

Abstract

Karen Sgaw is a Tibeto-Burmese language that is spoken in Myanmar and Thailand. Current literature claims that the only morphological process that occurs in Karen Sgaw, is the process of compounding. This paper aims to answer the research question:

How can word formation processes in Karen Sgaw be described using present day morphological theories' characterization of compounding and derivation?

Derivation and compounding are morphological processes that can be grouped together under the term word formation. The two are treated like two very different procedures. However, a few authors have shown that compound elements can undergo a diachronic change to become derivational affixes. To make a distinction between derivational affixes and compound elements, it should be determined whether the morphemes are bound or free, and whether they are functional or not. Derivational affixes are always bound, compound elements are in most cases free. In this study, the morphemes /ta¹/, /nɔ¹/, /pɣa⁴/ and /lɔ¹/ are examined by interviewing two native speakers of Karen Sgaw. The results show that the morphemes /ta¹/, /nɔ¹/ and /pɣa⁴/ have bound occurrences. Of these, /ta¹/, and /pɣa⁴/ function as derivational affixes. These findings give evidence for the presence of derivational processes in Karen Sgaw. Further research is needed to demonstrate whether this is due to a diachronic change.

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Introduction

Among the most striking peculiarities of the Karen language are its paired words, or couplets. Where the English would use a single word to express an idea, the Karen often joins two words to express the one idea, thus forming a couplet. Sometimes two words of analogous signification are united to form a word of slightly different meaning from either; sometimes the couplet consists of two synonymous words; sometimes it consists of a significant root joined to a root which, out of the couplet, has no meaning. Couplets are found among nouns, adjectives, verbs, and adverbs (Gilmore, 1898:11).

Karen Sgaw is one of the Karen languages spoken in Myanmar and Thailand. David Gilmore was an English missionary who composed the first actual grammar of Karen Sgaw in English. In the above quote, he touches on an interesting characteristic of the Karen Sgaw language: the frequent combining of words to form novel words. Years later, in 1961, the linguist Robert Jones examined word structure in Karen Sgaw and called these processes of combining words compounding (Jones, 1961:24). Jones even claimed that compounding is the only morphological process that occurs in Karen Sgaw.

In traditional linguistics, the study of morphology is divided into three subfields; inflection, derivation and compounding. These three fields are strictly separated from each other. A lot of research has been done on the process of inflection. Research on derivation and compounding, sometimes grouped together under the term *word formation*, from a cross-linguistic perspective is unfortunately very limited. Literature treats derivation and compounding as distinct processes. In languages like English, this distinction is very clear for most words. However, in languages spoken in other parts of the world, there seems to be a concurrence between these two processes. Arcodia (2011) stated that in Mandarin Chinese, and in many other Sino-Tibetan languages, compounding is the main way to form new words. He discloses a diachronic change in Mandarin where compound elements undergo a shift in meaning and become derivational affixes. More extensive studies that address the resemblance of derivation and compounding are needed to give more insight in morphological processes of the world's languages. To take a first step in that direction, this paper aims to show that, contrary to relevant literature, compounding is not the only morphological process that occurs in Karen Sgaw. This is done by examining four Karen Sgaw morphemes through structured interviews with native speakers of the language, based on a small questionnaire.

In chapter one, this paper starts with a theoretical framework that sets out current knowledge about the processes of derivation and compounding and gives background information on the Karen Sgaw language. Chapter two describes the research methods used in this study. Chapter three consists of the interview results and their analysis. Chapter four contains the discussion and conclusion of this paper.

1. Theoretical background

1.1. Derivation and compounding

1.1.1. MORPHOLOGICAL DEFINITIONS

The word *morphology* derives from the two Greek words *morph*, meaning shape, and *logos*, meaning study. Morphology thus is the study of forms. According to Aronoff and Fudemann, in linguistics the term morphology can refer to two things: “*In linguistics morphology refers to the mental system involved in word formation or to the branch of linguistics that deals with words, their internal structure, and how they are formed*” (Aronoff and Fudeman, 2011: 1,2). In this paper, morphology is seen as the study of the internal structure of words. To be able to study the internal structure of words, first the notion of the term *word* must be clearly identified. However, there is a long and ongoing discussion on how the notion of *a word* should be defined. Words can be considered as phonological units, terminal syntactic elements, elements from the lexicon, and there is a lot more characterizations than these (Anderson, 1999). Before making a claim about the definition of a word, all of these characteristics should be extensively considered, which is beyond the scope of this paper. In this paper we will consider words as terminal syntactic elements. This enables us to take a deeper look at the internal structure of a word. When looking at internal structures, linguists traditionally investigate words trough studying their morphemes. Aronoff and Fudeman (2011:2) state that morphemes are conventionally defined as the smallest linguistic elements with a grammatical function. According to them, “*A morpheme may consist of a word, such as hand, or a meaningful piece of a word, such as the -ed of looked, that cannot be divided into smaller meaningful parts*”(Aronoff and Fudeman, 2011:2). The term *morpheme* is not interchangeable with the term *morph*. *Morph*, sometimes also called *allomorph* or *variant*, refers to the phonetic realization of a morpheme that can be conditioned by its context. Words that consist of one single morpheme are called simple words, words that consist of multiple morphemes are called complex words (Aronoff and Fudeman, 2011:2).

In the study of morphology, different types of morphemes can be discovered. First of all, every word in the lexicon consists of a root. According to Fromkin, V. (2000:712), a root is “*a lexical morpheme which is the base to which grammatical or derivational morphemes are added to form a complex word.*” When a morpheme is added to a base form that already consists of multiple morphemes, this base form is called a *stem* (Aronoff and Fudeman, 2011:2). Most roots are free morphemes, meaning that they are real words of their own, and do not need to be combined with other morphemes to form a word. Unlike free morphemes, bound morphemes require to be combined with another morpheme (Fromkin, 2000:26). Bound morphemes that are added to roots and stems are called affixes. These affixes can take different places with respect to the root. The most common types of affixes are prefixes and suffixes. These are placed respectively before and after the root (Fromkin, 2000:28). Less common types of affixes are the infix and the circumfix, which are placed respectively inside and on both sides of the root (Fromkin, 2000:688, 699). Affixes can be both derivational and inflectional morphemes.

1.1.2. SUBFIELDS OF MORPHOLOGY

The discussion of morphological topics is traditionally organized into three different subfields: inflection, derivation and compounding (Anderson, 1999:183). The difference between inflection on the one hand and derivation and compounding on the other hand, is that through the process of derivation and compounding, new words are formed, but through inflection no new words are formed. A word that has been changed by inflection, is not a new

word, but another form of the original word (Anderson, 1999:183-184). An example of the process of inflection is conjugation on verbs. The stem *walk* can take the inflectional affix *-ed* to form the inflected form of the past tense: *walked*. This utterance is not a new element in the lexicon; it is another form of the word *walk*. Since this paper is concerned about word formation, inflection will not be taken into further consideration in this paper. According to both Anderson (1999: 184) and Štekauer, Valera and Körtvélyessy (2012), derivation and compounding are often grouped together as *word formation*. However, they are still very different processes.

