

ABSTRACT

THE SYNTACTIC STATUS OF NP IN GUERRERO NAHUATL: NON-CONFIGURATIONALITY AND THE POLYSYNTHESIS PARAMETER

The purpose of this study is to examine the syntactic structure of Guerrero Nahuatl using Baker's proposed Polysynthesis Parameter (1996). Baker (1996) claims that polysynthetic languages must have common features that aggregate to the concept of the Polysynthesis Parameter, which suggests that polysynthetic languages employ morphology for syntactic functions. Other hallmarks for Baker (1996) include agreement morphemes and incorporated nouns that are theta-marked for argument structure, as well as a lack of real quantifiers which indicates that all overt NPs are adjuncts. As a result, Baker (1996) claims that polysynthetic languages must be non-configurational due to the flexibility of the word order and the absence of true quantifiers. In this thesis, I show that Guerrero Nahuatl is a non-configurational polysynthetic language. I provide data showing that θ -roles are assigned through either an agreement relationship (verbal agreement morphemes), or a movement relationship (syntactic noun incorporation) in Guerrero Nahuatl as Baker (1996) posited for polysynthetic languages. I also argue that Guerrero Nahuatl has free word order, null anaphora, no occurring true quantifiers and syntactically discontinuous NPs, which are adjuncts rather than arguments. This paper is an important contribution to the ongoing debate as to the nature of polysynthesis and non-configurationality in the Nahuatl languages. Since different dialects of Nahuatl have been analyzed as being both configurational and non-configurational, this thesis highlights the variation that can be found within a group of closely related languages.

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THE SYNTACTIC STATUS OF NP IN GUERRERO NAHUATL:
NON-CONFIGURATIONALITY AND THE POLYSYNTHESIS
PARAMETER

by
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CHAPTER 1: INTRODUCTION

1.1. Guerrero Nahuatl

The Nahuatl languages remain the most populous indigenous languages in Mexico counting around one million speakers (Hansen 2016). While Spanish has assumed a prominent place in the lives of Mexicans, Nahuatl persists in a variety of dialects still employed by different communities. Olko and Sullivan (2014) report that the Uto-Aztec language was distinguished in Mesoamerica in general and the Aztec Empire in particular. Garavito, Herrera, and Holtzrichter (2005) explain that Nahuatl has been in contact with Spanish for over five hundred years. Despite modern influences, the language presents an interest as an indigenous language spoken by people in isolated villages of Mexico. Nahuatl can provide researchers with insight into linguistic, cultural, historical, and social peculiarities of regional development.

Consequently, the Nahuatl language serves as a vast area of research. In particular, this thesis examines the syntactic structure of Guerrero Nahuatl using the diagnostics proposed by Baker (1996). Despite attempts of other linguists to expand our knowledge on the configurationality and polysynthetic nature of Nahuatl, these research questions remain relevant because an uncertainty persists as to whether Nahuatl is a non-configurational or configurational language. In this similar vein, there is a need to determine whether Guerrero Nahuatl represents a polysynthetic language in Baker's 1996 sense.

Baker's findings (1996) show that the flexibility of the word order, the adjunct status of noun phrases (NPs), and the extensive use of pro-drop make polysynthetic languages into non-configurational ones. Different Nahuatl dialects have been analyzed as having features of both configurational polysynthetic and

non-configurational polysynthetic languages. Although MacSwan (1998) denies the existence of Baker's Polysynthesis Parameter in Southeast Puebla Nahuatl, he maintains that this dialect is polysynthetic. He also argues that the fixed SVO word order, true quantifiers, and the function of NPs make the language configurational (MacSwan 1998), which are critical elements in Baker's notion of a polysynthetic language.

Haugen (2015) provides a similar analysis for Classical Nahuatl, stating that this language is polysynthetic but configurational due to a preferred SVO word order. He also states that Baker's non-configurationality prediction fails in Classical Nahuatl (Haugen 2015). Conversely, Hansen (2010) counters these claims by arguing that Hueyapan Nahuatl follows Baker's non-configurationality prediction. He argues that Hueyapan Nahuatl is a non-configurational, polysynthetic language with free word order, pro-drop, no true occurring quantifiers, and full NPs serving as adjuncts (Hansen 2010). Drawing on these previous studies, I provide evidence that shows that Guerrero Nahuatl is a non-configurational and polysynthetic language.

Chapter 1 of the thesis provides information on the background of Guerrero Nahuatl, research questions, and methodology used to obtain data for the research. Chapter 2 covers Baker's Polysynthesis Parameter, its characteristics, and other relevant information about Nahuatl in a literature review of previous studies. Chapter 3 discusses the concept of noun incorporation. I provide evidence that supports the idea that noun incorporation is a syntactic process of movement rather than compounding in Guerrero Nahuatl. Chapter 4 discusses the subject and object agreement morphemes in NGU and the number and case of these agreement morphemes. I argue that the agreement morphemes are obligatory in Guerrero Nahuatl to make the theta role visible as predicted by Baker (1996). Chapter 5

emphasizes evidence about non-configurationality, supporting Baker's idea that polysynthetic languages are non-configurational. I provide evidence of free word order, no true occurring quantifiers, pro drop, and the absence of reflexive NPs in Guerrero Nahuatl. Chapter 6 explores the adjunct status of NPs in NGU. I illustrate that there is no subject-object asymmetry in regards to extraction, which suggests that NPs are projected in an adjunct position. In chapter 7, I provide a conclusion with a succinct overview of the topic, followed by a bibliography of used sources.

1.2. Methodology

The data for this research were obtained from native speakers of Guerrero Nahuatl. I worked with two participants, a father and son, both of whom are fluent speakers of the language. Both participants were born and lived in the community Mexcaltepec II in Guerrero, Mexico. In May 2011, the family relocated from their village to the United States. One of the participants, Severiano Reyes, is 44 years old, while another participant's name is Mario Reyes, who is 24 years old. I elicited and transcribed narrative stories about their childhood. This allowed me to explore the dialect and determine whether Guerrero Nahuatl possesses features of a polysynthetic language, in addition to understanding whether the dialect had the major characteristics of Baker's Polysynthesis Parameter, as the existence of macroparameters has been disputed. Moreover, I also employed a grammaticality judgment task and elicited sentences to examine the language behavior in speech.

I obtained informed consent from both participants in order to follow university IRB policies. I informed Mario and Severiano about the study details, and they gave consent to use their names in this thesis and future work. Since

Severiano is not an English speaker, Mario played the role of an interpreter in the study.

CHAPTER 2: THE POLYSYTHESIS PARAMETER

2.1. Polysynthesis Parameter

Polysynthetic languages present an interest to the scholarly community because of the special properties and characteristics that these languages possess. Baker (1996) has contributed much to the understanding of polysynthetic languages, and has coined the notion of a Polysynthesis Parameter. According to Baker (1996), polysynthesis refers not just to a random collection of lexical processes but to a systematic representation of predicate-argument relationships. At the same time, the latter are parallel to the system employed by the languages akin to English, but polysynthetic languages still remain distinct because of the peculiar predicate-argument relationships.

Although Baker provides insights into polysynthetic languages, it must be acknowledged that he builds on the work of Chomsky who proposed the theta criterion, or θ -criterion (Chomsky 1981:36). Specifically, Chomsky suggests that every θ -role must be associated with one and only one argument, and vice-versa (Chomsky 1981). In his turn, Baker (1996) argues that the theta criterion can be regarded in morphological terms rather than syntactic ones, when one addresses the issues associated with the Polysynthesis Parameter. Moreover, Baker (1996) views the Polysynthesis Parameter as a macroparameter that has the Morphological Visibility Condition (MVC). The latter entails that “A phrase X is visible for θ -role assignment from a head Y only if it is coindexed with a morpheme in the word containing Y via: (i) an agreement relationship, or (ii) a movement relationship” Baker (1996:17). In other words, each represented θ -role in the argument structure of the verb must have an agreement morpheme or an incorporated noun (IN) that it is associated with.

Jelinek (1984, 2006) was the first to formulate the Pronominal Argument Hypothesis to explain the flexibility of the word order and the non-configurationality traits of Warlpiri. Jelinek (1984) claims that “verbal argument arrays (argument positions) in LS are satisfied always and only in PS in Warlpiri by clitic pronouns, and that nominals are simply optional adjuncts, with non-argumental functions” (44).¹

Baker (1996) argues that polysynthetic languages have syntactic noun incorporation and full, obligatory agreement systems for subjects and objects. For this reason, Baker (1996) claims that this parameter exists in Mohawk, Nahuatl, and Mayali, but does not exist in English, French, and Chichewa. Moreover, he argues that polysynthetic languages, such as Mohawk specifically, can be classified under two major groupings that include non-configurational phenomena and incorporation phenomena (Baker 1996). Every major grouping may be characterized either by the pronominal argument hypothesis for non-configurationality proposed by Jelinek (1984) or by the syntactic head movement hypothesis for incorporation proposed by Baker (1996).

