CAUSATIVIZATION IN CHIWERE:

A MINIMALIST APPROACH

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ABSTRACT

Chiwere is a highly endangered Siouan language spoken currently by a handful of semi-fluent speakers in Oklahoma. This thesis explores the productive morphological causatives in Chiwere (e.g., wánñegihi wángwášoše idówa re-hi ke 'Chief warrior there go-CAUSE DEC', 'The Chief made the warrior go there'). With respect to Pylkkänen's (2002) model, I argue for a Minimalist analysis of Chiwere causatives, representing that both direct and indirect causative heads are voice-bundling. I also demonstrate that Chiwere indirect v_{cause} is a phase-selecting head since the presence or the absence of an external argument determines the property of the selected complement. Verb-selecting v_{cause} is characterized by lacking external argument and allowing verbalizing morphology to intervene between the root and the causative head. It has been observed that voice-bundling/verb-selecting v_{cause} allows causativization of unergative and transitive verbs. However, all the available data show that Chiwere does not follow Pylkkänen's prediction in that its voice-bundling/verb-selecting direct v_{cause} head can only causativize unaccusative verbs. I then develop a case-marking system to Chiwere as an active/stative language on the basis of Chomsky's (2000, 2001) approach. To maintain Burzio's (1986) generalization and McGinnis's (1998) Case Identification Principle, I suggest that, in Chiwere-like languages, the fact that a functional head is associated with a particular case is determined structurally by the feature set of the functional head Voice. Finally, I employ this approach to Chiwere causative constructions, and critically consider both interpretable and uninterpretable features of pronominal null causer and causee.

Supervisor: Lewis Gebhardt

DEDICATION

To John Boyle

ACKNOWLEDGEMENTS

I owe a huge debt of gratitude to my supervisor Dr. Lewis Gebhardt for his patience, support, advice, and encouragement. Without his efforts and broad knowledge of generative grammar and distributed morphology, this thesis would have been impossible to write. It has been a true honor to work and learn from him. I am thankful to him for always giving me unlimited time for intellectual conversations with him. I will always be proud of your belief in me.

I wish to express my deepest appreciation to the members of my thesis committee Dr. Judith Kaplan-Weinger and Dr. Shahrzad Mahootian, not only for their contributions to the completion of this thesis and providing me with their insightful advice and criticisms, but for showing care, love, and support through my graduate years of study. I hope I make you proud.

I would especially like to thank Dr. John Boyle to whom I am very grateful for introducing me to the Chiwere language. I am fortunate to have had him as my first syntax teacher. He devoted his time and knowledge, sharing his experience to explain syntactic theories by using data from various languages. In his class, I learned what could be done with data from Siouan languages to study syntactic issues from a Minimalist perspective. I became immersed in Siouan languages, and as a result of his guidance and mentoring, I was able to present at the Siouan and Caddoan conference which was invaluable in the exposure to the theoretical frameworks used by Siouanist researchers.

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Last but not least, I would like to thank my parents for their priceless love, support and everything. I love you, and I can never thank you for that.

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MORPHEME GLOSS ABBREVIATIONS

1s	First person singular
1D	First person Dual
1p	First person plural
2s	Second person singular
2p	Second person plural
3p	Third person plural
ABS	Absolutive
ACC	Accusative
AGR	Agreement (General)
AUX	Auxiliary
CAUSE	Causative
CIS	Cislocative
CL	Classifier
COMPL	Complementizer
DAT	Dative
DEC	Declarative
DUP	Duplicative
ERG	Ergative
F	Feminine
FACT	Factual
FUT	Future
IMPER	Imperative
M	Masculine
N	Neuter
NE	Narrative ending
NOM	Nominative
NPRES	Non-present
O	Object agreement
P	Possessor
PART	Participle
PAST	Past tense
PL	Plural
POSS	Possessive
REFL	Reflexive
S	Subject agreement
SEP	Separative

CHAPTER ONE
INTRODUCTION

1.1 A BRIEF HISTORY OF CHIWERE. Chiwere is a Siouan language forming a subgroup with Hocank within the Mississippi Valley branch of the Siouan language family. The Siouan language family is divided geographically into four subgroups: Eastern, Ohio Valley, Missouri River, and Mississippi Valley. In Table 1, the Siouan language family is illustrated, as in Grimm (2009). Within the Mississippi Valley branch, there are three sub-branches, Dakotan, Dhegiha and Chiwere-Winnebago. Chiwere-Winnebago is made from two related languages. These two are Chiwere and Winnebago that is also known as Hocank.

The name Chiwere refers to three closely related and mutually intelligible dialects: Iowa, Otoe, and Missouri. The language is named thusly due to the fact that the Otoe people call themselves Chiwere, and since the Otoes are considered to be the largest community amongst the three, the dialects are named after what the tribe calls itself. The Iowa people call themselves Báxoje, and the Missouria tribe refers to itself as Ñút'achi (Whitman 1947; Rood 1979; Hopkins 1988, Davidson 1997).

According to Rood (1979), Hopkins (1988) and Parks & Rankin (2001), the Missouri dialect became extinct after the people of the Missouria tribe migrated from the Missouri River near the Grand River to join the Otoe tribe at the end of the eighteenth century. The primary reason for the Missouria refuge was a string of smallpox epidemics and warfare in 1798 (GoodTracks 2005). From that time on, Chiwere was composed of two dialects—Otoe and Iowa—which are very closely related to one another and vary only in certain words with regard to pronunciation and form (Whitman 1947). Chiwere is

currently considered a highly endangered language. Sadly, in 1996 the last two fluent native Chiwere speakers passed away; yet, semi-fluent speakers remain who still speak the language (Topintzi 2010: 61).

TABLE 1: THE SIOUAN LANGUAGE FAMILY

Eastern		Catawba Woccon
Missouri River		Crow Hidatsa Mandan
Mississippi Valley	Dakotan	Teton (Lakota) Santee (Dakota) Yankton (Nakota) Yanktonai Assiniboine Stoney
	Winnebago-Chiwere	Winnebago Iowa-Otoe-Missouria
	Dhegihan	Kansa Omaha-Ponca Osage Quapaw
Ohio Valley		Biloxi Ofo Tutelo

1.2 DATA SOURCES. The majority of my data has been collected from written narrative sources, including the Marsh texts (1936), La Fleche texts (n.d.), the Dorsey text (1880)

and the Ioway-Otoe-Missouria Dictionary (http://iowayotoelang.nativeweb.org). In addition, I used material that was compiled and presented by John Boyle in his Chiwere translation class at Northeastern Illinois University in 2013. These works will be referred to throughout my discussion.

1.3 DEFINING CAUSATIVIZATION. Causation is a phenomenon that is explored intensively amongst philosophers, cognitivists and linguists. However, this thesis concentrates specifically on the linguistic perspective and leaves out issues about causation in other disciplines.

Typological researchers over the past forty years or so have syntactically and semantically explicated cross-linguistic variation in causative constructions. Nevertheless, the similarities of causative constructions have provoked various linguistic theories. Nedjalkov and Silnitsky (1973) define a causative construction as including two events which differs from its corresponding non-causative via an additional meaning. Hence, an additional meaning causes a semantic relation between a causing event and a caused event to exist.

Shibatani (1976) characterizes causative constructions as reflecting both a causing event and a caused event. Based on Shibatani's definition, for instance, an expression such as *John made his son drink the milk* consists of a causer, a causee and two events. The sentence contains the causing predicate, *made* and the caused predicate, *drink the milk.* Shibatani determines a relationship between the two events regarding the moment of realization. In other words, the hearer must recognize that the causing event of John's action should be performed before the caused event of milk drinking. Based on Shibatani's definition, a sentence such as *John saw him drinking the milk* would not be

considered a causative construction, even though it consists of two events. This is due to the fact that the action of drinking could have been performed by the agent before having been seen by John and then continued on until John recognized it—hence, the sentence does not reflect a causative construction (Shibatani 1976: 1-2). Shibatani concludes his discussion of complex causative situations by stating that for a construction to be causative, *"*the caused event takes place exactly during the duration of the causing event, whether this is a point or an extent of time" (Shibatani 1976: 66). Gerritsen (1990: 295), on the contrary, proposes that the simultaneity of the causing event and the caused event differs from one situation to the other based on the type of the predicate used. She proposes that while the occurrence of the processual caused event is simultaneous with the causing event, the actional caused event occurs after the causing event. It should be noted that, unlike in actional events, subjects of processual events are forced and non-volitional.

Furthermore, in a similar way to Talmy (1976: 50), Shibatani describes a dependency relationship between causing and caused events, illuminated by the following statement (Shibatani 1976: 1-2):

> "The relation between the causing event and the caused event is such that the speaker believes that the occurrence of the caused event is wholly dependent on the occurrence of the causing event; the dependency of the two events here must be to the extent that it allows the speaker to entertain a counterfactual inference that the caused event would not have taken place at a particular time if the causing event had not taken place, provided that all else had remained the same."

There is a direct cause-effect relationship in the sentence *John made his son drink the milk* which meets Shibatani's criteria: the caused event *drinking the milk* would not occur unless John's action had already taken place. In non-causative constructions, the dependency between two events is not required to be assumed by listeners—as in the sentence *John saw him drinking the milk*—since the occurrence of the drinking event is not perceived as an outcome of the seeing event.

Similarly, Comrie (1981) proposes that any causative construction is in essence a complex macro-situation consisting of two micro-event components: the cause and the result. Comrie indicates that there exists a cross-linguistic similarity in the way that the causing event abbreviated within the causative structure. He notes that a complete expression of the cause—for example, *the teacher's strict rules in grading exams caused me to fail*—can be abbreviated as, *the teacher caused me to fail.* Frawley (1992) semantically investigates causative constructions as being two events. The events are formed via a determined relation; so the occurrence of one event causes the other event.

Dixon (2000), on the contrary, proposes a different characterization of causative constructions based on the syntactic-semantic function of arguments. In other words, a causative construction differs from its non-causative counterpart because it introduces a new causer argument that initiates an event. Similarly, Doron (1999) hypothesizes that causativization is formed cross-linguistically by introducing a new argument. This, however, has been rejected by Pylkkänen (2002), whose work includes examining languages such as Finnish which form causative constructions that do not require their cause heads to introduce causers. Looking at cross-linguistic analysis, I classify causative constructions into three categories (as did Comrie (1981)): lexical causatives, analytic

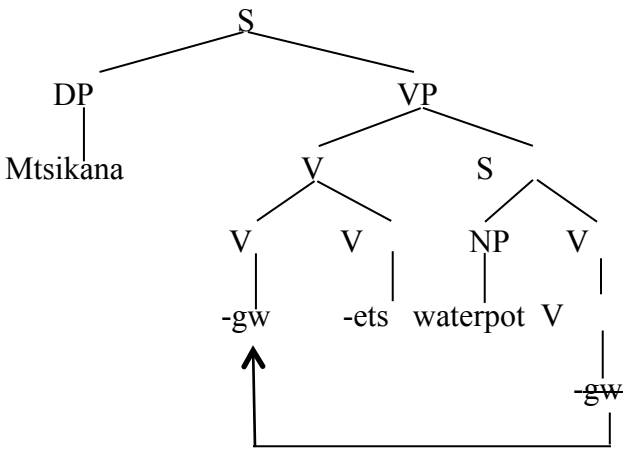
causatives, and morphological causatives. Baker (1988) analyzes all of them from a syntactic perspective, assigning a syntactic function to a morphological causative element. Thus, according to Baker, morphological causatives are similar to their corresponding syntactic periphrastic analogs, in encoding a biclausal meaning, as the following examples from Chichewa show (Baker 1988: 205):

(1) Mtsikana anachititsa kuti mtsuko unagwe.
Girl make that waterpot fall
'The girl made the waterpot fall.'

(2) Mtsikana anau-gw-ets-a mtsuko.
Girl AGR-fall-made waterpot
'The girl made the waterpot fall.'

In (1), it is clear that the sentence contains a biclausal structure, since the causativization is formed by means of two separate verbs. However, the causative meaning is expressed in (2) through a single complex verb, including a base verb *-gw-* and a morphological suffix *-ets-*. Baker's examination shows that there is syntactic movement of the base verb raising in the tree to be adjoined to the morphological suffix. Thus, while there is V-to-V movement in morphological-based causatives, the periphrastic causative's base verb stays in-situ. Below, (3) illustrates the movement in (2) (Baker 1988: 207).

(3)



In order to capture a uniform structure across causatives, Baker adopts the idea that causative constructions have an underlying deep structure in which the base verb is generated down in the tree next to its internal argument.

Productivity and regularity characterize both morphological and periphrastic causatives. However, according to previous typological and theoretical approaches, lexical causatives often involve irregularity in formation. For instance, a prototypical lexical causative is expressed with a suppletive form—such as the verb *kill* in the phrase *He killed him.* Such transitive verbs have counterpart intransitive verbs to form a suppletive pair carrying a lexicalized semantic relation (Lyons 1969). Lexical causatives are also considered alternative verbs, due to the fact that they can be expressed either transitively or intransitively. The transitive versions of alternative verbs hold a causative meaning to the sentence as well as assign the same theta role to the object that the subject of the intransitive verb carries (Levin & Rappaport 1995; Blanco 2010).

1.4 PHENOMENON OF INTEREST. Following Pylkkänen's Minimalist model (2002), this thesis examines the syntactic elements of productive causative constructions in Chiwere—a Siouan language—investigates their distribution, and analyzes their syntax.

Pylkkänen (2002) argues that it is not the existence of the causer that is universally shared among causative constructions in the world's languages as Doron (1999) assumes; rather it is the functional head *CAUSE*. This functional head yields variations in the syntactic derivation between syntactic, morphological, and lexical causatives, within and across languages.

Based on Chomsky's (1995) Principles and Parameters/Minimalist framework, Pylkkänen (2002) argues that these variations among languages regarding causativization are based on Voice-bundling and Selecting. In this study, I demonstrate that the indirect morphological causative and the direct morphological causative in Chiwere can be analyzed as phase-selecting CAUSE head and verb-selecting CAUSE head respectively. Because both direct and indirect causatives require a causer to be part of the causative constructions, I describe the causative head in Chiwere as Voice-bundling head. Furthermore, this thesis uses the Probe-Goal system of Chomsky (2000; 2001) to develop a case-marking system for Chiwere as an active-stative language and discusses it in detail how an internal argument of a stative verb has its case valued exactly as an internal argument of an active transitive verb. Then I employ this approach to suggest some syntactic operations for Chiwere causatives in order to restrain their derivations to previously assumed syntactic principles and conditions (i.e., Full Interpretation, Locality Condition, Earliness Principle and so on).

1.5 THE SYNTACTIC FRAMEWORK. The general theoretical framework I will adopt is Pylkkänen's (2002) Minimalist model, which follows the Minimalist Program as developed in Chomsky (1995). Chomsky's MP follows from his previous work in assumptions such as the theory of Universal Grammar, which presupposes that all natural

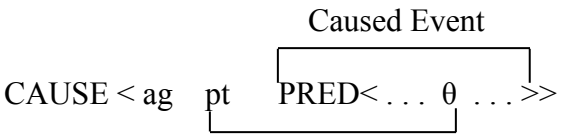
languages share innate properties of grammar. According to Chomsky, Universal Grammar (UG) is the main goal of theoretical analyses of all human languages. The knowledge of a particular language is determined by an internalized system—or "Language Faculty," as Chomsky terms it—which a native speaker possesses in order to acquire, speak and interpret any language. Studying and characterizing the grammatical competence of a certain language reveals the quintessence of the internalized system of that language. Accordingly, Chomsky defines UG as "a theory of the initial state S_o of the relevant component of the language faculty" (Chomsky 1995: 167). Therefore, the theory infers a particular set of principles (such as The Locality Principle and The Extended Projection Principle) that all natural languages share and that are adapted by children in language acquisition.

Languages, however, exhibit variation in their individual grammars—so the notion of universal principles must be supported by the idea of parameters; otherwise, all languages would have an identical grammar. As mentioned above, the Extended Projection Principle (EPP) is considered to be a universal principle; and yet languages display parameterizations in satisfying this condition. Parameterizations could be represented according to the assumption that the EPP can be either strong or weak. As a result, VSO languages are interpreted as involving a weak EPP feature. However, Rizzi (1982) proposes that VSO languages have a strong EPP feature that does not attract DPs via movement, as in SVO languages. Instead, they always have a *pro* expletive in the Spec IP (or TP in current theory), although, some of the linguistics literature analyzing the structure of VSO provides a challenge to the EPP, as in McCklosky (1996). Bobaljik and Carnie (1996) propose treatment under the Minimalist Program, assuming that the

verb raises to the highest slot in the tree above TP, while the subject occupies the Spec position of the TP.

Morphological causative constructions in this thesis, on the other hand, exhibit parameters of a universal principle that are treated from several distinct perspectives. Apart from syntactic incorporation theory provided by Baker (1988), Alsina (1992) proposes cross-linguistic parameterizations of morphological causatives within Lexical-functional Grammar (LFG). The core issue, in Alsina's viewpoint, is that morphological causatives are three-place predicate constructions—consisting of agent, patient and event. The patient of the causative morpheme is fused with an argument of the caused event, since it is impossible to move the causee from being the argument of the embedded predicate to being the object of the causing event. This, according to Chomsky, violates the θ-Criterion by having an argument carry more than one theta role. In (4) below, I illustrate Alsina's representation of three-place predicate morphological causatives.

(4)



Example (4) reflects two parameters based on the semantic interpretation of the argument of the caused event θ. In the first parameter, the causee is fused with the subject of the caused event. In the second case, however, the causee shares the same thematic role as the undergoer or affected entity of the caused event.

Following insightful work done by Baker (1988), which presupposes a process of incorporation for all languages to derive a morphological causative construction via head-to-head movement, Guasti's (1996) investigation of causatives in Romance languages

(specifically Italian and French), along with two dialects of Arbëresh, introduces both similarities and variations in terms of what type of complement CAUSE selects in analytic and morphological causatives. For instance, Guasti notes that in Barile, the causee—the subject of the infinitive intransitive base verb—functions as the direct object of the complex verb. Similarly, In Italian the causee is realized in the causativization of infinitive intransitive verbs as the direct object of the complex verb. That is, structurally, the causee is realized as the direct object because it might be the subject of a passivized causative verb, as in the following examples (Guasti 1996: 212).

(5) I bambini facevano saltare il cane.
The children made jump the dog
'The children made the dog jump.'

(6) Il cane è stato fatto saltare dai bambini
The dog has been made to jump by the children

Since passivization forces the direct object to move up to the subject position, it is more appropriate to conclude that the causee is the direct object of the complex verb. The same derivation occurs in morphological causative constructions in Barile, because the causee is not prevented from playing the role of the subject when the complex verb is passivized. Therefore, the causee is the direct object of the complex verb in the causatives of intransitive verbs, as shown in (7) (Guasti 1996: 211):

(7) 'Cɛni 'kyɛ 'pata-tsum'bur njga 'diymbrët.
Dog was CAUSE-jump-PAST PART by children
'The dog was made to jump by the children.'