Anderson (1999:184-186) addresses the description of derivation by using the notion of *word formation rules*. In his work, he defines *word formation rules* as the motor of the different morphological processes. These rules are like directions that make clear which morphemes a root or a stem can take and what types of words are formed after the rule is applied. Anderson defines derivation as the operation of a specific set of Word Formation Rules. This set of rules can manipulate the lexical category, syntactic subcategorization frame, semantics and argument structure of the bases to which they apply. The operation of the rules usually results in a phonetic change, like the addition of an affix. An example of such a Word Formation Rule in English is the rule that adds the affix *-ly* to stems. This rule operates on adjectives, for example *sad*. The rule turns this simple root into the complex word *sadly*. The phonetics of the word have now changed, and the word also belongs to a new class of words, the adverbs.

Anderson (1999:292) also gives very clear definitions of the process of compounding. According to him compounding traditionally differs from derivation in that it combines two or more consisting words into a new word, whereas derivation consists of applying a word formation rule to only one existing word. An example of an English compound is *moonlight*. In this compound the existing words *moon* and *light* are combined into a new word. This word also shows us another characteristic of compounds; both parts have an independent status. In words formed through derivational processes, only one part is autonomous. This can be seen in the derived word given above, *sadly*. Of this word, only the element *sad* is independent, the part *-ly* is a derivational affix that requires to be bound. This definition applies to the vast majority of compounds, but in some cases one of the compound elements is an old phrase that has lost its original meaning and does not occur on its own anymore. Anderson also mentions another difference between compounding and derivation. While derivation is just the operation of a word formation rule on a single stem, the process of compounding combines two or more stems into syntactic structures. According to Anderson, structure inside of a word is unique to compounds. This structure is evident because elements in compounds usually fill argument positions of the other elements, for example in the compound *truckdriver*. Here, the element *truck* fills an argument position of the verb to *drive*. The example of *truckdriver* also shows us that compounds can be built up from complex words. The element *driver* has already undergone derivation. A *word formation rule* added *-er* to the verbal root *drive* to form a complex noun.

1.1.3. COMPOUNDING AND DERIVATION CONTROVERSIES

Štekauer et al. (2012) uses the term *word formation* to refer to both derivation and compounding, like Anderson does. They make a distinction between these two by calling compounding *word formation processes combining free morphemes* and derivation *word formation processes using bound morphemes*. However, Štekauer et al. also state that the distinction between derivation and compounding is not always straightforward. They discuss the phenomenon of compound elements that lose meaning and autonomy. These morphemes can change over time into derivational morphemes. According to Štekauer et al. (2012: 135-136), Malkiel (1978) established that this is a diachronically frequently occurring

phenomenon. Kastovsky (2009) explains this diachronic process by looking at the English language. The derivational affix *-ship*, as in *traineeship*, stems from the old English *scipe*, meaning *form* or *state*. Words that today have this bound morpheme used to be compounds. The compound member that used to be free lost semantic content and became a bound morpheme, turning it into a derivational affix. This example, among many others in divergent languages, shows that the distinction between compounding and derivational morphology can become less clear through the diachronic process of grammaticalization. This vision is also supported by Giorgio Arcodia in his work *A Construction Morphology account of derivation in Mandarin Chinese* (2011). In this research, Arcodia examines morphologically complex words in Chinese. He proposes and substantiates that “*derivational affixes in Mandarin are the evolution of compound constituents, appearing in a fixed position with a certain meaning in a number of complex words*” (Arcodia, 2011:1). Arcodia also notes that for a word to become a derivational affix, it has to undergo a shift in meaning, which could be a generalization or an extension of the original meaning. He also claims that in Mandarin Chinese most, if not all, multi-morphemic forms are compounds. However, there is a set of compound elements that have become standardized and abstract and could be viewed as derivational affixes. When such an affix does not exist as a free morpheme anymore, it can be called a true *affix*. When the affix still appears in its free form alongside of its bound variant, the affix is called an *affixoid* (Arcodia, 2011:37). Alongside of the free-bound distinction, Ralli and Dimela (2009:3) presume that the functionality of a morpheme distinguishes affixation from compounding. Processes of affixation have a functional character and therefore high productivity, which compound members do not have.

As can be seen in the theoretical framework set out above, there seems to be a clear distinction between compounding and derivation at first sight, but after taking a closer look, the synchronic distinction does not seem so obvious, due to diachronic changes. The most straightforward way to distinguish whether a morpheme is a compound element or a derivational affix, is by examining its functionality and by investigating whether the morpheme is free (in the case of compounding) or bound (in the case of derivation). As this paper aims to describe the morphological processes of compounding and derivation in Karen Sgaw, we must take a closer look upon that language.

1.2. Derivation and Compounding in Karen Sgaw

1.2.1. KAREN SGAW BACKGROUND

Karen languages are spoken in eastern Myanmar, from the far south up to the northern Border. Some varieties of Karen language are also spoken in Thailand, in the areas near the border with Myanmar (Manson, 2011:1). There is no agreement about how many speakers of Karen languages there are. Different sources come up with different amounts of speakers. According to Bradley (1997:46) the total amount of speakers of Karen languages is 3,9 million. Bradley himself, however, acknowledges that this number is under enumerated. The term *Karen* does not only refer to a group of languages, but also to an ethnic group, the Karen, one of the many tribes in Myanmar. The population of Karen people lies somewhere between six and ten million people (Manson, 2011:1), but not every member of the Karen tribe speaks a Karen language. Due to the ongoing civil war between the Burmese government and the Karen tribe, Karen language education has been heavily suppressed and only the Burmese language is legally taught in certain areas. Many members of the Karen tribe only speak Burmese nowadays (Manson, 2011:1). This makes the population of the Karen tribe not parallel to the amount of speakers of Karen language and this number still remains uncertain. However, an estimated amount of four million speakers of Karen languages seems plausible.