Ultimately, Baker (1996) identifies a list of major characteristics found in polysynthetic languages that make up his Polysynthesis Parameter in conjunction with the Morphological Visibility Condition (MVC). These characteristics are syntactic noun incorporation (NI), obligatory object agreement, optional pro-drop, free word order, no reflexive NPs, no true quantifiers, obligatory wh-movement, N agreeing with R argument², no true determiners, N agreeing with possessor, restricted morphocausative, NI or agreement in PP, CP arguments only if nominal,

¹ LS is lexical structure, while PS is phrase structure.

² R stands for reference argument

and no infinitives (Baker 1996:498-499). Baker (1996) extensively discusses the first two characteristics for polysynthetic languages. Baker (1996) argues that it follows that languages should always have these characteristics to be classified as polysynthetic. In this thesis, I examine the characteristics of polysynthetic languages in matrix clauses as proposed by Baker with regards to Guerrero Nahuatl, leaving the embedded clause level for a future study.

2.2. Literature Review

According to the Polysynthesis Parameter (Baker 1996), Noun Incorporation (NI) is a syntactic process rather than a lexical one. Every polysynthetic language should be non-configurational with free word order, there should be an absence of true quantifiers, and all NPs should be projected in adjunct positions (Baker 1996). The idea that polysynthetic languages must be non-configurational is supported by Hansen (2010). In his research, Hansen (2010) examines the syntax of the Nahuatl dialect of Hueyapan, Morelos, Mexico³. Importantly, obligatory headmarking of all phrasal arguments is typical of Hueyapan Nahuatl syntax, which allows us to classify Hueyapan Nahuatl as a polysynthetic language based on the classification of Baker (1996).

The syntax of Hueyapan Nahuatl contains features of non-configurationality, which supports Baker's beliefs about the traits of polysynthetic languages. Hansen (2010) claims that Hueyapan Nahuatl has a free word order that can be pragmatically determined, while the predicate-initial order is pragmatically unmarked. These characteristics allow pro-drop of every argument

³ Hansen (2010) studies the syntax of spoken Nahuatl provided by sixteen participants aged 14-83.

of phrasal heads. In addition, the free word order and lack of true quantifiers make the construction of discontinuous NPs possible (Hansen 2010).

Another dialect of Nahuatl is documented by MacSwan (1998) who claims that Southeast Puebla Nahuatl is a polysynthetic language with productive noun incorporation. However, MacSwan (1998) claims that Southeast Puebla Nahuatl does not possess the syntactic peculiarities that Baker believes these languages have. Specifically, he argues that Southeast Puebla Nahuatl “neither has free word order nor lacks nonreferential quantified NPs, as Baker claims” (MacSwan 1998:100). For this reason, MacSwan (1998) states that the Polysynthesis Parameter does not exist in Nahuatl. MacSwan (1998) also believes that polysynthetic languages should not be considered a formal typological class (MacSwan 1998). He points out that Southeast Puebla Nahuatl is indeed a polysynthetic language that, nevertheless, differs from Mohawk (MacSwan 1998). Southeast Puebla Nahuatl is characterized by relatively fixed word order and true quantifiers, which would mean that NPs may be arguments in this language, contradictory to Baker’s findings. For these reasons, MacSwan (1998) argues that Southeast Puebla Nahuatl is configurational polysynthetic language.

MacSwan’s findings were supported by Haugen (2015) who explores the generativist hypothesis (Jelinek 1984, Baker 1996) which views polysynthetic languages as non-configurational because it is expected that pronominal affixes (or clitics) must mark the subject and object arguments of transitive verbs, while overt subject and object NPs in the clause are considered adjuncts. Haugen claims that this prediction cannot be found in the polysynthetic Classical Nahuatl (2015). He argues that NCI is both configurational and polysynthetic, which contradicts the polysynthetic parameter of Baker (Haugen 2015). Haugen (2015) argues that NPs and DPs in Classical Nahuatl are generated in argument positions, in addition to

the language having a subject-verb-object (SVO) word order. This information is particularly important to the present research because it sheds a light onto different interpretations of the Polysynthesis Parameter that may play a role in our understanding of Nahuatl and its syntax in general.

At the same time, Garavito, Herrera, and Holtzrichter (2005) acknowledge that Nahuatl is different from the languages like English, but they do not find evidence that the Polysynthesis Parameter exists. They examined the word order, noun incorporation (NI), and the determiners of two dialects of Nahuatl, San Isidro Buensuceso, spoken in the state of Tlaxcala, and Cuetzalan, spoken in the north of the state of Puebla Mexico (Garavito, Herrera, and Holtzrichter 2005). Garavito, Herrera, and Holtzrichter (2005) argue that Noun Incorporation is productive and active in these varieties of Nahuatl. Garavito, Herrera, and Holtzrichter (2005) find that San Isidro Buensuceso and Cuetzalan Nahuatl have an extensive use of pro-drop and they argue that the speakers followed the (S)VO word order. However, they find that the speakers of Cuetzalan Nahuatl who speak both Spanish and Nahuatl prefer SVO word order rather than the speakers of San Isidro Buensuceso who are semi-literate in Spanish (Garavito, Herrera, and Holtzrichter 2005). Hence, they argue that the word order is not free in San Isidro Buensuceso and Cuetzalan Nahuatl (Garavito, Herrera, and Holtzrichter 2005).

They disagree with MacSwan's (1998) belief that Nahuatl possesses a determiner system that can also be found in Spanish (Garavito, Herrera, and Holtzrichter 2005). They examine the particle *in*, which MacSwan claims is a true determiner, and they conclude that they do not have an explanation for this particle. They find that bilingual speakers used it as a true determiner, but it was also used "preceding a possessive marked noun" by other speakers, which makes it different than the determiner system found in Spanish (Garavito, Herrera, and

Holtzrichter 2005:9). The following example is from Cuetzalan Nahuatl showing the usage of the particle *in* preceding a possessive marked noun.

- (1) a- Nikunituki **in** no-cerveza
I-drink *in* my-beer
'I am drinking my beer. (Garavito, Herrera, and Holtzrichter
2005:9-10)

They argue that although they have not found evidence for the word order to be free, they cannot dismiss Baker's Polysynthesis Parameter (1996) and they think that it is a hypothesis that is worth examining in depth (Garavito, Herrera, and Holtzrichter 2005).

CHAPTER 3: SYNTACTIC NOUN INCORPORATION (NI) IN GUERRERO NAHUATL

3.1 Noun Incorporation (NI) in the Lexicalist Hypothesis and the Syntactic Approach

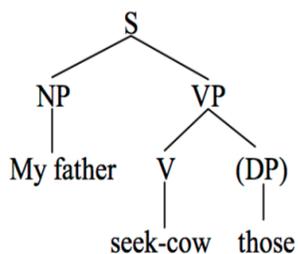
The early and middle 1980s witnessed a rise in debates about noun incorporation (NI) related to morphology, syntax, and the lexicon (Baker 2009). Baker (1988) proposes a syntactic approach to noun incorporation that differs from the lexicalist hypothesis. Noun incorporation has been analyzed as a process of compounding in the lexicalist hypothesis, whereas it was analyzed as a process of syntactic movement in the Syntactic Approach (Baker 1988). Baker's approach builds on previous research, such as that exemplified by Sadock (1980, 1985, 1991). Baker (2009) explored the connection between minimal pairs in the Chilean language Mapudungun, as presented in (2). Specifically, (2a) is a commonplace illustration of how a verb 'seek' becomes combined with a complete NP/DP object in the syntax to generate a transitive clause, while (2b) plays a role of a near-paraphrase of (2a), in which the noun root 'cow' that is also the object argument of the verb unites with the verb root 'seek' to form a compound verb that includes a morphological object necessary for this construction because of the inflection (Baker 2009).

(2) a. Ñi chao kintu-le-y ta chi pu waka.
my father seek-PROG-IND.3sS the COLL cow
'My father is looking for the cows.' (Salas 1992:195)

b. Ñi chao kintu-**waka**-le-y.
my father seek-**cow**- PROG-IND.3sS
'My father is looking for the cows.' (Baker 2009:149-150)

In regard to the above examples, the question was whether occurrences of NI like (2b) originate in the syntax from sentences like (2a) or whether a regular process of compounding applies in the lexicon (Baker 2009). In other words, the question aims to determine whether syntax and morphology are independent elements of grammar (Baker 2009).

