

Locative trigrams in Northern Sotho, preceded by analyses of formative bigrams*

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Abstract

In Northern Sotho one of the strategies to express locality makes use of locative particle groups, being complements preceded by any of the so-called locative particles ka, kua, mo, ga, or go. Current linguistic descriptions shy away from those cases where sequences of such particles are employed. In this article these sequences are termed “locative n-grams” and are studied for the first time. It will be shown that, synchronically, just a handful of locative trigrams and bigrams do actually occur in a relatively large corpus. An in-depth study of the examples allows taking stock of the existing structures, provides data regarding the distribution of all the n-grams, and hints at the semantic content as well as the restrictions posed on the nature of the complements. In order to get clarity on the latter two aspects, a diachronic approach is often pursued. As a by-product, the study of the higher-order n-grams also brings hitherto overlooked features of the unigrams to light. The main research question that drove this investigation was thus to find out whether or not higher-order locative n-grams exist in Northern Sotho. As the answer was found to be positive, the major objective became to describe the found structures minutely by drawing on corpus data.

1. Introduction

The expression of locality in Northern Sotho is an often-discussed and well-researched issue. Linguists such as Prinsloo (1979), Louwrens (1991: 112–133, 1992), and Poulos and Louwrens (1994: 334–337) have all done valuable research in this regard, providing scholars with both synchronic and diachronic insights into the various available strategies. In Northern Sotho, different linguistic structures are used to express locality, of which the use of locative particle groups is but one. Locative particle groups have an adverbial function, and consist of a locative particle that is

prefixed to a complement in order to express some locative relationship.¹ Compare the following examples of locative particles and locative particle groups culled, just as all data in this study, from a Northern Sotho corpus (see below):²

- (1) Ke dula *kua Polokwane*.
 ke-dula kua Polokwane
 SC1SG-live LOCiia Polokwane
 ‘I live *far away in Polokwane*.’ (*kua Polokwane* = locative particle group, *kua* = locative particle, *Polokwane* = complement)
- (2) A re *go yena*: “Ke nna tatago.”
 a-re go yena
 SC1:CONS-say LOCiib PRO1
 ‘Then he said *to him*: “I am your father.”’ (*go yena* = locative particle group, *go* = locative particle, *yena* = complement)

The semantic function of locative particles is to express specific locative relationships, a function which is fulfilled by the prefixes of classes 16, 17, and 18 in other Bantu languages such as, among others, Swahili, Luba, Chewa, and Shona. Since the use of class prefixes to mark specific locative relationships has become unproductive in Northern Sotho, an alternative strategy had to be devised by means of which specific locative relationships could be expressed. For this purpose, locative particles are employed. Five locative particles are distinguished for Northern Sotho, namely, *ka*, *kua*, *mo*, *ga*, and *go*. In some instances these particles can be linked diachronically to other word categories, from which they evolved by means of a process of category shift. Category shift is generally viewed as a gradual process by means of which a linguistic unit gradually loses the semantic and syntactic features of one linguistic category (C1) and gains those of another (C2), often retaining some features of C1 even when already functioning as a member of C2. This process may at times also be synchronically observable, which is indeed the case with *mo* and to a lesser extent with *kua*. Wherever relevant, diachronic links with other word categories, whether of a semantic or syntactic nature, are discussed below. Furthermore, these locative particles differ semantically from one another and have different requirements as to the nature of the complement. Existing views on the semantic content and the requirements regarding complements will not be discussed in detail, but are represented in summarized form in Table 1.³

These locative particles may also be combined to form “locative n-grams,” such as locative bigrams (consisting of two locative particles) and locative trigrams (consisting of three locative particles). According to Louwrens, who only identifies a few bigrams, “it is feasible to assume

Table 1. Existing views on semantic content and requirements for complements of locative particles

Locative particle	Semantic content	Complement requirement
<i>ka</i>	Defines locality in terms of an enclosure with clearly demarcated boundaries; the locality is relatively small; highly specific locality; ‘inside’.	Complement must have the semantic feature [+locative]: – <i>ka mmotorong</i> ka mo-botoro-ng LOCi NP3-car-LOCS ‘in(side) the car’ – <i>ka gare</i> ka ga-re LOCi NPga-middle ‘inside’
<i>kua</i>	Refers to a locality which is remote and out of sight; nonspecific locality; ‘over there’.	Complement must have the semantic feature [+locative]: – <i>kua nokeng</i> kua Ø-noka-ng LOCiia NP9-river-LOCS ‘over there by the river’
<i>mo</i>	Expresses the locative relationships ‘within the bounds of an abstract mental concept’ or ‘on top of a flat surface that is not demarcated by means of physical boundaries’; relatively specific to vague locality; ‘in’ (when followed by a complement with an abstract reference); ‘on’ (referring to a small [flat] surface).	Complement must have the semantic feature [+locative]: – <i>mo polelong</i> mo N-bolelo-ng LOCiib NP9-language-LOCS ‘in language’ – <i>mo lefaseng</i> mo le-fase-ng LOCiib NP5-earth-LOCS ‘on earth’
<i>ga</i>	Means ‘at the home/place/ neighborhood of an individual or individuals’; relatively vague locality.	Complement must have the semantic feature [+human]: – <i>ga Maripane</i> ga Maripane LOCiia Maripane ‘at Maripane’s home/place/...’
<i>go</i>	Means ‘to or at a specific person’ or ‘to or at a specific object’ where the object is represented by a pronominal form; specific locality.	Complement may never have the semantic feature [+locative]; complement can be either a noun with the semantic feature [+human] or any pronominal form: – <i>go malome</i> go Ø-malome LOCiib NP1a-uncle ‘to/at uncle’ – <i>go lona</i> go lona LOCiib PRO5 ‘to/at it’

that combinations of such particles are aimed at a still more detailed description of the localities which are in question” (Louwrens 1991: 127). This is, however, the one aspect regarding locative particles from which Northern Sotho grammarians have hitherto shied away.⁴ Up till now, an inventory of combinations that do occur has not even been made. Given that there are five locative particles, several thousand locative n-grams are theoretically possible, but no efforts have been made to ascertain which of these actually occur in Northern Sotho, in which proportions, etc. Louwrens (1991: 127–129) offers two possible reasons for the seeming reluctance of grammarians to make an in-depth analysis of sequences of locative particles. In the first instance he mentions that very subtle semantic distinctions that are difficult to describe come into play when locative particles are combined. Secondly, there seems to exist some uncertainty amongst mother-tongue speakers and grammarians alike as to the exact semantic content of sequences of locative particles. These difficulties are probably caused by the fact that the semantic content of locative n-grams in many cases cannot be determined by a mere addition of the meanings of the individual particles that make up a combination. Indeed, in some cases locative particles with seemingly opposing/conflicting meanings are found together.

Pinpointing the semantic content of not only combinations of locative particles, but also of individual particles, is furthermore hampered by the fact that linguists often confuse meaning with translational equivalence. Louwrens (1992: 110, 111) points out that linguists should avoid assigning certain semantic features to particles solely based on the translational equivalent provided in another language. This can be illustrated by examining the following examples:

- (3) Ke ile ka phaka koloi *mo seterateng*.⁵
 mo se-terata-ng
 LOCiib NP7-street-LOCS
 ‘I parked the car *in the street*.’
- (4) Mphufutšo o ile wa thoma go ela *mo difahlegong* tša bona.
 mo di-fahlego-ng
 LOCiib NP8-face-LOCS
 ‘Sweat started running *from their faces*.’
- (5) Gomme mo gohle mebeleng ya bona, le mekokotlong, le matsogong,
 le *mo diphegong*, le *mo maotwaneng* a bona, go be go tletše mahlo.
 mo di-phego-ng le mo ma-oto-ana-ng
 LOCiib NP10-wing-LOCS CONN LOCiib NP6-foot-DIM-LOCS
 ‘And all over their bodies, and on their backs and arms, and *on their wings* and *on their feet*, were eyes.’

The question which should be asked is whether the conceptual image generated by the locative particle *mo* in *mo seterateng* ‘in the street’, *mo difahlegong* ‘from faces’, *mo diphegong* ‘on wings’, and *mo maotwaneng* ‘on feet’ is not the same, despite the different prepositions by means of which it is translated. The conceptual image generated by, for example, *mo seterateng* seems no different from the one generated by *mo difahlegong*, since in both cases the reference is to a (flat) surface upon which a certain action or process is taking place. It would seem that no perceptual distinction regarding locality exists between these examples, and that the difference which is perceived as a difference in meaning is nothing but a difference in translation necessitated, at least in some cases, by the meaning of the verb which co-occurs with the locative. In English one parks a car IN the street, despite the fact that the street has a flat surface ON which parked cars are normally found; sweat can only run FROM one’s face, etc. This furthermore implies that it should not be taken for granted that the same perceptual distinctions made by speakers of, say, Indo-European languages, are drawn by speakers of other languages — a point which is also raised by Louwrens (1992: 110). This is especially relevant in the South African situation, where non-mother-tongue speakers have hitherto done most of the linguistic investigation into Northern Sotho. The fact that different particles are used in Northern Sotho to define localities which are, for example, expressed by the preposition ‘in’ in English, seems to suggest that a different perception of space and locality is at play: *ka pitšeng* ‘IN the pot’, but *mo Afrika Borwa* ‘IN South Africa’. Linguists should thus take care to define the MEANING of (combinations of) locative particles strictly in terms of inherent semantic features, and not in terms of translational equivalents.

Even though there does not seem to be a reliable way in which it could be determined exactly what the semantic connotations are which mother-tongue speakers cognitively attach to each particle in locative n-grams, it is believed that an in-depth analysis of examples IN CONTEXT would at least provide some clue as to the semantic content of these combinations. At this point it should be mentioned that grammarians investigating linguistic issues in Northern Sotho until recently had to rely on analyses of examples that for the most part had been manually selected from written sources, or collected from spoken conversations. This data was then analyzed mainly in an introspective manner. It is to be expected that access to the large body of linguistic data contained in modern electronic corpora would bring new insights to light. Linguistic corpora put linguists currently doing research at an advantage, since corpora do not only provide access to a large number of examples, but also to a large body of co-text surrounding the locative structure(s) under investigation. As a

first step in this investigation, the validity of the information summarized in Table 1 was checked against the corpus. The claims made by grammarians regarding the semantic content of locative particles and the requirements for the complements thereof were corroborated by information gleaned from the corpus, except in two instances, which will be discussed below.

Another aspect regarding the combination of locative particles that has not drawn any attention from linguists is the rules — if any — underlying the order in which locative particles appear in these sequences. At the start of this investigation, it was assumed that some principle determines the order in which these particles occur, for example, that the particle appearing in the first slot of a sequence would always be the one with a non-specific meaning, followed by a particle or particles with a higher degree of specificity, thus moving from the general to the specific, or perhaps vice versa. A preliminary investigation, however, revealed that no such principle seems to exist: in some cases, the particle with the more specific semantic implication precedes the one(s) with a lesser degree of specificity, but in other cases the particle with the nonspecific meaning occupies the first slot in the sequence. Compare the following examples in this regard:

- (6) Morago ga fao a boela *ka kua boapeelong*.
 ka kua bo-apeelo-ng
 LOCi LOCiia NP14-kitchen-LOCS
 ‘After that he went back *into the kitchen over there*.’
- (7) ka ye nako, o nkiše *kua go Madinoge*, gaTshesane.
 kua go Madinoge
 LOCiia Lociiiib Madinoge
 ‘At this very moment, take me *over there to Madinoge*, in the Tshesane area.’

In (6) the locative particle *ka*, which has a specific locative meaning, precedes the particle *kua*, which has an unspecified meaning. These particles are thus arranged in such a way that the particle with the specific reference precedes the one with the more general reference. In (7) however, the particle with the nonspecific meaning precedes the one with the highly specified meaning. It therefore does not seem possible to identify a rigid rule determining the sequencing of locative particles. The reason for this apparently haphazard ordering of particles lies in the fact that the categorization of *ka*, *kua*, *mo*, *ga*, and *go* as locative particles is a purely synchronic classification. Forms, which are from a synchronic point of view regarded as particles, might have links with other parts of speech when studied diachronically. These diachronic factors may very well impact on their syntactic positioning and even their semantic implication. It should

thus already be clear at this stage that neither the syntactic behavior, nor the semantic implication of locative n-grams can be satisfactorily described without taking diachronic aspects into account.