One of the first ever mentions of Karen language in a scientific journal is found in the paper of Rev. E.B. Cross, *On the Karens* (1853), in the *Journal of the American Oriental Society* vol. 4 (1854:289). In this paper, Cross connects the Karen people to the Chinese and the Tibetans because of language similarities. By saying this, he already touches on the later made claim that Karen Languages belong to the Sino-Tibetan language family. More specific, Karen Languages are Tibeto-Burman Languages, a subgroup of Sino-Tibetan. For a long time, the hypothesis that Karen languages are Sino-Tibetan has been the subject of discussion. Karen languages have some distinct characteristics that are uncommon to Tibeto-Burman languages (Bradley, 1997:47). The most prominent characteristic of those is that all Karen languages have Subject-Verb-Object (SVO) word order, while no other Tibeto-Burman language has this word order. Another characteristic is that many Karen Languages have a set of elements in the lexicon that are not found in other Tibeto-Burman languages (Luce, 1985). These non-Tibeto-Burman characteristics have led to classifications of Karen Languages outside of the Tibeto-Burman Branch. Benedict (1972) places the Karen languages a branch higher in the language family tree. He considers *Karennic* languages as a separate subgroup of the Sino-Tibetan languages, placing it on the same level as Tibeto-Burman languages, making Tibeto-Burman and Karennic coordinate language families. However, this view has been abandoned even by Benedict himself (Bradley, 1997:47). Thurgood (2003) points out how modern scholars view the distinctive word order as due to close language contact with other non-Tibeto-Burman languages. Nowadays Karen languages are conventionally considered a subgroup of the Tibeto-Burman languages, the Karennic language family.

The structuring of Karennic languages has been a problematic matter: *“there is considerable disagreement on the subgrouping of Karen, which includes a number of languages, many with several alternative names”*

(Bradley, 1997:47). There are approximately between 20 and 30 Karen languages, of which eighteen are documented (Manson, 2011:1). It has always been difficult to reason how many languages there are, because there are many dialects, which are sometimes considered different languages and sometimes not. Previous research on the subgrouping of Karen languages has always been done on only the best known sublanguages and do only take written language into consideration. More recently, Ken Manson (2011) has done extensive research on the subgrouping of Karen languages, considering tonal development, reflexes of proto-initials and proto-rhymes to

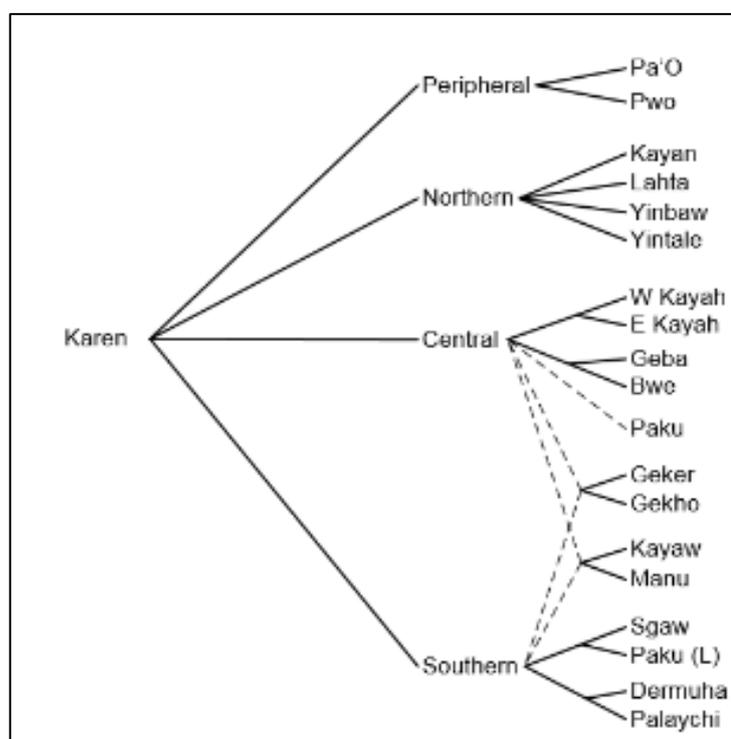


Figure 1: The Classification of Karen languages (Manson 2011:8)

construct a more substantiated subgrouping, which can be found in figure 1. This research paper will be focused on the largest subgroup of the Karennic languages; Karen Sgaw.

1.2.2. KAREN SGAW LANGUAGE CHARACTERISTICS

Karen Sgaw is written using an adaptation of the Burmese alphabet. There are 26 consonants in the language and ten vowels (Gilmore, 1898:3), as can be seen in figure 2 and 3. Karen Sgaw is a tonal language. The most recent language description of Karen language, *Karen Linguistic studies* by Jones (1961), identifies three different tones, with each two allophones. However, the Karen themselves identify six different tones, as can also be found in their alphabet (Gilmore, 1898:8). The six different tones and their pitch can be found in figure 4.

IPA	/k/	/k ^h /	/ɣ/	/x/	/ŋ/	/s/	/s ^h /	/ʃ/	/ɲ/	/t/	/t ^h /	/d/	/n/
Karen	က	ခ	ဂ	ဃ	င	စ	ဆ	ရှ	ည	တ	ထ	ဒ	န
IPA	/p/	/p ^h /	/b/	/m/	/j/	/l/	/l/	/v/	/θ/	/h/	/ʀ/	/ɦ/	
Karen	ပ	ပ	ဘ	မ	ယ	လ	လ	ဝ	ထ	ဟ	ရ	ဧ	

Figure 2: Karen Sgaw Consonants in Karen script and IPA

IPA	/a/	/i/	/e/	/y/	/u/	/ɪ/	/ɛ/	/ɔ/	/ɒ/	/ə/
Karen	၁	ိ	ဲ	ိ	ု	ိ	ဲ	ိ	ဲ	empty

Figure 3: Karen Sgaw Vowels in Karen script and IPA

Karen orthography	Tonal course	Transcribed as
၁	Low pitch, heavy falling tone	1
၂	Low pitch, ending in glottal stop	2
၃	Ordinary pitch, ending in glottal stop	3
၄	Ordinary pitch, prolonged	4
၅	High pitch, heavy falling tone	5
Empty	High pitch, slowly rising tone	-

Figure 4: Karen Sgaw tones

To form a syllable in Karen Sgaw, a strict pattern must be followed. Syllables always start with one of the 25 consonants. The consonant can be turned into a consonant cluster, by adding /ɣ/, /j/, /l/, /v/ or /l/ to the first consonant. Then every syllable has one of the ten vowels and that vowel is pronounced with one of the six tones, except for the vowel /ə/. Syllables with this vowel are unstressed and don't carry a tone. All syllables have a consonant-(consonant)-vowel pattern and therefore can never end in a consonant (Gilmore, 1898:8). Karen Sgaw has a basic word order of Subject-Verb-Object (SVO) and grammatical functions of word groups are determined by their position in the sentence (Gilmore, 1898:11).