The most notable researchers of the lexicalist perspective of noun incorporation (NI) are Mithun (1984), Di Scullo and Williams (1987), and Rosen (1989), to name a few. These researchers believe that NI refers to a type of compounding that entails a combination of a noun root and a verb root to create a new verb stem. They claim that the noun root does not separate from the verb root at any syntactical level; hence, it should be considered the direct object (Mithun 1984; Di Scullo & Williams 1987; Rosen 1989). Baker (2009) proposes the syntactic structure (shown in figure 1) of (2b) based on the lexicalist hypothesis of Mithun (1984), Di Scullo and Williams (1987), and Rosen (1989).

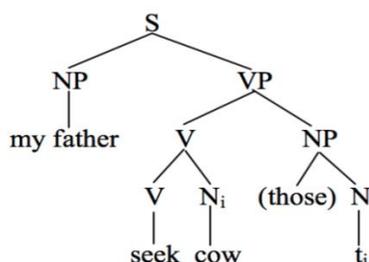


Baker (2009:149)

Figure 1. The syntactic structure of NI in the lexicalist hypothesis

While the lexicalist point of view has many advocates, Baker (2009) believes that it is necessary to take a syntactic approach to NI. He claims that (2b) is generated in the syntax. Baker lays out his arguments for a syntactic approach with regards to head movement of NI in 1988 and he and others refined this perspective in later years (Baker 1995, Baker 1996, Baker, Aranovich, &

Golluscio 2005 among others). Baker (2009) argues that there is a specific syntactic approach that deserves attention, as the approach claims that the original structure of (2b) resembles (2a), but a movement process occurs “taking an N^0 node from its base position and adjoining to the V^0 node in the syntax” (Baker 2009:149), as presented in (2).⁴



(Baker 2009:150)

Figure 2. The syntactic structure of NI in the syntactic approach

As I will show, NI is an important part of Baker’s 1996 claim about polysynthetic languages. For Baker, a truly polysynthetic language must have syntactic incorporation.

3.2. Noun Incorporation is Not Compounding in Guerrero Nahuatl

The important finding from the thesis pertains to the idea that NI is not compounding in Guerrero Nahuatl. Di Sciullo and Williams (1987) propose discourse referentiality of NI to determine the syntactic independence. Discourse referentiality is the first argument to suggest that that NI is not a compounding process. Examples (3) from Ojibwe demonstrates that the incorporated noun is

⁴ Baker claims that the NP is an adjunct to the verb. If this is the case it is unclear how the N^0 moves “downwards” in the syntax to incorporate with the verb. Given a more current analysis, the NP may adjoin to VP and then incorporate with the verb after it has moved to v. A vP shell would allow the verb to be in a higher structural position than the NP adjunct. A further problem is whether the head that incorporates is only a N^0 or a phrasal projection. Given a bare phrase structure analysis, the lexical head may be both a minimal and a maximal projection, so this issue is no longer problematic.

referential because it is possible to refer to the incorporated noun in the following clause.

- (3) ngii-moonahapnii mii dash ngii-giziibiiginigan [Ojibwe]
 n- gii- moonah -**apnii** -e mii dash n- gii- giziibiiginig -an
 1-PST dig -**potato** -VAI and then 1 PST- wash -3PL
 ‘I dug up potatoes, and then I washed them.’ (BJ, 2008-12-17,
 cited in Barrie & Mathieu 2016:3)

Example (4) from Guerrero Nahuatl shows a similar pattern. In this example, the incorporated noun is referred to in the elided object in the following clause.

- (4) nipołanemaka niman nikink^{wa}.
 ni- **polaŋ**- nemak-a and ni- kin- k^{wa}
 1ST .S.S-**banana**-sell- PRES CONJ 1ST .S.S-3RD .PL.O-eat
 ‘‘I sell banana and I eat them.’’

Baker (2003) points out that the English language has different characteristics in regards to this construction. English speakers cannot refer to the first noun belonging to a compound further in the discourse as in (5), in which speakers cannot co-refer *dog* with the pronoun *it* (Barrie & Mathieu 2016).

- (5) *The new doghouse seems to disturb it (the dog). (Baker 2003:273)

Another argument to support the claim that NI is not a lexical compounding phenomenon originates from the work of Baker (1988, 1996). This second argument is that NI has to be a productive process (Baker 1996). Garavito,

Herrera, and Holtzrichter (2005) found that noun incorporation in San Isidro Buensuceso, and Cuetzalan Nahuatl has the potential to be highly productive as they found animate, inanimate and borrowed nouns can incorporate. The examples (6), (7), and (8) provided below demonstrate that inanimate and animate nouns alike can incorporate, while borrowings from Spanish in (9) can incorporate as well. Examples from Guerrero Nahuatl show the productivity of NI.

(6) a-nihmakasi koaλ
 ni- h- makasi koaλ
 1ST .S.S-3RD .S.O-fear snake
 “I fear a snake”

b- nikoamakasi
 ni- koa- makasi
 1ST .S.S-snake-fear
 “I fear a snake”

(7) a-nihmiktis on λakaλ
 ni- h- mikti-s on λakaλ
 1ST .S.S-3RD .S.O- kill-FUT the man
 “I will kill a man”

b- niλakamiktis
 ni- λaka-mikti-s
 1ST .S.S-man-kill- FUT
 “I will kill a man”

- (8) a-nihk^was polaŋ
 ni- h- k^wa-s polaŋ
 1ST .S.S-3RD .S.O -eat-FUT banana
 “I will eat a banana”
- b- nipolaŋk^was
 ni- polaŋ- k^wa-s
 1ST .S.S-banana-eat-FUT
 “I will eat a banana”
- (9) a-nihčipawas ospital
 ni- h- čipawa-s ospital
 1ST .S.S-3RD .S.O -clean- FUT hospital
 “I will clean a hospital”
- b- niospitalčipawas
 ni- ospital-čipawa-s
 1ST .S.S -hospital-clean-FUT
 “I will clean a hospital”

Baker (1996:19) explores the criteria that make a language robust in the context of NI. Specifically, he argues that:

- a) NI must be productive to be considered robust.
- b) The noun root should be completely integrated with the verb in a morphological sense.
- c) The noun is referentially active in the discourse.

d) Overall the noun root and the verb root alike can be employed independently.

The first and the third criteria help to identify those languages where NI is associated with lexicalizations and remnants of historical usage. As for the second criterion, this characteristic helps to exclude languages with caseless/determinerless NPs adjacent to verbs in verb-final languages, like Turkish and Hindi, when these constructions can be viewed as cases of NI. The fourth criterion helps in the analysis by ignoring languages belonging to the Eskimoan family because NI is necessary and limited to some verbs under some circumstances with specific verbs, while other verbs cannot be used alongside NI. According to Baker (1996), and the analyses of many linguists many languages pass the four criteria, including Mohawk, the Northern Iroquoian languages, Tuscarora, Wichita, Kiowa, Southern Tiwa, Huauhtla Nahuatl, the Gunwinjguan languages, Chuckchee, and possibly Classical Ainu. Certainly, in our analysis, we must pay attention to the Nahuatl languages.

3.3 Obligatory Object Agreement and NI in Guerrero Nahuatl

There are a number of obligatory agreement morphemes for subjects and objects in Guerrero Nahuatl. Baker (1996) argues that the θ -role is assigned through these agreement morphemes in polysynthetic languages. He also argues that the θ -role can be assigned through a movement relation (NI) as well, in these cases, the object agreement morpheme on the verb will not be needed (Baker 1996). Examples of NI and the agreement morphemes are shown in (10). In (10a), the object ‘chicken’ is a complement of the verb, *ni-* is a subject agreement morpheme and *-h-* is an object agreement morpheme. In (10b) the object *k^wanaka* ‘chicken’ has been incorporated between the subject morpheme and the verb root

miktis ‘will kill’. The object morpheme no longer exists in (10b) which supports the idea of Baker’s (1996) parameter (θ -role is assigned through either an agreement relationship, or a movement relationship.)

