attributes a great deal of power to the ‘*a*

nouns, but he emphasizes the idea of control: when the possessor has control over his relationship to the possessum, 'a should be used. Lastly, Taumoefolau looks at nouns at occurring with either 'eku or hoku, and says that each has a different meaning. Her interpretation of 'a class relationships builds on Churchward's idea of the possessor as a doer by adding metaphoric extensions to portray objects as activities. All three scholars seem to agree that 'a and 'eku indicate a relationship in which the possessor is dominant in some way over the possessum.

In contrast to the 'a category, the 'o class is more passive. Churchward calls it the objective group, describing these nouns as the objects of the nominalized verb, or cases in which the possessum is active upon the possessor. Wilson writes of the 'o class as objects over which the possessor has no control and also as referring to "relationships which involve the use of the possessed by the possessor as a location require o marking" (Wilson 1976:43). Here is where Taumoefolau disagrees with previous theories. The basis for her 'o class metaphors is a partitive relationship, where the possessum is part of the possessor.

While the three theories vary in details, there is one common admission: the possessive system is very complicated. It is hard to nail down what exactly is going on and draw a neat pattern. Ambiguity is a frequently recurring theme in Tongan, as it interferes with word categories and now the slipperiness of possessive constructions. Nominalizations are central to the theories mentioned above, and this is precisely where Tongan is vague in morphology: I have not

found a method for distinguishing nominalizations from other nouns or, in fact, from verbs.

The lesson that can be learned from the review of each scholar's work is that much more work needs to be done. All three agree on some kind of dominant-subordinate relationship in which 'a nouns have a more active role than 'o nouns. The idea of agency and objectivity being factors is a solid foundation, but it obviously cannot account for the many exceptions Tongan offers. Linguistic evolution and conventionalization have only added to the confusion and made it even harder to make generalizations about the use of 'a and 'o. However, Saane's instinct indicates that there is some kind of semantic basis at work here, although it may have become obscured.

The example of the possessive categories reinforces the idea that Tongan is a very fluid language that is not easy to define. Furthermore, this is another case where case-markers make a crucial difference both syntactically and semantically. This is true in sentences, simple noun phrases, and now complex noun phrases. Case-markers, especially the possessive 'a and 'o, will continue to be vital in later sections on more complex noun phrases.

It is important to note that the 'a/'o distinction is not unique to Tongan, but is widespread among Polynesian languages. In fact, Wilson's control theory is based entirely on Hawaiian, but can be potentially be applied to Tongan as well. Although there is a great deal of research on this phenomenon in other related languages, there is very little that focuses on Tongan alone. Pawley (1973) offers some insight by describing possession in Tongan's ancestor, Proto-Oceanic. This language had a three-way split in the possessive, with one category for dominant

relationships, one for subordinate relationships, and one for inalienable nouns. Over time, these three groups were reduced to Tongan's two, and it is easy to see how the semantics could have become muddled.

4. More complex noun phrases

The simple possessive relationships described in section 3.2 apply cleanly to common nouns, but there is a group of nouns that are much more complicated. They are often referred to as nominalizations by scholars, but there is no morphological basis for this. They are used interchangeably with verbs and express an action, so the term 'nominalization' will suffice.

Nominalizations are different from common nouns in that it is not the dominant or subordinate relationship to the noun that takes first priority, as in possessives: rather it is its role as an argument of the action that decides its grammar. The parallel between the complex noun phrase and its corresponding sentence is important and it is the case-markers that show these relationships.

4.1 Complement phrases

In these constructions, the nominalization takes one argument: an object, which manifests itself as complement to the noun, just as it would be complement to the verb. English has this pattern also: the complement object becomes the complement of the noun marked by a prepositional phrase.

(43a) 'The man teaches Latin.'

(43b) 'The teacher of Latin.'

There is significant parallelism in the syntactic structure of these English phrases, as noted in the famous example of “the barbarians’ destruction of the city.” However, my analysis of Tongan structure does not include X’ Theory and therefore does not have the same parallel tree structure as English has.

Tongan makes the transition from verb phrase to nominalization by following the main noun with the complement phrase and no unique grammatical marker to explicitly show the relationship. However, the form of the case-marker on the second NP indicates that Tongan regards this as a type of possession, or at least similar to it.