1.2.3. LANGUAGE TYPOLOGY

A lot of different terminology is used when the language typology of Karen Sgaw is discussed. Marshall (1945) and others, identify Karen Sgaw as an agglutinative language, meaning that morphology is heavily used to create new words, but every morpheme carries just one aspect of meaning. On the other hand Chapel (1991) and others categorize Karen Sgaw as an isolating or analytic language, which means that no morphology is prevalent and almost every word only consist of one morpheme. The only claim that all researchers agree on, is that there is no inflectional morphology in Karen Sgaw, which rules out the option that Karen Sgaw is a fusional or polysynthetic language. Another feature of Karen Sgaw is that it is monosyllabic (Marshall, 1945), which means that morphemes usually consist of only one syllable, unless they are loanwords. Jones (1961) is an extensive grammar of Karen Sgaw, in which he also demonstrates the presence of compounding processes in Karen Sgaw. This means that at least one type of morphology is possible in Karen Sgaw, which shows that the

language is not completely isolating. However, to understand the way in which morphology occurs in Karen Sgaw and to what extent, we must take a closer look on word formation in Karen Sgaw.

1.2.4. WORD FORMATION IN KAREN SGAW

In the history of linguistic research on the Karen Sgaw language, only four grammars of the language have been produced. Of these grammars, only the most recent one is taken into account by most researchers that came after. The first grammar, *Anglo-Karen grammar* (Mason, 1846), was more of a guideline on how to translate Karen sentences into correct English, and can't correctly be called a grammar. The second grammar, *The grammar of the Sgaw and Pgho Karen language* (Wade, 1861), was written completely in Karen, making it impossible to read for most of the non-Karen researchers. The third grammar, *A grammar of the Sgaw Karen* (Gilmore, 1898), was written in English, but had all the Karen expressions written in Karen script without transcriptions or glosses, making it unreadable for any researcher that did not have the chance to learn how to read the Karen script. These characteristics of the older grammars cause them to be left unread by contemporary researchers, and make *Karen linguistic studies* (1961) by Robert Jones the only available grammar for these linguists. However, I have learned to read the Karen Sgaw alphabet and have some proficiency in speaking and understanding the language, which enables me to also consult the grammar by Gilmore. In this paper, Jones (1961) and Gilmore (1898) will be taken into consideration.

Jones (1961:24) claims that there is no morphology in Karen Sgaw other than compounding. All polymorphemic words are compounds, of which the leftmost member is the head. Jones (1961: 24-28) proceeds to list all the possible ways to form a compound, which, according to him are:

- I. Verb-verb; these can only take /t^hb/(go up) and /l⁵b/(go down) as a second member, like in example 1 and 2.

- | | |
|--------------------------|--------------------------|
| (1) a. /jɔ/ | (2) a. /lɛ/ |
| carry | go |
| b. /jɔt ^h ɔ / | b. /lɛl ⁵ ɔ / |
| carry up | go down |

- II. Verb-noun; these can only take /θa³/(self) and /ta¹/(thing) as a second member, like in example 3 and 4.

- | | |
|--|-------------------------|
| (3) a. /pa ¹ l ⁵ θa ³ / | (4) a. /ma/ |
| plan (for oneself) | work |
| | b. /mata ¹ / |
| | do, make |

- III. Repetitive verb compounds; these combine adjectival verbs to form adverbs, like in 5.

- | |
|-------------|
| (5) a. /ɣɪ/ |
| good |
| b. /ɣɪɣɪ/ |
| well |

IV. Noun-Verb; these can only take /ta¹/(thing), /nɔ¹/(instrument) and /pɣa⁴/ (person) as head, like in 6,7 and 8.

(6) a. /ma/
do
b. /ta¹ma/
work (N)

(7) a. /va¹/
paddle (V)
b. /nɔ¹va¹/
paddle (N)

(8) a. /do⁵/
big
b. /pɣa⁴do⁵/
ruler

V. Noun-noun; these consist of two coordinate nouns, like in 9.

(9) a. /ta¹ɔ/
drink (N)
b. /ta¹ɔ⁵/
food
c. /ta¹ɔta¹ɔ⁵/
food (in general)

VI. Pronoun-verb; these can only take /ə/(3 sing poss.) as a head, like in 10.

(10) a. /va/
white
b. /əva /
whiteness

VII. Pronoun-classifier, like in 11. There are only very few of these.

(11) a. /ɣa⁴/
CL persons
b. /əɣa⁴/
other, another

VIII. Pronoun-demonstrative, like in 12. There are only two of these.

(12) a. /əvɛŋi⁴/
this

IX. Partitive-demonstrative, like in 13. There are only three of these.

(13) a. /p^hɛŋi⁴/
there

X. Specifier-Marker; only /lɛ⁵/(INT) can be the second member of a interrogative noun, like in 14.

(14) a. /p^hɛlɛ⁵/
there

XI. Repetitive noun compounds; /tə/(one) is the leftmost member and the noun is repeated, like in 15.

- (15) a. /ɣa/
evening
b. /təɣaɣa/
every evening

XII. Adverbial compounds; these can only have /di³/(like) and /hɪ¹/(like) as the head, like in 16 and 17.

- | | |
|---|---|
| (16) a. /ɣɪ ⁴ /
good | (17) a. /ɣɪ ⁴ /
good |
| b. /di ³ ɣɪ ⁴ /
well | b. /hɪ ¹ ɣɪ ⁴ /
paddle (N) |

XIII. Pseudo-compounds; these take the unidentifiable /pə/, /θə/ or /kə/ as a head, like in 18, 19 and 20.

- | | | |
|----------------------------|-------------------------|--------------------------------------|
| (18) a. /də/
ride | (19) a. /dɪ/
cut off | (20) a. /pi ¹ /
sticky |
| b. /pədə/
load (a ship) | b. /θədɪ/
disappear | b. /kəpi ¹ /
mud |

Gilmore (1898), does not use the term *compounding* in his grammar. However, he speaks about the same processes that Jones (1961) talks about, expressing it differently. First of all, Gilmore (1898:11) speaks about the existence of *couplets*: *Among the most striking peculiarities of the Karen language are its paired words, or couplets. Where the English would use a single word to express an idea, the Karen often joins two words to express the one idea, thus forming a couplet.* (Gilmore, 1898:11). Gilmore then proceeds to demonstrate this, by examining the structure of nouns. According to him, proper nouns are always preceded by the name of the class to which they belong, like in the examples 21 to 24.