- | | | |
|------|--|-----------------------------------|
| (10) | a-nihmiktis k ^w anaka | b- nik ^w anakamiktis |
| | ni-h-mikti-s k ^w anaka | ni-k ^w anaka-mikti-s |
| | 1 st -3 rd -kill-FUT chicken | 1 st -chicken-kill-FUT |
| | “I will kill (the) chicken” | “I will kill (the) chicken” |

Baker (1996:16) argues that there is a need for the Theta Criterion to be met syntactically, while simultaneously NPs must exist, even though it is possible for them to be phonetically empty. Through this perspective, one could say that a subject agreement on the verb does not make “superfluous a null pronominal in subject position; nor does an incorporated direct object render superfluous a null, trace-headed NP in object position” (Baker 1996:16). In this case, there is a tight similarity between the structure of the Mohawk sentence and the structure of the English gloss (Baker 1996). Following Baker 1996, I provide the syntactic structure of sentence (10b) in (3).

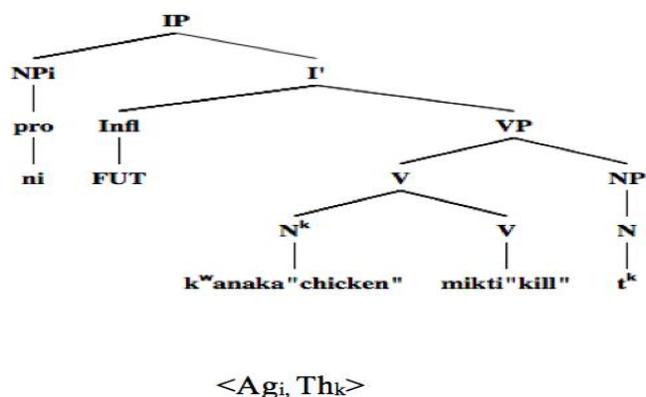


Figure 3. The syntactic structure of NI in Guerrero Nahuatl.

Baker (1996:22) claims that either an agreement morpheme or an incorporated root is an effective measure to ensure that the verb's internal argument is visible, but it is notable that one of the two options is required because otherwise the verb's internal argument would not be visible. Of interest, Baker (1996:22) refers to Andrews (1975) and Launey (1981) who show similar findings for Classical Nahuatl. Baker (1996:21) also refers to Merlan (1976) who shows examples illustrating the disappearance of the object agreement morpheme /*ki*/ when the object incorporates inside the verb (NI) in Huauhtla Nahuatl.

In summary, NI in Guerrero Nahuatl appears to have a syntactic movement from a complement position to a verb internal one (as shown in (3)). NI is referentially active and productive in Guerrero Nahuatl, and as my analysis demonstrates, only object noun can incorporate inside the verb. As expected, Guerrero Nahuatl has either an incorporated noun or an obligatory object agreement morpheme (but never both) to make the verb's internal argument to be visible as suggested by Baker (1996).

CHAPTER 4: AGREEMENT MORPHEMES IN GUERRERO NAHUATL

4.1. Case and the Number of Agreement Morphemes in Guerrero Nahuatl

Baker (1996:189) proposes that the theta role assigned to an argument calls for its morphological expression within the word. In this case, agreement morphemes are an effective instrument to meet this linguistic demand because these morphemes are accessible for every class of syntactic positions, whereas incorporated noun roots are not always available in this manner. Baker (1996:189) adds that agreement morphemes are associated with null pronouns that meet the requirements of the Theta Criterion. In addition, those agreement morphemes obtain the Case-assigning properties of the head, which means that overt NPs are projected in an adjunct position.

Baker (1996) argues that polysynthetic languages have the kind of agreement morphology related to every head that has structural Case-assigning qualities. He states (1996:192):

- (11) Agreement morphology in Polysynthetic languages is adjoined to all and only those heads that have structural Case-assigning features.

Baker (1996) concludes that agreement morphemes in these languages are nominal elements that can be classified by qualities of person, number, and gender. In discussing the case and number of agreement morphemes in Mohawk, Baker (1996) accentuates that other polysynthetic languages demonstrate agreement with the agent, goal, or theme, although separate languages possess significant dissimilarities. For example, Launey (1981:172-174) establishes that Classical Nahuatl possesses morphemes that show agreement with the properties of person and number of the agent, goal, and theme. Launey (1981:172-174)

argues that we can distinguish 3SG theme and 3PL theme in Classical Nahuatl. This ability to disambiguate arguments via morphological agreement is a foundational characteristic of a non-configurational polysynthetic language according to Baker 1996.

I show the subject and object agreement morphemes in Guerrero Nahuatl that agree in person and number in Tables 1-2.

Table 1

<i>Subject Agreement Morphemes</i>		
	SG	PL
1P	<i>ni-</i>	<i>ti-</i>
2P	<i>ti-</i>	<i>in-</i>
3P	\emptyset -	\emptyset -

Table 2

<i>Object Agreement Morphemes</i>		
	SG	PL
1P	<i>neč-</i>	<i>teč-</i>
2P	<i>mic-</i>	<i>meč-</i>
3P	<i>h-,ki-, k-</i>	<i>kin-</i>

The following examples from Guerrero Nahuatl show the subject and object agreement morphemes, the examples from (12) to (24) show us the difference between the 3rd singular object morphemes /h-/, /ki-/ and /k-/.

Langacker (1984) claims that the singular object morpheme /h/ occurs after a vowel and before a consonant in Huesteca Nahuatl, while I would make it more

specific and claim that /h/ occurs after the 1P SG, 1P PL or 2P SG and before any verb starts with a consonant.

(12) onihmakak

o- ni- h -makak

PAST-1ST .S.SG- 3RD .SG.O-give

“I gave it to him”

(13) onihkontiʎanili

o- ni- h- kontiʎanili

PAST-1ST .S.SG- 3RD .SG.O-send

“I sent it to him”

(14) otihnek

o- ti- h- nek

PAST-2ND S.SG- 3RD .SG.O-want

“you wanted it”

(15) otihnek ʎak^{wahli}

o-ti- h- nek ʎak^{wahli}

PAST-2ND S.SG- 3RD .SG.O- want food

“You wanted food”

(16) otihnekke ʎak^{wahli}

o- ti- h- nek-ke ʎak^{wahli}

PAST-1ST S.PL- 3RD .SG.O- want-PL food

“We wanted food”

/ki/ occurs after 3rd Ø SG and PL and after 2P PL. The same findings were found in Huesteca Nahuatl by Langacker (1984).

(17) okitak

O- Ø- ki -tak

PAST-3RD .SG.S-3RD SG.O-see

“she saw it ”

(18) okitak

O- Ø- ki -tak

PAST-3RD .SG.S-3RD SG.O-see

“He saw it”s

(19) okinekke

o- Ø- ki- nek -ke

PAST-3RD .SG.PL-3RD SG.O-want-PL

“They wanted it”

(20) kiamapowa

Ø-ki- amapow-a

3RD .SG.S-3RD SG.O-read -PRES

“He reads it”

(21) oinkinekke λak^{wahli}

o- in- ki- nek -ke λak^{wahli}

PAST-2ND .S.PL-3RD SG.O-want-PL food

“We wanted food”

Langacker (1984: 271) claims that the singular object morpheme /k/ “occurs intervocalically” in Huesteca Nahuatl. I found evidence that /k/ occurs after the 1P SG, 1P PL or 2P SG and before any verb starts with a vowel. The following examples show the use of /k/ in Guerrero Nahuatl.

(22) nikamapowa

ni- k- amapow-a
 1ST .SG.S-3RD SG.O-read -PRES
 “I read it”

(23) otikamapowake

o- ti- k -amapow-k -ke
 PAST-1ST .PL.S-3RD SG.O-read -PAST-PL
 “we read it”

(24) tikałitia

ti- k- ałiti-a
 2ND .SG.S-3RD SG.O-read-PRES
 “You make him drink water”

Examples for the 3P plural object morpheme /kin-/ ‘them’:

(25) okinihli on kuento

o- Ø- kin- ihli on kuento
 PAST-3RD .SG.S-3RD .PL.O-tell D.DET story
 “He told them the story”

- (26) okinmakak λak^wahli
 o- Ø- kin- maka-k λak^wahli
 PAST-3RD.SG.S-3RD.PL.O-give -PAST food
 “she gave them food”

- (27) onikinmakak λak^wahli
 o -ni- kin- makka-k λak^wahli
 PAST-1ST.SG.S-3RD.PL.O-give -PAST food
 “I gave them food”

Examples for the 2P plural object morpheme / *meč* -/ ‘you’:

- (28) nimečmakas λak^wahli
 ni- meč- maka-s λak^wahli
 1ST.SG.S-2ND.PL.O-give-FUT food
 “I will give you food”

- (29) mečmakas λak^wahli
 Ø- meč- maka-s λak^wahli
 3RD.SG.S-2ND.PL.O-give -FUT food
 “He will give you food”