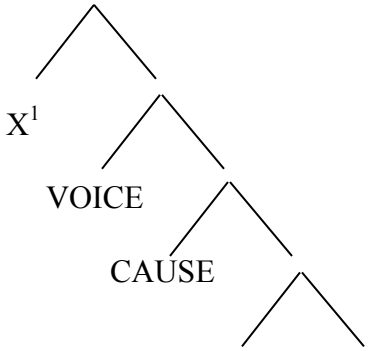
Guasti furthermore introduces the idea that morphological causatives, unlike analytic ones, involve incorporation and excorporation processes. From a comparative

point of view, Guasti suggests that both matrix verbs in Barile morphological causative and in Italian analytic causatives, select a VP-shell complement—but only in Barile the causative head consists of V^{-1}, which triggers the movement of the base verb.

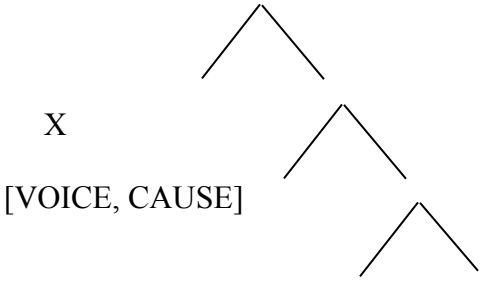
In a recent cross-linguistic study within the Minimalist Program of causative constructions, Pylkkänen's (2002) most significant question tackles the distinction between the core and non-core arguments of the verbs within causative and applicative constructions. She suggests that the process of non-core argument introducing is implemented via seven functional heads, but that only four heads are relevant to causative constructions, including root-selecting CAUSE, verb-selecting CAUSE, phase-selecting CAUSE, and Voice, as proposed in Kratzer (1996). Pylkkänen discusses the phenomena of linguistic variation by referencing the distribution of the causative constructions and adverbial modifiers of the syntactic elements within the causative clause.

Departing from those four types of functional heads, Pylkkänen poses a unified account of causative constructions, proposing that causative derivation must contain a CAUSE head which gives rise to a causative meaning. This accounts for a parameterized principle that varies among languages and, within an individual language, according to the syntactic behavior of the functional head CAUSE. Given the argument that languages share a CAUSE functional head, Pylkkänen argues that the potential parameters are based on Voice-bundling and Selection. As a result, languages are classified either as Voice-bundling—with the introduction of a causer as obligatory—or non-Voice-bundling, as in the following diagrams (8a) and (8b).

(8a) Non-Voice-bundling causatives



(8b) Voice-bundling causatives



(Pylkkänen 2002)

In (8a), the VOICE functional head introduces the external argument. Thus, the separation of the CAUSE head from VOICE allows us to account for the absence of the external argument in certain causative constructions that have adversity interpretations, as in Japanese (9) where "the nominative argument is not interpreted as a causer but rather as an affected argument of the event described by the noncausative verb" (Pylkkänen 2002: 82).

(9) Taroo-ga musuko-o sin-ase-ta.
Taro-NOM son-ACC die-CAUSE-PAST
(i) 'Taro caused his son to die'
(ii) 'Taro's son died on him' (the adversity causative)

In this example, the second reading reveals an affected argument of the caused event and no external argument is required. Therefore, since the causer/external argument is not obligatory in the second interpretation, the functional head VOICE should be separate from the head CAUSE in language such as Japanese. Accordingly, holding to two separate heads allows us to represent structurally the adversity and causative readings. In (8b), however, the existence of the external argument is obligatory, which results in a bundling of two different functional heads, just like in the English lexical causative

1- The X fills the position of the external argument.

constructions. See chapter 3 for a discussion of the functional heads that introduce an external argument in Chiwere.

Furthermore, regarding the parameters of the functional head CAUSE in terms of selectional properties, Pylkkänen suggests three possibilities, including: root-selecting, verb-selecting and phase-selecting. Following Marantz (1997), Pylkkänen considers the functional head CAUSE in English lexical causatives as a root-selecting head, since there is no verbal element intervening between the phonological null head CAUSE and the selected root. In Finnish, however, the case is different due to the appearance of a verbalizing element between the causative head and its selectional root. Finally, while the previous types disallow an embedded external argument acting as the causee, phase-selecting requires the appearance of an embedded causee at the edge of the voice phrase (See chapter 3).

Building on Pylkkänen's idea that languages vary according to the Voice-bundling and selecting features, I will show the morphological causative head in Chiwere to be Voice-bundling, since the causative head requires the appearance of an external argument which forces a causee to perform an action or be in certain state. Both Chomsky (1995) and Kratzer (1996) hypothesize that the external argument of the verb is introduced outside VP proper, by a light V according to Chomsky, or via Voice from Kratzer's perspective. Following Pylkkänen (2002), this thesis draws on the concept that the causer in Chiwere is introduced via the functional head VOICE rather than the light V. Additionally, the causative head in Chiwere embeds a complement that consists of an external argument if and only if it is an indirect causative, so it results in a phase-selecting causative.

Chiwere is a polysynthetic language which reflects a rich morphology on the verb, besides other affixes such as instrumental prefix and causative suffix. Consequently, in Chiwere, a complex verb, including agreement affixes, can be a complete sentence. Julien (2002: 3) says:

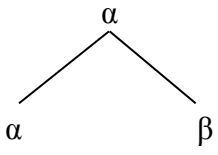
> "…word formation is mainly a matter of syntax. That is, the basic building blocks of syntax are individual morphemes, not words, and it is syntax that determines within each complex word, in very much the same way as it determines the order of words in phrases and sentences."

The syntactic analyses of causative constructions are based on the assumption that Chiwere is a configurational language containing both lexical and null pronominal arguments. This has been assumed among Siouanists in other Siouan languages, as opposed to non-pronominal argument analyses (Graczyk 1991; Rood and Taylor 1996; Schudel 1997). In this thesis, I follow Williamson (1984) and West (2003), who argue that Lakota and Assiniboine Nakoda are not pronominal argument languages.

1.6 THE MINIMALIST PROGRAM. I analyze the morphological causative construction in Chiwere within work under the Minimalist Program developed by Chomsky (1995, 2000, and 2001) in favor of reducing the complexity of the grammar through an economical approach. Since the chief purpose of any given language is to crystallize sentences via relating a sequence of sounds to meaning (Chomsky 1995; Radford 2004; Hornstein, et al. 2005), the grammar should include only two interface components—Logical Form and Phonetic Form. On one hand, Logical Form concerns the meaning that maps to the syntactic structure and interfaces within the thought system. On the other hand, Phonetic Form concerns the sounds and the way they are pronounced so that it

interfaces with the speech system. Syntactic structures are formed via computational resources of items from the lexicon, i.e. the numeration, which carry syntactic, phonological, and semantic features. Syntactic features can be classified as either interpretable or uninterpretable, but uninterpretable features must be eliminated before the interfaces—either under the sisterhood relationship or the agreement relationship. Semantic features such as number and person are interpretable, adding to semantic interpretation, and as a result, they do not need to be valued and checked, as the uninterpretable ones, such as categorial selection features. Syntactic structures are built via Merge, which combines syntactic objects to form new syntactic objects. The operation Merge is said to be free due to the assumption that language is a recursive system. The derivation is constructed from bottom to top, through joining two items together, to form a new syntactic object that combines the two: α and β. Either α or β must be a complex syntactic object such as a light head or a whole constituent. The new object is given a label from either one of the objects being combined (Chomsky 2004:108). It should be noted that the operation Merge does not combine two lexical items. What we have been dealing with so far is traditionally called External Merge because two separate syntactic objects α and β are merged, as is shown in the following tree (with the assumption that α is the head).

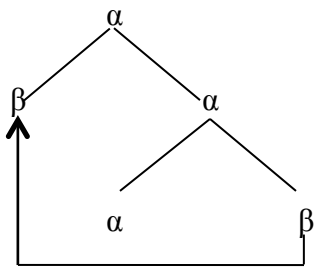
(10) External Merge



Thus, a larger structure is formed via combining two independent elements α and β to form the larger unit {α β}. Chomsky (2004: 110-111) also defines Internal Merge, which

differs from the former in that it takes an element that has already been merged and places it in another position, as shown in (11).

(11) Internal Merge



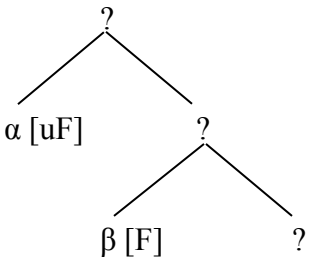
Both types of Merge exhibit parallelism in how they join two items together, but in Internal Merge, one of the new grouped objects is a part of a previously-built structure. In (11) the lower β is moved to a new position in the tree and leaves behind an unpronounced copy. Furthermore, it should be noted that there is a correlation between the nature of Merge and syntactic derivation. For example, Chomsky (2004:111-112) proposes that while External Merge constitutes an argument structure, Internal Merge is applied in a successive-cyclic manner and is relevant to any derivations other than argument structure, such as Wh-Movement.

In order to derive syntactic structures without any violation at any level (e.g. Full Interpretation), another operation must be performed. The LF level, as mentioned earlier, requires all features to be interpretable; however, since not all features are interpretable in nature, there must be a mechanism by which the structures converge at the interface level. Uninterpretable features, such as case and agreement, need to be deleted before the LF interface is completed in order to avoid violation of the Full interpretation principle (Adger 2003: 66).

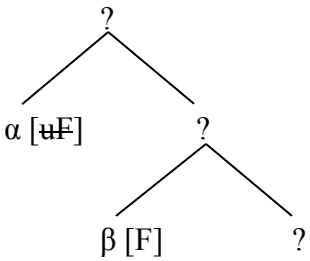
(12) Full Interpretation: The structure to which the semantic interface rules apply contains no uninterpretable features.

Full interpretation is achieved through the operation Agree, by which an uninterpretable feature is checked because it matches an interpretable feature, and is henceforth deleted. Agree is a head-head relation that is employed between a head in a goal position and a probe/target in a higher locus in which the probe is c-commanding the goal. The probe is associated with an uninterpretable feature, whereas the goal carries an interpretable feature.

(13a)

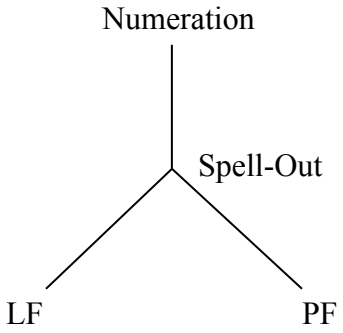


(13b)



In the structure in (13a), the uninterpretable feature in α must be valued and deleted if and only if it matches the interpretable one in β. The interpretable [F] matches [uF] and can therefore check it, ~~uF~~, as in (13b). Spell-Out is an operation which sends a derived syntactic object to the phonological and semantic components while simultaneously ensuring that all of the features are interpretable (Chomsky 2000:118; 2004:107).

(14)



Having given this brief explanation of some of the syntactic principles adapted by researchers in the Minimalist Program, the current work aims to contribute a Minimalist

investigation of an important phenomenon which revolves around syntax, semantics and morphology of an individual language. Specifically, I illustrate how Chiwere productive causative constructions fit within the parameters of the universal principle developed by Pylkkänen (2002) under a Minimalist framework. Causative constructions have received a wide range of typological and theoretical attention in numerous languages. To my knowledge, however, there are precious few systematic studies that are conducted on Chiwere causative constructions.

1.7 OUTLINE OF THE THESIS. The following Chapters are organized as follows. In Chapter 2, I review selected typological materials, which provide a foundation of the syntax, semantics and morphology of various types of causatives in some of the world's languages. Furthermore, I provide a summary of a few Siouanists' insights on causatives in Crow, Hidatsa and Hocank. In addition, this chapter discusses earlier attempts at understanding the structure of causatives in Chiwere. It also seeks to spell out and clarify some syntactic issues to demonstrate the status of Chiwere argument structure.

In Chapter 3, I introduce Pylkkänen's three types of complements that can be selected by the functional head $v_{cause,}$ from which a causative meaning is derived. It is proposed that Chiwere direct v_{cause} is a verb-selecting head. On the other hand, since the presence or the absence of an external argument determines the property of the selected complement, Chiwere indirect v_{cause} is examined as a phase-selecting head. I then provide an overview of Kratzer's Voice theory to conclude that both direct and indirect v_{cause} are Voice-bundling heads.

In chapter 4, the emphasis is on the formal features in Chiwere causative constructions. For this reason, I present the Chomskyan Probe-Goal Minimalist view

toward case-marking and agreement. I then develop a case-marking system to Chiwere as an active/stative language on the basis of Chomsky's approach. The central role of this chapter is to suggest that, in Chiwere-like languages, the fact that a functional head is associated with a particular case is determined structurally by the feature set of the functional head Voice. In addition, it employs this approach to Chiwere causative constructions, and importantly considers both interpretable and uninterpretable features of pronominal null causer and causee.

CHAPTER TWO
LITERATURE REVIEW

2.1 INTRODUCTION. Causative constructions in Chiwere have not previously been studied from a theoretical perspective. The focus of papers about Chiwere causatives has described the constructions as a representation of a prototypical complex verb. The assumptions simply state—from a descriptive point of view—that the suffix *-hi* attaches to the root, and the pronominal affixes are post-positioned as suffixes between the root and the causative suffix, rather than being conjugated as prefixes.

Investigating the morphological and lexical causatives in Nivkh, Nedjalkov et al. (1995) claim that most languages derive causative verbs from a non-causative counterpart via at least one particular verb (or as Nedjalkov et al. term it, V^j). Accordingly, the causative verbs can be expressed lexically via V'^j and/or morphologically via V''^j. Unlike Nivkh, which utilizes both types, Chiwere encodes only a productive morphological causative.

This chapter is organized as follows: Section 2.2 sheds light on selected typological surveys from syntactic, morphological and semantic points of view. In Section 2.3, I provide a brief overview on causative constructions in languages within the Siouan family, such as Hocank, Crow and Hidatsa. Section 2.4 discusses earlier documentation done on Chiwere causatives, including that of Whitman (1947), Wistrand (1978), Hopkins (1988) and Greer (2013). Section 2.5 provides an overview of relevant issues to causative constructions based on theoretical analyses of the asymmetrical relationship between subject and object. I also argue in favor of recognizing the verbal inflections as morphological agreement, rather than arguments.

2.2 A TYPOLOGICAL VIEWPOINT.

Comrie (1981)

Comrie (1981) devotes a chapter of his book *Language Universals and Linguistic Typology* to a universal approach to causative constructions from a typological perspective. Comrie's concerns revolve around three formal parameters of causative constructions which contain lexical, morphological and periphrastic causatives.

Comrie characterizes the prototypical periphrastic causative as consisting of two predicates: one that encodes the cause, and another that expresses the result (as in *he caused me to leave the store)*. Furthermore, Comrie points out that the occurrence of such an analytical causative is rare cross-linguistically, and its use might result in unnatural expression[2], as in Russian (Comrie 1981: 167).

Comrie's parameterization of the morphological causatives includes two properties. The first, as shown in (1a), is that a causing event is morphologically attached to a non-causative predicate to derive a causative construction. The second feature is the fact that a morphological causative item is productive by being allowed to causativize any verb, and also has the ability to form a causative construction from an already causativized verb, as in (1b). Comrie proposes that in the case of lexical causative constructions, the relation between the result and the macro-event is expressed lexically, unlike in morphological and periphrastic causatives. Thus, a lexical causative is expressed via a single syntactic element, which differs from its non-causative counterpart to the degree to which they form suppletive pairs.

2- Analytical causative is considered unnatural if it is permissible, but it is not as simple as utilizing an expression which indicates a direct coercion via a word that means "force".

(1) Turkish morphological causative

a. öl-dür
die-CAUSE
'Kill' (Comrie 1981: 167)

b. öl-dür-t
die-CAUSE-CAUSE
'Cause to kill' (Comrie 1981: 167)

Although these three categories of causatives—periphrastic, morphological, and lexical causatives—are found widely across languages, there are other instances of causative constructions that do not fit the prototypes of these causatives. In French, for instance, a clear distinction between morphological and analytical causatives is lacking. Comrie's argument is based on the syntactic behavior of the predicate *faire* 'make'/'do', which expresses the causing event. Since prototypical analytical causatives are formed via two separate predicates, the predicate expressing the causing event should have its own arguments. In addition, while the subjects of infinitive verbs are omitted, objects are obligatory in French. Accordingly, the causee should come after the causing event instead of following the caused event since the causee of an unergative verb is interpreted as the object of the causative verb *faire* and the subject of the causativized verb. However, causative constructions with *faire* are constructed differently because noun phrases are disallowed to occur between *faire* and the caused event, as in *j'ai fait courir Paul* 'I have made Paul run'. Therefore, even though the previous example looks exactly like a periphrastic causative construction, it shows a similarity to canonical morphological causative constructions due to the prevention of the noun phrase *Paul* to appear between the caused and causing events (Comrie 1981:168-170).

Apart from the syntax, Comrie devotes a portion of his chapter to a number of semantic parameters. He points out two main parameters that are relevant to syntax: 1) the distinction between direct and indirect causatives; and 2) the degree of control that an animate causee holds over the macro-situation of the causative construction.

Finally, Comrie's work reflects a tendency to interpret valency as resulting from morphological causative constructions. Since syntactic causatives are formed by means of two predicates, there is no need to raise the question of to which predicate the causee belongs. However, a morphological causative is formed, for instance, via attaching an affix to a root, which triggers an extra argument/causer in addition to an agentive causee (in cases where the causativized verb is intransitive). Besides the solution of suppression[3], Comrie's Turkish examples show that the causee takes the accusative case if the verb is intransitive, appears with dative case if the verb is transitive, or appears as oblique when the verb is ditransitive.

Song (1996)

From a universal-typological perspective, Song (1996) divides his sample of causatives in 613 languages into three types: COMPACT, AND, and PURP. Song's aim is to demonstrate as many variant causative structures as possible by examining a large number of languages. His rich sample reveals variation even among languages from the same family, as in the Niger-Congo family, which weakens Dryer's (1989: 267) previous generalization that languages from the same family represent similar grammatical properties.

3- Suppression is a cross-linguistic solution where the causee is omitted to avoid the existence of two subjects for one predicate. Comrie views morphological causative constructions as structures that contain a single predicate, however, it should be viewed as containing two predicates, in my opinion.

The Compact type includes causativization that is formed via linear contiguity of *Vcause* and *Veffect* within a single clause. In other words, the verbal element of the causing event and the verbal element of the caused event, in a particular clause, are not separable by any other element. Therefore, Song classifies both morphological and lexical causatives as Compact types since they demonstrate a degree of compactness. The compactness of verbal elements can be teased apart, as in case of morphological causatives like (2a). However, in lexical causatives there is no clear-cut difference between the *Vcause* and *Veffect* because they are fused in a single element, as in (2b). In addition, there is no fixed order of syntactic objects representing the *Vcause* and *Veffect,* so the order varies among languages.

(2a) Bilaan morphological causative

f-tam-gu dale salò
Cause-light-I them lamp
'I have them light the lamp' (Song 1996: 21)

(2b) Russian lexical causative

a. Non-causative verb.	b. Causative verb.
umeret	ubit
'to die'	'to kill' (Song 1996: 27)

The *Vcause* in the Compact type varies cross-linguistically, being either a bound morpheme, as in (2a) and (2b), or a free morpheme, as in (3) in which the *Vcause* is a free lexical item that must be adjacent to the *Veffect* in that no other element is allowed to intervene between the *Veffect* and the *Vcause*.