- | | |
|---|---|
| (21) a. /kɔ ¹ /
country | (22) a. /vi ¹ /
City |
| b. /kɔ ¹ pi ⁴ ɔ ¹ /
Burma | b. /vi ¹ təku ⁵ /
Rangoon |
| (23) a. /sɔ ⁴ /
man | (24) a. /nɔ ¹ /
woman |
| b. /sɔ ⁴ va ⁵ /
Mister Wah | b. /nɔ ¹ phəshi ³ /
Miss Poh Shi |

Gilmore then divides common nouns into primitive nouns and derivative nouns. Primitive nouns are simple monomorphemic and monosyllabic nouns with exclusive meaning, like /hi⁵/ (house) and /li²/ (book). Derivative nouns in Karen Sgaw can, according to Gilmore (1989: 11-13), be derived from three different types of roots by adding an affix to them:

- I. Verbal roots. Nouns can be derived from verbs by prefixing the particle /ta¹/ to form an action noun, like in example 25. To form an agency verb, /pɣa⁴/ should be prefixed to a verb like in example 26. To form an instrumental noun, /nɔ¹/ should be prefixed to

a verb, like in example 27 and to form a location noun, /lɔ̃¹/ should be prefixed to a noun, like in example 28.

- II. Adjectival roots. Nouns of quality can be derived from adjectives by prefixing the particle /ta¹/ to an adjective, like in example 29. Nouns denoting a person can be derived from an adjective by prefixing /pɣa⁴/ or /pə/ to the root, like in example 30.
- III. Noun roots. Nouns can be derived from other nouns by affixing /phə/ to a root to form a diminutive or gentile noun, like in 31. When a noun couplet is formed, two nouns, preceded by a particle, are combined.

(25) a. /le⁴/
to go
b. /ta¹le⁴/
going, journey

(26) a. /ha¹pɣa¹/
to hunt
b. /pɣa⁴ha¹pɣa¹/
hunter

(27) a. /va¹/
to paddle
b. /nɔ̃¹va¹/
paddle

(28) a. /mi/
to sleep
b. /lɔ̃¹mi/
bed

(29) a. /ɣɪ⁴/
good
b. /ta¹ɣɪ⁴/
goodness

(30) a. /do⁵/
great
b. /pɣa⁴do⁵/
ruler

(31) a. /tvi⁵/
dog
b. /tvi⁵phə/
puppy

It is important to note that Gilmore (1898) and Jones (1961) describe some of the same processes. As can be seen, Gilmore describes the added morphemes as affixes, while Jones describes the same morphemes as independent compound members. When focusing on nouns formed from a verbal root, we note that what Gilmore calls ‘prefixing the particles /ta¹/, /nɔ̃¹/, /pɣa⁴/ or /lɔ̃¹/ to a verb or adjectival root’, is denoted as a noun-verb compound by Jones. He only does not mention the last morpheme /lɔ̃¹/. Jones even claims “*no other types occur in this category*” (Jones, 1961:25). The fact that Jones has left /lɔ̃¹/ out, indicates that the grammar he has set out is incomplete. Jones made in his grammar the strong claim that compounding is the only form of morphology in Karen Sgaw. However, in a later paper he states that certain adjectives function as verbs, because they take verbal suffixes (Jones, 1970). The notion of suffixation here, shows that Jones himself also found some other morphological process in Karen Sgaw.

As the examples given above demonstrate, scholars have not agreed on the word formation processes in Karen Sgaw. However, for other Karen languages there are clearer claims made about the formation of words. Solint (1997: 1) claims that in the Kayah-Li language, compounding plays a predominant role in word formation, even though affixation does occur marginally. According to Kato (2003:7-9), in the Karen Pwo language, affixation also occurs on small scale, whereas compounding is the dominant process in word formation.

Further research is required to find out whether the word formation processes in Karen Sgaw resemble compounding, according to Jones, or derivation, according to Gilmore, or whether there is a combination of both, like in the Kayah-Li and Karen Pwo languages.

1.3. RESEARCH QUESTIONS

The theoretical background given above shows the way in which the processes of compounding and derivation can be distinguished from each other. The grammars I consulted - both admittedly quite old - also demonstrate that there is no agreement on how word formation processes in Karen Sgaw should be evaluated. This has led to the following research question: *How can word formation processes in Karen Sgaw be described using present day morphological theories' characterization of compounding and derivation?* Given the scope of the present study I limited myself to a few relevant morphemes, resulting in the following two subquestions:

- How are the morphemes /ta¹/, /nɔ¹/, /pɣa⁴/ and /lɔ¹/ used in Karen Sgaw?
- Are the morphemes /ta¹/, /nɔ¹/, /pɣa⁴/ and /lɔ¹/ bound or free morphemes?

The subquestions focus on the process of changing a verb into a noun by adding a morpheme to the verb. The answer to the first sub question will give a closer look upon this specific word formation process in Karen Sgaw. When it is made clear how these morphemes are used, the second subquestion can be answered. Whenever some of the morphemes seem to be bound and functional, the word formation processes in Karen Sgaw cannot be solely called compounding anymore and derivation is also an extant morphological process in Karen Sgaw.

2. Methods

To answer the research question “*How can word formation processes in Karen Sgaw be described using present day morphological theories' characterization of compounding and derivation?*” an interview with two native speakers of Karen Sgaw is conducted.

Participants

Both participants have Karen Sgaw as their mother language and grew up with parents that used Karen Sgaw as their first language. The two participants were born in Myanmar and have fled to a refugee camp in Thailand later in their lives. The villages they were born in and the refugee camps they fled to were places where Karen Sgaw was the main language. The first participant is a 23 year old man, who has been living in the Netherlands for nine years. The second participant is a 29 year old woman who has been living in the Netherlands for six years. Both participants speak Dutch as a second language.

Interview

The two participants were separately interviewed. The interview questions were in Dutch. The interview questions can be found in appendix A.

The interview focuses on four Karen Sgaw morphemes: /ta¹/, /nɔ¹/, /pɣa⁴/ and /lɔ¹/. About all morphemes, the following seven questions were asked, x being the relevant morpheme.

1. What does x mean?
2. What does x mean in [x_{xy}]? (where y is a verb that can follow x)
3. Can you list more words of the form [x_{xy}], with another verb in the place of y?
4. What other word types can follow x?
5. Can x precede all verbs?
6. Can x occur unbound to a verb?
7. If the answer to the above is yes, how?

3. Results and analysis

In this section, the responses of the participants for every morpheme are set out and analyzed. An overview of the interview results can be found in appendix B.