The case-marker is chosen from the possessive markers, ‘a and ‘o, based on the semantic criteria discussed in section 3.2.2. As previously mentioned, often one noun can take both possessive markers in different contexts.

(44a) *ko 'ene faka'ikai'i 'a e mo'oni*
 TOP his denial POS REF truth
 ‘His denial of the truth.’

(44b) *ko 'ene faka'ikai'i 'o e mo'oni*
 TOP his denial POS REF truth
 ‘His denial of the truth.’

In sentence 44, the case-marker can vary with only subtle differences in meaning. Saane explains ‘a e mo’oni as having the meaning of ‘the truth for me alone’, whereas ‘o e mo’oni is a universal truth. In this case, the concrete meaning

of the noun does not change, but the relationship of the possessor to the possessum is slightly different.

In some cases, as when the second NP is a mass noun, the case-marker and article can be dropped.

(45a) *ko e faiako 'o e Latina*
 TOP REF teacher POS REF Latin
 'the teacher of Latin'

(45b) *faiako Latina*
 teacher Latin
 'teacher of Latin'

The case-marker and article are also routinely omitted when referring to general nouns.

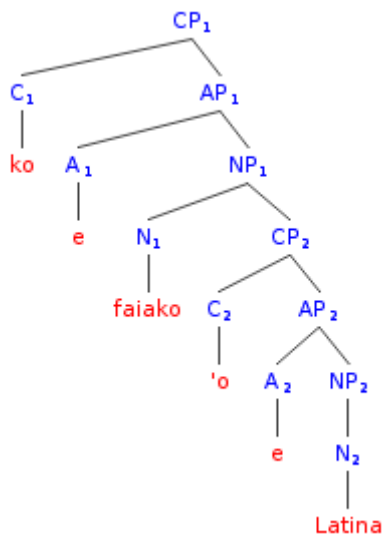
(46) *ko e tokotaha fa'u talanoa nounou*
 TOP REF one make story short
 'the author of short stories'

In my data, I frequently encountered the word *taha* or *tokotaha*, a general term for a person. This was often used in cases where Tongan has no direct equivalent of the word I had asked of Saane. She compensated for this gap in vocabulary by combining *tokotaha* and the corresponding verb, which appear as two separate words. At first, this seemed to disrupt the neat pattern of complement phrases, but now it appears that Tongan speakers treat these combinations as compound units.

(47a) *ko e tokotaha langa fale*
 TOP REF one build house
 ‘the builder of houses’

(47b) *ko e tokotaha fa’u sikalaputua*
 TOP REF one make statues
 ‘the sculptor of statues’

One complement phrase on its own with the main noun involves another identical structure: this tree mirrors those of adjuncts and possessives because Tongan treats them in the same way, at least for the purposes of this paper.



(48) *ko e faiako 'o e Latina*
 TOP REF teacherPOS REF Latin
 ‘The teacher of Latin.’

Complement phrases can be found alongside adjunct phrases. In combination, each retains its individual grammatical patterns, and the phrase order is somewhat flexible.

(49a) *ko e fa'ee 'a e toko nima mei Lonitoni*
 TOP REF mother POS REF NUM five from London
 'The mother of five from London.'

(49b) *ko e fa'ee mei Lonitoni 'a e toko nima*
 TOP REF mother from London POS REF NUM five
 'The mother of five from London.'

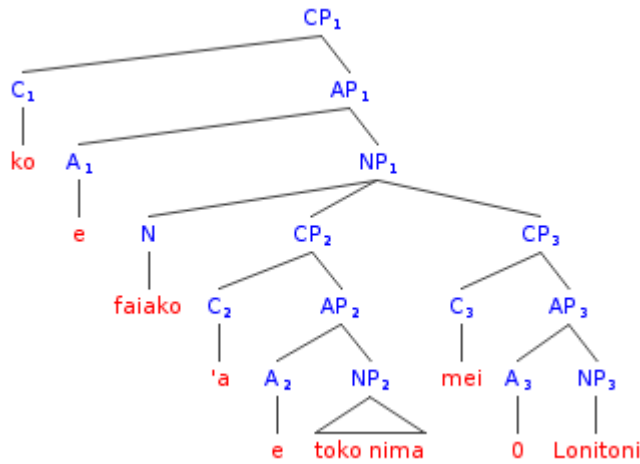
According to Saane, the first sentence, with the complement before the locational adjunct, is preferable, but the second sentence is also acceptable.