2. Basic distribution of individual locative particles and higher-order locative n-grams

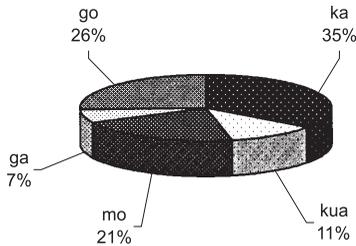
From the overview presented in the previous section, it follows that the main aim of this article will be to expound on the results of a groundbreaking study of locative n-grams in Northern Sotho. This study was made possible thanks to the availability of a relatively large 5.8-million-word Northern Sotho corpus. This corpus consists of contemporary written sources (sampled sections from books, magazines, and pamphlets, as well as pages from the Internet), some oral transcriptions, and e-mail messages (often regarded as a mixed form as they have many features of spontaneous speech). The corpus was built following the strategies outlined in de Schryver and Prinsloo (2000), Prinsloo and de Schryver (2001), and de Schryver (2002). A corpus of 5.8 million Northern Sotho words roughly corresponds with the equivalent of three hundred books. There can be no doubt that without this corpus, the study of especially the locative trigrams, which are very rare in the language, would have been virtually impossible. The semantic analysis of examples culled from the corpus was carried out with the help of mother-tongue speakers. This information was gleaned by means of informal discussions, performed through the medium of Northern Sotho, during which corpus examples were held up for scrutiny and interpretation by individuals who use Northern Sotho as their home language.

The fact that certain locative n-grams are rare immediately leads to an aspect at which corpus query tools excel: counting. Basic statistics will now be presented, beginning with the individual locative particles. As a result of the disjunctive orthography of Northern Sotho, the corpus of 5,764,861 running words (tokens) consists of only 148,714 different orthographic word forms (types). Northern Sotho is indeed characterized by a rather high degree of HOMOGRAPHY, making it difficult for especially learners of the language, but sometimes also for grammarians (as will be seen below), to pinpoint/isolate/identify locative particles, since orthographic representation alone does not provide the necessary clues. This is also true for the locative bi- and trigrams. Table 2 and Figure 1 show the occurrences and distribution of the individual locative particles.

As can be seen from Table 2, slightly over 1% (58,882 out of 5.8 million) of the words in plain Northern Sotho text and speech are individual

Table 2. *Occurrences and distribution of the individual locative particles*

Particle	Count of all homographs	Number of locative unigrams	%
<i>ka</i>	239,094	20,643	35.06
<i>kua</i>	8,248	6,649	11.29
<i>mo</i>	56,157	12,479	21.19
<i>ga</i>	64,370	3,865	6.56
<i>go</i>	235,713	15,246	25.89
Total	603,582	58,882	100.00

Figure 1. *Graphical representation of the distribution of the individual locative particles*

locative particles. From the distribution of those locative particles it is also clear that *ka* is by far the most frequently used (35%), followed by *go* (26%) and *mo* (21%). Infrequent are *kua* (11%) and especially *ga* (7%). This distribution is surprising, since Louwrens suggests that “there is a greater tendency in language to refer to locality in general, than to refer to highly specific and minutely defined localities” and that “facts pertaining to locative structures in Northern Sotho support this hypothesis” (Louwrens 1991: 116). The distribution depicted in Figure 1 (with *ka* and *go* minutely defining localities, versus the general *kua*) clearly indicates the opposite.

Purely mathematically, five individual locative particles could give rise to 25 locative bigrams (5^2), 125 locative trigrams (5^3), 625 locative quadrigrams (5^4), 3,125 locative quinquegrams (5^5), etc. However, querying the corpus reveals that, in all, only eight different bigrams and four different trigrams occur. The occurrences and distribution of the eight bigrams are shown in Table 3 and Figure 2.

It is interesting to note that well over half of the bigrams (56%) have the highly specific *ka* in the first slot, while the nonspecific *kua* only appears in that slot in less than a tenth of the cases (7%). Over one third of the bigrams (37%) have *mo* in the first slot. Note also that not one of the bigrams can be reversed, for example, one finds *ka kua* but not *kua ka*, *ka*

Table 3. Occurrences and distribution of the locative bigrams

Bigram	Count of all homographs	Number of locative bigrams	%
<i>ka kua</i>	847	719	12.06
<i>ka mo</i>	4,724	1,260	21.13
<i>ka ga</i>	3,378	388	6.51
<i>ka go</i>	13,726	976	16.37
<i>kua ga</i>	491	372	6.24
<i>kua go</i>	238	68	1.14
<i>mo ga</i>	305	133	2.23
<i>mo go</i>	4,156	2,046	34.32
Total	27,865	5,962	100.00

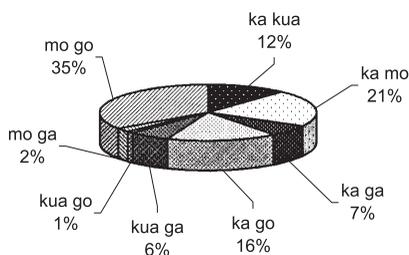


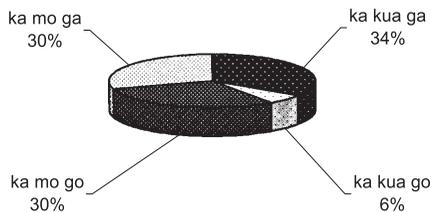
Figure 2. Graphical representation of the distribution of the locative bigrams

mo but not *mo ka*, etc. From all this it would thus seem that there is a TENDENCY to place the more specific locative particle first in n-grams. This is wholly confirmed when the trigrams are studied, as done in Table 4 and Figure 3.

Not only are there only four (out of 125 theoretically) locative trigrams in Northern Sotho, each of them also has the highly specific *ka* in the first slot, either *kua* or *mo* in the second slot, and *ga* or *go* in the third slot. At the very least, this symmetrical pattern is highly surprising. Even the distribution of the occurrences themselves in the corpus is, apart from the trigram *ka kua go* (6%), extremely even (34%, 30%, and 30%). As our eventual aim is to discuss the four trigrams, we decided on the most logical and frequency-wise most intuitive way to discuss them. We therefore opted for a left-to-right approach, since this is simply more economical. This means that a discussion of the bigram *ka kua* will precede the treatment of *ka kua ga* and *ka kua go*, and likewise a discussion of the bigram *ka mo* will precede the treatment of *ka mo ga* and *ka mo go*. It is, however, true that one could also set out to describe the other four formative bigrams — that is, *kua ga*, *kua go*, *mo ga*, and *mo go* — but the obvious advantage of a left-to-right approach is that only two bigrams need to be

Table 4. *Occurrences and distribution of the locative trigrams*

Trigram	Count of all homographs	Number of locative trigrams	%
<i>ka kua ga</i>	95	94	34.43
<i>ka kua go</i>	30	16	5.86
<i>ka mo ga</i>	92	81	29.67
<i>ka mo go</i>	335	82	30.04
Total	552	273	100.00

Figure 3. *Graphical representation of the distribution of the locative trigrams*

discussed. The ideal would actually be to discuss ALL bigrams, with especially *ka go* being a potentially interesting case based on frequency considerations, but since the focus of this article is on the four trigrams, it was decided to limit this study to the discussion of the four trigrams and their main formative bigrams *ka kua* and *ka mo*. The other six bigrams will be treated in a separate study.

3. An analysis of the locative trigrams *ka kua ga* and *ka kua go*, preceded by a discussion of the bigram *ka kua*

3.1. An analysis of the bigram *ka kua* ($N = 719$)

The first step in the investigation of the locative bigram *ka kua* is querying the corpus in order to identify the syntactic environment in which this sequence is found. Secondly, an explanation as to the semantic compatibility of these two particles is attempted, since the semantic contents carried by these two particles seem to be in direct semantic opposition, making their combination questionable. In the third instance, an in-depth semantic analysis of the examples proffered by the corpus will be attempted in order to give an accurate description of the semantic implication carried by the bigram *ka kua*.

The three basic syntactic environments in which *ka kua* appears, were found to be:⁶

- (A) at a phrase boundary, that is, where it is not followed by any complement;
- (B) as part of a verbal relative construction;
- (C) followed by a complement with a [+locative] connotation.

Compare the following examples in this regard:

– Category A: *ka kua* appearing at a phrase boundary

- (8) ge ba ka fihla *ka kua*, ba mmekiša ka ditaba.
ge ba-ka-fihla ka kua
CONJi SC2-POT-arrive LOCi LOCiia
‘When they arrive *over there*, they must inform him of everything.’
- (9) madira a mangwe a thomile mogobo ka mo le *ka kua*.
ka mo-Ø le ka kua
LOCi DEM18-i CONN LOCi LOCiia
‘Some of the armies started a triumphant song over here and *over there*.’
- (10) a boele a nyake rumu ka kua polaseng ya *ka kua*, a tle ka mo bo-šego fela.
ka kua Ø-polasa-ng ya ka kua
LOCi LOCiia NP9-farm-LOCS PC9 LOCi LOCiia
‘He must return and look for a room on the farm *over there*, and he should come here during the night only.’

– Category B: *ka kua* appearing as part of a verbal relative construction

- (11) ke yo bonana le bašimane *ka kua di nwago* gore ba batametše tša go gamiwa.
ka kua di-nwa-go
LOCi LOCiia SC10-drink-RELS
‘I’m going to see the boys *over there where they (cattle) are drinking* so that they can bring closer those who are milked.’
- (12) O rile ge a re ke leba *ka kua a tsenego*, a gahlana le monna.
ka kua a-tsen-il...e-go
LOCi LOCiia SC1:REL-enter-PERF-RELS
‘While thinking of going *over there to where he came in*, he met a man.’
- (13) bokaone ke gona ge o ka ikiša *ka kua a lego* ka ntshe.
ka kua a-le-go
LOCi LOCiia SC1:REL-COPVii-RELS
‘It is better for you to go *over there where he is*.’

– Category C: *ka kua* followed by a complement with a [+locative] connotation

- (14) O ile a sa dutše a kwa sello *ka kua pele*.
 ka kua Ø-pele
 LOCi LOCiia NPN-in_front
 ‘She was still sitting down when she heard a cry *far ahead*.’
- (15) Sebolaiši o ile a yo dula le Molahlegi *ka kua phapošeng* ya gagwe
 ya go robala.
 ka kua Ø-phapoša-ng
 LOCi LOCiia NP9-room-LOCS
 ‘Sebolaiši sat down with Molahlegi *over there* in her bedroom.’
- (16) ba rekiša serapa se sengwe *ka kua Alexandra Township*.
 ka kua Alexandra Township
 LOCi LOCiia Alexandra Township
 ‘They sell another plot *over there* in Alexandra Township.’
- (17) o lemoge *ka kua geno* ga se ba go raka.
 ka kua geno
 LOCi LOCiia PPROc2PL
 ‘You must understand that they did not chase you away from *over there at your (family’s) place*.’
- (18) Ga ya felela fao, ka gobane le *ka kua mošate* ba fihlile ba e dulela
 fase gape.
 ka kua mo-šate
 LOCi LOCiia NP3-royal_village
 ‘It did not end there, since *over there in the royal village*, they again sat down (to listen) to it.’

This categorization is not only relevant on the syntactic level. It is interesting to note that these three categories seem to represent points on a continuum based on the nature of the locative relationship expressed by the bigram *ka kua*. The locative relationship expressed by examples belonging to Category A is vague and nonspecific, since the locality which is being referred to is not defined in terms of any fixed point of reference in space. The examples belonging to Category B carry a slightly higher degree of specificity, since the locality is defined not in terms of a physical, fixed point of reference, but in terms of an action or process as expressed by the verb. Category C examples, with the possible exception of uses such as (14) where the complement is a locative noun, represent a highly specified locative relationship in that the locality referred to is defined in terms of a fixed point of reference. This aspect also comes into play when the semantic content conveyed by *ka kua* is discussed.

Category C warrants closer inspection, since a number of interesting examples were thrown up by the corpus query. As can be seen from

the sample, complements with a [+locative] connotation include the following:

- locative nouns, that is, nouns belonging to the locative classes, e.g., *pele* ‘in front of’;
- locativized nouns, that is, nouns displaying the locative suffix *-ng*, e.g., *phapošeng* ‘in the room’;
- place names, e.g., *Alexandra Township*;
- communal possessive pronoun second person plural, i.e., *geno* ‘your (family’s) place’;
- nouns with an inherent locative meaning, but without overt locative markers such as a locative prefix or suffix, e.g., *mošate* ‘the royal village’.⁷

While examining the concordance lines, it was noticeable that the only pronoun appearing as a complement of the combination *ka kua* is the so-called communal possessive pronoun *geno*. No other pronouns, possessive or otherwise, were found as complements of *ka kua*. Apparently, the idea of communal possession is linked to a specific geographic area or locality, resulting in *ka kua geno* expressing the notion ‘over there at your (family’s) place’.

With reference to inherently locative nouns without overt locative markers, these are said to belong to a so-called closed class, that is, only a limited number of nouns belong to this category. Poulos and Louwrens (1994: 340) cite as the most salient examples the noun *mošate* ‘the royal village’ and words indicating wind directions. Apart from *mošate*, *bodikela* ‘west’, and *bophirima* ‘east’ being found as complements of *ka kua*, a number of other examples indicating locality, but without being marked as such, were found. These include nouns referring to specific areas within the home and homestead, for example, *kitšhene* ‘kitchen’,⁸ *phapošitulelo* ‘lounge’, *mosego/moseo* ‘area facing the door’, and *mafuri* ‘backyard’. Also found as complements of *ka kua*, were the nouns *thoko* ‘side’ and *mošola* ‘(on) the other side’. Apparently, the inherent semantic content of these nouns already includes the semantic feature [+locative]; in other words, their locative meaning is not the result of a process of locative derivation, thus making morphological marking of their locative content redundant.