3.1. THE MORPHEME /pɣa⁴/

Both participants said that the morpheme /pɣa⁴/ has more than one meaning. They both first thought of /pɣa⁴/ meaning *they*. This morpheme in Karen Sgaw significates the third person plural pronoun. When the participants were shown the multimorphemic word /pɣa⁴pɣɔ²t^{hi}/ (where /pɣɔ²t^{hi}/ is the verb *to swim*), they both first translated the utterance into *they swim* or *people are swimming*. When asked whether or not this utterance could also refer to a noun, the participants stated that that could be possible. In that case /pɣa⁴/ would mean *person*. The utterance /pɣa⁴pɣɔ²t^{hi}/ than means *a person that swims* or *a swimmer*. When asked to give more examples of this form, the participants combined the morpheme with the following verbs:

/θa ³ pɣi ⁴ / (to be happy)	:	/pɣa ⁴ θa ³ pɣi ⁴ / (someone that is happy)
/θa ³ ba ⁵ pɣɔ ⁵ / (to be sad)	:	/pɣa ⁴ θa ³ ba ⁵ pɣɔ ⁵ / (someone that is sad)
/θa ³ t ^h v ⁵ / (to be angry)	:	/pɣa ⁴ θa ³ t ^h v ⁵ / (someone that is angry)
/ba ⁵ jva ⁴ / (to pray)	:	/pɣa ⁴ ba ⁵ jva ⁴ / (someone that is praying)
/θa ³ ɣy ³ / (to be sad)	:	/pɣa ⁴ θa ³ ɣy ³ / (someone that is sad)
/ha ¹ pɣa ¹ / (to hunt)	:	/ pɣa ⁴ ha ¹ pɣa ¹ / (a hunter)

Both participants did not make a distinction between adjectives and verbs and said that besides adjectives and verbs no other word types could be combined with the morpheme /pɣa⁴. The participants also claimed that /pɣa⁴/ could precede all verbs. The morpheme could appear unbound to a verb, for example in the utterance /pɣa⁴təɣa⁴/ (one person). This answer makes clear that the morpheme /pɣa⁴/ can function on its own and therefore can occur as a free morpheme. However, the morpheme also seems to have some characteristics of derivational morpheme, in that it can turn the majority of the verbs into a noun denoting a person, thus being highly productive. It has the same function as the -er morpheme in English. That morpheme can also attach to most verbs to form a noun denoting a person, for example in the word *writer*. The results show that the morpheme /pɣa⁴/ has free occurrences, but also seems to function as a derivational affix.

3.2. THE MORPHEME /nɔ¹/

When asked what /nɔ¹/ means, the participants both answered *woman*. However, when the multimorphemic word /nɔ¹va¹/ (where /va¹/ means to paddle) was shown to them, they could not explain what the element /nɔ¹/ means. They could tell that the whole utterance meant *a paddle*. According to the participants, /nɔ¹/ did not carry meaning in that utterance. When asked to list more examples of the form /nɔ¹va¹/, the participants combined the morpheme with the following verbs:

/tə ⁴ / (to scoop)	:	/nɔ ¹ tə ⁴ / (spoon)
/dɔ ³ kva ³ / (to scrape)	:	/nɔ ¹ dɔ ³ kva ³ / (spatula)
/tɔ ¹ / (to hit)	:	/nɔ ¹ tɔ ¹ / (thing with which the teacher hits you)
/thɔ ³ bɔ ³ / (to point)	:	/nɔ ¹ thɔ ³ bɔ ³ / (walking stick)
/təja ¹ / (to be untearable)	:	/nɔ ¹ təja ¹ / (flag)
/jɔ ³ / (to carry)	:	/nɔ ¹ jɔ ³ / (yoke)

The participants both claimed that /nɔ¹/ cannot occur unbound to a verb. Using /nɔ¹/ as a noun phrase in Karen Sgaw is not possible. The morpheme /nɔ¹/ also cannot precede all verbs. There is only a limited number of verbs it can connect to and the participants could not come up with other verbs than the ones they had already given. The fact that /nɔ¹/ does not occur

unbound to a verb, shows that it is not a free morpheme. That makes it plausible that multimorphemic utterances with /nɔ¹/ as a head are not compounds. However, /nɔ¹/ does also not seem to be a grammaticalized morpheme that has become an affix, because it is not very highly productive. It can only occur in the few examples given above. The participants struggled to find other combinations with the morpheme, but they both claimed there were none. Jones (1961) stated that /nɔ¹/ is a noun that means instrument, but both participants could not assign meaning to the morpheme. However, when seeing their own answers, one of the participants said that /nɔ¹/, could probably mean *thing*. He said that /nɔ¹tə⁴/ (spoon), actually is a thing to scoop with, and /nɔ¹thə³bə/ (walking stick) a thing to point with, etcetera. However, saying *one* /nɔ¹/ was still not possible according to him. This makes it more likely that /nɔ¹/ is an old noun that has become an unidentifiable part of compound forms.

3.3. THE MORPHEME /ta¹/

Both respondents claimed that /ta¹/ does not mean anything. When shown the multimorphemic utterance /ta¹ma⁴/ (work) (where /ma⁴/ means *to work*), they still could not assign meaning to the morpheme /ta¹/ . It was not hard for the participants to come up with other examples of the form /ta¹ma⁴/ . They combined the morpheme with the following verbs:

/θa ³ khy/ (to be happy)	:	/ta ¹ θa ³ khy/ (happiness)
/θa ³ ʔy ³ / (to be sad)	:	/ta ¹ θa ³ ʔy ³ / (sadness)
/mi/ (to sleep)	:	/ta ¹ mi/ (sleep (noun))
/ʔv ⁵ / (to eat)	:	/ta ¹ ʔv ⁵ / (food)
/ʔv/ (to drink)	:	/ta ¹ ʔv/ (a drink)
/lɛ ⁴ / (to go)	:	/ta ¹ lɛ ⁴ / (a trip)
/t ^h i/ (to see)	:	/ta ¹ t ^h i/ (the view)
/kvɛ ³ / (to writ)	:	/ta ¹ kvɛ ³ / (something that is written)
/θa ³ vi ⁵ / (to sing)	:	/ta ¹ θa ³ vi ⁵ / (a song)

According to the participants, /ta¹/ could not only precede verbs and adjectives, but also some other nouns, for example in /ta¹ny³t^hi/ (milk). In this multimorphemic word /ny³t^hi/ means milk. The morpheme /ta¹/ seems to function here as some type of determiner. However, according to the participants, /ta¹/ cannot precede all nouns. It cannot precede the simple noun /li²/ (book). The respondents also claimed that /ta¹/ can, opposed to nouns, precede all verbs. Both participants also stated that /ta¹/ does not occur standing on its own. Using /ta¹/ as a noun phrase is not possible, like it is with /pɣa⁴/ . This answer shows that /ta¹/ does not occur unbound to a verb, making it a bound morpheme. It was also impossible for the participants to assign meaning to the morpheme, even when it was part of a noun. This shows that multimorphemic utterances with the morpheme /ta¹/ as a head are not regular compounds. The participants also both claimed that the morpheme can in fact attach to all verbs. One of the participants even said “*with /ta¹/ you can make up many words that do not exist yet in Karen, but sound right to your ears anyway*”. The facts that /ta¹/ is a bound morpheme, does not ‘mean’ anything and is highly productive points out that /ta¹/ is not a compound member. In Karen Sgaw, /ta¹/ is used as a derivational affix.