(3a) Jacaltec

cha xewoj ix naj.
makes to rest CL/she CL/him
'She makes him rest. (Song 1996: 31)

Song's sample reveals a great variety of linguistic means that are used within and among languages to form morphological and lexical causatives. For instance, some languages specify morphological causatives only for intransitive and transitive verbs, whereas others apply the Purp type to ditransitive verbs. In addition, languages differ in the type of the verbal elements of the causing event (e.g. prefix, suffix, circumfix, infix, etc.).

Song's sample interestingly includes languages that are less faithful to the prototypical Compact causative, due to the intervention of other elements between the *Vcause* and the *Veffect*. A language such as Straits Salish, spoken in British Colombia, Canada, utilizes the suffix *-tx^{W}* to construct a causative verb. However, the appearance of the purposive suffix *-(ə)s* between the Vcause and Veffect weakens the degree of compactness [4]. As a result, cross-linguistic examples reveal gradation in their compactness. For instance, English provides a prototypical example of the compact-type in situations where there are many verbs that show zero derivation of causative constructions, as in *melt* (transitive), *break* (transitive), and *kill* (cause to die). Conversely, the causative construction in Chiwere reveals less compactness, since morphological agreement morphemes intervene between the caused event and the causing event.

4- The term Compactness is employed by researchers in different ways, but here within the causative constructions literatures it commonly refers to the length and formal distance between elements building causative structures (Dixon 2000; Shibatani & Pardeshi 2002; Alexandra 2011). Thus, it is a matter of degree provided in a scale as provided in Dixon (2000: 77).

(4) Chiwere

ć'é-ha-ñé kɛ.
Die-1sACC-FUT DEC
'I will make him die.' (Marsh, The Twins, 1936: 14)

It should be noted that when the causer and the causee are third person, the complex causative verb reflects a prototypical Compact type, since third person morphological agreement are unmarked.

Turning to the other two kinds, the And type and the Purp type are known traditionally as syntactic causatives. Song notices that—unlike in the Compact type—in the And type the order of the *Vcause* and *Veffect* is crucial, so the verbal element indicating the causing event should always precede the caused event. Moreover, he characterizes the And type as containing two coordinated clauses that separately encode the *Vcause* and *Veffect*. The coordination is formed either covertly or overtly. Even though the coordinator might be phonologically unmarked, it is distinguished from different types through specific features, such as fixed order of the effect and the causing event. The Purp (purposive) type is encoded without a rigid order of the *Vcause* and *Veffect*. Also, the result of *Vcause* is not factually substantiated, so the causee is not forced to undergo an action or be in a certain condition. The Purp type is similar to the And type in being a biclausal causative construction. Song distinguishes this type from the Compact and And types by the semantics of the causing event, which indicates that an event has been done for the purpose of another event.

Dixon (2000)

In Dixon (2000), the typological analyses are based on three parameters: formal marking, syntax, and semantics. Dixon's investigation views causative constructions as

encompassing a causer who is added syntactically to reflect an extra meaning—controlling and initiating an event—to the underlying sentence. Regarding the formal marking in morphological causative constructions, Dixon demonstrates that the formation is implemented via various mechanisms. The morphological causative, for example, can be represented through internal change: repeating a consonant, lengthening a vowel, reduplication, and so on. Furthermore, Dixon introduces more parameters that explicate a wide variation among languages regarding causative constructions which demonstrate exchanging auxiliaries, two verbs in one predicate, periphrastic causative, and lexical causatives.

The main point of the typology of syntax in causative constructions is to show that languages diverge with respect to their syntax. Dixon provides data that shows how languages have syntactic restrictions on the implementation of the causative formal markers. In periphrastic causatives, for example, while some languages allow periphrastic causatives to be derived from an underlying copula clause, in other languages–such as Tariana—this construction is not possible. In addition, Dixon focuses on the syntactic properties of arguments (e.g. causer and causee) after a causative construction is formed.

Semantically speaking, Dixon categorizes nine parameters which reflect the meaning of syntactic restrictions and causative markers. For instance, a language such as Nivkh does not allow an inanimate entity to be a causer. These nine parameters are summarized in the following table:

Table 2: THE SEMANTIC PARAMETERS (Dixon 2000)

Relation	Parameters
Relate to the verb	Active/Stative, Transitivity
Relate to the causee	Control, Volition, Affectedness
Relate to the causer	Directness, Intention, Naturalness, Involvement

Furthermore, Dixon makes the claim that the degree of compactness correlates with the nine semantic parameters. The idea of compactness represents the mechanism of the causatives in a scale that classifies them as either more or less compact. Basically, as some languages show the same degree of compactness for different semantic values (involved and not involved), other languages reveal different degrees regarding the values of a semantic parameter, as in direct vs. indirect.

Shibatani & Pardeshi (2002)

Shibatani and Pardeshi (2002) elucidate the causative constructions from a functional-typological viewpoint that stems from analyzing notions such as directness, the semantic of the verb, the semantic continuum, and the form-meaning correlation. Their paper reviews several prior works that distinguished between different types of intransitive verbs and the mechanism used to derive a causative meaning from intransitive verbs.

Shibatani and Pardeshi point to variation among languages in expressing the causative meaning of inactive intransitives. In Quechua, for example, a single productive affix is utilized to causativize both active intransitives and inactive intransitives, unlike many other languages which formally distinguish between lexically causativize inactive

verbs. Additionally, Shibatani and Pardeshi further differentiate between productive causatives—"periphrastic and morphological causatives"—and lexical causatives, in terms of directness.

The essential claim regarding directness is that the correlation between meaning and causative mechanisms should be based on the spatio-temporal configuration. To illustrate this configuration, consider first an indirect causative construction in which both participants (causer and causee) are agentive. An agentive causee is an argument of a causativized active verb. In contrast, a patientive causee is an argument of an inactive caused event. Thus, Shibatani and Pardeshi state "a degree of autonomy is accorded to the caused event" (2002: 140). It follows that the causing event might take place at different time and spatial scales, since each event has its own volitional performer. But the spatio-temporal configuration is not distinct in the case of a direct causation due to the fact that the causee is not in control of the caused event. Therefore, the occurrence of the caused event in an direct causative rests on the causing event "to the extent that the two relevant events are not clearly distinguishable" (2002: 140). Rather than examining the role of the causee in order to classify the meaning of causative construction, Shibatani & Pardeshi characterize the indirect causative as a two-event situation, and the direct causative as a one-event situation.

The term "continuum" semantically refers to structure in which the distinction between particular meanings is not straightforward. For instance, in Marathi, the suffix -*aw* is attached to an inactive intransitive verb in order to form a causative construction. There are a number of verbs, however, where the same suffix is used to construct a causative meaning from an active intransitive verb. Prototypically, the suffix -*aw*

expresses direct causative construction, but when it is attached to an active intransitive verb, it reveals an intermediate meaning that situates the construction between direct and indirect causatives. Shibatani and Pardeshi term this type of causative construction, "sociative causation."

Shibatani and Pardeshi continue to shed light on the continuum of the formal dimension "syntactic, morphological and lexical causatives" through cross-linguistic variation in the formation of a certain type of causative construction. For instance, while a morphological causative construction is productively formed by a regular morpheme, in some languages morphological causatives exhibit irregularity in their formation, which makes them similar to lexical causatives, as in Turkish.

2.3 CAUSATIVIZATION IN SIOUAN LANGUAGES. This section addresses selected variations and similarities in the formation of causative constructions within the Siouan language family.

2.3.1 HOCANK PERIPHRASTIC CAUSATIVES. As stated in Section 1.1, Hocank is closely related to Chiwere, both forming a subgroup within the Mississippi Valley branch of the Siouan language family. Although there is a general consensus among Siouanists that Hocank should be considered a separate language, Rood (1979) discusses others who classify Hocank as a Chiwere dialect (e.g. Matthews 1958).

Hartmann (2012) subcategorizes Hocank periphrastic causatives into four different types expressing semantically different meanings: coercive, permissive, reflexive, and relative causative. Each meaning is encoded morphophonologically via a distinctive suffix. Accordingly, the coercive causative *hii*, the permissive causative *gigi,*

and the relative causative *karagi* behave syntactically in a similar manner (e.g. introducing a causer). For instance, Hartmann characterizes the causativization of an intransitive verb as containing a bare verb followed by an inflected caused event. Thus, the causative construction is a bieventive structure due to an embedded caused event and a causing event that introduces a causer. It follows that what was the subject of the non-causativized verb becomes the object/undergoer of the causing event.

Unlike other types, Hartmann claims that the reflexive causative does not increase the valency because both the causer and causee are expressed via a single morpheme. In my opinion, the suggestion is erroneous for the following reason: according to Comrie (1981:175) the structure of a reflexive causative construction shows a valency-increasing operation, but since the inflectional process of the causer and the causee is employed on a single predicate instead of being subjects of two different predicates, one of the arguments has to be omitted. Comrie's evidence on this matter is typologically based. He illustrates that languages tend to eliminate the causee when both the causee and the causer are the arguments of an incorporated single predicate.

2.3.2 CROW MORPHOLOGICAL CAUSATIVES. Languages might express an additional concept to the basic meaning of causation, as in revealing the degree of directness. For instance, languages which exhibit both morphological and lexical causatives tend to convey indirect causative via less fused expressions, versus direct causative via a more fused expression (Haiman 1985, Song 1996). In other words, unlike morphological causatives, lexical causatives are considered to display a high degree of fusion because it is not always straightforward how to split a complex word into a root

and a causative item. Therefore, languages opt to differentiate between direct causatives and indirect causatives through correlation between directness and degree of fusion.

However, this is not the case in Crow, since causative constructions are expressed only morphologically. In Crow, directness is recognized instead via different morphological causative verbs. Direct and indirect causatives are expressed by the suffixes *-ee* and *-hchee* respectively (Graczyk 1991, Wallace 1993). Grammatically, Wallace (1993) indicates that the suffix *-ee* is only attached to affected predicates. In addition, causative verbs are inflected for causer and causee via pronominal agreement for person, which supports the argument that *-ee* and *-hchee* are verbs. Assuming that *-ee* and *-hchee* are verbs, let us first point out that they are always incorporated into the base verb, due to the fact that "it is impossible to leave the causative verb in ellipsis" (Wallace 1993: 155). It is true that *-ee* and *-hchee* follow an embedded verb, but that does not mean they are suffixes; in fact they show subject-verb agreement, unlike other suffixes. That is, they behave syntactically like other non-causative verbs in the sense that a morphological agreement of the causer is prefixed to *-ee* and *-hchee.*

2.3.3 HIDATSA MORPHOLOGICAL CAUSATIVES. Like Crow and some other Siouan languages, Hidatsa causatives are expressed morphologically via two distinctive suffixes, indicating the direct causation with *-hee* and the indirect causation with *-hkee*. The suffix *-hee* reveals a high degree of control of the causer/actor over the caused event, while in the indirect causative, the suffix *-hkee* signals a lower degree of control toward the caused event (Boyle 2007). In a similar vein to Crow, Boyle (2007) demonstrates the correlation between the degree of directness and the type verbs "Active/Stative." While agentive verbs are causativized by direct causative morphemes, stative verbs are

causativized via indirect causative morphemes. Finally, both suffixes are treated as syntactic items due to the fact they are more verb-like in the sense that they are inflected for person.

2.4 PREVIOUS WORK ON CHIWERE CAUSATIVE. Since causative constructions are traditionally divided into three subcategories, including periphrastic, morphological, and lexical causatives, it is entirely predictable that causative constructions in Chiwere are morphologically formed due to the defined fusion of the base verb to the causative morpheme *-hi*. Whitman's (1947) pioneering descriptive grammar of Chiwere briefly points out that the suffix *-hi* indicates three different semantic parameters; consisting of 'cause to be', 'make do', or 'let do'. He refers to the first two as factitive causatives, and the third as a concessive causative. In (6), the factitive causative signifies an intentional action done by the causer/agent to make a participant does an action or be in a certain state, as in (5). In contrast, concessive causatives indicate permission given to an entity to give rise to a caused event.

(5) giro-wawa-hi-ñe.
Happy-1pACC-CAUSE-PL
'They make us happy.' (Ioway-Otoe-Missouria Dictionary, 'giro' 2012: 7)

(6) k'į́-hi-ñe-nąˌ…
carry–CAUSE-PL-and
'They make him carry and….' (Marsh, Grandmother, 1936: 1)

Unfortunately, Whitman did not provide any examples of the types he subcategorizes, but it can be deduced that (5) and (6) are factitive causatives, considering numerous historical precedents of the suffix *-hi* in translations of collected stories that reveal either the meaning 'cause to be' or 'cause to do'.

The case is different with the concessive causatives, which Whitman translates as 'let to do'. He, again, does not go beyond assigning a permissive meaning to the suffix *–hi.* Even though neither Whitman nor other previous researchers concentrate on this semantic interpretation, it is plausible to assume that the concessive causative must correlate with active verbs. This is due to the nature of the caused event in Whitman's translation of *-hi* as 'let to do', which indicates that the embedded verb contains at least one agentive argument. It is necessary to associate the concessive causative with active verbs due to the fact that the theta grid of any stative verb in Chiwere includes only a patientive argument. For this reason, I propose that the concessive reading is obtained only when a causer wants another agent/causee to perform an action that is intended by the causee, but the occurrence of this action depends on the causer's permission, as in (7) and (8). On the other hand, the factitive causative signals that the caused event is actually the causer's intention.

(7) ya-hi-ri.
Sleep-let-IMPER
'Let him sleep.' (Wistrand 1978: 33)

(8) warúje-wa-hi wi-re.
eat-PL-let PL-IMPER
'You all let them eat.' (Wistrand 1978: 33)

The structure of the concessive causative in (7) and (8) is similar to the factitive causative in that both the morphological agreement and the causative verb follow the causativized verb. Wistrand (1978: 50) assumes a further type of causative constructed by the word *waʔuna* 'cause', which implies an indirect causative because it denotes that the causee is caused to willingly perform an action. The word *waʔuna* is a free morpheme which

results in a periphrastic causative construction. Here are some examples from Wistrand (1978:50):

(9) min waʔúna ha-hí ke
Myself making 1sNOM-went DEC
'I made myself go.'

(10) Hin jéga ewaʔuna hin tósge Jiwére Ichʔé gragundhe ke.
My uncle caused my nephew Otoe Language to learn DEC.
'My uncle taught Otoe to my nephew (cause to learn).'

According to Wistrand, examples (9) and (10) semantically signify a notion of permissive causation that is realized through the morpheme *waʔúna*, so the actions of going and learning are implemented willingly by the causee.

Alternatively, I suspect that Chiwere has a periphrastic causative construction for a number of reasons. First of all, considering the word *waʔúna* to be a syntactic representation of the caused event raises an empirical problem, because of the existence of an historical precedent that expresses a similar meaning to example (10) by using the same verb and the same number of argument, but without the appearance of the word e*waʔúna*.

(11) Báxoje ichʔé wáⁿʔshige hiⁿ-wá-gi-guⁿdhe-wi ke.
Ioway language people 1pNOM-PL-DAT-teach-PL DEC
'We taught Ioway to the people.' (Ioway-Otoe-Missouria Dictionary, 'gigúndhe' 2012: 5)

In (11), the verb *gúaⁿdhe* is not a transitive verb whose valency has been increased by the causative verb *wa'una*, as assumed in Wistrand (1978: 50). Instead, it is inherently a ditransitive verb due to the fact that the verb *gúaⁿdhe* is prefixed with morphological agreement of the subject the object, and the indirect object. It follows that if *wa'una* is a

causative verb in (10), then the number of arguments in the clause must increase to include three core arguments and a non-core argument/dative. In short, since example (11) consists of three noun phrases (subject, object and dative) without the existence of the word *wa'una,* the result is Wistrand's example in (10) is not a causative construction. A second piece of evidence comes from the fact that the meaning of teaching someone anything is found in a historical story, and expressed not via the addition of the word *waʔúna,* but rather via the morphological causative, as in the following example:

(12) wap'ínhi-we-gra-ki-wi.
Learn-PL-POSS-REF-PL
'We make them (our own children) learn'. (Marsh, the Iowa Treaty 1936: 3)

The above example is from a story told by Mr. Small (1936) about his village, mentioning that they have tried to teach their children. Despite the similarity between this example and example (10), the causativization in (12) is employed via the covert causative morpheme *-hi* whose phonological deletion is realized through the appearance of *-we-gra* after the root *p'ínhi*. In Chiwere, morphological agreement in a non-causative construction appear as prefixes, but they are suffixed to the causativized verb in a causative construction, so it is plausible to think that the morpheme *-hi* in (12) is not phonologically represented.

In addition, the word *waʔúna* is found in the dictionary of IOM carrying a meaning like 'the one who'. Therefore, the conclusion to be drawn is that Chiwere has no periphrastic causative construction, and both examples (9) and (10) should mean something like 'I am the one who went' and 'My uncle is the one who taught Otoe to my nephew'.

2.5. LANGUAGE OVERVIEW. This section deals with a number of relevant aspects of syntactic issues that need to be fleshed out before going further to the causative construction analyses. Word order is crucial to theorists since it is akin to other features that provide evidence as to whether a language is better analyzed as a configurational or a non-configurational one. Earlier documentations (e.g. Wistrand 1978; Greer 2013) and other collected data illustrate that Chiwere is an SOV language with inflected verbal head. Full DPs ~~ov~~ert subject and object ~~are~~ not overtly marked for case or other phi-features. Examples (13-14) show Chiwere word order.

(13) chⁿímiñe hó dáñi-na kétaⁿ head gíthige-wi kɛ.
girls fish three-and also turtle catch-PL DEC
'Girls catch three fish and turtle.' (Marsh, four short texts, the girls go fishing, 1936: 3)

(14) Jiwére šʔáge núwe itʔa-wi kɛ.
Otoe old two talk-PL DEC.
'Two old Otoes talk.' (Marsh, The Funeral of Elsie (Springer) Big soldier, 1936: 4)

In the above examples, it is evident that Chiwere is a head-final language with an SOV word order. Both subject and object in (13) and (14) are overtly expressed without person markers, which makes Chiwere a head-marking language. Full DPs, however, are not always expressed, so a simplex verb can convey a complete sentence by itself. Third person null pronominal subjects and objects are inferred from the context since they have been mentioned before in the discourse. Unlike first and second null pronominal subjects and objects, third person pronominal subjects and objects have no morphological agreement on the verb. Thus, according to the pro-drop parameter (Rizzi 1982, 1986),

Chiwere is a pro-drop language. Example (15) is taken from a story called "The Wanderer", and it immediately follows a sentence in which full DPs are expressed.

(15) gláhi-na arúx-ašku.
love-and marry-NE
'She loves him and marries him.' (Mash, The Wanderer, 1936: 2)

Verbs in the above example are not preceded by either overt subject or object because they can be inferred from the previous sentence in the story. Since the subject and the object of the verb *gláhi* 'love' and *arúx* 'marry' are third person null pronominal arguments, the verb is morphologically unmarked for agreement. According to Van Riemsdijk and Williams (1986) pro-drop languages exhibit rich verbal morphology, which is obvious in cases where the null pronominal arguments are first person and/or second person. An example of a morphologically rich verb can be seen in (16) in which the verb is inflected for agreement with both null subject and object.