An analysis of the syntactic environment in which the bigram *ka kua* appears therefore indicates that the requirements set by the two individual particles pertaining to the nature of the complement which is to follow are also valid when these two particles are used in combination. Both *ka* and *kua* require the semantic feature [+locative] in their complements — a requirement that is clearly met when the *ka kua* examples from the

corpus are taken into consideration. From a syntactic point of view, no restriction thus exists as to the combination of *ka* + *kua*.

However, viewed from a semantic angle, the combination of the particles *ka* and *kua* is problematic, since the respective meanings of these particles seem to contradict one another. As can be seen in Table 1, the locative particle *ka* refers to a relatively small locality that is clearly demarcated by means of boundaries, and it normally refers to an enclosure of some kind. Cole (1955: 355) and Prinsloo (1979: 89) both use the term “line of demarcation” to refer to the boundary separating (a) two localities or (b) an object — which can also be the speaker — and a locality from each other. This line of demarcation can be a natural obstacle, a man-made structure, or even an imaginary boundary. In both cases, the locative particle *ka* imparts a very specific locative meaning. The particle *kua* on the other hand, has a general — that is, nonspecific — locative meaning and refers to a locality that is remote and sometimes out of sight. In fact, Louwrens (1991: 127) indicates that the meaning of *kua* is so vague that it can be deleted in certain syntactic environments without causing any change in meaning. It therefore seems difficult to motivate the combination of two particles, the meanings of which are in direct semantic opposition to one another. Even though the semantic content of combinations of locative particles cannot be determined by simply adding up the meanings of the individual particles in an algebraic way, this does not exempt the researcher from investigating the possible logic underlying the combination of seemingly contradictory particles.

As for the juxtaposing of *ka* and *kua*, the answer to the compatibility of these two particles lies in the deictic nature of *kua*, a feature making it especially compatible with a locative particle such as *ka*, which carries a highly specific meaning. Although the locality referred to by *kua* is unspecified in the sense that it does not define locality in terms of a fixed point of reference, there can be no doubt as to its deictic nature. The use of *kua* serves to point to a particular locality within the speech situation, even if that locality is not highly specified and/or demarcated and might in some cases even be out of the visual range of the discourse participants. Louwrens (1991: 122) notes that there is a high degree of compatibility between locative particles that express highly specified localities and deictic expressions, such as, for example, demonstratives. The deictic nature of the particle *kua* implies that it has a highly referential function in that it refers to a uniquely identifiable locality.

The deictic nature of *kua* is furthermore not restricted to the synchronic level, but can also be explained in diachronic terms. Indeed, there seems to be a link on the diachronic level between *kua* and a demonstrative — a part of speech characterized by a high level of deixis, due to the fact that

its scope of reference is restricted to a uniquely identifiable referent. The investigation regarding a likely link between the locative particle *kua* and a demonstrative will take place on three levels, namely, a syntactic level, a diachronic level, and a discourse-pragmatic level.

In Category B (examples [11] to [13]) it was shown that one of the syntactic environments in which *ka kua* appears, is as part of a verbal relative construction. Keeping the structure of a verbal relative construction in mind, it is clear that in these examples *kua* occupies the slot that is normally reserved for a demonstrative which functions as one of the markers of the verbal relative construction. Its use in instances such as these is analogous to the use of the demonstratives of class 18, *mo*, *moo*, and *mola* respectively, in the following examples:

- (19) A o bega ditaba *ka mo di lego* ka gona?
 di-taba ka mo-Ø di-le-go
 NP10-matter LOCi DEM18-i SC10-COPVii-RELS
 ‘Do you report these matters *as they are*?’
- (20) di laodišwa mo thetogonaleng, di ahlolwa *ka moo di lego* bohlokwa
 mo setšong.
 ka mo-o di-le-go
 LOCi DEM18-ii SC10-COPVii-RELS
 ‘They are explained in praise poems, they are judged on *how* important *they are* in the culture.’
- (21) a tsenā *ka mola a beilego* setopo sela sa mohlabi.
 ka mo-la a-be-il. . .e-go
 LOCi DEM18-iii SC1:REL-put-PERF-RELS
 ‘He went in to *where he had put* that body of the stabber.’

These examples clearly underscore a link between the particle *kua* and some kind of demonstrative, although the exact nature and origin of this — at this stage hypothetical — demonstrative is not known. It would seem that there is some kind of LINGUISTIC MEMORY with regard to the demonstrative nature of the particle *kua*, which allows it to be used in a syntactic environment that is usually associated with demonstratives.

A hypothesis put forward by Cole (1955: 133, 341) as regards the possible origin of Tswana *kwa* (which corresponds to Northern Sotho *kua*) might also go some way in explaining the combination of the particles *ka* and *kua*. A close reading of Cole’s explanation leads to the conclusion that two functions are to be distinguished for *kwa*, or alternatively, that two different (although related) forms of *kwa* exist. With reference to examples similar to the ones in Category A ([8] to [10]), Cole indicates that *kwa* is to be regarded as a demonstrative of class 17, the basic position expressing the meaning of ‘there, yonder’. Like other demonstratives,

three different positions are distinguished: *kwa* or *kwana* ‘there, yonder’, *kôo* [*kông*] ‘there, near the person addressed’, and *kwalê* ‘there, yonder, in the distance’. According to Cole’s reasoning, there is a direct etymological link between the demonstrative *kwa* of class 17 and what he calls the secondary locative formative *kwa*, which in turn is the equivalent of the Northern Sotho locative particle *kua*. It is understandable why Cole surmises that the demonstrative of class 17 and the secondary locative formative *kwa* are related: apart from the obvious morphological similarity, there is also a similarity as regards the semantic content of these two items, namely, both serve to indicate relative remoteness of a specific locality vis-à-vis the discourse participants. Compare the following examples from Cole (1955: 133, 341):

- (22) golô *kwa*
 go-lo kwa-Ø
 NP17-place DEM17-ia
 ‘that place’
- (23) Oilê *kwanokêng*.
 o-ya-il. . . e kwa-Ø-noka-ng
 SC1-go-PERF SLF-NP9-river-LOCS
 ‘He has gone to the river — distant.’

If the hypothesis put forward by Cole regarding the origin of the secondary locative formative *kwa* for Tswana is applied to Northern Sotho, it would imply that the origin of the locative particle *kua* is to be found in a demonstrative of a locative class. Of the five existing locative classes, class 24, that is, the so-called [*xa-*] class (Ur-Bantu [B.] [*k’a-*]), seems the most likely candidate, but due to a lack of either phonological or morphological evidence, such a hypothesis can hardly be regarded as anything more than speculation at this stage.

Focusing on the discourse-pragmatic aspect, Louwrens (1994: 47) points out that demonstratives are the most salient examples of deictic expressions since they serve to point out a specific individual, object, or place in a certain speech situation. Demonstratives of the locative classes would then relate the locality being referred to, to the position taken up by the interlocutors in space. In this regard, even though the locative particle *kua* of Northern Sotho cannot be etymologically linked to a demonstrative origin, its deictic nature does provide a CONCEPTUAL link with a demonstrative. Therefore, in view of (a) both a synchronic link and a possible diachronic link between the locative particle *kua* and a demonstrative of some kind, and, more importantly, (b) its deictic characteristics, it is thus understandable that the locative particle *kua* can combine with the locative particle *ka*, despite seemingly contrasting meanings.

Then, as far as the semantic content carried by the bigram *ka kua* is concerned, it should be clear from the preceding discussion that it refers to ‘a locality that is distant from both speaker and addressee, who are in turn in close proximity to one another’. The locality may also be out of sight of the discourse participants, and although not highly specified, the locality is restricted to some extent. The semantic connotation of “remoteness” is signaled by the use of *kua*. The semantic import carried by *ka* is a little more problematic. In some examples it is possible to link the use of *ka* to the specification of a locality enclosed by some kind of boundary:

- (24) Thoto yela e lego *ka kua lebenkeleng* o e humele o le noši!
 ka kua le-benkele-ng
 LOCi LOCiia NP5-shop-LOCS
 ‘You must acquire all those goods which are *over there inside the shop* on your own!’
- (25) ka kwa selwanatsoko se lla *ka kua leweng!*
 ka kua le-wa-ng
 LOCi LOCiia NP5-cave-LOCS
 ‘Then I heard something crying *over there, inside the cave!*’
- (26) “Ee, ba gona. Ba dutše *ka kua mafuri,*” gwa realo digotlane sa mmaletee.
 ka kua ma-furi
 LOCi LOCiia NP6-backyard
 ‘“Yes, they are here. They are sitting *over there in the backyard,*” answered the young ones as one.’

In the above examples, all belonging to Category C, the locality which is being referred to is enclosed by either walls as in the case of *lebenkele* ‘shop’ and *lewa* ‘cave’, or some kind of fence as in the case of *mafuri* ‘backyard’. However, in other cases it is difficult to make the connection between the use of *ka* and reference to an enclosed locality. Compare:

- (27) a e hlolela ka mo le *ka kua.*
 ka mo-Ø le ka kua
 LOCi DEM18-i CONN LOCi LOCiia
 ‘He looked for it over here and *over there.*’
- (28) ge o ka ya le nna *ka kua ba lego ntshe.*
 ka kua ba-le-go N-tshe
 LOCi LOCiia SC2-COPVii-RELS NPN-there
 ‘If you can go with me *over there to where they are.*’
- (29) ka sepela ka tlase ga makala a a kopanego *ka kua godimo,* a dirile seo o bego o ka re ke lefaru le lesoleso.

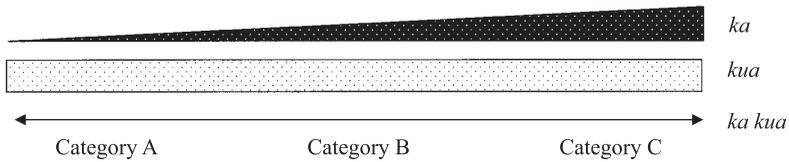


Figure 4. Continuum representing the semantic content of *ka kua*

ka kua go-dimo

LOCi LOCiia NP17-above

'I walked underneath the branches which met *high up above* and formed what one could call a pitch-black tunnel.'

According to the interpretation of mother-tongue speakers, even in examples (27), (28), and (29), Categories A, B, and C respectively, the use of *ka* serves to restrict the locality being referred to, and this to a growing extent when moving from (27) to (29). In neither case can it, however, be precisely defined in terms of an enclosed locality. With reference to (29), for instance, the use of *ka* serves to emphasize the fact that the locality being referred to is simply restricted to *godimo* 'above'. A possible solution to the problem regarding the semantic content of *ka kua* could, however, be to view the meaning conveyed by this bigram as operating on a continuum as represented by Figure 4.

From the analysis of the examples, it is clear that the meaning of *kua* is quite consistent in that it refers to the remoteness of a locality, therefore its meaning is represented by the solid bar in Figure 4. The extent to which the meaning normally associated with *ka* impacts on the semantic content of *ka kua* is, however, not constant; this is represented by the triangular bar. Examples similar to those in (27) and (28) where reference to the inside of an enclosed, demarcated locality is lacking, would then be positioned near the left-hand pole and in the middle of the continuum, thus indicating that the meaning of the bigram *ka kua* is dominated by the concept of remoteness as expressed by *kua*. Examples similar to those in (29), but especially (24) to (26), would then be placed towards the right-hand pole of the continuum, indicating that the concepts 'remoteness' and 'inside an enclosed locality' are both present in the semantic content of *ka kua*. This semantic continuum thus roughly corresponds to the syntactic Categories A to C distinguished above.

Summarizing *ka kua*: the syntactic environment in which the bigram *ka kua* is found is consistently in accordance with the environment associated with the two individual particles forming the sequence. The meaning carried by this combination could be said to be the sum of the meanings

of the individual particles, although the correlation between *ka* and the notion of a clearly demarcated, physical enclosure does not seem as strong as is usually surmised by Northern Sotho grammarians. Furthermore, it has become clear that a synchronic analysis of linguistic facts is not always sufficient and that synchronic anomalies may have their answer in a diachronic approach to the issue in question. An analysis of the semantic import of the constituents of word groups implies that it ought to be possible to provide an overall translation equivalent. In the case of *ka kua*, the meaning is indeed determined by the co-text, specifically by the nature of the complement. The closest APPROXIMATION of a translation equivalent would be 'over there (at)'.