3.4. THE MORPHEME /lɔ¹/

The morpheme /lɔ¹/ can refer to two things in Karen Sgaw: a *stick used to put rice bales on* and a *place*. According to the respondents, in the multimorphemic utterance /lɔ¹mi/ (where /mi/ is the verb *to sleep*), /lɔ¹/ means place. The whole utterance means *bed*. When asked to come up with other multimorphemic utterances of this form, the participants combined /lɔ¹/ with the following verbs:

/da/ (to put down)	:	/lɔ ¹ da/ (mattress)
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/pu/ (to lubricate)	:	/lɔ ¹ pu/ (mattress)
/shɪ ⁵ nɔ ⁴ / (to sit)	:	/lɔ ¹ shɪ ⁵ nɔ ⁴ / (chair)
/pɔsɔ ⁴ / (unidentifiable)	:	/lɔ ¹ pɔsɔ ⁴ / (throne)

According to the participants, no other word types could follow /lɔ¹/, and it could not precede other verbs than the ones they had already come up with. Both participants stated that /lɔ¹/ could occur on its own, but only when preceded by the above analyzed morpheme /ta¹/. It could occur as /ta¹lɔ¹tək^ha/ (one place). The answers indicate that combinations of /lɔ¹/ and a verb are regular compounds. The morpheme /lɔ¹/ can occur unbound to a verb, so it is a free morpheme. In all the given compounds, the morpheme was still identifiable as a word denoting *place*.

3.5. OVERALL ANALYSIS

The interview answers produced a small collection of Karen Sgaw language material. From that collection of Karen Sgaw utterances can be noted that compounding is a very frequent process in Karen Sgaw. Of all verbs, 56 percent were multimorphemic words. For example, all the adjectival verbs denoting an emotion, like happy or angry, given by the participants started with the word /θa³/(heart), followed by an adjective, such as /pɪ⁴/(to be light) in /θa³pɪ⁴/(to be happy) and /t^hɔ⁵/(to go upwards) in /θa³t^hɔ⁵/(to be angry). One of the participants could identify free morphemes in most of the multimorphemic verbs, such as /ba⁵/ (to pray) and /jva⁴/(god) in /ba⁵jva⁴/(to pray), /ha¹/(depart) and /pɪ⁴/(forest) in /ha¹pɪ⁴/(to hunt) and /pɪ²/ (to move arms) and /t^hi/(water) in /pɪ²t^hi/(to swim).

A lot of elements of multimorphemic utterances were unidentifiable by the participants. Examples of unidentifiable elements were /vi⁵/ in /θa³vi⁵/ (to sing) and /dɔ³/ in /dɔ³kva³/ (to scrape). The unidentifiable elements in multimorphemic words are most likely petrified compound members that have lost both their meaning and their occurrence as a free morpheme.

The interview results also show that derivation does exist in Karen Sgaw. Among the above examined morphemes, /ta¹/ is the clearest example of a derivational affix. It is unidentifiable as a free morpheme and the participants fail to assign meaning to the morpheme. The morpheme /ta¹/ also has a strong and very productive grammatical function. The data from the interview show that /ta¹/ functions as an affix. Opposite to /ta¹/, the morpheme /lɔ¹/ is clearly a free morpheme. It functions as a noun denoting *place*, can be combined with several verbs to form a compound noun and is not very productively used in compounds.

The analysis of the morphemes /nɔ¹/ and /pɪ⁴/ is a bit more complicated. The morpheme /nɔ¹/ does not occur as a free morpheme. However, it also does not seem to have a grammatical function, as it only occurs in six words where it is combined with a verb. The morpheme therefore seems to be a former noun, denoting something like *instrument* or *tool*, but lost its meaning and now only occurs in nouns that have an origin as compound. The morpheme /pɪ⁴/ is a highly productive morpheme. It can be prefixed to all verbs to form a noun. However, the morpheme also functions as a noun denoting person and therefore also occurs as a free morpheme. Because it has characteristics of a derivational morpheme, but can still function as a free morpheme, /pɪ⁴/ can be called an affixoid.

4. Discussion and conclusions

The interview results that are set out in chapter three show that a process similar to derivation is present in Karen Sgaw. However, the interview results could be affected by the personal background of the participants. Both participants are native speakers of Karen Sgaw, but they have been living in a non-Karen speaking country for five or more years. This could have influenced their competence in their native language. If the interview questions had been asked in Karen Sgaw instead of in Dutch, they might have been able to come up with other words more easily, since they would have been speaking Karen Sgaw throughout the entire interview. Both participants had enough proficiency in Dutch to understand and answer the questions, but they had no knowledge of terms like *verb* and *noun*. These terms had to be explained first, making the interviews more complicated. One of the participants first misunderstood the question *can /pɣa⁴/ precede all verbs to form a noun?* She stated that /pɣa⁴/ could be combined with all verbs and then proceeded to list some utterances where /pɣa⁴/ was the third person plural pronoun followed by a verb. When once again explained what a noun was, she interpreted the question right.

The interview results have shown that in Karen Sgaw, compounding is a very frequent process. However, they also indicate that compounding is not the only morphological process in the language. The results show that the process of derivation does occur in Karen Sgaw. To find out whether this is due to a grammaticalization process, research using the diachronic method needs to be conducted. A study of that type can show a diachronic change and can disclose processes like grammaticalization and lexicalization. However, before conducting such a study, the current morphological processes in Karen Sgaw should be examined more precisely. To find out how various morphemes combine with other morphemes, a corpus research is required, which could give an overview of the ways in which certain morphemes can be used. This could be done by examining the appearances of these morphemes in the Karen Sgaw dictionary. Extensive research using corpora and the diachronic method is required to conduct more elaborate insight in morphological processes in Karen Sgaw.

The research question of this paper was: *How can word formation processes in Karen Sgaw be described using present day morphological theories' characterization of compounding and derivation?* To answer this main question, an interview was conducted that answered the two subquestions *how are the morphemes /ta¹/, /nɔ¹/, /pɣa⁴/ and /lɔ¹/ used in Karen Sgaw?* and *are the morphemes /ta¹/, /nɔ¹/, /pɣa⁴/ and /lɔ¹/ bound or free morphemes?* The interview results have shown that these morphemes can be used in Karen Sgaw to form nouns out of verbs. The morphemes /nɔ¹/ and /lɔ¹/ attach to verbs to form compounds of the type noun-verb. Of these two, /nɔ¹/ has lost its original meaning and autonomy and does only occur as a compound member. The element /lɔ¹/ is a free morpheme that can attach to certain verbs to form regular compounds. The morphemes /pɣa⁴/ and /ta¹/ resemble derivational affixes. They can make every verb into a noun, even if that word does not exist yet in Karen Sgaw. Of these two, /pɣa⁴/ does occur both as a bound morpheme and a free morpheme. A morpheme that has both bound and free occurrences should be called an affixoid, according to Arcodia (2011:37). The morpheme is also highly productive. The morpheme /ta¹/ does not occur as a free morpheme at all. This morpheme also has functional characteristics and should be considered a derivational affix. The most recent grammar of Karen Sgaw, *Karen Linguistic Studies* (Jones, 1961), states that there is no other form of morphology in Karen Sgaw than compounding. However, the study in this paper proves this claim wrong. The process of derivation does occur in Karen Sgaw and compounding is not the only morphological process.