However, there are some complement phrases that cannot be interrupted by an intervening adjunct. General nouns as complements were noted as a somewhat unique occurrence earlier, and they continue to be the exception. When the case-marker and article combination is dropped in front of a general noun, the complement cannot be separated from the main noun.

(50a) *ko e tokotaha fa'u maau mei Veisia*
 TOP REF one make poem from Virginia
 'The writer of poems from Virginia.'

(50b) **ko e tokotaha fa'u mei Veisia maau*
 TOP REF one make from Virginia poem
 'The writer of poems from Virginia.'

Once more than two nouns in a single noun phrase are involved, the structure becomes much more difficult to predict. Given the flexibility in order, the possibility that I advocate is this non-binary tree:



- (51) *ko e fa'ee 'a e toko nima mei Lonitoni*
 TOP REF mother POS REF NUM five from London
 'The mother of five from London.'

This tree shows both the adjunct phrase and complement phrase as sisters to the main noun. Although Tongan does allow a certain amount of flexibility in phrasal order, it also shows a preference that indicates some kind of differentiation between adjuncts and complements. Whether this is semantic or syntactic and how it manifests itself in a tree diagram are questions for future extended research.

4.2 Nominalizations with more than one argument

In some cases, the nominalization has two arguments: a subject and an object. This also happens in English, beginning with a normal transitive sentence.

(52) 'The boy kicks the ball.'

When the verb is nominalized and both arguments are maintained, English assigns a possessive role to the subject and a complement role with a preposition to the direct object.

(53) 'The boy's kicking of the ball.'

This is the same process as described in section 4.1, but with the additional involvement of the subject in the nominalized phrase. Tongan, however, does not allow possessive noun phrases to be placed before the main verb, like English does with 'the boy's'. Both noun phrases must come after the main noun, so relationships are signaled through the use of case-markers.

Tongan treats the attached noun phrases like arguments in a sentence in terms of case-marking. When a transitive verb is nominalized, its agent is marked with the ergative case-marker 'e, the same marking it would receive in a regular sentence.

(54a) *ko e 'ofeina'e ha tamai hono 'ofefine*
TOP REF love ERG NRF father his daughter
'The love of a father for his daughter.'

(54b) *'oku 'ofeina'e he tamai hono 'ofefine*
PRES love ERG REF father his daughter
'The father loves his daughter.'

Since nominalizations seem to treat their arguments in the same way verbs treat them in full sentences, it can be predicted that the object of the nominalization would be marked with the absolutive ‘a. Indeed, ‘a is found here, but it is instead possessive ‘a, as it can sometimes be replaced with possessive ‘o.

(55) *ko e faka'ikai'i 'e he tangata ('a/'o) e*
 TOP REF denial ERG REF man POS REF

mo'oni

truth

‘The man’s denial of the truth.’

When an intransitive verb is nominalized, the subject of the action keeps its absolutive marking. The second argument, comparable to an indirect object, receives an oblique case-marking, in this case the positional ‘i.

(56a) *'oku manako-ange 'a e tangata ('i) he fanga*
 PRES prefer ABS REF man in REF PLAN

kulii

dog

‘The man prefers dogs.’

(56b) *ko e manako-ange 'a e tangata ('i) he*
 TOP REF preference ABS REF man in REF

fanga kulii

PLAN dog

‘The man’s preference for dogs.’

The distinction between transitive and intransitive nominalizations is shown clearly by two different Tongan verbs, both translated into “to love.” The first, *‘ofeina*, is a transitive verb whose nominalization assigns the ergative case to its agent. The second, *‘ofa*, is an intransitive concept that assigned the absolutive and an oblique, both as a verb and as a nominalization.

(57a) *‘oku ‘ofeina‘e he tamai ‘a e ‘ofefine*
 PRES love ERG REF father ABS REF daughter
 ‘The father loves the daughter.’