3.2. *An analysis of the trigram ka kua ga (N = 94)*

In the preceding paragraph, the bigram *ka kua* has extensively been discussed in terms of (a) the syntactic environment in which it appears, and (b) the semantic connotation. It was pointed out that the apparent semantic incompatibility of the constituent particles could be explained by taking synchronic, diachronic, and discourse-pragmatic factors into account. From a synchronic point of view, it would seem that the trigram *ka kua ga* is simply an extension of *ka kua*, the purpose of adding another particle being to give a still more detailed description of the locality in question. The combination of the particles *ka kua + ga* does not pose a problem on the semantic level, since the semantic content of the particle *ga* is compatible with that of *ka kua*. According to Louwrens (1991: 122) the particle *ga* has a nonspecific meaning when used on its own, referring to a neighborhood associated with a particular person, for example, *ga Maripane* 'in the general neighborhood of Maripane's village/home'. Although the locality is defined in terms of a particular individual, the locality being referred to is relatively vague, since the boundaries of this locality are not demarcated. Prinsloo (1981: 71) adds another dimension to the locative implication expressed by the particle *ga*. He indicates that the individual, in terms of whom the locality is defined, is also the property owner of that specific locality. The locative relationship described by the expression *ka kua ga Maripane* can therefore roughly be paraphrased as 'a restricted locality which is quite distant from both speaker and addressee, which is associated with Maripane, who is the owner of the locality which is being referred to'.

With reference to the nature of the complement following the particle *ga* when used on its own, it can be seen from Table 1 that it demands the semantic feature [+human]. This requirement is linked to the notion

of ownership mentioned by Prinsloo, since only humans are able to be owners of property. The corpus was consequently queried to ascertain whether the selection restrictions posed by *ga* are indeed instrumental in determining the nature of the complement when *ga* appears following the sequence *ka kua*.

On querying the corpus, two distinct patterns regarding the syntactic environment in which the trigram *ka kua ga* appears present themselves. In 63 of the 94 occurrences, or in two thirds (67%) of the cases, the complement of the trigram displays the semantic feature [+human]. For ease of reference, these examples will be referred to as belonging to Group A. Within this group of examples, a further distinction can be made between nouns referring to humans, and pronouns that, aside from referring to humans, are also possessive pronouns. In Group A the restrictions normally imposed by the particle *ga* when used on its own, are also valid when this particle follows the sequence *ka kua*. Compare examples (30) to (36) in this regard:

Group A: Complements of ka kua ga with the feature [+human].

– Nouns with the semantic feature [+human] as complements:

- (30) Mogatšaka, maabane ke be ke le *ka kua ga kgaetšedi*.
 ka kua ga Ø-kgaetšedi
 LOCi LOCiia LOCiia NP1a-younger_sister/brother
 ‘Husband, yesterday I was over there at (my) younger sister’s/
 brother’s (home/place/...).’
- (31) Yena ke moeng wa *ka kua ga Matseba*.
 ka kua ga Matseba
 LOCi LOCiia LOCiia Matseba
 ‘He is a visitor over there at Matseba’s (home/place/...).’
- (32) Go hlagile kotsi *ka kua ga moebangedi Motšheletšhele*.
 ka kua ga mo-ebangedi Motšheletšhele
 LOCi LOCiia LOCiia NP1-evangelist Motšheletšhele
 ‘There was an accident over there at evangelist Motšheletšhele’s
 (home/place/...).’

– Possessive pronouns as complements:

- (33) Gape ke kwa gore ga a fele *ka kua ga gago*.
 ka kua ga gago
 LOCi LOCiia LOCiia PPRO2SG
 ‘Furthermore, I hear that it (*mathata* ‘problems’) does not end over
 there at your (singular) home/place/....’

- (34) ge e be e se wena le *ka kua ga gagwe* ke be nka se le bee.
 ka kua ga gagwe
 LOCi LOCiia LOCiia PPRO1
 ‘If it hadn’t been for you I would not put a foot *over there at his home/place/...*’
- (35) go be go tlile batho *ka kua ga geno* ba tlile go kokota.
 ka kua ga geno
 LOCi LOCiia LOCiia PPROc2PL
 ‘Some people came *over there to your (plural) home/place/...* and knocked.’
- (36) ge MmaMotšheletšhele a nkgopela go ya *ka kua ga bona*.
 ka kua ga bona
 LOCi LOCiia LOCiia PPRO2
 ‘when Mrs. Motšheletšhele asked me to go *over there to their home/place/...*’

In the other 31 examples, or in one third (33%) of the cases, the complement is characterized by the semantic feature [–human] and refers in many cases to an inanimate object. These examples will be termed Group B examples. Again, both nouns and pronouns are found, as can be seen from (37) to (39) and (40) to (42) respectively:

Group B: Complements of ka kua ga with the feature [–human].

– Nouns with the semantic feature [–human] as complements:

- (37) Lerato la ka go yena le *ka kua ga dinaledi*.
 ka kua ga di-naledi
 LOCi LOCiia LOCiia NP10-star
 ‘My love for him is *over there beyond the stars.*’
- (38) Gae ba bone ebile letšatši le wela *ka kua ga dithaba* Kefetšakapela a sa boe.
 ka kua ga di-thaba
 LOCi LOCiia LOCiia NP10-mountain
 ‘At home they saw the (rays of the) sun falling *over there behind the mountains*, but Kefetšakapela was not back yet.’
- (39) Ge o tsholetše *ka kua ga noka* o tla be o fihlile gee.
 ka kua ga Ø-noka
 LOCi LOCiia LOCiia NP9-river
 ‘When you have crossed *over there to the other side of the river*, then you will really have arrived.’

– Pronouns as complements:

- (40) ge a le lekoribeng la moedi a bona seolo *ka kua ga wona*.
 le-koriba-ng la mo-edi a-bona se-olo ka kua ga wona

NP5-edge-LOCS PC5 NP3-valley SC1:CONS-see NP7-anthill
 LOCi LOCiia LOCiia PRO3

‘When he was on the edge of the valley, he saw an anthill *over there on the other side of it.*’

- (41) Ya ba eka le tla rutla legodimo gore tša *ka kua ga lona* di be di bonwe.

le-go-dimo gore tša ka kua ga lona

NP5-NP17-above CONJii PC10 LOCi LOCiia LOCiia PRO5

‘It was as if it would rip apart the heaven so that *that which is above it* can be seen.’

- (42) O a e bona noka ye e lego ka mo thokong tša leboa, [...] *Ka kua ga yona* go na le mašemo a matalana.

Ø-noka ye-Ø e le-go ... ka kua ga yona

NP9-river DEM9-i SC9 COPVii-RELS ... LOCi LOCiia LOCiia PRO9

‘Do you see the river which is on the northern side, [...] *Over there on the other side of it* there are green fields.’

It is clear that these examples do not comply with the requirements pertaining to the nature of the complement of *ga*, which thus represents a significant deviation from existing views. An obvious question could be whether similar examples are found in cases where *ga* appears as the only locative particle in a locative particle group, but this issue falls outside the scope of the current article. The important point here is that no reference has hitherto been made in the existing literature to complements of *ga* other than those referring to humans, regardless of whether *ga* is functioning on its own or as the member of a sequence of locative particles.

Apart from the distinct differences regarding the nature of the complement, there is actually also a marked semantic difference between these two groups of examples. In the Group A examples there is a clear reference to a locality, whether a home, village, or other place, being the possession of a certain individual or individuals. Consequently, the phrase *ka kua ga* is consistently translated as ‘over there at so-and-so’s home/place/neighborhood’. In the Group B examples, these semantic elements are lacking: there is no connotation of a specific locality that is in the possession of an individual or individuals, and secondly, the semantic content of *ka kua ga* varies from one example to the next.

In order to explain the existence of two distinct groups of examples as identified in the preceding paragraphs, Groups A and B, a diachronic approach seems best suited to the task. Consequently, an investigation into the origin and development of the particle *ga* was undertaken

in the hope that this would shed some light on the issues mentioned above.

Both Prinsloo (1981: 91) and Gauton (1995: 183 ff.) indicate that the locative particle *ga* is diachronically linked to the possessive concord of (one of) the locative classes. This is inter alia borne out by the examples in (33) to (36), where *ga* is followed by a possessive pronoun. Possessive pronouns form part of possessive structures in which a head noun is qualified by a complement consisting of a possessive concord (which is in concordial agreement with the head noun) and a possessive pronoun:

- (43) dikgomo tša gagwe
 diN-gomo tša gagwe
 NP10-cow PC10 PPRO1
 'his/her cattle'

As is the case in all qualificative constructions, the head noun may be deleted once its referent is known to the interlocutors. With regard to examples such as *ga Sekhukhuni* 'at Sekhukhuni's place' and *ga monna* 'at the man's place', Prinsloo (1981: 91) indicates that the deleted locative noun to which *ga* refers could probably be *felo* 'place' or *gae* '(at) home'. Within the framework of traditional Northern Sotho grammars, locative nouns belonging to the locative classes make use of the possessive concord *ga*, which is concordially linked to class 17. However, Gauton (1995: 188) makes a strong case for regarding *ga* in cases such as these as the possessive concord of class 24 (Northern Sotho [xa-], B. [k'a-]). Furthermore, Gauton (2000) proposes that the Northern Sotho nouns *gare* 'middle' and *gae* '(at) home' (B. [k'aya]) should be regarded as belonging to this class. She substantiates her argument by referring in the first place to the meaning conveyed by *ga* in these examples, that is, 'at the place/home/residence of'. This would also explain the [+human] nature of the complement in examples belonging to Group A. She furthermore points out that in languages such as Swati, Phuthi, and the Lidwaba dialect of Northern Ndebele this locative possessive concord clearly belongs to class 24, since it differs morphologically from that of class 17. Whether this is also true for Northern Sotho is difficult to say, since no morphological difference exists in this language between the possessive concord of classes 16, 17, and 18 on the one hand, and that of class 24 on the other hand. Ziervogel (1970: 82) does however point out that the possessive concord of the locative classes in Pedi, a Sotho dialect spoken to the south of Pietersburg, does have a variant form *gwa*, which is used in addition to *ga*. It is possible that one of these concords might originally have been that of class 24. Applied to the Group A examples,

the assumption would be that the original structure from which these examples originated was something like the following: *ka + kua* [+ *gae* ‘(at) home’ (locative noun, class 24)] + *ga* (possessive concord class 24) + complementary noun with feature [+human], thus tying in with the idea that the complement is the owner of the locality, and must therefore refer to a [+human] noun.

It would thus seem that *ga*, currently termed a locative particle or a locative prefix in Northern Sotho grammars, does indeed have a strong diachronic link with a locative possessive concord. However, the postulation that it is to be linked specifically to the class 24 noun *gae* ‘(at) home’, may be valid for the examples in Group A, but does not hold for the examples in Group B (where the complement does not include the feature [+human], and the semantic connotation conveyed by the trigram *ka kua ga* does not include the notion of possession or ownership of land/property). The possibility that Group B examples may be the result of a different diachronic process compared to the scenario sketched for Group A merits some investigation. In the first instance, a possible connection between *ga* as it appears in the Group B examples and the class prefix of class 24 *ga-* is investigated; and secondly, an analysis of the exact semantic content expressed by *ka kua ga* in Group B is made in an attempt to provide some insight regarding the obvious deviation of these examples from the pattern which is usually associated with the use of *ga* as a locative particle.

Firstly, Gauton (2000: 529–531) indicates that vestiges of the productive use of the class prefix of class 24 are still to be found in a number of southeastern Bantu languages. This implies that the prefix can still be affixed to nouns for the purpose of locative derivation, imparting the semantic implication of locality. She cites examples from Venda, Tsonga, Tonga, and Kutswe, an Eastern Sotho dialect, in this regard. Compare the following examples from Venda and Kutswe as cited by Ziervogel (1971: 377):

- (44) Venda: *ha* (B. [*k'a-*])
- a. *ha kotsi* ‘to father’
ha Ø-kotsi
 NP24 NP1a-father
 - b. *ha ene* ‘to him’
ha ene
 NP24 PRO1
 - c. *ha uno* ‘to this one’
ha uno-Ø
 NP24 DEM1-i

- (45) Kutswe: *ga* (B. [k'a-])
- a. *ga* motho 'to a person'
ga mo-tho
 NP24 NP1-person
- b. *ga* malome 'to uncle'
ga Ø-malome
 NP24 NP1a-uncle

As can be seen from the examples above, the affixation of the prefix *ha/ga* imparts a general locative meaning to the complementary noun.

It is at least theoretically possible that the *ga* in the Group B examples represents a historical relic of the currently unproductive locative strategy of affixation of the locative prefix *ga-*, which is masked by the disjunctive writing system of Northern Sotho. This would imply that *ga* in *ga dinaledi*, *ga dithaba* and *ga noka* in (37), (38), and (39) respectively, represents the class prefix of class 24, which has been stacked to the nouns *dinaledi*, *dithaba*, and *noka*, with retention of the original class prefixes (where applicable). Even the examples in (40) to (42) where *ga* is followed by a pronoun can be accounted for, since locative derivation of pronouns by means of a locative particle, specifically *go*, is a very productive locativization strategy in Northern Sotho. Also, from the examples provided by Gauton (1995: 176 ff.) this seems to be an often-used strategy in a number of southeastern Bantu languages.