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Appendix A

Interview questions in Dutch and Karen Sgaw:

Wat betekent ဝုၤ ?

Wat betekent ဝုၤ in ဝုၤပိုင်ထံ?

Kan je nog meer woorden opnoemen met ဝုၤ en een werkwoord?

Met wat voor soort woorden kan ဝုၤ nog meer voorkomen?

(Bijvoegelijke naamwoorden, zelfstandige naamwoorden, etc)

Kan ဝုၤ voor alle werkwoorden komen?

Kan ဝုၤ ook zonder werkwoord voorkomen?

Zo ja, hoe?

Wat betekent နိၣ်?

Wat betekent နိၣ် in နိၣ်ဝါ ?

Kan je nog meer woorden opnoemen met နိၣ် en een werkwoord?

Met wat voor soort woorden kan နိၣ် nog meer voorkomen?

(Bijvoegelijke naamwoorden, zelfstandige naamwoorden, etc)

Kan နိၣ် voor alle werkwoorden komen?

Kan နိၣ် ook zonder werkwoord voorkomen?

Zo ja, hoe?

Wat betekent တါ ?

Wat betekent တါ in တါမၤ?

Kan je nog meer woorden opnoemen met တါ en een werkwoord?

Met wat voor soort woorden kan တါ nog meer voorkomen?

(Bijvoegelijke naamwoorden, zelfstandige naamwoorden, etc)

Kan တါ voor alle werkwoorden komen?

Kan တါ ook zonder werkwoord voorkomen?

Zo ja, hoe?

Wat betekent လိၣ်?

Wat betekent လိၣ် in လိၣ်မံ?

Kan je nog meer woorden opnoemen met လိၣ် en een werkwoord?

Met wat voor soort woorden kan လိၣ် nog meer voorkomen?

(Bijvoegelijke naamwoorden, zelfstandige naamwoorden, etc)

Kan လိၣ် voor alle werkwoorden komen?

Kan လိၣ် ook zonder werkwoord voorkomen?

Zo ja, hoe?

Appendix B

Brief interview results in tables.

The morpheme /pɣa⁴/

Question	Response participant 1	Response participant 2
What does /pɣa ⁴ / mean?	They	Group of people, person
What does /pɣa ⁴ / mean in /pɣa ⁴ pɣɔ ² t ^h i/?	People /pɣa ⁴ pɣɔ ⁴ thi / means people are swimming	People or person
Can you list more words of the form /pɣa ⁴ pɣɔ ² t ^h i/ with another verb in the place of /pɣɔ ² t ^h i/?	/pɣa ⁴ θa ³ pɣi ⁴ / someone that is happy /pɣa ⁴ θa ³ ba ⁵ pɣɔ ⁵ / someone that is sad /pɣa ⁴ θa ³ t ^h ɔ ⁵ / someone that is angry	/pɣa ⁴ ba ⁵ ju ⁴ / someone that is praying /pɣa ⁴ θa ³ ɔ ³ / someone that is sad
What other word types can follow /pɣa ⁴ /?	Adjectives	None
Can /pɣa ⁴ / precede all verbs?	Yes	Yes
Can /pɣa ⁴ / occur unbound to a verb?	Yes	Yes
If yes, how?	/pɣa ⁴ tə ɣa ⁴ / one person	/pɣa ⁴ tə ɣa ⁴ / one person

The morpheme /nɔ¹/

Question	Response participant 1	Response participant 2
What does /nɔ ¹ / mean?	Woman	Woman
What does /nɔ ¹ / mean in /nɔ ¹ va ¹ /?	Nothing, the whole word means paddle	Nothing, the whole word means paddle
Can you list more words of the form /nɔ ¹ va ¹ /, with another verb in the place of /va ¹ /?	/nɔ ¹ tə ⁴ / spoon /nɔ ¹ dɔ ³ kva ³ / spatula	/nɔ ¹ thɔ ³ bɔ/ walking stick /nɔ ¹ təja ¹ / flag /nɔ ¹ jo ³ / thing with which the teacher hits you
What other word types can follow /nɔ ¹ /?	No other word types	Adjectives
Can /nɔ ¹ / precede all verbs?	No	No
Can /nɔ ¹ / occur unbound to a verb?	No	No
If yes, how?	-	-

The morpheme /ta¹/

Question	Response participant 1	Response participant 2
What does /ta ¹ / mean?	Nothing	Nothing
What does /ta ¹ / mean in /ta ¹ ma ⁴ /?	Nothing, together it means work	Nothing, together it means work
Can you list more words of the form /ta ¹ ma ⁴ /, with another verb in the place of y?	/ta ¹ θa ³ khy/ happiness /ta ¹ θa ³ ʔy ³ / sadness /ta ¹ mi/ Sleep (N) /ta ¹ ʔv ⁵ / food /ta ¹ ʔv ⁵ / drinks	/ta ¹ le ⁴ / journey /ta ¹ t ^h i/ water /ta ¹ kvε ³ / the act of writing /ta ¹ θa ³ vi ⁵ / song
What other word types can follow /ta ¹ /?	Nouns and adjectives	Adjectives and some nouns
Can /ta ¹ / precede all verbs?	Yes	Yes
Can /ta ¹ / occur unbound to a verb?	No	No
If yes, how?	-	-

The morpheme /lɒ¹/

Question	Response participant 1	Response participant 2
What does /lɒ ¹ / mean?	Place, sticks to cook rice in	Place
What does /lɒ ¹ / mean in /lɒ ¹ mi/?	Place	Place, the whole word means bed. So it is a place to sleep.
Can you list more words of the form /lɒ ¹ mi/, with another verb in the place of /mi/?	/lɒ ¹ mi/ bed /lɒ ¹ da/ mattress /lɒ ¹ pu/ mattress /lɒ ¹ shɪ ⁵ nɒ ⁴ / chair	/lɒ ¹ pɒsɒ ⁴ / throne
What other word types can follow /lɒ ¹ /?	None	None
Can /lɒ ¹ / precede all verbs?	No	No
Can /lɒ ¹ / occur unbound to a verb?	Yes	Yes
If yes, how?	/ta ¹ lɒ ¹ tɒk ^h a/ one place	/ta ¹ lɒ ¹ tɒk ^h a/ one place