- (30) mečmakaske λak^wahli
 Ø- meč- maka-s -ke λak^wahli
 3RD.SG.S-2ND.PL.O-give -FUT-PL food
 “They will give you food”

Examples for the 2P singular object morpheme / *mic* -/ ‘you’:

- (31) *nimicmakas* *ʎak^wahli*
 ni- mic- maka-s *ʎak^wahli*
 1ST .SG.S-2ND .SG.O-give-FUT food
 “I will give you food”
- (32) *micmakas* *ʎak^wahli*
 Ø- mic- maka-s *ʎak^wahli*
 3RD .SG.S-2ND .SG.O-give -FUT food
 “He will give you food”
- (33) *micmakaske* *ʎak^wahli*
 Ø- mic -maka-s -ke *ʎak^wahli*
 3RD .PL.S-2ND .SG.O-give -FUT-PL food
 “They will give you food”

Examples for the 1P plural object morpheme /*teč*-/ ‘us’:

- (34) *titečmakas* *ʎak^wahli*
 ti- teč- maka-s *ʎak^wahli*
 2ND SG.S-1ST .PL.O-give-FUT food
 “You will give us food”
- (35) *tečmakaske* *ʎak^wahli*
 Ø- teč- maka-s -ke *ʎak^wahli*
 3RD .PL.S-1ST .PL.O-give -FUT-PL food
 “They will give us food”

Examples for the 1P singular object morpheme /neč-/ ‘me’:

- (36) tinečmakas λak^wahli
 ti- neč- maka-s λak^wahli
 2ND SG.S-1ST .SG.O-give -FUT food
 “You will give me food”
- (37) nečmakaske λak^wahli
 Ø- neč- maka-s -ke λak^wahli
 3RD PL.S-1ST .SG.O-give -FUT-PL food
 “They will give me food”
- (38) nečmakas λak^wahli
 Ø- neč- maka-s λak^wahli
 3RD SG.S-1ST .SG.O-give-FUT food
 “she will give me food”

The above examples show that Guerrero Nahuatl has a rich system of affixes that attach to the verb and reflect the theta assignment projected by the verb. This includes not only subjects but objects as well, which Baker claims is a hallmark of polysynthetic non-configurational languages.

4.3. Types of Verbs and Agreement Morphemes in Guerrero Nahuatl

Transitive verbs in Guerrero Nahuatl must agree with both an agent and a theme/patient, where the subject agreement is paired with the agent, while the object agreement is paired with the theme/patient. Examples 39-43 illustrate the use of transitive verbs in Guerrero Nahuatl. As proposed by Baker (1996), these

verbs agree with both an agent subject and a theme/patient object as proposed for polysynthetic languages.

- (39) okahsik
 o- Ø- k- ahsi-k
 PAST -3RD.SG.S- 3RD.SG.O-catch-PAST
 “He caught it.”
- (40) okahsik
 o- Ø- k- ahsi-k
 PAST -3RD.SG. S - 3RD.SG.O-catch-PAST
 “It caught it.”
- (41) okahsik
 o- Ø- k- ahsi-k
 PAST -3RD.SG. S - 3RD.SG.O-catch-PAST
 “He caught it.”
- (42) onikahsik
 o- ni- k- ahsi-k
 PAST-1ST.SG. S-3RD.SG.O-catch-PAST
 “I caught it.”
- (43) onečahsik
 o- Ø - neč- ahsi -k
 PAST-3RD.SG.S-1ST SG.O-catch-PAST
 “He caught me.”

Additionally, ditransitive verbs have the power to shed a light on the peculiarities of Guerrero Nahuatl. Specifically, these verbs project three arguments, namely an agent, a patient/theme, and a goal, or other lower ranked theta role. Ditransitive verbs agree with the agent and the goal, but they do not

agree with the patient/theme (Baker 1996:193). Examples 44-46 reflect the use of ditransitive verbs in Guerrero Nahuatl showing agreement with the agent and the goal, but no agreement with the patient/theme.

(44) onihmakak

o- ni- h- maka-k
 PAST-1ST.SG. S-3RD.O-give -PAST

“I gave it to him.”

(45) onečmakak

o- Ø - neč- maka- k
 PAST-3RD.SG.S-1ST SG.O-give -PAST

“He gave it to me.”

(46) oninomakak

o- ni - no- maka-k
 PAST-1RD.SG.S-REF-give -PAST

“I gave it to me.” (Literally in Nahautl “I gave it to myself.”)

Baker claims that patient/theme of a ditransitive verb of the agreement system is a phonologically null. He posits that this type of agreement allows the system not to be overtasked, and it can only represent two elements at a time. He claims that similarities to the examples shown above are found in many polysynthetic languages such as Ainu, Wichita, and Southern Tiwa (Baker, 1996: 193-95).

As predicted by Baker (1996), in Polysynthetic languages, unergative and unaccusative intransitive verbs agree with the sole argument, unergative verbs project agents and unaccusative verbs project a patient/theme in Guerrero Nahuatl. Examples 47-52 showcase the use of intransitive verbs in Guerrero Nahuatl.

- (47) otitekit
 o- ti- -tekit
 PAST-2ND.SG.S-work
 “you worked.”
- (48) otekit
 o- Ø - tekit
 PAST-3RD.SG.S-work
 “He worked.”
- (49) owehwec
 o- Ø - wehwec
 PAST-3RD.SG.S-fall
 “He fell down.”
- (50) oniwehwec
 o- ni- wehwec
 PAST-1RD.SG.S-fall
 “I fell down.”
- (51) opoliw
 o- Ø - poliw
 PAST-3RD.SG.S-disappear
 “She disappeared”
- (52) onipoliw
 o- ni- poliw
 PAST-1ST.SG.S-disappear
 “I disappeared.”

4.3. The Location of Agreement Morphemes and Verbs in Guerrero Nahuatl

Transitive verbs have agreement morphemes related to the agent and the theme. Ditransitive verbs have agreement morphemes associated with the agent and the goal but not with the theme. In their turn, unergative verbs have agreement morphemes with the agent. Unaccusative verbs have agreement morphemes with the theme/patient.

The mentioned qualities are parallel to the behavior of Case assignment in English. Therefore, we can postulate that the same theory of case can be relevant to both languages Baker (1996). In particular, Baker (1996) posits that the verb and the Infl⁵ may assign case to an argument. A crucial requirement for the verb to be a Case assigner is the verb's ability to assign an agent θ -role or possibly a different external role. Conversely, Infl always plays the role of a Case assigner in Mohawk (similar to TP in other languages).⁶ Significantly, adding a goal does not provide the sentence constituents with Case-assigning properties in Mohawk and possibly other similar languages (Baker 1996:189). Because of this, Baker (1996) draws the conclusion that agreement morphology is associated only with the heads that possess Case-assigning qualities. In essence, Baker (1996:189) agrees with Borer (1984) who suggests that clitics are "spell-outs of the Case features of the head." Baker (1996) refuses to view differences between clitics and agreement from the perspective of Syntax. According to Baker 1996, figure (4) illustrates what a (di)transitive verb would look like.

⁵ Inflection (Infl) is the daughter of IP and a sister to the VP in polysynthetic languages.

⁶ Baker (1996) claims that polysynthetic languages do not have infinitive constructions; therefore, they do not have TP but instead they have IP.

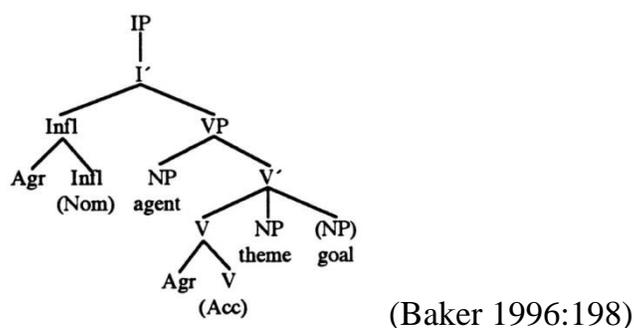


Figure 4. The syntactic structure of (di)transitive verb

We can see an example of a ditransitive verb of Nahuatl below from example (44), repeated here as (53).

- (53) onihmakak
 o- ni- h- maka-k
 PAST-1ST.SG. S-3RD.O-give-PAST
 “I gave it to him.”

Following Baker’s analysis presented in above in (4), we can see that Infl agrees with the agentive NP, which it governs. In turn, the verb agrees with one of the NPs that it governs. The agreement morphemes then license the *pros* in the NPs positions that they govern. Baker claims that since the agreement absorbs the case features associate with heads, the agreement position must be empty. If they do not contain a *pro*, then they must contain the trace of either noun incorporation or *wh*-movement. Lastly, V undergoes head movement adjoining to Infl. This creates a single word that has agreement morphemes which is coindexed with two of the arguments projected by the verb. This agreement satisfies the MVC. (Baker 1996:199).