Although it is no longer possible to ascertain the specific meaning of the locative prefix *ga-*, Gauton (2000: 526) indicates that this prefix probably had a general locative import. This is also suggested by the examples in (44) and (45). However, an analysis of the exact semantic import of the examples in Group B, done with the help of mother-tongue speakers, indicates that the meaning conveyed by the particle *ga* in the trigram *ka kua ga*, is much more than a general indication of locality. Highly specific meanings are assigned to these examples, ranging from '(over there) *to/on the other side*', to '(over there) *behind*', '(over there) *beyond*', etc., depending on the context. These specific meanings do not concur with the general locative meaning assigned to the locative prefix *ga-*, casting doubt over the possibility that *ga* in these examples is indeed the locative prefix of class 24.

A more plausible explanation would be that in examples such as those in Group B, *ga* should be regarded as having its origin in the possessive concord of the locative classes, as was the case for the examples in Group A. However, in the Group B examples, the locative noun omitted from the structure varies according to the context in which it appears. In (37), for example, following the interpretation given by several mother-tongue

Table 5. Full forms of examples (37) to (42) based on mother-tongue intuition

Current form	Likely full form
<i>ka kua ga dinaledi</i>	<i>ka kua <u>godimo</u> ga dinaledi</i> (<i>godimo</i> = 'above', class 17)
<i>ka kua ga dithaba</i>	<i>ka kua <u>morago</u> ga dithaba</i> (<i>morago</i> = 'behind', class 18)
<i>ka kua ga noka</i>	<i>ka kua <u>moše</u> ga noka</i> (<i>moše</i> = 'to/on the other side', class 18)
<i>ka kua ga wona</i>	<i>ka kua <u>moše</u> ga wona</i> (<i>moše</i> = 'to/on the other side', class 18)
<i>ka kua ga lona</i>	<i>ka kua <u>godimo</u> ga lona</i> (<i>godimo</i> = 'above', class 17)
<i>ka kua ga yona</i>	<i>ka kua <u>moše</u> ga yona</i> (<i>moše</i> = 'to/on the other side', class 18)

speakers, the deleted locative noun of which *ga* is the possessive concord, is most probably *godimo* 'above', which is used in the figurative sense of 'beyond' in this particular case. Compare Table 5 in which the full forms for each of the examples in (37) to (42) are given.

Depending on the context and the speaker's intention, the noun preceding *ga* can of course be any noun belonging to one of the locative classes. The context in which it appears provides the addressee/reader with enough information to correctly decode the speaker's/writer's intention as to the locality in question. On querying the corpus, it was found that these full forms do indeed occur in Northern Sotho, a fact that goes some way in providing support for the argument carried above. Compare the following examples:

- (46) *gore go na le bophelo ka kua moše ga lebitla*, bophelo bjo bo sa felego.
ka kua mo-še ga le-bitla
 LOCi LOCiia NP18-other_side PC18 NP5-grave
 'that there is life *over there on the other side of the grave*, everlasting life.'
- (47) *Gona ka kua godimo ga lengope le le boifišago lela*, a be a fihla, a nyakanyaka lefsika la phaphathi, a dula a lebelela tsela.
ka kua go-dimo ga le-ngope
 LOCi LOCiia NP17-above PC17 NP5-donga
 'He arrived *over there on top of* that terrible *donga*, looked around for a flat stone, sat down and watched the road.'
- (48) *Lapa lona ka kua fase ga thaba ke tlatlapa*.
ka kua fa-se ga Ø-thaba
 LOCi LOCiia NP16-below PC16 NP9-mountain
 'The homestead *over there below the mountain* is huge.'
- (49) *ge letšatši le etšwa ka kua morago ga thaba yela*.
ka kua mo-rago ga Ø-thaba ye-la
 LOCi LOCiia NP18-behind PC18 NP9-mountain DEM9-iii
 'when the sun comes out *over there (from) behind* that *mountain*.'

Even though *ga* is indeed a possessive concord of the locative classes in Table 5, column 2, as well as in (46) to (49), it does not mark a relationship of possession existing between the head nouns and their respective complements, as is the case for the Group A examples. In truth, the so-called possessive structure, consisting of a possessive concord and either a complementary noun or pronoun, is often used in Northern Sotho to function simply as a qualifier of a head noun, without expressing the semantic notion of possession. Compare the following examples:

- (50) a. meetse a borutho
 ma-etse a bo-rutho
 NP6-water PC6 NP14-warm
 ‘warm water’
 b. diaparo tša mebalabala
 di-aparo tša me-balabala
 NP8-piece_of_clothing PC8 NP4-multi-colored
 ‘multi-colored clothes’

In Group B ([37] to [42]) as well as in (46) to (49), the function of the POSSESSIVE structure is to define the locality referred to by the (omitted) locative noun (e.g. *morago* ‘behind’, *fase* ‘below’, etc.) in terms of a fixed point of reference (e.g. *thaba* ‘mountain’, *noka* ‘river’, etc.). It is also noticeable that all complementary nouns belonging to the examples in Group B refer to physical, even geographical, features found in the environment such as stars, mountains, rivers, valleys, and so on. This is in line with the proposed function of these structures, that is, to define relatively vague locative concepts such as ‘behind’, ‘below’, ‘above’, etc., in terms of a fixed point of reference in space. It also ties in with the demonstrative, that is, referential function of *kua*, which has been explained in the previous section. Furthermore, since the notion of possession is not in evidence in these examples, the requirement as regards the [+human] nature of the complement is also no longer relevant.

Summarizing *ka kua ga*: when the complement of the trigram *ka kua ga* has the feature [+human] a distinct possessive relationship exists between the locality represented by the deleted locative noun (likely *gae* ‘[at] home’) and the person to whom the complement refers. When the complement of the trigram *ka kua ga* has the feature [–human], however, there is no such a relationship in evidence. In cases where the complement of *ka kua ga* refers to a nonhuman noun, a detailed analysis of the context will reveal the meaning to be any of the following: ‘over there beyond/across/behind/below/above/etc.’; with a [+human] feature the semantic content can be paraphrased as ‘over there at so-and-so’s home/place/neighborhood’.

3.3. *An analysis of the trigram ka kua go (N = 16)*

As was the case for the combination of the locative particles *ka kua + ga*, the combination *ka kua + go* poses little difficulty as regards semantic compatibility of the individual particles. When used on its own, the particle *go* is characterized by semantic specificity, in that it expresses a highly specified kind of locality. Compare the following examples:

- (51) O be a šetše a rometše lebotlelo la bjala *go basadi* kua fase.
 go ba-sadi kua fa-se
 LOCiiib NP2-woman LOCiia NP16-below
 ‘He had already sent a bottle of beer *to the women* down there.’
- (52) Pukwana ye e ka ba mohola kudu *go bana ba dikolo* gammogo le batho ba bagolo.
 go ba-na ba di-kolo
 LOCiiib NP2-child PC2 NP8-school
 ‘This little book can be of great value *to specifically schoolchildren and grownups*.’
- (53) Ge a realo ke ge a ntšha dipampiri tšeo *go tšona* go ngwadilwego kwano ya bona.
 di-pampiri tše-o go tšona
 NP10-paper DEM10-ii LOCiiib PRO10
 ‘While speaking, he took out the papers *on which* their agreement was written.’
- (54) Le ge go le bjalo *go tše dingwe* tša dikanegelokopana tša puku ye le tla hwetša . . .
 go tše-Ø di-ngwe tša diN-angelokopana
 LOCiiib DEM10-i NP10-some PC10 NP10-short_story
 ‘Even so, *in some* of the short stories in this book, you will find . . .’
 (*tše dingwe* = pronominal use of an adjective referring to a deleted head noun from class 10)

From examples (51) and (52) it is clear that the locality being referred to is defined in terms of a specific individual or individuals. In cases such as (51) where *go* is used in a literal sense, it even presupposes the presence of the person(s) in terms of which the locality is defined. Poulos and Louwrens (1994: 334) refer to the individuating nature of *go*, since it relates the action/process expressed by the verb to an individual or individuals. The semantic implication signified by the use of *go* in these examples can be paraphrased as ‘to/at some specific person(s)’. In (53) and (54) however, locality is defined in terms of an object which is highly referential, since it refers to a uniquely identifiable referent, as signified by the use of the pronominal forms *tšona* and *tše dingwe*.

The locative particle *go* has very specific requirements regarding the nature of the complement which is to follow it. In the first instance, the word or word group acting as the complement of *go* may never have the semantic feature [+locative]. This implies that *go* may never be followed by either a locative noun or a locativized noun. According to Prinsloo (1979: 92–95) and Louwrens (1991: 120) the complement following *go* can only be one of the following:

- a noun with the semantic feature [+human] (compare [51] and [52]);
- any pronominal form, regardless of whether the referent of that pronoun displays the feature [+human] (compare [53] and [54]).

It would seem strange that the requirements for nominal complements would differ from those for pronominal complements. This can, however, be explained when the nature of pronominal complements is taken into account. When used with a [+human] complement, the noun that is locativized through the use of *go*, usually has a sole referent, that is, the referent can be uniquely identified within the context of the discourse (Louwrens 1991: 121). Pronominal forms such as the ones in (53) and (54) also have unique referents. The pronominal forms *tšona* and *tše dingwe* have pronominal status because the head nouns, which are qualified by these forms, have been deleted due to the fact that they represent given information within the discourse context. The scope of reference of these pronominal forms is therefore restricted to particular objects. The highly referential nature of these pronominal forms makes them particularly compatible with the specific locative meaning of *go*. It would therefore seem that the key issue as regards the nature of the complement of *go* focuses on the identifiability of the complement, whether it be a [+human] noun or a pronominal form, thus bridging the apparent difference between the restrictions imposed on nominal and pronominal complements of *go*.

The corpus was consequently queried in order to ascertain whether the requirements regarding the nature of the complement are also valid in cases where the locative particle *go* appears in the trigram *ka kua go*. As can be seen from Table 4, only sixteen examples were found in which *ka kua go* appears. In all of these instances the nature of the complement is consistently in line with the requirements posed by *go* when used on its own. The complements in all these examples either refer to [+human] nouns (compare [55] and [56] below) or to pronominal forms (compare [57] to [59] below):

- (55) Ge o sa ipone molato, lebelela *ka kua go mogwera wa gago*.
 ka kua go mo-gwera wa gago

- LOCi LOCiia LOCiib NP1-friend PC1 PPRO2SG
 ‘If you do not admit your guilt, have a look *over there at your friend.*’
- (56) Beke ye ka moka e ile ya no oma *ka kua go Motšheletšhele.*
 ka kua go Motšheletšhele
 LOCi LOCiia LOCiib Motšheletšhele
 ‘For the whole week it was dry *over there at Mothšheletšhele’s.*’
- (57) wena etela *ka kua go rena.*
 ka kua go rena
 LOCi LOCiia LOCiib PRO1PL
 ‘You must pay a visit *over there to us.*’
- (58) Šeba bjale ba batamela lešoka leo *ka kua go lona go lego thaba ya ngalaba.*
 le-šoka le-o ka kua go lona
 NP5-wilderness DEM5-ii LOCi LOCiia LOCiib PRO5
 ‘There they are, nearing that wilderness *over there at which* there is an important mountain.’
- (59) go be go na le dinokana tše pedi tšeo di bego di elela gona *ka kua go ye kgolo.*
 ka kua go ye-Ø N-golo
 LOCi LOCiia LOCiib DEM9-i NP9-big
 ‘There were two small rivers which flowed *to the big one over there.*’
 (*ye kgolo* = adjectival qualifier with pronominal status, referring to the deleted head noun *noka* ‘river’, class 9)

It would therefore seem that the requirements that have to be met when *go* is used on its own to indicate locality also dominate when it is used following the sequence *ka kua*.

Summarizing *ka kua go*: the combination of the locative particles *ka*, *kua*, and *go* represents one instance where the semantic content of a combination of particles can be determined by adding up meanings of individual particles in an algebraic manner. The highly specific nature of the particle *go* makes it compatible with both *ka* and *kua*, based on the specific locative meaning of *ka* and the deictic implication carried by *kua*. The semantic implication carried by the trigram *ka kua go* can therefore be paraphrased as referring to ‘a locality which is quite distant from both speaker and addressee, but which is defined in terms of (the physical presence of) a person or some other uniquely identifiable referent’. The syntactic environment in which this sequence appears also seems quite straightforward, in that the nature of the complement is clearly determined by the selection restrictions posed by *go*.