(16) hi-li-gra-pigleta hñe kɛ.
1pNOM-2sACC-POSS-leave will DEC.
'We two (my brother and I) will leave you.' (Marsh, The Wanderer, 1936: 14)

Unlike in previous works on Chiwere, I propose that the affixes inflected on verbs are not arguments, but rather that they are morphological agreement that absorb the case-marking of null pronominal arguments. Evidence will be provided later in this chapter to argue that Chiwere is not a pronominal argument language. Readers might notice that subject agreement morphology precedes object agreement morphology, and followed by the root as shown in example (16). However, the data includes examples that conflict with this conclusion, as shown in (17) and (18):

(17) Wawa-la-pelagli-wi-ta.
1pACC-2sNOM-beat-PL-when
'When you beat us.' (Marsh, The Outcast, 1936: 7)

(18) Wiwa-s-ró?theta-wi.
1pACC-2sNOM-abuse-PL
'You abuse us.' (Marsh, The Twins, 1936: 29)

In the above examples, the agreement inflections of the second person null argument are situated after the agreement morphology of the objects. A persuasive reason to believe that affixes should not be treated as arguments is the uniformity of the word order. Basically, since approaching prefixes as arguments generates an order that stipulates second person pronominal arguments to be closer to the verb than first person pronominal arguments, then referring to affixes as agreement maintains the uniformity in a much more simple way to analyze syntactic elements. Consequently, a predicate that has all its arguments expressed overtly would show SOV word order, but if the arguments are null because they are inferred from the context, then the predicate is inflected via morphological agreement in a fixed order as the following schema (19) illustrates (Whitman 1947):

(19) [3-1-2]

Chiwere is traditionally classified as an active/stative language, as are all other Siouan Languages (Parks and Rankin 2001). DeLancey's definition of active/stative split languages states that "the subject of an intransitive verb is marked like a transitive agent or patient, depending on whether or not it engages in the act described on its own volition" (1981: 626). The definition is based on the status of the case that marks subjects of intransitive stative verbs that are compatible to the case-marking of objects. In this

thesis, however, I adopt the definition introduced by Parks and Rankin (2001: 107) which is more general than DeLancey's. According to Parks and Rankin, an active/stative language is one where stative subjects and active transitive objects are similarly case-marked. DeLancey restricts the variations of case-marking to only intransitive stative verbs; but the case is quite different in a language such as Hidatsa which has transitive stative verbs. Boyle (2007: 267) includes an instance of a transitive stative verb in which both subject and object pronominal prefixes share the same case marker. If Chiwere, as I assume, is not considered a pronominal argument language, and inflections on the verbs are merely morphological agreement, then null subject arguments of intransitive stative verbs are marked on verbs differently from null subject arguments of intransitive and transitive active verbs. In this sense, Chiwere is a language with rich verbal morphology to indicate person and number of arguments. Note that there is no gender distinction in Chiwere. Following Williamson's (1984) examination of morphological agreement in Lakhota, I divide Chiwere morphological agreement into two types. First, there are morphemes whose roles are restricted to reflect the plurality of the arguments. The second type of morphological agreement includes morphemes that identify the person status of the argument, so they clearly express whether a null argument is a first person or a second person argument. What is significant about the second type is that those morphemes also reflect abstract cases. The following table represents the morphological agreement system in Chiwere:

TABLE 3: THE MORPHOLOGICAL AGREEMENT SYSTEWM OF CHIWERE

Person	NOM	ACC
1s	ha-	mi-[5]/hi-
1D	hi-	wawa-
1p	hi- + PL -wi	wawa- + PL -wi
2s	ra-/la-[6]/s-[7]	ri-/li-
2p	ra-/la-/s- + PL -wi	ri-/li- + PL -wi
3s	Ø	Ø
3p	Ø + PL –ñe/wi	Ø + PL wa-/-ñe

The table contains two distinctive forms for each first and second person. What is important here is that the choice of a personal form depends on the type of the verb. If the verb is active, with an agentive subject, then the person marker that refers to the subject is the nominative one, and the allowed morpheme to identify the object is the accusative person agreement (20-25). In contrast, a stative verb requires its personal morphology which denotes an entity affected by an action to take the accusative form (27). Thus, Chiwere is an active/stative language since the personal status of the subject of a stative verb and the object of an active verb are identically expressed. The motivation behind labeling and modifying the person markers as either nominative or accusative will be structurally discussed in Section 4.3. For our purposes, let us just assume that null arguments are represented syntactically with abstract cases, and such cases are morphologically reflected on person marker. The table also consists of the definite plural morpheme -*wi*, but it differs from the person markers in that it does not reflect an abstract case. For this reason, whether the pronominal null argument has an accusative case or a

5- Whitman (1947) classifies *mi-* as the archaic form of the first person affix.
6- Hopkins (1988) considers /l/ and /r/ to be allophones of the same liquid phoneme.
7- Whitman (1947) states that there are irregular active verbs which take /s/ as the second person pronominal affix. Also, Hopkins (1991) considers this /s/ to be the archaic marker of the second person.

nominative case, the concept of plurality is expressed by -*wi* (21-22). This leads us to say that abstract cases of null third person arguments are not morphologically realized because person markers of third person argument have zero phonological representations, as in (23). Note that a third person singular subject is distinguished from a plural one by the addition of the morpheme -*ñe* for an indefinite argument and the morpheme -*wi* for a definite argument (24-25). Thus, -*ñe* and -*wi* can be used to refer to either a plural subject of an active verb or a plural subject of an stative verb. Another plural marker is the morpheme *wa*- (26), but it is restricted to a plural object of an active verb or to a subject of an embedded clause (e.g. subject of a causativized verb). Therefore, the morpheme -*wa* could indicate that the plural argument has an abstract accusative case, but this is not always the case with other plural markers -*ñ*e and -wi. The advantage of this analysis helps us to have a unified explanation, instead of saying that plural markers such as -wi and -*ñe* do not reflect abstract cases, but *wa*- does reflect abstract cases. Moreover, if we assume that *wa*- absorbs an abstract accusative case, then we must say that Chiwere is partially active/stative language because the plural marker of a third person argument of a stative verb is not identical to the plural marker of a third person object of an active verb. Thus, for a unified syntactic representation, I will assume that all plural morphemes (-wi, -*ñe* and *wa*-) do not reflect abstract cases. The following examples illustrate this morphological agreement system.

(20) ha-arúdhe kɛ.
1sNOM-take DEC
'I take it.' (Marsh, The Giant Book, 1936: 6)

(21) hi-gú-wi kɛ.
1pNOM-come-PL DEC
'We come home.' (Marsh, Community Hall, 1936: 2)

(22) wíwa-ś-loʔθt'ą-wi.
1pACC-2pNOM-abuse-PL
'You abuse us.' (Marsh, the twins, 1936: 30)

(23) hi-gla-pele.
1sACC-POSS-leave
'She leaves me.' (Marsh, Grandmother, 1936: 12).

(24) chⁿímiñe hó dáñi-na kétaⁿ head gíthige-wi kɛ.
girls fish three-and also turtle catch-PL DEC
'Girls catch three fish and turtle.' (Marsh, four short texts, the girls go fishing, 1936: 3)

(25) Igá-ñe.
Call-PL
'they call him.' (Marsh, Grandmother, 1936: 11)

(26) Wa-la-adá hñe kɛ
PL-2sNOM-see FUT DEC
'You will see them.' (Marsh, The Giant Book, 1936: 4)

(27) hi-gĺlo.
1pACC- glad
'I am glad.' (Marsh, Grandmother, 1936: 12)

In the above examples, the morphological agreement of the first person null arguments are marked distinctively on both *-arúdhe* 'come' and *-pele* 'leave' due to the thematic roles that arguments carry. The intransitive active verb *-arúdhe* 'come' has an agentive argument referring to the doer of the action; whereas the transitive verb *-pele* *'leave'* has a patient argument marked via a prefix that agrees with an affected entity.

Ever since Jelinek (1984), non-configurational languages have been characterized as being morphologically rich; and verbal inflections are recognized as pronominal arguments, not agreement morphology. There are other features of non-configurational languages which will be briefly discussed later. However, the Pronominal Argument Hypothesis must be introduced at this point.

With a slight modification of Hale's (1983) examination of verbal arguments in Warlpiri, an Australian language, Jelinek argues that verbal clitics are "fully referential pronouns" and function as subjects and objects. Consequently, full DPs/nominal elements are not selected by a verbal head to represent a syntactic relation, but they are hypothetically adjuncts. A key issue that motivates Jelinek to come to this conclusion is the behavior of the verbal clitics, which sometimes do not agree in person or number with nominal in a sentence, even though nouns and clitics coindex each other.

Jelinek's (1986) paper argues that Nisgha is a pronominal argument language due to many factors. For instance, Jelinek states that Nisgha does not have independent pronouns. If so, the verbal inflections cannot be morphological agreement markers. However, this is not the case in Chiwere since there are independent emphatic pronouns which are mostly absent (Wistrand 1978; Greer 2013). In contrast to previous analyses, I propose that independent pronouns in Chiwere are adjuncts rather than arguments. Furthermore, I assume that independent pronouns carry person markers as verbs do, which are listed in the following table.

TABLE 4: THE INDEPENENT PERSONAL PRONOUNS IN CHIWERE

Person	pronoun
1s	mi̱re
1Dua	hi̱re
2s	rire
3p	are

Notice that all pronouns end in *-re*. The first syllable of the first and second person pronouns are *mi-*, *hi-*, and *ri-*, which are identical to the person markers of the affected arguments on verbs. Therefore, I propose that the independent pronoun is actually *-re*, which is obligatorily marked for person. I mentioned previously that third person plural

argument is phonologically unmarked for person on verbs. This appears to conflict with the conclusion that *-re* is the independent pronoun and must be inflected for person. However, recognizing the morpheme *-re* as an independent pronoun for third person plural argument does not affect the generalization since motion verbs are inflected for third person plural via the prefix *-a* only, and only with motion verbs (Greer 2013). Thus, the same person marker *-a* is obligatorily used with the independent pronoun *-re* to form a third person independent pronoun.

West (2003) argues in favor of independent pronouns as adjuncts in Nakoda since they are marked for person. West's argument is based on the fact that recognizing independent pronouns with person markers as arguments leads to redundant marking since verbs are also inflected via person markers. Similarly, I analyze Chiwere independent pronouns as adjuncts to avoid the problem of redundant marking.

Verbs in Chiwere can have either pronominal null arguments or overt third person lexical arguments which make it similar to pronominal argument languages. According to Jelinek (1986), a pronominal language does not exhibit an inflected verb with a person marker that co-occurs with an overt argument; thus, inflections must be in an argument position. However, in Chiwere it is possible for inflected verbs for third person lexical arguments to coexist with overt subjects, as in the following example.

(28) Núñi a-hi-ñe.
Brother 3pNOM-arrive-PL
'His younger brothers arrived' (Marsh, The Wanderer, 1936: 19)

West's (2003) investigation of subject and object in Nakoda provides more evidence that Nakoda is not a pronominal argument language. Her evidence is based on the Unaccusative Hypothesis and another syntactic phenomenon of so-called raising verbs.

Both of these pieces of evidence are found in Chiwere, but they are not discussed here since the purpose of this thesis is only to illustrate the status of arguments and person markers in Chiwere relevant to causativization.

We shall now consider the notion of configurationality in some detail, examining several characteristics adopted by researchers in their classifications of a number of languages as non-configurational languages (Hale 1983; Jelinek 1984; Baker; 1991, 1996). The study of non-configurationality has received remarkable attention since Hale's (1983) analysis of Warlpiri as a non-configurational language. Hale points out several characteristics for such a language including: free word order, extensive use of null anaphora and syntactically discontinuous expressions. Although Chiwere exhibits extensive use of null anaphora, my analysis presents general characteristics of the syntactic behaviors of subjects and objects to argue against a flat syntactic structure in Chiwere. I will provide evidence of a syntactically asymmetric relationship between Chiwere subjects and objects.

In Hale's view, Warlpiri sentences are constructed in any possible order of arguments and main predicates, so a subject or an object, for instance, can be positioned freely at the beginning of a phrase or at the end. On the other hand, configurational languages (English-like languages) manifest a rigid word order within a phrasal structure. The following examples are taken from Hale's paper in which several orders are allowed to express an identical truth-conditional meaning.

(29) a. nagarrka-ngku ka wawirri panti-rni
man-ERG AUX kangaroo spear-NONPAST
'The man is spearing the kangaroo.' (Hale 1983: 7)

b. Wawirri ka panti-rni ngarrka-ngku
kangaroo AUX spear-NONPAST man-ERG
'The man is spearing the kangaroo.' (Hale 1983: 7)

c. Panti-rni ka ngarrka-ngku wawirri
spear-NONPAST AUX man-ERG kangaroo
'The man is spearing the kangaroo.' (Hale 1983: 7)

This syntactic behavior provides cross-linguistic variation in phrasal structures which can be either flat, like Warlpiri-like languages, or configurational, resulting from the Lexical Structure of a verb. By the Lexical Structure, Hale refers to the arguments that a particular predicate requires due to the meaning of the predicate. Therefore, a verb such *panti-rni* needs two arguments that are assigned their thematic roles and case-marking; and based on the definition of *panti-rni*, there should be a fixed order to convey the action. As Hale states, "The arguments in LS must be distinguished in terms of their grammatical functions (subject, object, etc.)" (1983:13). In order to account for the freedom of ordering in non-configurational languages, Hale assumes that there is a relationship between the Lexical Structure and the Phrasal Structure. He explicitly points out that the Phrasal Structure is built according to the Lexical Structure, which requires subjects to be externally introduced, while objects are merged as the complement of the predicate. If this is the case, then there will be no variation among languages since the phrasal structure is determined by the lexical structure; but Hale assumes, based on the Projection Principle (30), that Warlpiri and other similar languages—which allow subjects to be freely positioned—do not hold the relation between Lexical Structure and Phrasal Structure.

(30) The Projection Principle: Representations at each syntactic level (i.e., LF, and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items. (Cited from Hale 1983: 25)

According to Hale, the Projection Principle holds only at the lexical structure in Warlpiri. Thus, a symmetrical relationship between arguments is captured by the assumption that in non-configurational languages the Projection Principle does not hold at the Phrasal Structure level, which gives rise to a flat structure.

Overt arguments in Warlpiri are marked for cases which can be either ergative or absolutive case, but absolutive case is not phonologically represented. Thus, it follows that free word order does not lead to confusion, since the language does not depend on a rigid order to signal the thematic role of the argument, but rather, it utilizes a case marking system.

Let us focus now on Chiwere. I have mentioned that Chiwere is an SOV language, and I argued at length that full DPs should be analyzed as arguments. We also considered Chiwere as a pro-drop language with a morphological agreement system. Here, we will restrict our discussion to overt nominal arguments, which supports the assumption made earlier that Chiwere is a configurational language. Previous research asserts that Chiwere has a fixed word order by which arguments can be recognized as either actors or undergoers (Wistrand 1978: 6-7; Greer 2013: 36). The available data collected from stories and the Ioway-Otoe-Missouria dictionary confirm that there is an asymmetrical relationship between subjects and objects. Thus, the subject always precedes the predicate, which selects the object as its internal argument. This asymmetry between subject and object is shown in the following examples.

(31) chⁿímiñe hó dáñi-na kétaⁿ head gíthige-wi kɛ.
girls fish three-and also turtle catch-PL DEC.
'Girls catch three fish and turtle.' (Marsh, four short texts, the girls go fishing, 1936: 3)

The occurrence of overt arguments in stories is rare because speakers tend to articulate participants only to introduce them at the beginning of a story, for the purpose of emphasizing, or for the need of mentioning a new participant. The arguments of the transitive verb in (31) are not marked for case as in the example from Warlpiri. Therefore, speakers to identify subject and object rely on canonical word order. Since this is the case in Chiwere, then the Projection Principle holds at both Lexical and Phrasal Structures. From this evidence, the asymmetrical relationship between the arguments supports the statement that Chiwere has a verbal phrase consisting of a c-commanded object.

According to Hale, the freedom of argument position that Warlpiri displays leads to discontinuity of expressions. He proposes that "since any nominal lexical item can be inserted at any X, there is, of course, nothing to prevent the insertion of, say, two absolutives at separate X nodes, dominated by separate X sisters to the same verb"(1983: 9). Moreover, it is possible in non-configurational languages for adjectives to be separated from their heads in transitive verbs because adjectives are marked for case. In Chiwere, however, since nouns must be adjacent to their modifiers (e.g. demonstratives and adjectives), discontinuous noun phrases are impossible. Thus, it can be inferred which nominal argument is being modified. The following examples illustrate the syntactic behavior of nominal arguments in Chiwere.

(32) Wáŋe glébla^{n} lúdh-ašku.
Man ten take-NE
'He takes ten men.' (Marsh, The Giants Book, 1936: 1)

(33) máya^{n} halite ahí-ñ(e)-šku.
Land distant reach-PL-NE
'They reach a distant land.' (Marsh, The Giants Book, 1936: 1)

(34) Wáŋe jéʔe gláhi kɛ.
Man this like DEC
'she likes this man.' (Marsh, The Outcast, 1936: 4)

The above examples and all the available data indicate that adjectives and demonstratives must follow the noun they modify and never occur discontinuously after the verb. In addition, neither the nouns nor their modifiers are marked for case, so a fairly fixed word order in Chiwere is important, because "That makes the language consistent internally, which probably made it easier for listeners to process meaning" (Greer 2013: 37).

In a response to Hale's configurational parameters, Jelinek (1984) proposes the pronominal language hypothesis which we have discussed at length earlier in this section. Jelinek, alternatively, states that the Projection Principle holds in Warlpiri at both lexical and phrasal structures in order to construct interpretable sentences. Jelinek explicitly argues that free word order of overt DPs and other features of non-configurational languages are captured by the assumption that verbal clitics are actually pronouns functioning as arguments, while overtly expressed nouns are optional.

Similarly, Baker (1991) points out that overt noun phrases in Mohawk, a non-configurational language, are not in argument position, as Jelinek (1984) has proposed. Therefore, free word order appears in a sentence containing nominal noun phrases due to the absence of a c-commanding relationship, which sets a particular agent apart from a verb phrase. Baker, however, argues that there are cases in which asymmetrical relations

between arguments are borne out in Mohawk. This relation is possible under the assumption that Mohawk has null pronominal arguments that occupy the argument positions, unlike full noun phrases that should be in adjunct position to satisfy Condition C which holds in Mohawk. Moreover, Baker stipulates that verbs must consist of morphological inflections whose operations are to license phonologically null arguments in order to satisfy the Projection Principle which requires the properties of a predicate to be represented at each syntactic level.

Another piece of evidence which Baker discusses to illustrate that full noun phrases are not in argument position stems from the Condition on Extraction Domains.

(35) The Condition on Extraction Domains: A phrase A may be extracted out of a domain B only if B is properly governed. (Cited from Baker 1991: 551)

Mohawk sentences provide evidence for the existence of asymmetry in the language since the extraction of Wh-words is only possible if it is out of a sentential complement. Thus, it follows CED holds in Mohawk, resulting in an asymmetrical relationship between arguments. This is shown in (33) where the extraction of the Wh-phrase out of the sentential subject is illicit, unlike the sentential complement because it is properly governed by the verb.