CHAPTER 5: NON-CONFIGURATIONALITY OF GUERRERO NAHUATL

5.1. Free Word Order

Alzebaidi (2017) explored the non-configurationality traits of Guerrero Nahuatl as described by Hale (1983) and Jelinek (1984). Hale (1983) argues that free word order is usually typical of non-configurational languages, in addition to syntactically discontinuous expressions and generous uses of null anaphora. In his turn, Baker strongly believes that polysynthetic languages are non-configurational. In Baker's analysis, polysynthetic languages use morphology for syntactic purposes. Baker (1996) argues that the agreement morphemes or the incorporated noun on the verb can make the arguments visible in the polysynthetic languages, therefore, the arguments do not need to have a rigid position with regards to the verb. He argues that all overt NPs are projected as adjuncts which means that they can be adjoined to the right or the left of IP (Inflectional Phrase) accounting for flexibility in word order (Baker 1996). Baker (1996) argues that polysynthetic languages have a free word order, pro-drop, and no real quantifiers.

Alzebaidi (2017) provides a number of comprehensive examples of different sentence orders found in Guerrero Nahuatl used by native speakers of that dialect. She argues that Guerrero Nahuatl features the following sentence orders: V, VS, VO, VSO, VOS, SV, SVO, SOV, OV, OVS, and OSV, as shown below in (54) -(64).

V

(54) *jetinečmiktiaja*

je- ti- neč- mikti-aja.

almost-2ND SG.S-1ST.SG.O -kill- PAST

“You almost killed me.” (Alzebaidi 2017:2-3)

S V O

- (60) on λakaλ kik^{wa} polantiŋ
 on λakaλ Ø- ki- k^{wa} polan -tiŋ
 DET.D man 3RD .SG.S-3RD .SG.O -eat banana-PL
 “The man eats bananas.” (Alzebaidi 2017:2-3)

S O V

- (61) on capoλ jolkacicintiŋ ki-pia-ja
 on capoλ jolkaci-ciciŋ Ø- ki- pia- ja
 DET.D fruit insect-pl 3RD .SG.S-3RD .SG.O -have-past
 “The fruit has insects” (Alzebaidi 2017:2-3)

O V

- (62) melan welik kan niλak^{watih}nemi.
 melan welik kan ni- λak^{watih}-nemi.
 extremely delicious place 1ST.SG.S-eat- PROG
 “The opossum said, ‘It is so delicious the place I’m eating from.’”
 (Alzebaidi 2017:2-3)

O V S

- (63) čiči okimahmake on λakame
 čiči o- Ø- ki- mahma-ke on λaka-me
 dog PAST-3RD .SG.S-3RD .SG.O-hit- PL DET.D men-PL
 “The men hit the dog.” (Alzebaidi 2017:2-3)

- O S V
- (64) se amaλ on koneλ okik^{wilo}
 se amaλ on koneλ o- Ø- ki- k^{wil}-o
 DET.I paper DET.D child PAST-3RD .SG.S-3RD .SG.O-write- PAST
 “The child wrote the paper.” (Alzebaidi 2017:2-3)

5.2. No True Quantifiers (Discontinuous NPs)

The Polysynthetic Parameter contains a prediction that a language with NI does not have determiners because a determiner phrase would provide the NP structure with an additional functional layer (Garavito, Herrera, and Holtzrichter 2005). In the scenario, when the incorporating lexical head moves from the object position into the verbal one, it will cross the head of DP, which would violate the Head Movement Constraint (Travis 1984). If the lexical head primarily adjoins to D, then this part of the construction should not be viewed as a simple head that is incorporating, it is now complex and phrasal in nature. This type of movement is ruled out (Li 1990).

MacSwan (1998) claims that Southeast Puebla Nahuatl contains determiners that closely resemble the ones found in Spanish. Specifically, as he points to the particle *in* which precedes nouns in many instances. Conversely, Garavito, Herrera, and Holtzrichter (2005) failed to obtain the same results in San Isidro Buensuceso Nahuatl, and Cuetzalan Nahuatl, the latter is spoken in the north of the state of Puebla Mexico, despite not being able to provide a thorough explanation about the particle as it was used before a possessive marked noun as well.

On the other hand, Hansen (2010) examines the quantifier *nochi* “all” in Hueyapan Nahuatl and shows that it modifies a noun and can precede the verb,

while the noun itself follows the verb. Example (65) illustrates the discontinuous nature of NPs in Hueyapan Nahuatl.

- (65) *nochi y -ō -∅ -kih -kīs -keh in pī-piyol-tih*
 all PRF-PST-3SBJ-RDPL-come.out-PL.SBJ.PRF DEF RDPL-bee-PL
 “All the bees came out one after the other.” (Hansen 2010:286)

Alzebaidi (2017) argues that there are no real quantifiers in Guerrero Nahuatl. Example (66) shows a similar construction with a discontinuous NP in Guerrero Nahuatl.

- (66) *jesoław-tika pero łakwa-ciŋ o- ∅- ja o- ∅- ja*
 passout- PROG but opossum-littl PAST-3RD .SG.S -go PAST-3RD .SG.S-go

okse kan o- ∅- ja kampa onka okse on
 another place PAST-3RD .SG.S -go where is another DET.D

∅- ki- hli-a nočłi
 3RD .SG.O-call- PRES cactus

“passing out the little opossum went, went to all other places; he went where there was another fruit called cactus fruit.” (Alzebaidi 2017:8)

Given this discontinuous structure we can see that words like *okse* “another” cannot be a true quantifier because it does not form a constituent with the NP it modifies. If the NPs do not form a constituent with the quantifiers, then they must be projected in an adjunct position as are their quantifiers. If the NPs are adjuncts, they cannot be true arguments projected in A-position.

5.3. Pro-Drop/Null Anaphora

Baker (1996) believes that pro-drop has an important implication for polysynthetic languages. Pro-drop languages have an essential element in common, which is null anaphora. In the view of Hale (1983:7), a null anaphora refers to the scenario when an argument (e.g. subject, object) is not an overt nominal expression in a phrase structure. Baker (1996) argues that languages like Mohawk and Nahuatl are classified by obligatory headmarking of all arguments on their heads to satisfy the Morphological Visibility Condition (MVC); therefore, overt NPs are adjunct and optional. Baker (1996) argues, however, that it is obligatory to have agreement morphemes or noun incorporation on the verb in polysynthetic languages to make the theta role visible which makes them use extensive use of pro-drop.

Example (67) shows that the subject is non-overt, instead we see the subject agreement morpheme /ni/ on the verb, while the object is overt but we also see an object agreement morpheme on the verb /k/ which gives us the possibility that the NP object can be dropped. In example (68), the sentence contains both the subject agreement morpheme *ti* “2PsS” and the object agreement morpheme *neč* “1PsO” and there are no overt NPs.

- (67) nikonk^{wis} λak^{wahli}
 ni- k- on-k^{wi}- s λa- k^{wahli}
 1ST .SG.S-3RD .SG.O - DIR-bring- FUT UNSPEC -food
 “I will bring some food.” (Alzebaidi 2017:9)

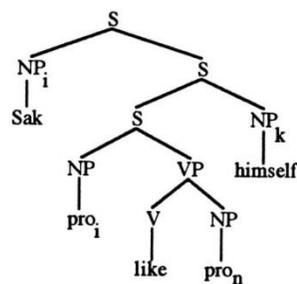
- (68) *jetinečmiktiaja*.
 je- ti- neč- mikti-aja
 almost-2ND .SG.S -1ST .SG.O kill- PAST
 “You almost killed me.” (Alzebaidi 2017:9)

5.4. The Absence of Reflexive NPs

Baker (1996) maintains that the absence of reflexive and reciprocal pronouns like *himself*, *herself*, *themselves*, and *each other* is typical of polysynthetic languages, like Mohawk and Nahuatl. Baker (1996) argues that the reason for the absence of reflexive NPs is because all NPs in these languages are adjuncts. It follows then, that when NPs are adjuncts, i.e. in adjoined positions, the outcome will be that all A-positions are occupied by *pros*. Therefore, it is impossible to form overt anaphoric NPs (Baker 1996). Baker (1996) employed sentences from Mohawk to demonstrate why those languages cannot have reflexive NPs.

- (69) #Sak ro-núhwe’-s ra-úha.
 Sak MsS/MsO-like-HAB MsO-self
 ‘Sak likes himself.’ (Baker 1996:49)

Baker (1996) proposes that the structure of (69) is that shown in figure (5).