4. An analysis of the locative trigrams *ka mo ga* and *ka mo go*, preceded by a discussion of the bigram *ka mo*

4.1. An analysis of the bigram *ka mo* ($N = 1,260$)

Querying the corpus in order to identify the syntactic environment in which the sequence *ka mo* appears reveals the same pattern as was found for the bigram *ka kua*, namely, *ka mo* appears (a) at a phrase boundary where it is not followed by a complement, (b) as part of a verbal relative construction, and (c) followed by a complement with a [+locative] connotation. Compare the following examples for the first two categories:

- Category A: *ka mo* appearing at a phrase boundary

(60) Ke kgale re dutše *ka mo*.

re-dul-il. . .e ka mo-Ø

SC1PL-live-PERF LOCi DEM18-i

‘It is long that we have been sitting *here*.’

(61) Ka gore mosadi yo wa ka a le *ka mo*.

a-le ka mo-Ø

SC1:SIT-COPVii LOCi DEM18-i

‘Because this wife of mine is *here*.’

- Category B: *ka mo* appearing as part of a verbal relative construction

(62) ga ba ka ba dira selo ntle le go thuša *ka mo ba kgonago*.

ka mo-Ø ba-kgona-go

LOCi DEM18-i SC2-be_able-RELS

‘They did not do anything except to help *how they could*.’

(63) batho ba bangwe bona ba dira *ka mo ba ratago*.

ka mo-Ø ba-rata-go

LOCi DEM18-i SC2-like-RELS

‘As for some people, they do *what they want*.’

Despite the obvious symmetry noticeable between the syntactic environments in which the sequences *ka kua* and *ka mo* are found for the Categories A and B, the combination *ka mo* is NOT regarded as representing a combination of two locative particles here. Northern Sotho grammarians are not clear as to what the status of *ka* is in examples such as (60) to (63), but it is generally accepted that *mo* is the demonstrative of the locative classes, specifically class 18, position 1. This point of view is based on its demonstrative meaning ‘here’, as in examples (60) and (61), and the syntactic position in which it appears in (62) and (63). Examples similar

to these will therefore not feature in the discussion which is to follow, but were mentioned to illustrate the (diachronic) link existing not only between a demonstrative *mo* and a locative particle *mo*, but also between *kua* and a possible demonstrative origin. The third category DOES consist of two locative particles and is as follows:

- Category C: *ka mo* followed by a complement with a [+locative] connotation
- (64) Faro o ile a ukamela *ka mo fase* ga mopete.
 ka mo fa-se ga mo-pete
 LOCi LOCiib NP16-below PC16 NP3-bed
 ‘Faro looked *underneath* the bed.’
- (65) *Ka mo koloing* yeo go be go le banna.
 ka mo Ø-koloi-ng
 LOCi LOCiib NP9-car-LOCS
 ‘*Inside* that *car* were men.’
- (66) go kaonafatša maphelo a bahloki *ka mo Afrika Borwa*
 ka mo Afrika Bo-rwa
 LOCi LOCiib Afrika NP14-south
 ‘to improve the lives of the poor *in South Africa*’
- (67) a. O tloga a tseba gabotse gore *ka mo gabo* ga go na le motho.
 ka mo gabo
 LOCi LOCiib PPROc2
 ‘You know very well that *at their (family’s) place* there is no one.’
- b. Go fo swana *ka mo gohle*.
 ka mo gohle
 LOCi LOCiib QPRO17
 ‘It is the same *everywhere*.’
- (68) O tla dula *ka mo mošate*.
 ka mo mo-šate
 LOCi LOCiib NP3-royal_village
 ‘You will stay *in the royal village*.’

As was the case with *ka kua*, complements with a [+locative] connotation include the following:

- locative nouns, e.g., *fase* ‘below’;
- locativized nouns, e.g., *koloing* ‘in/near the car’;
- place names, e.g., *Afrika Borwa* ‘South Africa’;
- pronouns, e.g., *gabo* ‘their place’, class 2;
- nouns with an inherent locative meaning, e.g., *mošate* ‘the royal village’.

With reference to the pronominal complements that were found (compare [67]), it is noticeable that only a very specific kind of pronoun appears as complement of *ka mo*. The pronominal complements of this combination can be divided into two categories. The first group represents a special kind of possessive pronoun that is specifically used to refer to some locality that is the (communal) property of a group of people. There is only a limited number of these pronouns, namely, *gešo* ‘our place’, *geno* ‘your (plural) place’, and *gabo* ‘their place’. All of these pronouns were found in the corpus as complements of the said combination. The second group of pronouns are those that belong to the locative classes, that is, the so-called absolute pronoun of the locative classes *gona* ‘there’, and the quantitative pronoun of these classes *gohle* ‘everywhere’. It is therefore clear that these pronouns also meet the requirement of displaying the semantic feature [+locative]. No other pronouns appear as complements of the sequence *ka mo*, obviously since the ones that do occur are the only pronouns with a [+locative] connotation. From a syntactic point of view, the combination of the particles *ka + mo* therefore seems quite straightforward.

Pinpointing the semantic content of the Category C bigram *ka mo* is not so simple. According to Louwrens (1991: 123) and Poulos and Louwrens (1994: 336) the particle *mo* seems to be able to express more than one conceptual realization of space and/or locality. Firstly, when the meaning of nouns that appear as complements of *mo* is analyzed, it is clear that this particle refers to a locality that can be identified as a (flat) surface UPON which some action is performed. The boundaries of this surface are however not demarcated by means of a fence, a wall or other structural feature, as is the case with the particle *ka*. Compare the following examples:

- (69) *ka ikhwetša ke patlame gona mo bolaong bjo.*
 mo bo-lao-ng bjo-Ø
 LOCiib NP14-bed-LOCS DEM14-i
 ‘I found myself stretched out *on* this *bed*.’
- (70) *ke mmeile leoto mo dimpeng.*
 mo diN-pa-ng
 LOCiib NP10-intestine-LOCS
 ‘I put my foot *on* (his) *stomach*.’

Secondly, the locative particle *mo* can also refer to a locality IN which an action or process takes place. In cases such as these, the locality in question is of an abstract nature and it lacks physical, and in some instances even imaginary, boundaries. Furthermore, the locality remains to a large extent vague and unspecified, “because no particular point of reference is identified within the said domain” (Louwrens 1991: 124):

- (71) Ge leina le šomišwa *mo lefokong* [. . .]
 mo le-foko-ng
 LOCiib NP5-sentence-LOCS
 ‘When a noun is used *in a sentence* [. . .]’
- (72) *Mo bekeng* ye e latelago [. . .]
 mo Ø-beke-ng
 LOCiib NP9-week-LOCS
 ‘*In the following week* [. . .]’

Conversely, the semantic content associated with *ka* clearly implies that the locality is of a concrete nature and that it is highly specific. Even though the particle *mo* can also refer to a locality IN which some action is carried out, based on the information provided in existing grammatical studies, it differs in several respects from the semantic connotation carried by *ka*. The combination *ka mo* thus presents a problem from a semantic point of view in that the meanings attributed to *ka* and *mo* seem to be incompatible. Firstly, the locality which is referred to by *mo* lacks demarcation by means of physical or sometimes imaginary boundaries; secondly, it is of an abstract nature (whereas that of *ka* is of a physical nature); and thirdly, since the locality is not defined in terms of a fixed point of reference, it is vague and nonspecific. It thus seems hardly possible to use these two particles in combination, especially if it is kept in mind that combinations of locative particles are thought to define localities in an accurate and highly specified manner. On the other hand, when *mo* is used to define a locality in terms of a flat surface ON which an action takes place, its meaning seems to be more compatible with that of *ka*. Compare the following examples in this regard:

- (73) Ke na le mme ke yo *ka mo boapeelong*.
 ka mo bo-apeelo-ng
 LOCi LOCiib NP14-kitchen-LOCS
 ‘I am with mother, I am here (*on the surface*) *in the kitchen*.’
- (74) eupša a no dula *ka mo koloing*.
 ka mo Ø-koloi-ng
 LOCi LOCiib NP9-car-LOCS
 ‘but he simply sat (*on the surface*) *in the car*.’

In both of the above examples, it could be argued that *ka* is used to designate the enclosed spaces ‘kitchen’ and ‘car’ and that *mo* refers to the surfaces inside the kitchen and the car respectively. However, it is almost impossible to determine whether these are indeed the semantic connotations that mother-tongue speakers cognitively attach to the particles in this combination (compare Louwrens 1992: 111).

Since an analysis of the meaning of the individual particles as described in the existing scientific literature does not seem to shed much light on the semantic content carried by the bigram *ka mo*, the possibility should at least be considered that some aspects regarding the nature and meaning of these locative particles have hitherto been overlooked by grammarians. An important clue as to the function and possibly the grammatical status of *mo* is provided by examples such as the following:

- (75) tšatšing le lengwe la matšatši ge a sa le *ka moo ofising*, a bona mohlhlobi a tšena.
 ka mo-o Ø-ofisi-ng
 LOCi DEM18-ii NP9-office-LOCS
 ‘One (of those) day(s), while he was still *over there in the office*, he saw the inspector entering.’
- (76) Ge ba feditše, yo mongwe le yo mongwe a tle a fete *ka mola ofising*, a tšee pampišana ya gagwe ya ditimela.
 ka mo-la Ø-ofisi-ng
 LOCi DEM18-iii NP9-office-LOCS
 ‘When they have finished, everyone must pass by *the office over there* and collect his train ticket.’

In the examples cited above, *moo* and *mola* represent DEMONSTRATIVES of class 18 (compare [19] to [21]), positions 2 and 3 respectively, being normally used with nouns from the locative classes. Examples such as these immediately raise the question as to whether *mo* appearing in the combination *ka mo* might not, at least in some cases, be the position 1 demonstrative of class 18, or perhaps have a demonstrative function, spatially relating the locality being referred to by the locative complement to speaker and addressee. Alternatively, it could be argued that the function of the demonstrative is a referential one, referring to a locality that is, within the context of the discourse, given or known information. As such, the use of the demonstrative would be a strategy to mark the givenness of the LOCALITY being referred to. A careful contextual analysis of the following exchange seems to support such a possibility:

- (77) a. “Dihlare go tsebja ge di dula ka mafuri, wena tša gago tša hloma bjang ge di ka tla tša dula *ka meetseng?*”
 di-hlare ... ge di-ka-tla tša-dula ka ma-etse-ng
 NP8-medicine ... CONJi SC8-POT-AUX SC8:CONS-stay
 LOCi NP6-water-LOCS
 “‘It is known that medicine stays (is kept) in the backyard, where does yours come from that it stays (is kept) *in water?*’”

- b. “Aowa, dikgoši, ke ka mokgwa woo le nna ke di rutilwego ka gona. Di swanetše go dula matšatši *ka mo meetseng*, morago ga moo ke a di kgatla ya ba gona ke di šilago.”
 go-dula ma-tšatši ka mo-Ø ma-etse-ng
 NP15-stay NP6-day LOCi DEM18-i NP6-water-LOCS
 “‘No, Sirs, that is the way I have been taught. It must stay for a few days *in the water*, afterwards I crush it and then I grind it.’”

When studying these examples, it is clear that none of the meanings normally attributed to *mo* seems to be valid in this case — *mo* does not refer to a flat surface upon which an action takes place, neither can it be interpreted as referring to the ‘inside’ of an abstract mental concept. The use of *ka* in *ka meetseng* ‘in water’ is said to define the locality in a highly specific manner, but it is important to understand that the function of *ka* is actually to define or to specify the nature of the locative relation between ‘water’ on the one hand and ‘medicine’ on the other — it serves to indicate that the medicine is ‘inside the enclosed space created by the body of water’. The use of *mo* adds a further dimension to the locality being referred to. If the demonstrative *mo* is used DEICTICALLY, that is, if the locality to which it refers is physically present in the discourse situation, it could be argued that it serves to define the relationship between the discourse participants and the locality in question, indicating that the locality expressed by the locative particle group *ka mo meetseng* is quite near to the discourse participants, who in turn are in relative close proximity to one another. On the other hand, if *mo* is used REFERENTIALLY, it would indicate that the locality expressed by *ka mo meetseng* is coreferential with the locality referred to earlier in the discourse, that is, *ka meetseng*, and the function of *mo* would therefore be to mark the information as given or definite information.

Further support for a demonstrative reading of *mo* in examples such as these is the fact that there seems to be a link between the demonstrative of class 18 *mo* and the locative particle *mo*. Gauton (1995: 277) states that in both Northern Sotho and Tswana, locative particles are to be found which have been derived from original demonstratives. This point of view is also shared by Cole (1955: 341) and Prinsloo (1979: 90), both of whom mention the possibility that the locative particle *mo* might be related to the demonstrative of class 18. Thus far, Northern Sotho grammarians have attempted to draw a clear-cut distinction between these two realizations of *mo*, basing this distinction on the purported meaning carried by *mo* in different cases, and thus falling into the trap of confusing inherent semantic features with

In none of the examples above can it be argued that *ka* is used to refer to a highly specific locality, demarcated by physical boundaries. Also, mother-tongue speakers were unable to give an explanation as to the meaning of *ka* in examples such as these, apart from indicating that it somehow serves to restrict the locality being referred to. Since the nominal complements in these examples all refer to abstract entities,⁹ the notion of ‘within the bounds of an abstract mental concept’ that is carried by *mo*, makes the use of *ka* seemingly redundant.