(36a) *Uhka we-sa-tsituni-' tsi wa'-t-ha-a'shar-ya'k-e?
who fact-NsS/2sO-make.cry-punc that fact-DUP-MsS-knife-break-punc
'Who did that (he) broke the knife make you cry?' (Baker 1991: 552)

(36b) Uhka i-hs-ehr-e' tsi wa'-t-ha-a'shar-ya'k-e?
Who Ø-2sS-think-punc that fact-DUP-MsS-knife-break-punc
Who do you think broke the knife? (Baker 1991: 552)

This relation also fails in the instance where the undergoer is a full noun phrase due to the fact that it is not in object position, but rather in adjunct position. Therefore, if the Wh-phrase is extracted out of the adjunct position, there will be no asymmetrical relation because the CED is violated.

In contrast to Jelinek's account for free word order and overt noun phrases[8], Baker attributes the status of overt noun phrases as being adjuncts to the Case Filter Theory. He further proposes that the actual arguments are *pro*s. The Case Filter Theory states that at a surface structure, an overt noun phrase is not allowed in an argument position if it does not have a case (Baker 1991: 568). Therefore, an overt noun phrase in an argument position is ruled out in Mohawk since overt noun phrases have no case. The absence of the case assignment from a head to an overt noun phrase is due to the fact that Mohawk heads are obligatorily inflected with morphological agreement (which carries the case features).Let us now consider Chiwere and illustrate briefly why it will be analyzed with regard to causative constructions as a configurational language. We noticed previously that the crucial factor for a language to be non-configurational is obligatory morphological agreement (or, as in Jelinek's terminology, clitics) on verbs. However, unlike in Mohawk and Warlpiri, this prediction is fails for Chiwere. Overt noun phrases in Chiwere appear in sentences and no morphological agreement/clitic is required. Consequently, the assumption that overt noun phrases in Chiwere are in adjunct position is not motivated, as the following examples demonstrate by the contrast between Chiwere (37) and Mohawk (38).

8- Jelinek's assumption is that heads are inflected with morphemes that fill the argument position instead of optional overt noun phrases.

(37) wángegìhi mánshun unánge.
Chief feather hold
'The chief holds the pen.' (Marsh, four short texts, The Iowa Treaty, 1936: 4)

(38) Sak ra-nuhwe'-s ako-atya'tawi.
Sak MsS-like-hab FsP-dress
'Sak likes her dress.' (Baker 1991: 539)

The major difference between the above examples is that in (38) the morphological agreement receives the case feature and then licenses a *pro* to fill the argument position which coindexes with the overt noun phrase in adjunct position. However, since (37) does not include an agreement morpheme on the verb, it is predicted that a *pro* cannot be licensed and that the noun phrase must be in the argument position.

Another piece of evidence that confirms that Chiwere is a configurational language stems from the analysis of Wh-phrases. Baker (1991, 1996) states that in Mohawk and many other non-configurational languages, Wh-phrases must be in an initial position, as a result of a movement operation. Therefore, Wh-phrases are in argument position at the LF and then must move because of the Case Filter Condition, which requires an argument to be marked for case at the PF. The movement of a Wh-phrase causes a trace of this Wh-phrase to be the argument position, and even if Wh-phrases move to non-argument positions, they differ from adjuncts in that they are not coindexed with null pronouns, as adjuncts must. This diagnosis, however, does not appear to be found in Chiwere, because Wh-phrases are in-situ, which means that a Wh-phrase must remain in the argument position of the noun phrase that is being asked about. As shown in the following examples, Chiwere and Mohawk differ in regard to the position of Wh-phrases.

(39) Mohawk

a. úhka t-á'-yʌ-[e]- ?
Who CIS-FACT-FsS-go-PUNC
'Who is coming?' (Baker 1996: 67)

b. nahótʌ wa-hs-hnínu- ?
What FACT-2sS-buy-PUNC
'What did you buy?' (Baker 1996: 67)

(40) Chiwere

ri^{n}-yína dagúle ʔú^{n}?
2POSS-older brother what do
'What does your older brother do?' (Marsh,The Twins, 1936: 10)

These examples indicate that in Mohawk the Wh-phrase must be initially positioned whether the Wh-phrase is the object. In contrast, the syntactic behavior of the Wh-phrase in (40) fails to capture what it claims to be a non-configurational language because Wh-phrases are in-situ. It was previously mentioned that Chiwere is an SOV language, so it follows that the Wh-phrase in (40) does not move out of the verb phrase.

To summarize, since it is not the purpose of this thesis to establish the configurationality of Chiwere, the details in this section are sufficient to claim that Chiwere is a configurational language. That is, our examination of the causative constructions in the following chapters is under the assumption that argument positions can be either filled with null *pro*s or overt noun phrases. I have also argued that inflections on verbs are more appropriately analyzed as morphological agreement rather than being arguments in the sense of Jelinek (1984). Finally, the findings of this section from Chiwere provide evidence that contributes to the literature on syntactic typology: there is no relationship between head-marking and non-configurationality, as was argued in Craig for Jakaltek (1977), Boyle for Hidatsa (2007) and among others.

CHAPTER THREE
MORPHOLOGICAL CAUSATIVES IN CHIWERE

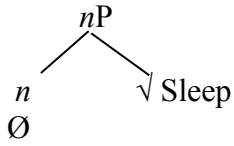
3.1 INTRODUCTION. In this chapter, I discuss the Chiwere morphological causative constructions by looking at Pylkkänen's (2002) parameters of the functional heads Cause and Voice. I also discuss examples of Chiwere morphological causatives, which demonstrate a property of a phase-selecting causative verb as well as a verb-selecting causative verb. As stated in Section 1.5, Pylkkänen attributes the similarities among cross-linguistic causative constructions to the existence of the functional head Cause. In contrast to an earlier approach by Doron (1999), Pylkkänen's is based on the assumption that causative verbs do not always require an external argument as they do in Japanese and Finnish. It should be noted that Pylkkänen's work focuses on a cross-linguistic variation of lexical causative constructions based on the types of the functional head Cause. Blanco (2010) adopts Pylkkänen's analysis and examines in depth, in addition to lexical causatives, both periphrastic and productive morphological causatives in English, Hiaki, and Spanish. In section 3.2., I will review Pylkkänen's types of the complement selected by the functional head Cause. Section 3.3. will introduce Kratzer's (1996) theory and describe the nature of the functional head Voice.

3.2. THE COMPLEMENT OF THE FUNCTIONAL HEAD CAUSE. Pylkkänen (2002) observes, in a relatively small number of natural languages from different linguistic families, that causative constructions might universally share merely a causative meaning because some causative constructions lack the presence of a causer or a causee.

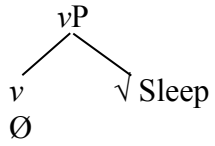
Therefore, she proposes that a syntactic derivation of any causative construction must include a particular functional head whose semantic role is to introduce a causative meaning to the sentence. This functional head is labeled as v_{cause}. Note that due to linguistic variation this causative head is not always expressed overtly; for instance, a lexical causative construction in English is expressed with a covert v_{cause} head. Another distinguishing factor in syntactic behavior of the v_{cause} head depends on the type of the selected item by the v_{cause} head. Pylkkänen's parameter of the v_{cause} head with respect to its complement makes use of Marantz's (1997) theory of Distributed Morphology to account for cross-linguistic differences. Before we elaborate on Pylkkänen's parameters, it is important to briefly introduce Marantz's theory.

Marantz (1997) postulates a root-based approach to morphology, in which he hypothesizes that word formation is a syntactic process. In this approach, a verb phrase is derived by a functional head *v* that merges with an acategorial root. From this perspective, complex words are not formed in the lexicon, but are composed syntactically in the same way phrases are built via the operation Merge. A root is neutral in the sense that it does not reflect a lexical category (e.g. noun, verb, and adjective); instead, a functional head assigns a certain lexical category to a root. These functional heads *v, n,* and *a*, might have overt morphology or be phonologically null. The following diagrams illustrate this approach.

(1) (a) *sleep* as a noun

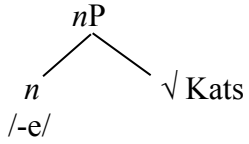


(b) *sleep* as a verb

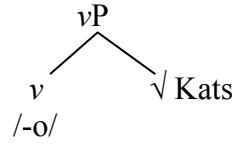


(2) Finnish (Pylkkänen 2002: 94)

(a) *katse* 'look' as a noun



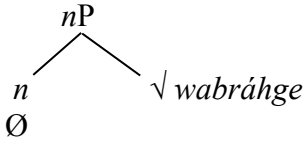
(b) *katso* 'look' as a verb



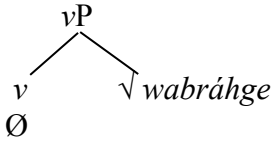
For Marantz and many others, the difference between (1a,b) on the one hand and (2a,b) on the other lies in whether a morphological element fills the position of the functional head. Chiwere is similar to some extent to English in that it has phonologically null category-assigning functional heads and, thus, there is a great number of roots that can be utilized as either nouns or verbs. On that account, Chiwere roots receive their lexical categories from null functional heads that merge to them (3).

(3) Chiwere

(a) *wabráhge* 'tear/tore' as a noun



(b) *wabráhge* 'tear/tore' as a verb



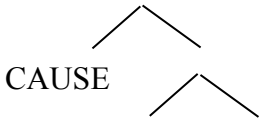
Under the hypothesis that the acategorial roots must be merged with functional heads, Pylkkänen proposes that the structural differences of the head CAUSE depend on the type of the selected complement. Thus, Pylkkänen proposes that the head CAUSE, in addition to being able to select a phase[9] and a verb, can also select an acategorial root. In (4), I repeat Pylkkänen's (2002: 77) parameter of selection.

[9]- According to Pylkkänen, a syntactic head is considered to be a phase iff it introduces an external argument. Therefore, the causative head is a phase-selecting head when its selects the functional head Voice, which is responsible for introducing an external argument in the sense of Kratzer's (1996).

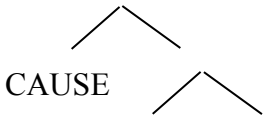
(4) The Selection Parameter of Cause

a. Root-selecting Cause

b. Verb-selecting Cause

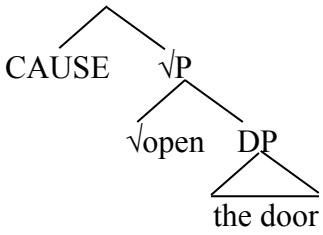


c. Phase-selecting Cause



This parameter is indicative of three types of the head CAUSE that vary according to the complement. As stated by Pylkkänen, (4a) exemplifies the structure of the English lexical causative as stated in Marantz's examination, which assumes an acategorial root. Lexical causatives in English, as in *John opened the door,* therefore, are syntactically structured. In contrast to the lexicalist theory, such are formed via merging the root √*open* to the functional head CAUSE, which is not presented phonologically. This null head, moreover, defines the lexical category of the root √*open*. In a root-selecting causativization, the root has to immediately come after the head CAUSE and no verbal morphology is allowed to intervene between them, as depicted in (5).

(5)



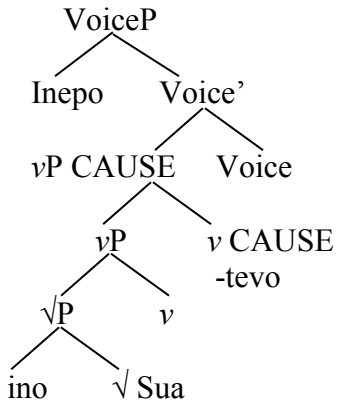
The null head in (5) gives rise to a causative meaning of the selected root √*open.* Verbs like *open* (e.g. *close, break*, etc.) are called in the traditional syntax "inchoative causatives". They differ from other verbs in that they can be used either transitively or intransitively, i.e. *John opened the door*/ *The door opened*.

[10]- By EXT, Pylkkänen labels an external argument.

Significantly, in verb-selecting structure, unlike root-selecting, the head CAUSE is separated from the causativized verb by verbal morphology. Furthermore, an agentive causee is prevented from occurring in such a structure since the functional head Voice, which is responsible for introducing an external argument, is unavailable. Any verbal morphology must scope under the CAUSE head and therefore verbalize the root before it combines with the CAUSE head. This separation would permit an adverbial modifier to relate to either *v*P (the causative verb or the embedded verb). In Hiaki, Blanco (2010) clearly tests the indirect causative *-tevo,* which is a verb-selecting head, and shows that it does not involve an agentive argument, unlike the direct causative head *-tua.* Rather, the embedded verb of the head CAUSE can only introduce an internal argument. The following example (6a), from Blanco (2010: 293) illustrates the productive indirect causative *-tevo,* and I show its structure in (6b).

(6a) Inepoi [inoi sua]-tevo
$1sg_i$ [$1sg(reflex)_i$ take.care]-cause(ind)
'I'm having myself taken care of.' (Blanco 2010: 293)

(6b)



Blanco's analysis relies on the absence of the causee in Hiaki productive indirect causative structure to support her classification of this head as a verb-selecting causative verb. However, Blanco provides data from Hiaki in which the verb-selecting CAUSE

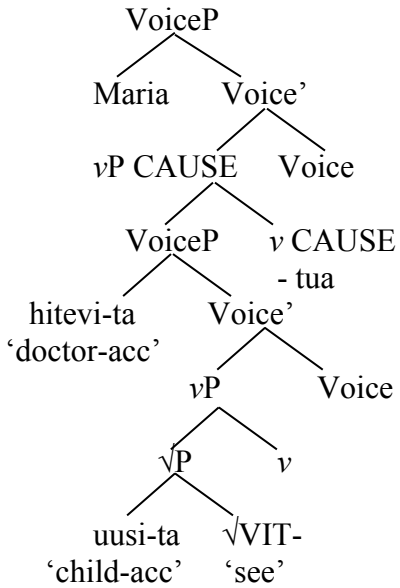
embeds a verb phrase that consists of a causee that looks like an agent. To solve the problem, she states that the causee is often eliminated from indirect causative constructions. But in such data, where the causee is not excluded, the causee is actually in an internal argument position of an unaccusative verb.

Let us now reflect on the last type of the causative verb, which selects a phase to be its complement. The phase-selecting causative head is similar to the verb-selecting causative head with respect to a verbalizing head to be allowed to intervene between a causativized verb and its causative head. The phase-selecting causative, however, includes an additional slot in its structure, which is responsible for introducing an external argument (causee). To put it differently, the appearance of an agentive causee is obligatory in a phase-selecting causative structure, as shown in (7).

(7) Hiaki productive direct causative verb

a. Maria hitevi-ta uusi-ta vit-tua.
Maria doctor-ACC child-ACC see-CAUSE
'Maria made the doctor see the child.'

b.



(Blanco 2010: 261)

The sentence in (7) is treated as a phase-selecting causative construction, where an external argument *hitevi-ta* is introduced by the head Voice in the terminology of Kratzer (1996)[11]. In addition, the existence of the external argument in the embedded caused event motivates the possibility of an agent-oriented modifier to occur.

Given this background about the complement of the causative verb, we now turn to investigate the type of the selected complement in Chiwere. Recall that Chiwere is an Active/Stative language, which marks objects of active transitive verbs and subjects of stative transitive verbs by an indistinguishable morphological agreement affix. This similarity in case-marking indicates that subjects of Chiwere stative intransitive verbs are indeed not volitional, which means that the scope of the subjects of such verbs are disallowed from being outside the verb phrase. On the other hand, subjects of active intransitive and transitive verbs are agentive arguments, and must be introduced in the specifier position of the functional head of Voice phrase.

I argued in Section 2.4 that the indirect and direct causative meanings in Chiwere are identically expressed by the suffix *-hi*. The semantic meaning of the causative verb *-hi* varies with regard to the degree of agency that the causee possesses. If the causer and the causee are not distinct in their thematic roles, where both of them are agents, then the causer has less control over the caused event. This kind of structure can be seen as an indirect causative construction. But it becomes a direct causative in a sentence in which an embedded caused event disallows an agentive causee. Hence, I propose that the morphological suffix *-hi* is an indirect causative verb when it embeds an active verb, as in (8a), and must be recognized as a direct causative verb when it selects a stative verb, as in (8b).

11- Section 3.3 will review the function of the VoiceP, as stated in Kratzer (1996).

(8a) *-hi* as an indirect causative

Wáⁿñegihi wángwášoše idówa re-hi ke/ki.
Chief warrior there go-CAUSE DEC
'The Chief made the warrior go there.' (Wistrand 1978: 49)

(8b) *-hi* as a direct causative

Jiwere wašwehi wánⁿʔshige giñi-wa-hi-ñe-na a-ata ke.
Otoe doctors people heal-.PL-CAUSE-PL-SEP 1pS-saw DEC
'I saw the Otoe Indian doctors heal people.' (Ioway-Otoe-Missouria Dictionary, 'giñí' 2012: 7)

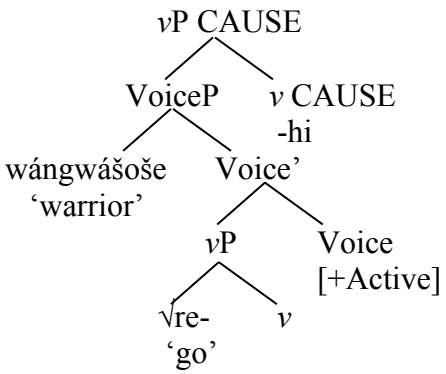
The reason for claiming that the verb *re-* 'go' in (8a) is an active verb comes from the fact that the possible morphological agreement marker on the non-causative counterpart of the verb would imply an agentive actor. In other words, if the subject of the intransitive verb *re-* is a *pro,* then the morphological agreement on the verb would be distinguished from another morphological agreement that identifies a *pro* as an object. (8b) differs from (8a) in that the causee is not realized as an external argument. Moreover, the non-causative use of the intransitive verb *gini-* requires the possible *pro,* which might refer to a first or a second person pronoun, to be marked as the object of a transitive verb is marked. Thus, (8a) and (8b) differ in the thematic role of the causee.

Let us start with what we classified as the indirect causative *-hi*. If a causativized active verb conveys an agentive caused event, then it is predicted that *-hi* is a phase-selecting causative. Recall that a root-selecting causative and a verb-selecting causative do not permit their complements to include an external argument. Thus, for instance, an unaccusative predicate might be embedded by a root-selecting causative or a verb-selecting causative, but not by a phase-selecting causative as the only type of verb that can be causativized. To illustrate the point that a phase-selecting causative might

select—in addition to a transitive verb and an unergative verb—an unaccusative verb, Blanco (2010) theorizes that the English syntactic causative *make* is a phase-selecting head even though its complement might be an unaccusative verb that does not have an external argument. She states that the appearance of the Voice head does not entail the existence of an external argument, but the EPP feature in the head Voice might be satisfied by a causee that is not an external argument. In Chiwere, on the other hand, the existence of an intransitive stative verb as a complement of a phase-selecting causative is not found. Hence, the causee of a transitive active verb or of an intransitive active verb in Chiwere is introduced by the functional head Voice in the specifier position of the VoiceP, outside the embedded VP, as in (9b).