(Baker 1996:49)

Figure 5. The structure of reflexive NPs in Mohawk

Using Binding Theory (Chomsky 1981), Baker (1996) states that the structure in figure (5) has no indexing and violates Conditions A and B, as stated below in (70).

(70) A. An anaphor must have a c-commanding ⁷antecedent within its minimal clause.

B. A pronominal must not have a c-commanding antecedent with its minimal clause.

Furthermore, Baker (1996) explains that the NP *Sak* is coindexed with the subject *pro* in (5). While ‘himself’ must be coindexed with either *Sak* or the subject *pro* (NP inside its clause) Baker (1996). Therefore, Baker (1996) stresses that *i* must equal *k*. The object *pro* is an adjunct that represents this argument; therefore, ‘himself’ must be coindexed with the object *pro*. Therefore, *n* must equal *k*. However, this means that the object *pro* is coindexed with the subject *pro* which violates (70 B). Baker (1996) suggests that the reason for polysynthetic languages not having overt reflexive NPs lies in the explanation that instead they take morphological reflexives to satisfy the properties of the anaphor and the null *pro*. In addition, Baker (1996) emphasizes that the polysynthetic languages that contain reflective verb forms would express the same meaning of the relative NPs and delete the object agreement morpheme in those languages. The Morphological Reflexives in Guerrero Nahuatl are illustrated table 3 and examples of these are shown in (71) -(77).

⁷ C-command has been defined by Carnie (2013:127) as “Node A c-commands node B if every node dominating A also dominates B, and neither A nor B dominates the other”.

Table 3

Reflexive Morphemes in Guerrero Nahuatl

	SG	PL
1 P	<i>no-</i>	<i>to-</i>
2 P	<i>mo-</i>	<i>mo-</i>
3 rd P	<i>no-</i>	<i>no-</i>

- (71) *oninoλati*
 o- ni - no- λati
 PAST-1RD .SG.S-REF-burn
 “I burned myself”
- (72) *otimoλati*
 o- ti - mo- λati
 PAST-2ND .SG.S-REF- burn
 “you burned yourself”
- (73) *onoλati*
 o- Ø- no- λati
 PAST-3RD .SG.S-REF- burn
 “He burned himself”
- (74) *onoλati*
 o- Ø- no- λati
 PAST-3RD .SG.S- REF- burn
 “She burned herself”
- (75) *onoλatihkeh*
 o- Ø- no- λati- hkeh
 PAST-3RD .PL.S- REF- burn- PL
 “They burned themselves”

- (76) otitołatihkeh
 o- ti - to- łati- hkeh
 PAST-1ST PL. S- REF- burn PL
 “we burned ourselves”
- (77) oinmołatihkeh
 o- in- mo- łati- hkeh
 PAST-2ND .PL.S- REF- burn PL
 “you burned yourselves”

As can we see in the above data, Guerrero Nahuatl has reflexive morphemes as argued above that the reason for polysynthetic languages not having overt reflexive NPs lies in the explanation that instead they take morphological reflexives to satisfy the properties of the anaphor and the null *pro*. It is also clear that polysynthetic languages that have reflexive morphologies would express the same meaning of the relative NPs and delete the object agreement morpheme in those languages.

CHAPTER 6: THE ADJUNCT POSITION OF NPS IN GUERRERO NAHUATL

6.1. Condition on Extraction Domains (CED) Effects in Guerrero Nahuatl

Baker (1996) argues that all NPs are adjuncts in polysynthetic languages. One piece of evidence he investigates in Mohawk is overt *wh*-movement. This diagnostic is relevant for this research because it is possible to subject Nahuatl to a similar test that will show that NPs are in an adjoined position. In English, as Baker (1996) illustrated, we can extract material out of an object, but we cannot do the same with the subject. Example (78) illustrates the point.

- (78) a. Who did you see pictures of? (Baker 1996:73)
b. *Who did pictures of upset you?

Specifically, as Baker (1996:73) points out, example (78a) contains a grammatically correct sentence because it is possible to extract material out of an object. In its turn, Example (78b) fails to adhere to grammatical rules since material cannot be extracted out of a subject. Baker (1996) stresses the ideas of Ross (1967) and Huang (1982) who claims that the extraction situation depends on the verb, as the latter governs how subjects are distinguished from objects. Thus, Huang (1982:505) creates the *Condition on Extraction Domains* (CED) that entails collapsing the Subject Condition and the Adjunct Island Condition together.

Huang (1982:505) bases his findings on the concept of proper government, formulating the CED as follows.

- (79) “A phrase A may be extracted out of a domain B only if B is properly governed.” (Huang 1982:505)

The CED principle assumes that B is subject to proper government exercised by C under the condition that C belongs to the lexical category that governs B (Huang 1982; Baker 1996). It is possible for a lexical category to govern a phrase only if the lexical category c-commands the phrase. The disparity between (78a) and (78b) ensues because the verb c-commands the object, but it does not c-command the subject or an adjunct (Baker 1996). The findings suggest that case is different for polysynthetic languages, like Mohawk and Nahuatl, as all NPs are adjuncts in these languages. Additionally, Baker (1996) mentions that Chomsky (1986) derives the CED rule (79) from a version of Subjacency specifying that both are S-structure conditions, but he claims that the analytical intricacies are inconsequential in this scenario as long as (79) is descriptively correct. Examples from Guerrero Nahuatl show that we cannot extract materials out of either an object as in (80a) or a subject as in (80b).

(80) *a. akinon otikitaλ ifotos

akinon o- ti- kitaλ i-foto- s
 who PAST- 2ND-S.SG-see POSS- picture- PL
 “who did you see pictures of?”

*b. akinon ifotos omick^walanhke

akinon i- foto- s o- mic- k^walani-hke
 who POSS-picture- PL PAST- 2ND-SG.O- upset- PL
 “who did pictures of upset you?”

Baker (1996) claims that the nature of embedded clauses offers evidence that the CED is a relevant rule for Mohawk. He explains that the evidence is rooted in the comparison of clauses that are complements versus those that are

adjuncts. Baker (1996) provides examples from Mohawk that give grammatical instances of extraction from a complement. In examples⁸ (81) and (82) from Guerrero Nahuatl, we see that extraction from a complement forms grammatical utterances.

- (81) akinon tihnemilia kikowas in polan?
 akinon ti- h- nemili-a Ø- ki- kowa- s in polan
 who 2ND-S.SG-3RD.SG.O-think-PRES 3RD.SG.S .3RD.SG.O-buy-FUT DET banana
 “who do you think will buy this banana?”
- (82) akinon tihnemilia Mary k^welita?
 akinon ti- h- nemili-a Mary k^welit-a
 who 2ND-S.SG-3RD.SG.O- think -PRES Mary like -PRES
 “who do you think Mary likes?”

Nevertheless, Baker (1996) shows that a similar extraction from some types of adjuncts is impossible. In (83) and (84) from Guerrero Nahuatl, extraction from adjuncts forms ungrammatical sentences, as shown below.

- (83) * λenon tihk^was in cočllo para ti λatekis?
 λenon ti- h- k^wa-s in cočllo para ti -λateki-s
 what 2ND-S.SG-3RD.SG.O-use- FUT DET knife in order to 2ND-S.SG -cut-FUT
 “what will you use this knife in order to cut?”

⁸ The following examples in this chapter follow those that Baker provided in Mohawk (1996: 74-75). I have elicited the same examples in Nahuatl in order to show the argument Baker presented using Mohawk data holds for Nahuatl as well.

- (84) * akinon otičokak porque omik?
 akinon o- ti- čokak porque o- Ø- mik
 what PAST-2ND.SG.S cry because PAST-3RD.SG.S-die
 “who did you cry because (she) died?”

Moreover, Baker (1996:74) suggests that the reason for this disparity pertains to the contrast that originates immediately from (79), provided that “complements are sisters to the verb and adjuncts are outside the VP, and thus adjoined to the clause as a whole.” The verb governs the complement without governing the adjunct, which means that (79) violates the CED (Baker 1996). On the basis of these findings, we can draw comparison between subject NPs and object NPs from the perspective that they are domains of extraction. At the same time, there are few opportunities to verify this statement. For example, nouns in Mohawk seldom take complements. For this reason, Mohawk contains the only type of NP, which is a potential subject to extraction and that “is the possessor of the head noun” (Baker 1996:74). This movement appears to be impossible. The following examples, (85), (86), (87), and (88), from Guerrero Nahuatl show that, like Mohawk, we cannot extract the possessor of the head noun:

- (85) * akinon tik^welita ikuento ?
 akinon ti- h- k^welit-a i -kuento
 who 2ND-S.SG-3RD.SG.O-like -PRES POSS-story
 “whose you like his story?”