Summarizing *ka mo*: on the syntactic level, the combination *ka + mo* poses no problems — the syntactic environment in which this bigram is found is consistently in line with the requirements set by both *ka* and *mo* regarding the nature of the complement, namely, that it must include the semantic feature [+locative]. However, due to the influence of a number of factors, it does not seem possible to define and/or identify the meaning carried by the combination *ka + mo*. There are cases in which the meanings of both *ka* and *mo* contribute to the meaning of the bigram; in other cases the meaning of the bigram is dominated by the semantic connotation carried by *mo*, which can be one of three possibilities: (a) reference to a relatively unrestricted locality UPON which an action or process can take place, (b) carrying the semantic implication ‘inside an abstract mental concept’, and (c) having a DEICTIC meaning, defining the relationship between the discourse participants and the locality which is being referred to. Generally speaking, it can be concluded that in the majority of cases the meaning of the bigram *ka mo* is determined by the semantic import carried by *mo*. Only by making a detailed analysis of the discourse context within which it appears can its semantic content be ascertained.

4.2. *An analysis of the trigram ka mo ga (N = 81)*

Even a brief examination of the 81 corpus examples of *ka mo ga* suggests that the meanings traditionally assigned to the individual locative particles *ka* and *mo* are mostly irrelevant in this trigram. The function fulfilled by *mo* is especially problematic since it is difficult to link either of the two semantic connotations traditionally associated with *mo*, namely, ‘on a flat surface’ and ‘within the bounds of an abstract concept’, to the examples. The interpretation given by mother-tongue speakers seems to favor a deictic reading of *mo*, thus implying that *mo* should in this case be viewed as a demonstrative rather than as a locative particle. It would therefore imply that reference is made to a locality which is quite close to both speaker and addressee, or alternatively that the function of *mo* is to mark the givenness of the locality within the discourse context.

Furthermore, although mother-tongue speakers suggested that *ka* does have some kind of a delimiting function when used in this combination, they were unable to pinpoint the semantic and/or perceptual difference between examples such as *ka mo ga ka* ‘here at my home/place’ and *mo ga ka*, apart from indicating that the combination containing the locative particle *ka* is in some way more restricted than the one without. In none of the examples could the presence of *ka* be linked to a locality demarcated by means of physical boundaries. Keeping in mind that the particle *ga* is used to define a locality in terms of a particular individual who is also the owner of that locality, the meaning conveyed by the trigram *ka mo ga* can provisionally be paraphrased as referring to ‘a locality which is delimited to some extent, which is quite close to both speaker and addressee and which belongs to the individual in terms of whom the locality is defined’. Compare the following examples in this regard:

- (83) *Ka mo ga gago ga go na le lesogana?*
 ka mo ga gago
 LOCi LOCiib LOCiia PPRO2SG
 ‘Is there no young man *here at your home/place?*’
- (84) *O šetše o thomile go dira boithatelo ka mo ga ka.*
 ka mo ga ka
 LOCi LOCiib LOCiia PPRO1SG
 ‘You have already started to do what you want *here at my home/place.*’
- (85) *o gafišwa ke kgarebjana yela ya ka mo ga Matuba.*
 ka mo ga Matuba
 LOCi LOCiib LOCiia Matuba
 ‘You are driven mad by that young girl *here at Matuba’s home/place.*’

As was the case with the trigram *ka kua ga*, two distinct patterns emerge when the syntactic environment in which *ka mo ga* appears, is studied. In 76 of the 81 examples, thus in the vast majority at 94% of the instances, the complement displays the feature [+human]. These examples will be referred to as Group A.

Group A: Complements of ka mo ga with the feature [+human]. Again, a distinction can be made between nouns and possessive pronouns functioning as complements. The semantic implication of these examples also very clearly includes the notion of the locality being in the possession of the referent to which the complement refers. These examples therefore all comply with the requirement set by the particle *ga* when used on its own. Compare the following examples:

- Nouns with the semantic feature [+human] as complements:
- (86) Bafahloši ba, ba ile ba phela gabotse *ka mo ga Satsope* nywaga ye mebedi.
 ka mo ga Satsope
 LOCi LOCiib LOCiia Satsope
 ‘These teachers lived comfortably *here at Satsope’s home/place* for two years.’
- (87) O ka se nthake *ka mo ga moratiwa* wa ka.
 ka mo ga mo-ratiwa wa ka
 LOCi LOCiib LOCiia NP1-beloved PC1 PPRO1SG
 ‘You cannot chase me away from my *beloved’s home/place*.’
- (88) gore a tšwe ka pela a yo botšiša *ka mo ga rangwane* wa gagwe
 ka mo ga Ø-rangwane wa gagwe.
 LOCi LOCiib LOCiia NP1a-uncle PC1a PPRO1
 ‘that he quickly goes out and asks (*here*) at his *uncle’s home/place*.’
- Possessive pronouns as complements:
- (89) “Nna ke tla bitša mang le mang.” “*Ka mo ga ka ba ka se tsene*.”
 ka mo ga ka
 LOCi LOCiib LOCiia PPRO1SG
 “‘I will call everybody.’” “‘They will not enter (*here at*) my *home/place*.’”
- (90) “Ka ga mang?” “Gona *ka mo ga gago*.”
 ka mo ga gago
 LOCi LOCiib LOCiia PPRO2SG
 “‘At whose *home/place*?’” “‘There *at your home/place*.’”
- (91) ke go etela, e sego gore ke nape ke dule *ka mo ga geno*, aowa, mokgotse.
 ka mo ga geno
 LOCi LOCiib LOCiia PPROc2PL
 ‘I am visiting you, it is not as if I am permanently living (*here*) at your *family’s home/place*, no, my friend.’

In the section on the trigram *ka kua ga* it was shown that what is synchronically termed the locative particle *ga* very likely has its origin in the possessive concord of the locative classes. More specifically, it was argued that *ga* in the sequence *ka kua ga* was probably preceded by a class 24 noun, the equivalent of B. [*k’aya*] ‘at home’, which functioned as the possession, followed by the possessive concord *ga*, in an ordinary possessive construction. Deletion of the class 24 locative noun resulted in the sequence *ka kua ga* + complement. The complement, being the ‘possessor/owner’ of the locality in question, therefore has to have the semantic

feature [+human]. There is no reason to believe that the diachronic process described for the development of *ka kua ga* is any different for the sequence *ka mo ga*. The semantic implication 'at a home/place belonging to' carried by this sequence supports the likeliness that the same diachronic process took place with regard to the development of *ka mo ga*.

Group B: Complements of ka mo ga with the feature [-human]. Only a very limited number of examples belong to Group B, namely, instances where the complements of *ka mo ga* have the feature [-human]. It is also interesting to note that of the five examples, four come from exactly the same source, that is, a textbook for Northern Sotho (L1) for grade 12 learners (Serudu et al. 1994). In each of these four examples, the referent to which the complement refers is moreover the same. Any conclusion drawn from these occurrences should therefore be approached with the necessary caution, since this could represent an individualistic and perhaps idiosyncratic form of usage by one author. Compare:

- (92) Na ke eng seo se laolago kwano ya dikarolo ka mo le *ka mo ga khutšo* mo mehlaleng ya ka godimo?

ka mo ga Ø-khutšo

LOCi LOCiib LOCiia NP9-pause

'What is it that determines the correspondence in units on both sides (lit. on this side and the *other side*) of the pause in the examples above?'

- (93) goba palo ye e lekanago ya dinoko ka mo le *ka mo ga khutšo*.

ka mo ga Ø-khutšo

LOCi LOCiib LOCiia NP9-pause

'or the same number of syllables on both sides (lit. on this side and the *other side*) of the pause.'

- (94) Patrone ya mošito ya go swana ka mo le *ka mo ga khutšo*.

ka mo ga Ø-khutšo

LOCi LOCiib LOCiia NP9-pause

'The similar pattern in rhythm on both sides (lit. on this side and the *other side*) of the pause.'

Compare, furthermore, the following example where the pronoun functioning as the complement also refers to *khutšo* 'pause':

- (95) Lefelo le e bewago go lona, le bitšwa *khutšo*. [...] E swanetše go bewa fela mollwaneng wa lentšu gore dikarolo tše pedi tša go lekana ka mo le *ka mo ga yona* di tšwelele.

le-felo ... le-bitš-wa Ø-khutšo ... ka mo ga yona

NP5-place ... SC5-call-PASS NP9-pause ... LOCi LOCiib

LOCiia PRO9

‘The point where it must be placed is called a pause. [...] It must be placed at a word boundary so that there are two evenly-sized sections on both sides (lit. on this side and the *other side*) of it.’

The only other example found in the corpus in which the complement of the trigram *ka mo ga* does not refer to a [+human] complement, is the following:

- (96) Megokgo e tletše mahlo ka lebaka la moya, mongwe o etla *ka mo ga hlogo* mongwe ka thoko yela gomme e gahlana ka morago ga hlogo.
 ka mo ga Ø-hlogo
 LOCi LOCiib LOCiia/PC17 NP9-head
 ‘Tears filled (his) eyes because of the wind, one going round *this side of the head*, the other one on that side, meeting at the back of the head.’

Again, if it is assumed that *ga* is, at least diachronically, linked to the possessive concord of the locative classes, the obvious question is to which (deleted) noun(s) it refers. Since the semantic connotation ‘place/home of’ is lacking in these examples, the possibility that it might refer to *gae* ‘(at) home’ is ruled out. The interpretation given by mother-tongue speakers provides the necessary clue. According to the informants, in all of these examples implicit reference is made to the ‘side of’, hence it could be surmised that the noun *thoko* ‘side’ is implicated as being the deleted noun. Although *thoko* is generally regarded as belonging to class 9, it does have connections with the locative classes, since it often appears together with the possessive concord of the locative classes. A corpus search resulted in 109 instances of *thoko ga* (with *ga* = possessive concord of locative classes) being found, thus substantiating its link with the locative classes. Furthermore, examples were found in which the full form appears, thus supporting the premise that *thoko* ‘side’ is the noun to which the possessive concord *ga* refers:

- (97) ge ke mo humana *ka mo thoko ga* tsela a emišitše seatla a re nnametše.
 ka mo Ø-thoko ga Ø-tsela
 LOCi LOCiib NP9-side PC17 NP9-road
 ‘When I met him *here at the side of* the road, he lifted his hand and asked to be picked up.’
- (98) A re se ke ra sepela ka gare ga tsela eupša re sepele *ka mo thoko-nyana ga* yona.
 ka ga-re ga Ø-tsela ... ka mo Ø-thoko-nyana ga yona

LOCi NP_{ga}-middle PC17 NP9-road ... LOCi LOCiib NP9-side-DIM PC17 PRO9

‘Let’s not walk on the road but rather *a little bit to the side of it*.’

Summarizing *ka mo ga*: the semantic import of the trigram *ka mo ga* depends on the nature of the complement. In cases where the complement refers to a [+human] noun or a [+human] possessive pronoun, which is so in well over 90% of the instances, it can be said to refer to ‘a locality which is delimited to some extent, which is quite close to both speaker and addressee and which belongs to the individual in terms of whom the locality is defined’. In the other cases, where the complement has the semantic feature [–human], its semantic content can be defined in terms of ‘on the side of (the object represented by the complement)’.

4.3. *An analysis of the trigram ka mo go (N = 82)*

A total of 82 examples containing the trigram *ka mo go* was found in the corpus. A semantic analysis of these examples again brought to light that it is difficult, if not impossible, to link the meanings normally associated with especially *ka* and *mo* to their usage in this trigram. The meaning and function of *ka* in this sequence are especially difficult to define, since very few examples contain any reference to a locality that can be defined in terms of an enclosed space with physical boundaries. Compare:

- (99) Ke nyaka go e lokela *ka mo go yona* ... ka mo baki-ng.
 ka mo go yona ... ka mo Ø-baki-ng
 LOCi LOCiib LOCiib PRO9 ... LOCi LOCiib NP9-jacket-
 LOCS
 ‘I want to put it *inside it* ... inside the jacket.’
- (100) Meetse ke seiponi. Ge motho a lebelela *ka mo go ona* o bona tša kua nthago.
 ma-etse ke se-iponi ge mo-tho a-leb-el-ela ka mo go ona
 NP6-water COP NP7-mirror CONJi NP1-person SC1:SIT-look-
 APPL-APPL LOCi LOCiib LOCiib PRO6
 ‘Water is a mirror. If one looks *into it*, you see what is behind.’