(9a) Wáⁿñegihi wángwášoše idówa re-hi ke/ki.
Chief warrior there go-CAUSE DEC
'The Chief made the warrior go there.' (Wistrand 1978: 49)

(9b) The complement of the indirect causative *-hi*

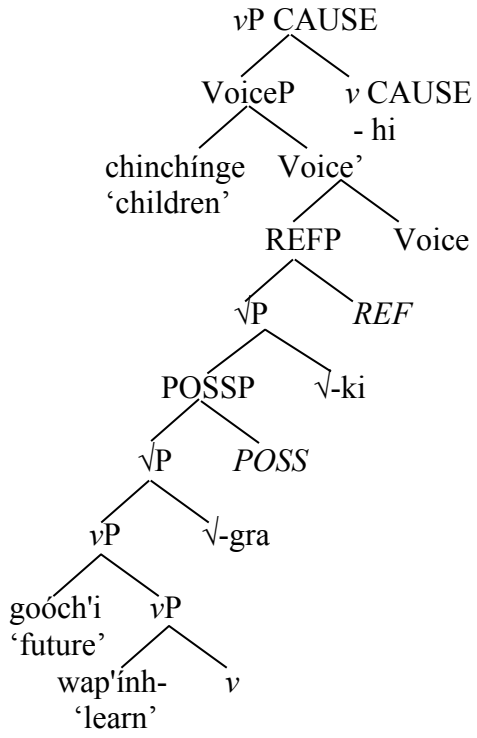


Given the structure in (9b), the morphological causative *-hi* is a phase-selecting head in which the causee *wángwášoše* is base-generated in the specifier of the functional head Voice. Since the embedded verb *-ri* and the matrix verb *-hi* are separate by null verbalizing morphology, the indirect causative cannot be classified as a root-selecting

causative. Moreover, according to Pylkkänen (2002), verbal affixes are allowed to intervene between the root and the causative head only in phase-selecting causatives and verb-selecting causatives. This diagnosis turns out to be true in Chiwere, because verbal affixes occur between the root and the causative head *-hi.* For instance, the reciprocal affix *-kiki* and the reflexive affix *-ki* are structurally higher than the root, and do not scope over the causative head. This means that the root must receive its verbalizing morphology before combining with the causative head *-hi*. Given the possibility for a verbal affix to intervene between the causative head and the root, I posit in the following a structure for Chiwere causative construction that contain a verbal affix.

(10a) chinchínge aré 'shun goóch'i
Children they indeed in the near future
wap'ínhi-(hi)-we-gra-ki-(hi)-wi.
learn-make-1pACC-PL-POSS-REFL-CAUSE-PL
'We make our own children learn in the near future.' (Marsh, four short texts, the Iowa Treaty, 1936:3)

(10b)



I exclude from the structure the emphatic independent pronoun *aré*, which I concluded in Section 2.5. to be an adjunct. The crucial aspect of the structure in (10b) is that the causative head *-hi* does not immediately dominate the root *wap'ính-*: the root is not the daughter of the causative head because other nodes intervene between *-h*i and *wap'ính-*. In (10b), the reflexive *-ki* and the possessive *-gra* disjoin the causative head and the causativized verb. These verbal morphologies form phrasal heads by combining with their functional heads *REF* and *POSS*. The role of their functional heads is to distinguish *-ki* and *-gra* from other possible categories, such as aspect and adverb respectively.

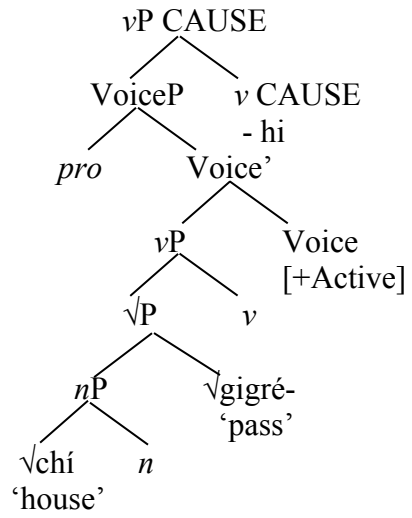
So far this property, allowing verbal affixes to intervene between a root and a causative head, does not make a distinction between a verb-selecting causative and a phase-selecting causative, since both of them do not prevent verbal morphology. Based on Pylkkänen's analysis, the distinction is attributed to the presence of the functional head Voice in a phase-selecting structure, as in (10b). Since the causativized verb *wap'ính* denotes an active event, the functional head Voice requires its specifier to be occupied by the external argument, which is the causee *chinchínge*. It is important to note that in this analysis, I follow Blanco (2010), Pylkkänen (2002), Kratzer (1996), and Marantz (1984) in treating the external argument as an element which is base-generated outside the verb phrase. I will introduce and elaborate on this theory in the next section.

Before we move to the complement of the direct causative verb, we must ask, what about the transitive causativized verb? Let us begin by returning to Marantz's (1997) hypothesis, which states that the syntactic structure of a sentence merges, at first, an acategorial root to a functional head (e.g. *v, n)*. In Marantz's approach, the internal argument of a transitive verb is combined with the acategorial root and formed a

sisterhood relationship under the root phrase √P. In a similar way, deriving a causative construction which includes a causativized transitive verb involves, first, combining the verbal root with the internal argument, which is the base object in this case. Secondly, the verbal root projects above the internal argument in the tree to form a larger phrase structure. In both types of active verbs, transitive and intransitive, the features [+Active] of the functional head Voice requires the specifier position of the Voice phrase to be filled by an external argument. This is illustrated by (11).

(11a) chí gigré-hi^{n}-hi ke.
house pass-1sACC-make DEC
'he made me pass up the house.' (Ioway-Otoe-Missouria Dictionary, 'pass', 2009: 1)

(11b)

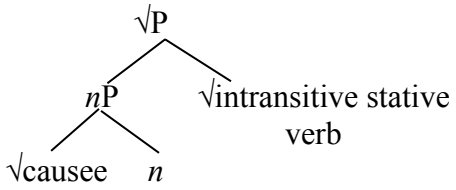


I would like to now consider the complement of the direct causative head *-hi*. Recall that I argued that directness of the causative suffix *-hi* depends on the type of the verb it embeds. If the embedded verb is a stative, then the argument of that verb is absolutely a non-agentive argument. This means that the stative verb indicates that its argument does not have control over the caused event. Thus, the causative suffix *-hi* is a direct causative iff it embeds a stative verb. Similarly, Wallace (1993) notes that in Crow

the direct causative is associated with certain types of verbs, and those verbs are not capable of licensing external arguments. The same is true in Hidatsa for Boyle (2007).

For this reason, it is impossible for the direct causative *-hi* to be classified as phase-selecting in Pylkkänen's framework. Instead, I suggest that the direct causative selects a verb phrase as its complement. Furthermore, I specify what distinguishes it from a root-selecting causative and a phase-selecting causative. To begin with, it is important to demonstrate that Chiwere stative verbs are one-place predicates, which means that any stative predicate requires only one argument, and since this sole argument is assigned a theme or a patient theta role, it is positioned in the same slot as the direct object of a transitive active verb. The valency of an intransitive stative verb is increased by the addition of the direct causative *-hi.* The suffix *-hi* requires an agentive argument as the causer of the event. In this case, the causer is clearly introduced by the functional head Voice in the specifier of the VoiceP, whereas the causee is internally projected by the intransitive stative verb, as in (12).

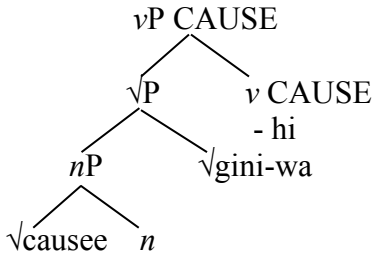
(12)



Since the selected verb is an intransitive stative, a functional head Voice which is responsible to introduce an external argument is not needed to intervene between the causative head and the verbal root. So it might be thought that if the causative head and the embedded root are not separate by a functional head Voice, then the direct causative in Chiwere is a root-selecting head, as shown below in (13).

(13a) Jiwere wašwehi wanʔšige giñi-wa-hi-ñe-na a-ata ke.
Otoe doctor people heal-PL-cause-PL-SEP 1pS-saw DEC
'I saw the Otoe Indian doctors heal people.'

(13b)

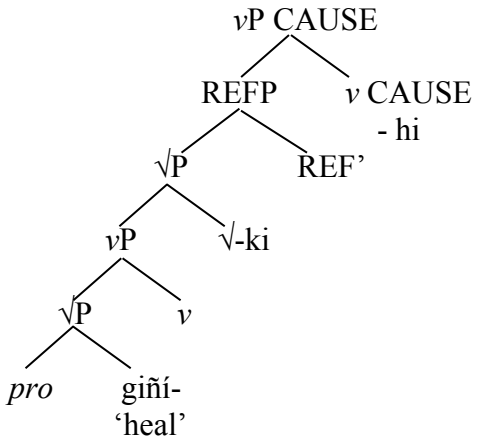


Since the selected verb is an intransitive stative verb, a functional head Voice, which is responsible to introduce an external argument, is not needed to intervene between the causative head and the verbal root. So it might be thought that if the causative head and the embedded root are not separate by a functional head Voice, then the direct causative in Chiwere is a root-selecting head, as shown below in (13).

(14) The Reflexive Affix *-ki*

a. giñí- 'be healed/get well'
b. giñí-hi 'cause to get well'
c. giñí-ki-hi 'cause oneself to get well'

d.



(14d) contains an empty category-assigning head, which merges with a category-neutral root in order to form a larger *v*P structure. Note that *giñí-* is an intransitive stative verb

and so its sole argument must be merged as an internal argument. Under Pylkkänen's framework, the functional head Voice is not needed to be part of the derivation, since the Projection Principle is satisfied by filling the argument position of the one-place predicate *giñí-*. Furthermore, the fact that verbal morphology (14b) is allowed to intervene between the direct causative *-hi* and the root *giñí-* is evidence that Chiwere direct causative is verb-selecting head. Unlike in a phase-selecting structure, verbal morphology (e.g. reflexive, reciprocal and low applicative) in a verb-selecting structure cannot introduce an external argument. Thus, the direct causative *-hi* is a verb-selecting head, but can only select an intransitive stative verb (unaccusative). If the direct causative in Chiwere is a Voice-bundling head, which I will consider in the next section, then it does not follow Pylkkänen's prediction of the verb-selecting causative head. If so, to say that a Voice-bundling causative head is verb-selecting does not entail its ability to causativize an unergative verb or an unaccusative verb. In Pylkkänen's analysis, a verb-selecting head that is also Voice-bundling can embed an unergative verb or an unaccusative verb, as in Bemba.

3.3 THE NATURE OF THE FUNCTIONAL HEAD VOICE. In this section, I introduce the Voice Theory of Kratzer (1996), which treats an external argument as an argument of the head other than the verb. To explain why external arguments are introduced outside their verbs, Kratzer makes use of the neo-Davidsonian method in which a verb such as *buy* is associated with its agent and its theme by independent predicates. In the neo-Davidsonian theory, the event argument is the sole argument of the verb, as in (15).

(15) Neo-Davidsonian

buy λxλyλe [buying(e) & Theme(x)(e) & Agent(y)(e)] (Kratzer 1996:110)

The semantic structure of the verb *buy* in (15) conveys that while the event of buying is the argument of the verb, the subject and the object are introduced via secondary predicates. In contrast, in the semantic structure of the verb *buy*, according to the classical Davidsonian approach, there exist three arguments of the verb: the event argument, the agent argument and the theme argument. Under Davidson's assumption, the agent argument and the theme argument are not related to the verb via independent predicates, as in the neo-Davidsonian. However, the conceptual structure of the verb might contain a non-essential predicate to distinguish an adjunct from the arguments of the main predicate. The classical Davidsonian theory is illustrated in the following representation.

(16) Davidsonian

buy λxλyλe [buy(x)(y)(e)] (Kratzer 1996:110)

Despite the fact that the agent (y) and the theme (e) in (16) differ from the arguments in the neo-Davidsonian reading in being recognized as direct arguments, both (15) and (16) reveal that the verb *buy* is a three-place predicate in the syntax. Taken together, Kratzer theorizes that while the theme argument is syntactically introduced by the verb directly, as in the classical Davidsonian framework, the external argument is associated in the syntax not via the main predicate, but through an independent predicate as in the conceptual semantics of the verb. Such a theory supports the hypothesis proposed in Marantz's work (1984), namely, that an internal argument is the only argument of a verb. Thus, according to Kratzer, too, the external argument is not an argument of the verb, which entails the lexical entry of a verb such as *buy* to be a two-place predicate. The major difference between Marantz's proposal and Kratzer's theory lies in the head responsible for introducing the external argument. Yet the reason behind hypothesizing

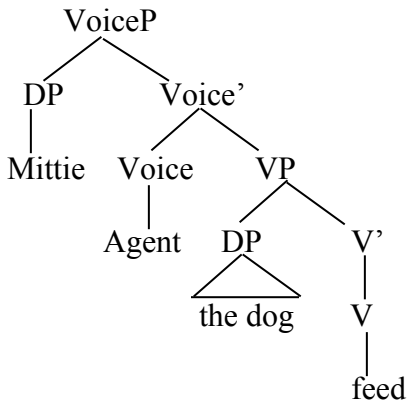
that external arguments are not arguments of verbs is agreed upon by both. It was first suggested in Marantz (1984) based on an observation of special meanings that may occur when a verb and an object are combined together, as illustrated in (17).

(17) a. kill a cockroach
b. kill a conversation (cause the conversation to end)
c. kill an evening (while away the time span of the evening)
d. kill a bottle (empty the bottle) (Vinka 2002: 80)

Examples (17b-d) clearly demonstrate that certain internal arguments require particular interpretations when they are combined with certain verbs. On the other hand, there is nothing special in the meaning of subject-verb combination.

It remains to explain what introduces the external argument if it is not an argument of the verb. For Marantz, the external argument is an argument of the VP from which the subject receives its thematic role. Kratzer's criticism of Marantz's approach stems from the fact that since the lexical entry of a verb does not include an agent argument, it follows that VP—which is a result of the V projection—cannot be a secondary predicate that functions as the introducer of the external argument. Contrary to Marantz, Kratzer theorizes an entirely different functional head, Voice, which is responsible for introducing an external argument and assigning accusative case to an internal argument. By this, she overcomes the technical problem in Marantz's framework because Voice does not relate to the representation of the lexical entry of a verb in the syntax. (18) illustrates Kratzer's syntactic structure of VoiceP in English.

(18)



In (18), there are a lexical head and a functional head. First, the theme argument and the event argument combine together via Functional Application to yield the VP, in which the meaning of the lexical entry is completely composed. Second, the event of *feeding the dog,* which is syntactically represented as VP joins the functional head Voice via the principle Event Identification. The semantic function of the functional head Voice is to provide a thematic relationship between an individual and an event. The role of the Event Identification rule is to allow the VP to characterize the type of the event. If the event, for instance, requires an agent, then the functional head is identified as an agentive head. Finally, since the functional head is described as an agent, it introduces the external argument in the Spec of VoiceP, which is formed via the Functional Application rule. It should be noted that Kratzer's proposal is an alternative analysis to Hung's (1988) suggestion that external arguments in Malagasy are introduced in the Spec of another higher VP in the tree via a lexical head. Hung's framework differs from Larson's (1988) approach to ditransitive verbs in that the external argument is not introduced by an empty head. Since neither Larson nor Hung proposes a functional head in their theories, Kratzer adopts Johnson's (1991) unidentified functional head, which according to him assigns accusative case to the internal argument. However, Kratzer's reanalysis of Johnson's

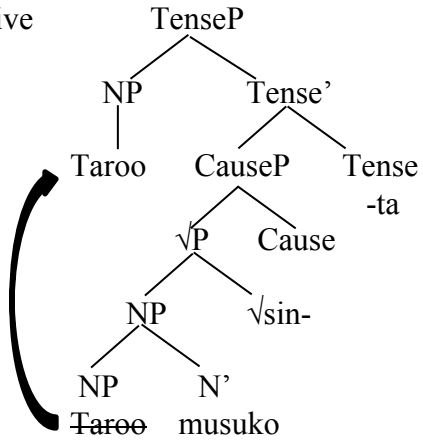
unidentified functional head extends the function of this head to introduce an external argument, in addition to assigning accusative case, for the fact that the external argument is not an argument of the verb.

Let us now turn to Pylkkänen's examination of causers in causative constructions under Kratzer's Voice Theory. According to Pylkkänen, causative constructions are bi-eventive structures, as proposed in Parsons (1990). The assumption that a causative sentence includes two events (i.e., a causing event and a caused event) determines a semantic relation between them. The relation is captured through the function of the causing event whose responsibility is to contribute a causative meaning to the sentence. Moreover, the causing event is semantically related to an individual who forces or lets another participant to perform the caused event. However, the causing event role is not to introduce the causer. It is rather the responsibility of the functional head Voice to trigger the appearance of the causer since it is realized as an external argument. Recall from Section 1.5., that Pylkkänen's argument of the necessity to have a separate head for the external argument is based on the fact that the existence of the causative head is not proof of the causer's existence, as in the Japanese adversity causatives. In other words, the causative head in Japanese-like languages does not introduce an external argument, since causative head could be recognized as an unaccusative head. In the adversity causatives, as discussed in Pylkkänen (2002: 81), 'the nominative argument is not interpreted as a causer but rather as an affected argument of the event described by the non-causative verb.' As (19a) and (19b) below indicate, the nominative argument but not the accusative argument can be interpreted either as a causer or as an affected argument only when the

causative construction is formed lexically, while the Japanese productive causative does not allow an adversity interpretation.

(19) Taroo-ga musuko-o sin-ase-ta.
Taro-NOM son-ACC die-CAUSE-PAST
(a) 'Taro caused his son to die'
(b) 'Taro's son died on him' (the adversity causative) (Pylkkänen 2002: 81)

(20) The adversity causative



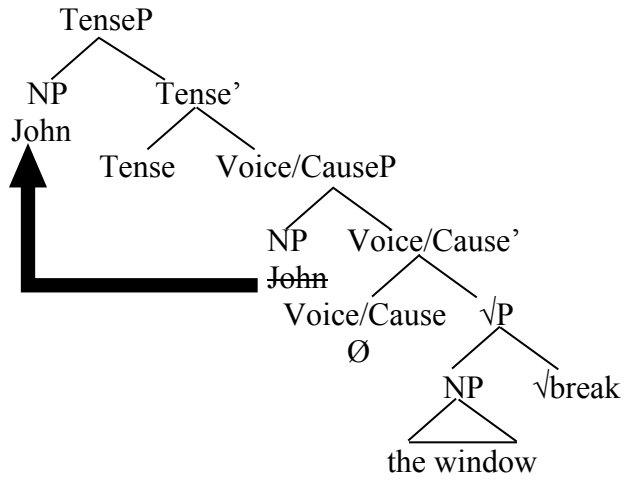
What is structurally missing in the second interpretation (19b), in contrast to the first reading (19a), is the functional head Voice. It follows that the causative head semantically does not assign a thematic relationship between the caused event and a causer. According to Kubo (1992) and Pylkkänen (2002), an adversity interpretation as in (19b) reveals a possessive-like relation between an affected argument and a direct object. Consider now (19a), in which the nominative noun phrase is interpreted as the causer of the caused event. The thematic role of the causer allows the causative head to relate to the causer, which is an external argument is this case, to the causing event. As we have seen, an external argument requires a functional head to introduce it, which is Voice in the terminology of Kratzer. Therefore, (19a) differs from (19b) in that it includes a noun phrase in the Spec of VoiceP. By the idea that a causer is introduced, not by the causative

head, but via an independent functional head Voice, there is no need to expect a causer in every causative construction due to the fact that the causative head might be an accusative head.