(57b) *ko e ‘ofeina‘e he tamai ‘a e ‘ofefine*
 TOP REF love ERG REF father POS REF daughter
 ‘The father’s love for his daughter.’

(58a) *‘oku ‘ofa ‘a e tamai (‘i) he ‘ofefine*
 PRES love ABS REF father in REF daughter
 ‘The father loves the daughter.’

(58b) *ko e ‘ofa ‘a e tamai (‘i) he ‘ofefine*
 TOP REF love ABS REF father in REF daughter
 ‘The father’s love for the daughter.’

In all of my elicited data, there is only one exception. For one particular sentence, Saane gave me two very different responses on two different days.

(59a) *ko e tamate 'a e tangata 'a e*
 TOP REF murder ABS/POS REF man POS REF
mali
 spouse

‘The man’s murder of the wife.’

(59b) *ko e tamate 'o e mali 'e he tangata*
 TOP REF murder POS REF spouseERG REF man

‘The man’s murder of the wife.’

The second of the pair conforms to my analysis of transitive nominalizations treating their agents as they would in a sentence. The first sentence, using the same main noun and the same two arguments, suggests a different treatment of the agent. In this case, it is difficult to tell whether the case-marker attached to *tangata* is absolutive or possessive, but it is the only sentence I encountered that used ‘*a* for both arguments.

An explanation for this seeming counterexample may be found in an idea from Sandra Chung’s paper on nominalizations in Polynesian languages: “[N]ot all Subj_t’s can be placed in the possessive. Thus Subj_t’s which are not pronominal are never marked with ‘*a*, but always follow the nominalized verb and take the ergative article ‘*e*” (Chung 1974: 655). According to her perspective, it is the transitive nominalizations that assign the ergative case-marker to their agents that are the exception. However, the vast majority of transitive nominalizations in my data used the ergative ‘*e*. Chung does not elaborate on this concept and does not account for the criteria on which this is based, or the seeming flexibility

of the rule illustrated by example 59. It is possible that my data were too limited or that Chung's claim is flawed, or even that it is no longer a relevant feature of the grammar in modern Tongan. For now, I must dismiss this as an exception open to further research.

5. Conclusions

The precise structure of Tongan syntax remains mysterious, but I have clarified, with considerable success, the usage of case-markers and articles in simple and complex noun phrases. To summarize, simple noun phrases contain one noun followed by most modifiers. The form of the case-marker is decided by the noun's role in the sentence and its relationship with other constituents. Adjuncts juxtapose the second noun phrase next to the first, using the case-marker *mo*, 'with', to show attributes and positional case-markers like 'i, 'in', to show location. Possessive constructions choose between the dominant or agentive case-marker 'a and the objective or partitive 'o to describe the relationship of the possessor to the possessum. Transitive nominalizations put their direct objects, or complements, into the possessive case and their agents into the ergative case. Intransitive nominalizations use the possessive case for their subjects and an oblique 'i or *ki* case for the second argument.

With such complex data, it is hard to make overarching generalizations, but there are some notable patterns. Tongan nominalizations treat their complements and possessors as though they were arguments in a sentence. However, there is some mixing of systems, particularly with transitive verbs, where one noun is treated as an argument and the other as a possessor.

Additionally, Tongan is firmly head-initial, with the exception of pronouns of all varieties. Possessive pronouns are especially problematic in both structure and semantics.

Although I have proposed tentative syntactic structures for Tongan, I was not able to account for every aspect of the language in this paper. I can only hope to suggest basic foundations to serve as the basis of a potential future project that will require a great deal more research on the subject. Also prompting further research is the large semantic issue of the possessive systems. My data did not fit entirely into any one of the previously existing theories, but the path that this paper took did not allow me to determine why that is or to speculate on an alternative explanation. Lastly, much more work needs to be done in the area of transitive nominalizations and the case-marking system of their arguments. Most of my data fit into a clean pattern, but the one outlier sentence and Chung's claims about nominalizations call into question the circumstances necessary for ergative case-marking.

Naturally, there are questions left unanswered. Still, my research has contributed to the study of Tongan by clarifying the choice of case-marker a native speaker makes in many instances and by highlighting what remains to be deciphered. Any addition to the very limited already existent research concerning Tongan will make analysis easier for future researchers.

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