- (86) * akinon omicčokti ikuento?
 akinon o- mic -čokti i -kuento
 who PAST-2ND-O.SG-cry POSS-story
 “whose made you cry his story?”

- (87) * akinon otihnečti itomin?
 akinon o- ti- h- nečti i-tomin
 who PAST-2ND-S.SG-3RD.SG.O-find POSS-money
 “whose you found his money?”

- (88) * akinon kitekis ikučiyoy?
 akinon Ø- ki- teki-s i-kučiyoy
 who 3RD.SG.OS.3RD.SG.O-cut-FUT POSS-knife
 “whose will cut his knife?”

The examples shown in (89), (90), (91), and (92) are grammatical, and the reason for this grammaticality comes from Baker’s 1996 argument. He states that it is important for the possessed noun to immediately follow the question word in order for a sentence to be grammatical because there is a movement of the NP in its entirety instead of an extraction from NP and this movement is impossible in these polysynthetic languages (Baker 1996:75).

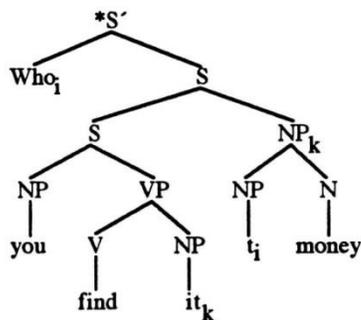
- (89) akinon ikuento tik^welita?
 akinon i-kuento ti- h- k^welit-a
 who POSS-story 2ND-S.SG-3RD.SG.O-like-PRES
 “whose story do you like?”

- (90) akinon ikuento omicčokti?
 akinon i-kuento o- mic-čokti
 who POSS-story PAST-2ND-O.SG-cry
 “whose story made you cry?”

- (91) akinon itomin otihnečti?
 akinon i-tomin o- ti- h- nečti
 who POSS-money PAST-2ND-S.SG-3RD.SG.O-find
 “whose money did you find?”

- (92) akinon ikučiyo kitekis?
 akinon i -kučiyo Ø- ki- teki-s
 who POSS-knife 3RD.SG.S-3RD.SG.O-cut-FUT
 “whose knife will cut it?”

Baker (1996) argues that these judgments must be anticipated because his hypothesis posits that overt NPs in Nahuatl always remain in adjoined positions. Therefore, the structure of (87) would be (6), which is ruled out by the CED.



(Baker 1996:75)

Figure 6. The impossibility of extraction from NPs

Naturally, Baker (1996:75) draws the conclusion that there is no subject-object asymmetry in regard to extraction in Mohawk, while “extraction from either violates the Adjunct Island subcase of the CED.” We can see that this is also true in Guerreo Nahuatl, where extraction out of either complex subjects or objects forms ungrammatical sentences.

6.2. Universal Grammar or Parameter?

Baker (1996) expresses a concern about the notions of whether a morpheme-specific property is part of universal grammar and or only a parameter of language. Baker (1996) proposes that there are specific agreement morphemes that can absorb Case in Mohwak (see chapter 4 of this thesis about agreement morphemes in Guerrero Nahuatl). Baker (1996) proposes that the rule shown in (93) must be true for all agreement morphemes in polysynthetic languages.

- (93) “An agreement morpheme adjoined to a head X receives that head’s Case at S-structure/PF.” (Baker 1996:86)

In addition, Baker (1996) specifies that this rule can be found in languages that are not polysynthetic. It surfaces under the condition that agreement is optional and not mandatory Baker (1996). Baker (1996) finds confirmation of his ideas in the works of other researchers. In particular, Baker explains that overt NPs in object positions have no compatibility with object agreement morphemes and object clitics in the majority of Romance languages (Borer 1984), and Bantu languages (Bresnan and Mchombo 1987), to name a few (Baker 1996:87). Furthermore, Baker (1996) claims that it is challenging to make empirical assessments of the compatibility of overt NPs in subject position and subject agreement or subject clitics. Baker (1996:87) explains that the conventional perspective on this question views NPs to “appear in the specifier of IP in the context of rich agreement in Italian and Spanish.” Despite this widely accepted idea, Baker (1996) refers to Barbosa (1993) who claims that convention is not necessarily true because of the intricate relationships among quantified subjects, clitic placement, and verb-second phenomena. Baker (1996) also mentions that the study of Anderson (1982) unveils that agreement is incompatible with overt NPs

in argument positions in some Celtic languages. Therefore, the rule (93) appears to be somewhat general.

Baker (1996:87) argues that “subject agreement does not absorb nominative Case in English or French.” Subject agreement in these two languages has a limited syntactic effect or has no effect at all, which makes Baker (1996) state that there is no syntactic derivation for agreement morphemes in those languages, while they enhance the representation in the morphological component of PF that had been explored by Halle and Marantz (1993). Baker (1996) assumes that (93) means that all agreement elements can be found in the syntax from the beginning, while these agreement elements serve a purpose of satisfying the Morphological Visibility Condition (MVC) in polysynthetic languages. Additionally, Baker (1996) suggests that (93) holds that license null pronouns and possibly other pronouns can also play a role in this context.

Ultimately, Baker (1996:89) explains that because of these peculiarities there is a need for a (morpho)syntactic parameter that would help to differentiate languages akin to Mohawk, Nahuatl, Southern Tiwa, and Mayali because these languages have obligatory clitics and agreement morphemes for every syntactic position and category, unlike Spanish, Chichewa, Slave, and Alambak that employ clitics and agreement optionally. Moreover, Baker (1996:89) states that the Morphological Visibility Condition (MVC) or Polysynthesis Parameter is a solution that proposes that “there must be an agreement morpheme (or incorporated noun root) on the head for each thematic role listed in the argument structure of that head.” Baker (1996) notes that the obligatory nature of agreement is not a peculiarity of separate verbs or separate verb classes because it is a trait of all heads that take theta role assignment in polysynthetic languages. Baker (1996) states that considering this obligatory nature of agreement as a lexical property is

incorrect because it is a universal property of the language in its entirety. Since it is not a trait of other languages, Baker (1996) concludes that this trait should be explained by a parameter.

CHAPTER 7: CONCLUSION

7.1. The Findings and Future Research

In this thesis, I have examined the syntax of Guerrero Nahuatl using Baker's (1996) Polysynthesis Parameter or Morphological Visibility Condition (MVC), which suggests that theta roles must be visible and assigned either by using a verbal agreement morpheme or by using an incorporated noun. Baker (1996) also posits that Nahuatl is one of those polysynthetic languages that should fall under the characteristics of the Polysynthesis Parameter and should be non-configurational. Among Baker's (1996) proposed characteristics, I have examined noun incorporation, verbal agreement morphemes, word order, quantifiers, null anaphora, and reflexive NPs. I have also examined the CED to explore the status of NPs in Guerrero Nahuatl. My findings support Baker's (1996) proposal about those languages that he calls polysynthetic. I have shown that noun incorporation is not compounding in Guerrero Nahuatl. I have shown that NI is referentially active in the discourse as well as productive. There is evidence from Guerrero Nahuatl that supports the claim that Nahuatl, specifically, and polysynthetic languages, in general, should be non-configurational. Guerrero Nahuatl has a free word order with no true occurring quantifiers. This lack of true quantifiers provides evidence that all overt NPs are in adjunct positions rather than in actual A-positions. In addition, there is an extensive use of null anaphora, and an absence of reflexive overt NPs. Instead of overt reflexive NPs, Guerrero Nahuatl employs morphological reflexives as Baker (1996) predicted. Finally, I have argued that the verbal agreement morphemes agree with pros in A-positions the while every overt NP is an adjunct. These elements taken together support Baker's proposal for a

parameter in human language dividing those languages like English and those like Mohawk and Nahuatl.

For future research of Guerrero Nahuatl, I should recommend paying attention to embedded clauses that play an important part in Baker's Parameter because those clauses should be carefully studied in the majority of Nahuatl dialects. Moreover, adpositional phrases require a deep study for the scholarly community to understand their behavior in polysynthetic languages and to confirm whether they follow Baker's prediction or not. Finally, unlike other linguists who worked on some dialects of Nahuatl and seemed to reject Baker's Parameter, I emphasize that Baker's Parameter should be examined properly and deeply in other Nahuatl dialects and other languages to collect new evidence. I suggest that the Polysynthesis Parameter is worth considering and exploring.

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