Pylkkänen then suggests that since causers might be optional in certain causative constructions, it is the causative head that distinguishes them from their non-causative counterparts. If so, then the causative head must be parameterized to account for cross-linguistic variation. Thus, Pylkkänen's contribution to the syntactic analysis of the causative constructions focuses on the nature of the complement of the causative head, which was discussed in the previous section, and on the status of the causative head in regard to the functional head Voice. In her examination of the causative constructions in English, Finnish and Japanese, Pylkkänen proposes the *Voice-bundling Parameter* to account for an obligatory causer in languages like English and an optional causer in Finnish-like languages. It is worth mentioning that the *Voice-bundling Parameter* corresponds to the analysis of the relationship between TP and AgrSP, as functional heads, in Iatridou (1990), Speas (1991) and others in treating them as a single head in some languages and separate heads in others. Pylkkänen theorizes—in a similar manner to Iatridou and Speas—that while the causative head in some causative constructions must be bundled with the Voice head, they are recognized separately in the syntax of other causative sentences. Therefore, a causative construction can be classified as either a Non-Voice-bundling causative or a Voice-bundling causative. It is classified as a Voice-bundling causative only when the absence of the causer results in an ungrammatical sentence. For instance, the English lexical causative—as in the sentence *John broke the windo*w—is a Voice-bundling causative since an interpretation in which *John* is

interpreted as an affected argument is unavailable. Example (21) shows the syntactic representation of the lexical causative in English.

(21)



Note that in (21) the causative head is morphologically unmarked. Also, the English lexical causatives are root-selecting causatives.

Let us now turn our attention to the property of the functional head Voice in Chiwere. Recall that we divided the causative constructions in Chiwere into two types: direct causative and indirect causative. They differ from each other in that each kind is restricted to a certain type of selected complement. However, the similarity between both causatives is reflected in the fact that both of them require a causer/external argument to fill the [Spic, VoiceP]. This assumption is built on a large number of sentences, in which the existence of the causative suffix *-hi* entails the appearance of an external argument, but not an affected argument, as in the following examples.

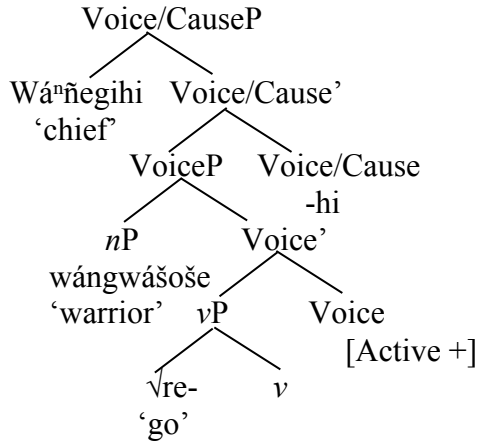
(22) Wáⁿñegihi wángwášoše idówa rehi ke/ki.
Wáⁿñegihi wángwášoše idówa re-hi ke/ki
Chief warrior there go-CAUSE DEC
'The Chief made the warrior go there.' (Wistrand 1978: 49)

(23) Jiwere wašwehi wánⁿʔshige gini-wa-hi-ñe-na a-ata ke.
Otoe doctors people heal-PL-Cause-PL-SEP 1sNOM-saw DEC
'I saw the Otoe Indian doctors heal people.'

The unavailability of interpreting the causative head *-hi* as a stative verb defines the Chiwere causative constructions as Voice-bundling causatives. Hence, the causative head and the voice head, under the *Voice-bundling Parameter*, are incorporated into one head which is Voice/Cause, as I structurally illustrate in (24b).

(24a) Wáⁿñegihi wángwášoše idówa re-hi ke/ki.
Chief warrior there go-CAUSE DEC
'The Chief made the warrior go there.' (Wistrand 1978: 49)

(24b)



Even though all the translations of causative constructions in the collected stories and the IOM dictionary contain related external arguments to the causing events, how do we ensure that the causative head cannot function as stative verb since the data does not show the ungrammaticality of such structures? The idea that the causative verb *-hi* might convey a causative meaning without being related to an external argument must be excluded by the fact that the thematic roles of arguments rely entirely on the class of the verbs. Recall that Chiwere verbs are either actives or statives. This means that each type is distinguished from the other through specific morphological agreement. Therefore, the

possibility of the duality in the function—stative and active—of a verb is illicit. Now, with regard to the morphological agreement, consider the example (25), where the morphological agreement *-hi*^{n} that precedes the causative verb refers to an agentive argument.

(25) šdášda xége šwa^{n}-hi^{n}-hi ke.
donuts dried soft-1DNOM-CAUSE DEC
'We soften the hard donuts' (Ioway-Otoe-Missouria Dictionary, 'soft' 2010: 114)

As can be seen in (25), the causative verb *-hi* must be realized as an active causative verb, due to the fact that it is inflected with an agentive morphological agreement. The causative morpheme *-hi*^{n} in (25) refers to a dual first person subject. Therefore, since the subcategorization of any active verb in Chiwere requires an agentive argument, we can never expect a causative sentence without an external argument to occur. If so, then the classification of the causative head in Chiwere as a Voice-bundling head follows from the obligatoriness of an external argument.

It remains finally to consider whether the identification of the causative head as Voice-bundling raises any problem for its complement. As noted earlier, the direct causative in Chiwere is a verb-selecting head. Now, suppose that the direct causative verb in Chiwere selects an unergative verb, as predicted by Pylkkänen for Finnish. Then the agentive argument cannot be represented as the inner argument of the causativized verb or as the external argument of the functional head Voice, since the complement of a verb-selecting head does not contain Voice. Unlike in Chiwere, the causative head in Finnish is a Non-Voice bundling head (i.e., the Cause head and the Voice head are structurally independent). This independence allows an agentive argument of unergative verb to fill

the specifier position of the CauseP. Contrary to what we supposed, the direct causative in Chiwere is a verb-selecting head that can only causativize stative verbs. Moreover, an argument of a causativized stative verb must occupy the object position. Thus, the status of the causative head in regard to its bundling does not conflict with the complement of the causative verb.

3.4 CONCLUSION. In this chapter, I have examined the morphological causatives in Chiwere, arguing that both direct and indirect causatives are expressed identically. I have further suggested that these causatives are distinguished based on the causativized verbs. My analysis of causative examples has revealed that the functional head v_{cause} in Chiwere is a Voice-bundling head since the appearance of a causer is obligatorily introduced by the functional head Voice. In terms of the selection parameter, I have proposed that whereas Chiwere indirect causative head selects a phase as its complement, the direct causative is a verb-selecting head.

CHAPTER FOUR
CASE AND PHI-FEATURES IN CHIWERE CAUSATIVES

4.1 INTRODUCTION. In chapter two, I questioned the analysis of verbal affixation by Wistrand (1978) and Greer (2013), who both claim that subjects and objects might be inflected on verbs. In contrast, I argued that Chiwere is not a pronominal argument language and proposed that obligatory verbal affixes are morphological agreement markers with *pro*s in argument positions. Both Wistrand and Greer simply suggest that the causativization of a verb consists of the following processes: 1) adding the suffix *-hi* which bears a causative meaning; 2) movement of inflected pronominal argument of a causativized verb to a post-verbal position before the causative suffix *-hi*. Their studies do not provide any examination of the pronominal argument that refers to the causer since there is nothing in Wistrand and Greer's two proposals that mentions a new introduced argument/causer. It should be noted that this lack of investigation is justified because their studies of causatives are not syntactically oriented. The main goal of this chapter is to analyze the case assignment and agreement relationship between arguments and verbs in Chiwere causative constructions, within Chomsky's (2000, 2001) Probe-goal system. Section 4.2 will closely look at the mechanism Agree, which establishes a relationship between a goal and a probe via phi-features and case-marking. In section 4.3, I will develop a case-marking system for Chiwere as an active-stative language and discuss in detail how an internal argument of a stative verb has its case valued exactly as an internal argument of an active transitive verb. Finally, I apply the Probe-Goal system to Chiwere causative constructions and also discuss the identifying features of pronominal null arguments to conclude that a predicate with its valued phi-features is

transferred to PF-component to be spelled out based on the formal features in the derivation.

4.2 PROBE-GOAL SYSTEM. This section will introduce the notion of Agree, following Chomsky's Minimalist Program (2000, 2001), in order to account for Chiwere causative constructions with rich morphology. Consider first that the derivation of syntactic elements must be faithful to the Full Interpretation Principle, which states that all uninterpretable features need to be deleted during the derivation. It is important to realize that the *core functional heads* that concern us here are *nondefective*[12] T, which enters into the derivation with uninterpretable phi-features (φ-features), beside other features. Another key issue is that an argument of a predicate is associated with semantically interpretable φ-features, so the argument can function as a goal for another syntactic element with uninterpretable φ-features. A possible way, as suggested by Chomsky (2000, 2001), to value and delete an uninterpretable feature is attained through the mechanism Agree, which relates a functional head that has uninterpretable features; let us say in this case T, with an argument that bears interpretable features. Following Chomsky's terminology, for a functional head to have uninterpretable φ-features is also to be a probe and seeks for a goal/argument with matching features, which in turn make the uninterpretable φ-features of the probe valued and checked.

Now, it is important to ask with which functional head an argument matches, when there is more than one functional head. To deal with this question, Chomsky (2001) stipulates that a goal must be active to enter into an Agree relationship with an active probe. Putting it another way, the activation of a probe is obtained by its uninterpretable

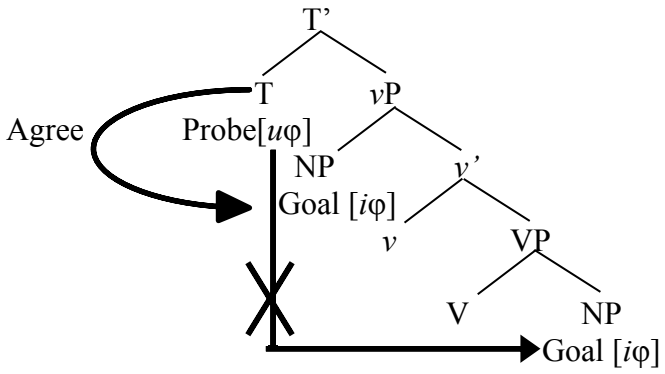
[12]- According to Chomsky (2000: 102), the functional head T is realized as a non-defective if it is selected by C.

phi-features, and for a goal to be active it must bear uninterpretable structural case. If so, then the structural case on the argument is valued and deleted if its interpretable φ-features agree with the uninterpretable φ-features of the probe. Which functional head an argument can agree with is determined by the Locality Condition (Chomsky 2000: 122), which links a functional head/probe to a particular argument/goal.

(1) Locality Condition: A probe P enters into an Agree relationship with a goal G iff,
(i) P c-commands G, and
(ii) G is the closest active argument, so there is no intervening head; assume K that is also capable to value the features of P since K is an active goal.

Thus, the Locality Condition constrains the mechanism Agree and allows, for instance in a nominative/accusative language, a functional head T to Agree with an argument in the [Spec, *v*P] position because it is structurally closer to T than an internal argument is (2).

(2)



In the structure in (2), there are two potential goals that are c-commanded by the probe T, which searches for a goal to have its uninterpretable features valued. This suggests that the internal argument is forced to agree and receive valuation of its uninterpretable structural case from *v.* The fact that the internal argument has its case valued prevents any further Agree relation to occur with it (see McGinnis 1998 for extensive discussion). Suppose, for instance, the head *v* enters into the derivation with uninterpretable φ-

features. It is the responsibility of the nominal head to value the φ-features of *v*, and since the goal is active then its case is valued by *v*. This would have to mean that another operation such as raising for the EPP on T cannot be applied to the internal argument. Note that valuation and deletion of uninterpretable features are subject to Pesetsky's (2001:400) recent version of Earliness Principle.

(3) Earliness Principle: An uninterpretable feature must be marked for deletion as early in the derivation as possible.

Given (3), an internal argument merges externally as an active head with an unvalued case feature and waits for a proper active head to establish an Agree relationship with it. In this case, as Pesetsky points out, the Earliness Principle requires the deletion of all the uninterpretable features before the derivation moves forward.

So far case and agreement processes are performed under a single operation Agree. Hence, some earlier generative assumptions are eliminated, for instance, neither overt movement nor covert movement of an argument to be in a specifier position of an Agr head is required in order for an argument to be agree with its predicate, as was proposed in Chomsky's (1995). Also, recent Minimalism rejects the view that both functional heads (i.e., T and *v*) and arguments enter into the derivation with uninterpretable case features, which can be checked via the displacement of the arguments. Therefore, I follow Chomsky (2000, 2001) in restricting the movement of an argument to [Spec, TP] or [Spec, *v*P] merely to satisfy an uninterpretable EPP feature that might be a feature of a functional head. Consequently, this rule leads us to say that specification or valuation of uninterpretable φ-features of a functional head and an

uninterpretable case feature of a goal are accomplished only by Agree to satisfy the Full Interpretation principle.

4.3 AGREE RELATION IN CHIWERE CAUSATIVES. In this section, I begin with the definition of the feature Case, which was considered above to be uninterpretable feature of a nominal element. Here, I adopt Baker's (to appear) identification of a morphological case as "morphological marking on a noun phrase (NP) or similar expression that reflects its grammatical relationship to the central verb of the clause, or to another key word in the syntactic unit that the NP is found in". The essential idea is that an overt noun phrase is required to have an abstract case to satisfy the Case Filter principle (see Chomsky 1981: 49; Haegeman 1994: 167). And therefore if a syntactic unit does not include a potential morphological marker of an argument, then the noun phrase's abstract case suffices to satisfy the Case Filter. This implies that morphological case is merely an overt realization of an abstract case (Haider 1985:71)—and it might be attached to the lexical noun or any other related syntactic elements, such as the verb. For illustration, consider the following instances.

(4) Morphologically unrealized case (English):
John likes football.

(5) Morphologically realized case on the verb (Coast Tsimshian):
Yagwa baa-(***a***) wan.
PRES run-ABS deer
'The deer is running.' (Dunn 1995:60)

(6) Morphologically realized case on the arguments (Japanese):
Mitiko-ga kodomo-o home-ta
Michiko-Nom child-ACC praise-PAST
'Michiko praised the child.' (Tsujimura 2014: 280)

These examples demonstrate, then, that languages vary in the way they express case marking. For this reason, unlike abstract case, morphological case marking is constrained by the morphological rules of a given language (Weib 2008: 384).

Typologically, languages differ with respect to agreement, which is defined here according to Baker (to appear) as "morphological marking on one word in a clause or other syntactic unit that reflects the features of another expression within that unit." Although agreement is not related only to verb, here, I will limit my discussion to agreement on the verb. One of the well-studied phenomena in the literature of generative syntax is subject-verb agreement. In this case, the functional head T would agree with the closest active argument, but if the subject is not an active goal, then the T will pass the subject searching for another argument. Having said that, we can now state that subject-verb agreement is a result of a successful relation between an argument and a functional head T. Of course, one can find languages which exhibit object-verb agreement as well as subject-verb agreement (e.g. Mohawk: Baker 1996). Interestingly, verbal agreement appears to provide empirical evidence for Universal Grammar if we look at the distribution of object-verb agreement. The morphological agreement of an object is available in a language if and only if it is able to morphologically indicate subject-verb agreement, as proposed by Moravcsik (1974), Croft (1990), Siewierska (1999), and Baker (2013). Baker further considers that Siewierska's (2005) new findings might not falsify the rule in (7) because she restricts her examination of 24 languages to the morphological agreement on verb. But morphological agreement in many languages can be expressed on other syntactic elements than verbs.

(7) Verbs in a given language agree with their objects only if (some, finite) verbs in the language agree with their subjects. (Baker 2013: 22)

It is important to ask with what functional argument an object would agree with if the subject is already in an Agree relation with T. First, recall that in this thesis I adopt Kratzer's (1996) view, namely, that the functional head Voice introduces structurally an external argument. I view the function of the head Voice as equivalent to Chomsky's *v*. Now, it is plausible to say that, in a language where there is object-verb agreement, an active object is accessible to enter into an Agree relation with the functional head Voice, and therefore the uninterpretable case feature of the object is valued by the case marking that is associated with the head Voice. The association of a functional head with a particular case depends on the case system of a given language.

The case-marking system in Siouan languages including Chiwere has been linked to whether the verb is active or stative. In Chiwere, as in other Siouan languages, an intransitive verb can be either an active verb or a stative verb (Graczyk 1991; Williamson 1984, West 2003, among others). On the assumption that the pronominal prefixes are arguments (as proposed in Graczyk, 1991; Boyle 2007), a Siouan language is classified to follow an active-stative system because a pronominal subject of an unaccusative/stative verb is distinguished from a pronominal subject of an unergative/active verb, in that it is identical to a pronominal object of a transitive active verb. Additionally, Boyle (2007) suggests that pronominal subjects and objects are not marked morphologically for case. Rather, they are analyzed in the same way as lexical arguments in being case-marked abstractly. In contrast, based on the assumption that personal affixes are morphological agreement markers that reflect the case marking of null arguments, Williamson (1984) and West (2003) view Lakhota and Nakoda as active-stative languages, because the

morphological agreement on an unaccusative verb is identical to the morphological agreement of the object of a transitive verb; thus, the two analyses are different. Recall that in this thesis I follow the second hypothesis in recognizing the personal affixes as morphological agreement markers, which reflect abstract case-marking of null arguments. However, I reject both Williamson and West's explanations of case assignment, and present a Probe-Goal based approach to account for the case-marking system of Chiwere as an active-stative language.

Williamson's view can be summarized by saying that an argument of an unaccusative verb is assigned objective/accusative case by V in the D-structure, so in this respect Lakhota does not follow Burzio's (1986) generalization (see (9) on p 89). Consider now West's insight. West expresses her approach by saying that an argument of an unaccusative verb is base-generated as an internal argument, and then must move to satisfy the EPP and receive its case. This means that morphological agreement on an unaccusative verb functions as a reflection of the initial position of the argument, and for this reason it is identical to the morphological agreement of the object of an active transitive verb. By this explanation, West makes Nakoda compatible with Burzio's Generalization.

In the spirit of Aldridge's (2006) analysis of absolutive case in Tagalog, I now assume that, in Chiwere and similar active-stative languages, the association of a particular functional head with specific abstract case depends on the feature set of the head Voice. To account for identical case-marking between the subject of an intransitive stative verb and the object of a transitive active verb, let us suppose that a lexical entry of any verb in Chiwere includes its valence and whether it is an active or a stative verb, as in

Graczyk's (1991) approach to Crow. Thus, we are led to say that the feature set of the functional head Voice bears [+/- Active] and [+/- transitive]. It is the feature [+/- Active] that determines the case-marking that is associated with the functional head T, and it is the feature [+/- transitive] that triggers a certain case-marking to be related to Voice. Given this assumption about the feature set of the functional head Voice, we can conclude now that when a probe (e.g. T or Voice) enters into an Agree relation with a goal, the uninterpretable case feature of the goal is valued according to the determined case on the probe by the feature set of Voice. (8) explicitly expresses the case-marking system of Chiwere as an active-stative language.

(8) Chiwere Case-marking system

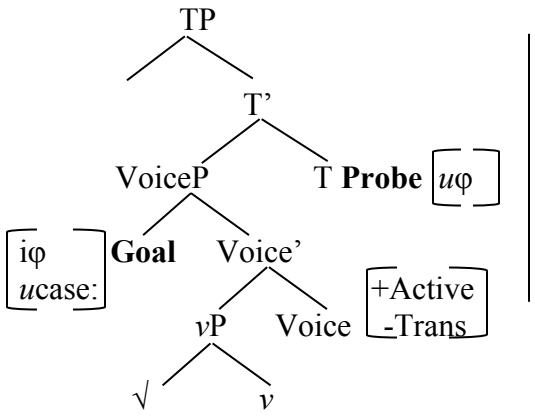
(8a) If Voice is [+Active], then T is associated with NOM case-marking.
(8b) If Voice is [-Active], then T is associated with ACC case-marking.
(8c) If Voice is [+ transitive], then it is associated with ACC case-marking.

If these constraints are followed, in Chiwere-like languages, we shall see that when an intransitive clause is structurally built, a uniform case-marking for both subject of an intransitive stative verb and object of a transitive active verb is the consequence. Recall that Burzio's generalization (9) raised a technical problem for Williamson (1984) and West (2003); for instance, Williamson concludes, under a Grammatical Relation approach, that an argument of an intransitive stative verb is assigned an accusative case by V and then must move to satisfy the EPP, so there should not be a relation between case-assignment and A-Movement.

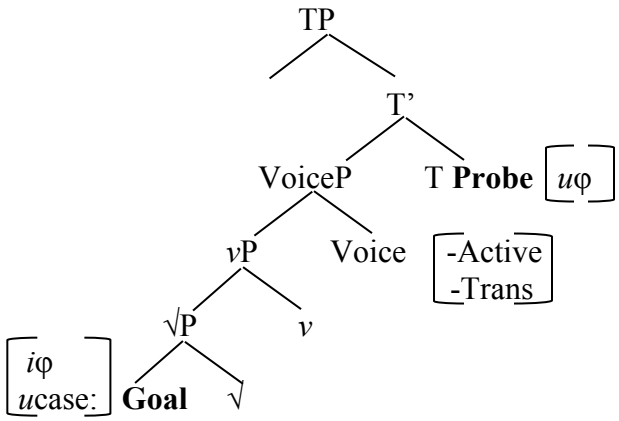
(9) Burzio's Generalization: All and only the verbs that can assign a θ-role to the subject can assign accusative Case to an object. (Burzio 1986:178)

What this generalization means in the sense of Chomsky's *v*-hypothesis (1995) is that the functional head *v* can assign accusative case only when it introduces an external argument (see Pesetsky & Torrego 2011). Once again, the function of Chomsky's little *v* is equivalent to Kratzer's Voice. And according to (8), the internal argument of an intransitive stative verb can have its uninterpretable case valued as ACC only by T, so it is possible to maintain Burzio's Generalization if we adopt the constraints in (8). See the following diagrams.

(10) Unergative (active verb)



(11) Unaccusative (stative verb)



These structures express the distinction between intransitive stative verbs and intransitive active verbs regarding the argument structure and the case valuation. In (10), the functional head Voice has the [+ active] feature, which, therefore, enables an external argument to be introduced in the [Spec, VoiceP]. As the only active argument in the structure located in [Spec, VoiceP], it enters into an Agree relation with the active functional head T. As a result, the uninterpretable case feature of the goal/argument is valued by nominative case because T is associated with a nominative case if the functional head has [+active] feature, as shown in (8a). I have also assumed that when the functional head is [-active], then T is associated with accusative case, and for this reason

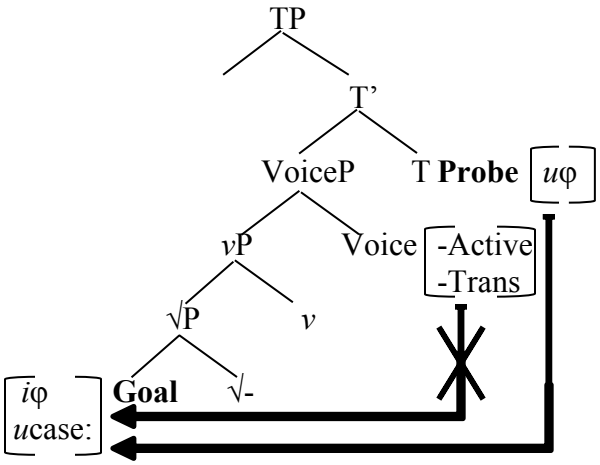
the uninterpretable case feature of the internal argument in (11) must be valued with accusative case feature. If asked why the internal argument in (11) enters into an Agree relation with the Functional head T, but not with the functional head Voice, I would answer this twofold. First, suppose that the functional head Voice lacks φ-features when it is marked by [-Trans]. In this case, Voice is not an active head and cannot enter into an Agree relation with the internal argument. Therefore, as discussed in Chomsky (2001) and Aldridge (2006) the uninterpretable case feature of the internal argument is valued by the active functional head T. Moreover, by assuming that the case feature of the internal argument, in (11), is valued with accusative as a result of entering into an Agree relation with T, we can preserve McGinnis's (1998: 36) Case Identification Principle (12). Structurally, under McGinnis's principle, if we accept the suggestion that the internal argument has its case valued by Voice, then the derivation of an intransitive stative verb violates the EPP. Thus, we must say that, according to (8b), the uninterpretable case feature of the internal argument is valued as a result of an Agree relation with the functional head T.

(12) The Case Identification Principle: Once an argument has checked Case, it cannot undergo further movement to check EPP.

Secondly, to reject the possibility that the argument of a one-place stative predicate, as in (11), agrees with the functional head Voice is to accept the idea that a given functional head might be superior to other functional heads in terms of agreement. Baker (2013: 22) observes, following Chomsky (2000; 2001), that when a structure contains only one potential active goal and more than one functional head, including T, then, according to (13), T is the head that can enter into an Agree relation with the argument, as in (14).

(13) Tense is the category in a clause that is most likely to agree with something.

(14) Unaccusative (stative verb)



These are the two reasons why an internal argument of a stative predicate cannot enter into an Agree relation with Voice. The functional head Voice enters into an Agree relation only when it has the feature [+ transitive], as stated in (8c).

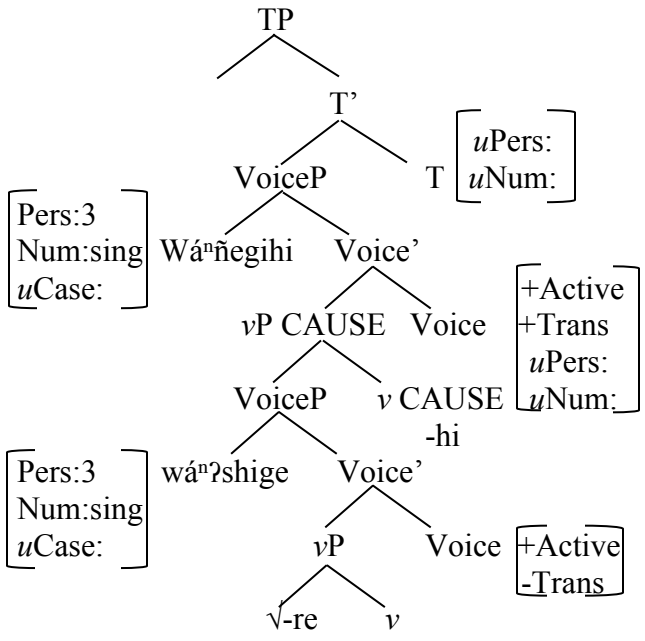
Let us now turn our investigation to the formal features (Case-Agreement) in Chiwere causative constructions based on the active-stative Case-marking system we have explored above. We should therefore at this point briefly review some basic ideas presented in Chapter 3. First of all, note that there are two distinct causative constructions, direct and indirect causatives. If the causativized verb is a semantically stative verb, we know that the causer in a direct way forces or causes another participant to be in a certain condition. If, on the other hand, the causativized verb is recognized as an active verb, the construction is classified as an indirect causative construction. Secondly, following Pylkkänen's (2002) proposal of the causative construction, I have structurally analyzed the Chiwere indirect causative as a phase-selecting head, and the direct causative as a verb-selecting head. Furthermore, both causatives are similar in that

they are Voice-bundling heads. However, I will divorce the bundling in the analysis below for clarity and convenience.

With these general remarks in mind, let us begin first with the indirect causative and examine its argument structure under a Probe-Goal approach. Consider the Chiwere example in (15), where the causer and the causee are overt noun phrases. Third person singular arguments in Chiwere are marked with morphological null person agreement. This means that that the abstract cases of the arguments in (15) are not morphologically realized either on the noun phrase or on the verb. Note also that the causativized verb *re-* 'go' is an active verb, so it follows that the causee is introduced as an external argument in the [Spec, VoiceP]. Thus we are led to say that the causative head is phase-selecting. As seen throughout chapter 3, the Chiwere causative head is not an unaccusative head and so an obligatory causer must be introduced by a functional head Voice.

(15) Wáⁿñegihi wángwášoše idówa re-hi ke/ki.
Chief warrior there go-CAUSE DEC
'The Chief made the warrior go there.' (Wistrand 1978: 49)

(16)

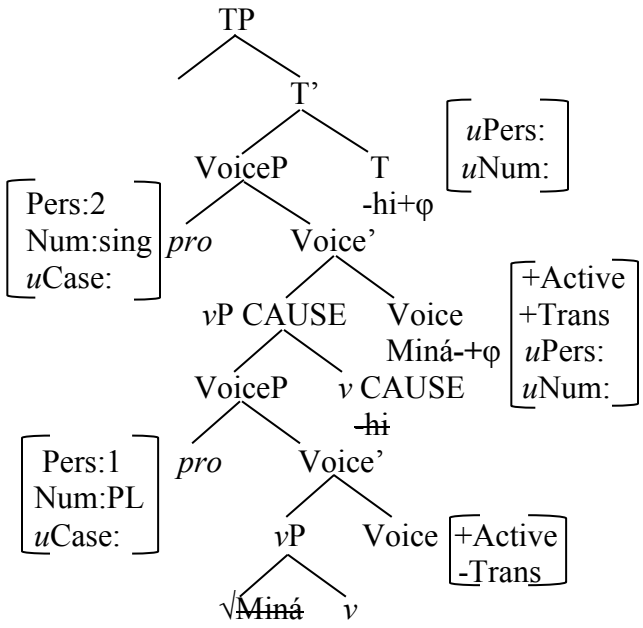


In (16), the structure contains two functional heads, including T and Voice, which are considered to be active probes since they are presented with uninterpretable φ-features. In order for each functional head to value its φ-features, it would seek down for the closest active goal. It appears then that the noun phrase *wáⁿʔshige* is the active goal for voice, and the noun phrase *Wáⁿñegihi* is the active goal for the T. Now, the interpretable φ-features of the noun phrases value the φ-features of the functional heads. Note that both goals are said to be active because they bear uninterpretable case features and must be valued to satisfy the Full Interpretation Principle. They are valued as soon as they enter into an Agree relation with a functional head. Thus, according to (8a) and (8c), the functional head Voice is linked with an accusative case-marking, and the functional head T is associated with a nominative case-marking. Therefore, the uninterpretable case features of *wáⁿʔshige* and *Wáⁿñegihi* are valued.

Chiwere, as discussed in Chapter 2, is a pro-drop language, in which the argument positions of subjects and objects can be filled with null arguments. For this reason, a clause in Chiwere exhibits rich verbal morphology that reflects an abstract case-marking of either first person or second person null arguments. The interpretation of the null *pro* is recoverable from the discourse. Adapting an analysis by Holmberg (2003), under Chomsky's Probe-Goal system, I also suppose that a *pro* enters into the derivation with specific φ-features and unvalued case feature, as any lexical noun phrase. Additionally, since it is normal and extensively used in Chiwere to form a complete sentence only with a complex word, I would stipulate that an agreeable functional head is an affixal head to motivate the movement of a verbal root to another head position, as illustrated in (18).

(17) Miná-wawa-ra-(hi) ke.
Sit-1pACC-2sNOM-CAUSE DEC
'You sat us two down.' (Ioway-Otoe-Missouria Dictionary, 'sit', 2010: 109)

(18)



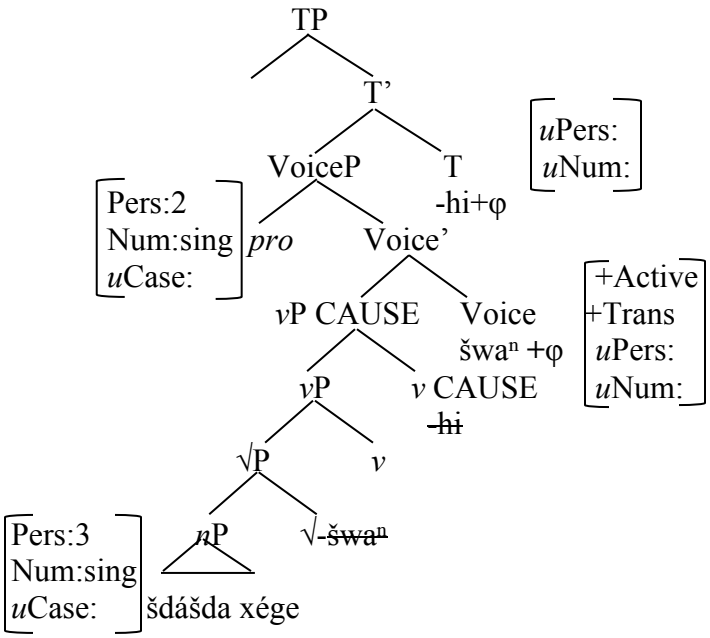
We know that the identifying feature [+Active] allows both the causer and the causee to be in [Spec, VoiceP]. By assuming that *pros* enter into the derivation with their φ-features valued, but not their cases, then they are active goals for functional heads (probes). On the basis of the assumption that the functional head Voice in Chiwere is an affixal head, the verbal root head *Miná-* moves to adjoin to the head Voice. At this point the uninterpretable φ-features of the functional head Voice will be valued as a result of an Agree relation with the *pro/*causee in [Spec, VoiceP] whose case feature will also be valued with an accusative case. Note that once the valuation is achieved, the valued φ-features of the head Voice will absorb the case feature of the goal, and so when the verbal root *Miná-* with its φ-features will be transferred to the PF interface, it will be spelled-out as *Miná-wawa*. Similarly, the causative head *hi-* undergoes a head-to-head movement that is triggered by the fact that T is also an affixal head. Thus, the phonological interface

rule will require the causative head *-hi* and the valued φ-features to be pronounced *ra-hi* reflecting the case feature of the pronominal null argument.

Finally consider an example in which the causativized verb is identified as a one-place stative predicate, as in (19a). Of course, the derivation of such an example would consist of a single functional head Voice and also a functional head T.

(19a) šdášda xége šwa^{n}-hi^{n}-hi ke.
Donut dried soft-1DNOM-CAUSE DEC
'We soften the hard donut.' (Ioway-Otoe-Missouria Dictionary, 'soft', 2010: 114)

(19b)



Thus, the same analysis of the indirect causative construction can be applied to the example in (19a). The only distinction is that the causee merges externally with the verbal root in order to form together a verbal root phrase. This makes the internal argument function as an active goal for the functional head Voice that is responsible for introducing the causer as an external argument in the [Spec, VoiceP].

4.4 CONCLUSION. In this chapter, I have proposed a case-marking system for Chiwere as an active/stative language via the mechanism Agree to account for the formal features in causative construction. An essential question in this chapter has been how to maintain Burzio's Generalization because a subject of an intransitive stative verb is expressed with an accusative case. The syntactic analysis restricts a nominative case to be associated with the functional head T, if and only if, the functional head Voice is identified as [+active]. On the other hand, T is associated with an accusative case if the identifying features of the functional head Voice include [-active]. As a result, the Case Identification Principle is satisfied since the uninterpretable case feature of an internal argument of an intransitive stative verb is valued because it enters into an Agree relation with T, not with Voice. Along the line of Holmberg (2003), I have suggested that the person markers in a causative construction are the consequences of an Agree relation between functional heads and *pro*s. Further work remains to apply this proposal to other Siouan languages in order to analyze case-marking and morphological agreement in a way that does not affect generalizations suggested by Burzio (1986) and McGinnis (1998).

Therefore, the data analyzed in this thesis is an attempt to contribute to the theory of Universal Grammar by representing the grammar of causative constructions in Chiwere as an attained state from a grammar shared by all languages. I have theoretically examined the morphological causatives in Minimalist syntax to account for the syntactic nature of the functional head v_{cause} in Chiwere. Building upon previous descriptive works, I have reanalyzed the derivation of the Chiwere causative constructions by using Pylkkänen's (2002) framework, which simply predicts that the syntactic element v_{cause} is

the head that reflects a linguistic similarity in the composition of a causative concept, rather than the appearance of the causer as proposed in Doron's (1999).

There are a significant number of similarities between Chiwere and other Siouan languages, such as Crow and Hidatsa, in that the formation of causativization is implemented via a productive morphological means. Nevertheless, direct and indirect causatives in Chiwere are identically expressed by the morpheme *-hi*. Thus, my discussion of earlier analyses has presented clear evidence to reject the existence of the so-called periphrastic causative in Chiwere. The suffix *-hi* is not always expressed overtly, but there seems to be a pattern for its deletion since it is always phonologically realized when both the causer and the causee are third person arguments. It might be thought that the suffix *-hi* is null as a result of the appearance of morphological agreement after a verbal root in a causative construction, but the available data include examples that conflict with this conclusion. To my knowledge of Chiwere, I am convinced that the deletion of the suffix *-hi* is a consequence of fast and casual speech. However, to verify this opinion, much work is needed on the distribution of the suffix *-hi*. By adapting the view that the external argument is introduced by the functional head Voice, I have proposed that if the causativized verb in Chiwere denotes an active event, v_{cause} is a phase-selecting head, but Chiwere v_{cause} is a verb-selecting causative head when it selects a stative verb whose sole argument is not triggered by the functional head Voice, rather it is internally generated within the root phrase. In addition, the examination of both direct and indirect causative constructions has shown that Chiwere v_{cause} is a Voice-bundling head. I have also demonstrated that Chiwere does not follow Pylkkänen's prediction in that its direct v_{cause} head does not allow unergative and transitive verbs to be

causativized. Although it was found that Chiwere lacks lexical causatives in a similar way to Quechua, further investigation is needed to explain the functional causative head in languages within the Siouan language family such as Crow, in which the causative construction can be expressed lexically and productively, e.g. *shée* ‘die’, *chilappeé* ‘kill’. Finally, much more work is needed to be done on languages that form causativization by morphological means other than suffixation which may either support or conflict with Pylkkänen’s Minimalist model.

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