In both these examples it could be argued that the meaning normally assigned to *ka* is indeed valid, since it refers to the inside of a jacket (99) and to the enclosed space formed within a body of water (100). Compare, however, the following examples:

- (101) Gape nna ke mathomo ke tsena *ka mo go lena*.
 ka mo/mo-Ø go lena

LOCi LOCiib/DEM18-i LOCiib PRO2PL

‘Furthermore, as for me, it is the first time that I come in *here where you (plural) are.*’

- (102) Yeo ke taba yeo nna nka se e tsebe go ka gore ga ke *ka mo go wena.*

ka mo/mo-Ø go wena

LOCi LOCiib/DEM18-i LOCiib PRO2SG

‘That is something which I cannot know since I am not *here with you.*’

Mother-tongue speakers indicated that *ka* does have some kind of delimiting function when used in this combination, but they were unable to pinpoint the semantic and/or perceptual difference between examples such as *ka mo go nna* ‘here with me’ and *mo go nna*, apart from indicating that the locality referred to by the sequence containing *ka* is in some way more restricted than the one without. Furthermore, although the two semantic connotations associated with *mo*, namely, ‘on a flat surface’ and ‘within the bounds of an abstract concept’ could be linked to some of the examples, mother-tongue speakers again favored a deictic reading of *mo*, thus implying that *mo* should in this case be viewed as a demonstrative rather than as a locative particle.

Keeping in mind that *go* designates a highly specified locality, which is defined in terms of a uniquely identifiable referent, the semantic implication carried by the trigram *ka mo go* can be paraphrased as referring to ‘a restricted space (as signaled by *ka*), close to the person or object represented by the complement (as indicated by *mo*), which has a uniquely identifiable referent’. With regard to the syntactic environment in which the trigram *ka mo go* appears, the corpus examples can be classified into four groups, based on the nature of the complement following the trigram. Each of these groups will now be reviewed.

Group A: Pronouns as complements of ka mo go. This group contains pronouns referring to both human and nonhuman referents, as well as nominal qualifiers functioning as pronouns in cases where the nominal antecedent has been deleted. Compare:

- Absolute pronouns as complements (see also [99] and [100]):

- (103) mme neng le neng ge a tsena *ka mo go bona*, ba a homola.

ka mo go bona

LOCi LOCiib LOCiib PRO2

‘and every time when he entered *where they were*, they kept quiet.’

- (104) ke ile ka elelwa gore go na le motho *ka mo go sona*.
 ka mo go sona
 LOCi LOCiib LOCiib PRO7
 ‘I realized that there was a person *inside it*.’
- Nominal qualifiers with pronominal status as complements:
- (105) gore bogoši bo tle bo wele *ka mo go wa lešika labo*.
 ka mo go [mo-tho] wa le-šika la-bona
 LOCi LOCiib LOCiib [NP1-person] PC1 NP5-one_of_the_
 family PC5-PRO2
 ‘so that the chieftainship falls *onto one of their family*.’ (*wa lešika* = possessive qualifier with pronominal status, referring to a deleted head noun from class 1)
- (106) kua sekolong sa Setotolwane *ka mo go ye nngwe* ya diphapoši tša hostele tša basetsana
 ka mo go [Ø-phapoši] ye-Ø N-ngwe
 LOCi LOCiib LOCiib [NP9-room] DEM9-i NP9-some
 ‘there at the Setotolwane school, *inside one* of the rooms of the girls’ residence’ (*ye nngwe* = adjectival qualifier with pronominal status, referring to the deleted head noun *phapoši*)

Group B: Complements of ka mo go with the feature [+human].

- (107) mme a dire gore e gole *ka mo go ngwana*.
 ka mo go mo-ana
 LOCi LOCiib LOCiib NP1-child
 ‘and he must make it grow *here inside the child*.’
- (108) e be e tla no ba ya mela *ka mo go rragwe*
 ka mo go Ø-rragwe
 LOCi LOCiib LOCiib NP1a-his_father
 ‘and it will start growing *here inside its owner* (lit. father)’
- (109) Bjale a re boele *ka mo go Ramaila*.
 ka mo go Ramaila
 LOCi LOCiib LOCiib Ramaila
 ‘Now let us return *to Ramaila*.’

Recall that the complement of the particle *go* when appearing on its own can only be a noun with the semantic feature [+human], or any pronominal form. Group A and B examples ([103] to [109]) are consistent with this. However, the examples in the groups that are to follow do not seem to comply with these requirements.

Group C: Proper names as complements of ka mo go. A total of ten instances were found in the corpus where the complement of the trigram

ka mo go is a proper name, referring to the title of a book, a poem, or the name of an organization. Compare for example:

- (110) A re tlišetše ka mohlala šo o tšwa *ka mo go Sealogana* sa Nchabeleng.
 ka mo go *Sealogana*
 LOCi LOCiib LOCiib *Sealogana*
 ‘Let us motivate with an example coming *from (inside) Sealogana* by Nchabeleng.’
- (111) Mminele le yena o diriša moeno kudu *ka mo go Ngwana wa Mobu*.
 ka mo go *Ngwana wa Mobu*
 LOCi LOCiib LOCiib *Ngwana wa Mobu*
 ‘Mminele also often uses a symbol (*here*) in *Ngwana wa Mobu* (lit. Child of the Soil).’
- (112) go phethagatša tekatekano *ka mo go SAMWU* gomme go tloga moo, ya išwa go setšhaba ka bophara.
 ka mo go *SAMWU*
 LOCi LOCiib LOCiib *SAMWU*
 ‘to promote equality *here at SAMWU* and from there to take it to the whole nation.’ (SAMWU stands for the *South African Municipal Workers Union*)

Although none of the complements in the above examples refers to a [+human] referent, their compatibility with the locative particle *go* is easily explained in terms of the notion of ‘uniquely identifiable referent’. Any proper name, whether it refers to a book, a poem, or organization, always has a unique referent. In the section on the trigram *ka kua go* it was indicated that the deciding factor regarding the use of the locative particle *go* is the identifiability of its complement. Since all the complements in the Group C examples have unique referents, they are indeed compatible with the locative particle *go*.

Group D: Complements of ka mo go with the feature [–human]. These examples seem to represent a significant deviation from existing viewpoints regarding possible complements of (*ka mo*) *go*. Two kinds of examples can be said to belong to this category — the first group consisting of nonhuman nouns preceded by a demonstrative functioning as a nominal qualifier; the second group consisting of neologisms referring to new concepts.

- Nonhuman complements preceded by a demonstrative qualifier: only three examples out of 82 belong to this category, although

in two of them the complement refers to the same object, that is, *le lapa* ‘this homestead’. Compare the following instances in this regard:

- (113) a. o nyaka go rua mafetwa *ka mo go le lapa*.
 ka mo go le-Ø le-lapa¹⁰
 LOCi LOCiib LOCiib DEM5-i NP5-homestead
 ‘You want to bring up spinsters *in this homestead*.’
 b. Mola *ka mo go le lapa*, koša e sa bone ye nngwe.
 ka mo go le-Ø le-lapa
 LOCi LOCiib LOCiib DEM5-i NP5-homestead
 ‘Whereas *in this homestead*, every cobbler sticks to his last.’
- (114) Ke rile ka re *ka mo go ye potla*, ke re ka go e nngwe.
 ka mo go ye-Ø Ø-potla
 LOCi LOCiib LOCiib DEM9-i NP9-pocket
 ‘I mean *inside this pocket*, I mean in the other one.’

In Northern Sotho, the dominant order in cases where a demonstrative functions as a nominal qualifier, is *n. + dem*. According to Poulos and Louwrens (1994: 84) the function of the reversed order, *dem. + n.*, is to place more focus on the demonstrative. Bearing in mind the deictic nature of the demonstrative, a noun qualified by means of a demonstrative has a highly specified referent. In view of Poulos and Louwrens’ statement, the reversed order apparently places even more emphasis on the noun being qualified — distinguishing the referent of the noun in question from all other possible referents, which results in a unique referent being pointed out and thus making it compatible with the highly specific nature of *go*, despite its nonhuman nature.

- Nonhuman complements referring to new concepts: with regard to this subgroup, it is noticeable that of the eight examples, five are found to belong to the same source, namely, the website of COSATU, the *Congress of South African Trade Unions*. Compare the following examples culled from COSATU’s *SAMWU Women’s Charter*:

- (115) tlhokego ya methopo ya mehleng *ka mo go ditirelo tša maphelo*
 ka mo go diN-direlo tša ma-phelo
 LOCi LOCiib LOCiib NP10-service PC10 NP6-life
 ‘lack of constant resources *in health services*’
- (116) basadi ba ba šomago *ka mo go mmušo-selegae*
 ka mo go mo-bušo-selegae
 LOCi LOCiib LOCiib NP3-government-local
 ‘women who work *in local government*’

- (117) Modiro wa taolo *ka mo go yunione* o na le maemo a fase.
 ka mo go Ø-yunione
 LOCi LOCiib LOCiib NP9-union
 ‘The governing function *in a union* has a low status.’

The following instances are taken from other sources:

- (118) ge motho a theeditše ditsebišo *ka mo go seyalemoya*
 ka mo go se-yalemoya
 LOCi LOCiib LOCiib NP7-radio
 ‘if one listens to the advertisements *on the radio*’
- (119) Bjale *ka mo go terama ya radio*
 ka mo go Ø-terama ya Ø-radio
 LOCi LOCiib LOCiib NP9-drama PC9 NP9-radio
 ‘Now, *in a radio drama*’

The necessary clue as to the validity of these examples lies in the fact that the locative particle *go* does indeed occur in apposition to nonhuman complements, specifically neologisms — a fact which is contrary to views expressed by grammarians in standard Northern Sotho grammars. A corpus search revealed that *go* is often used in apposition to especially (new) terms, that is, words designating (new) concepts. Compare the following examples:

- (120) Meetse a kgahla *go dikgato tše 4°C*.
 go di-kgato tše-Ø 4°C
 LOCiib NP10-degree DEM10-i 4°C
 ‘Water freezes *at 4 degrees C*.’
- (121) Re filo tšopola *go difaporiki* tše di lego Sešhego.
 go di-faporiki
 LOCiib NP10-factory
 ‘We have only referred *to factories* which are in Sešhego.’
- (122) Mahlathi a felo a bonagala ge o dira eng *go maina*?
 go ma-ina
 LOCiib NP6-name
 ‘Adverbs of locality are visible when you do what *to nouns*?’

Normally, these nouns would be locativized by means of the locative suffix *-ng*, but it would seem that some uneasiness exists regarding the use of this suffix to locativize neologisms, specifically terms, regardless of whether these are loanwords/adoptives from English or Afrikaans, or existing Northern Sotho words (the semantic content of which has been adapted to designate new concepts). Compare in this regard de Schryver and Gaulton (2002: 205–206, 214–215) who observe a similar phenomenon for

Zulu and suggest that the choice for one strategy over the other might be based on phonological grounds. Nevertheless, examples do occur where the locative suffix has been affixed to neologisms. In the corpus 39 examples were found in which the noun *maina* 'nouns' is locativized by means of the locative suffix *-ng*, that is, *maineng*, as opposed to the fifteen examples where *go* is used; five incidences of *difaporiking* 'in/at factories' as opposed to one with *go*; and five incidences of *dikgatong* 'at degrees/levels' as opposed to four of *go dikgato*.

The reason for the sometimes-seeming uneasiness regarding the use of the locative suffix *-ng* to locativize neologisms and especially terms lies in the semantic nature of the locative relationship expressed by means of this suffix. The locative suffix *-ng* is used to express a vague, nonspecific locative meaning, whereas the particle *go* is employed when the locative relationship being referred to is extremely narrow in scope and therefore highly specific. The semantic vagueness associated with the suffix *-ng* could explain the uneasiness regarding its use to locativize terms. Terms have highly specialized meanings in that they are used to designate precise concepts. In an ideal situation, a one-to-one correlation should exist between a term and the concept to which it refers. The semantic vagueness of the locative suffix does not seem to agree well with the highly specific and specialized meaning of terms. The particle *go* on the other hand, seems ideally suited for this purpose. It is therefore clear that words referring to new concepts should also be included in the list of possible complements of the locative particle *go*. Should that be the case, then the examples in (115) to (119) and (120) to (122) would not in fact represent a deviation from the requirements regarding the nature of the complement posed by *go* when used on its own.

Summarizing *ka mo go*: as was the case with the trigram *ka kua go*, it can be concluded that the requirements set by *go* with reference to the nature of the complement are also valid when *go* is used following the sequence *ka mo*, provided that the nature of the complement is defined in terms of the notion of 'uniquely identifiable and/or specific referent'. As complements of the trigram *ka mo go* are attested: (a) pronouns, (b) nouns with the feature [+human], (c) proper names, and (d) nouns with the feature [-human] preceded by a demonstrative qualifier or referring to new concepts.

5. Conclusion

In this article original research into the locative n-grams of Northern Sotho was presented. The study of these n-grams revealed new features

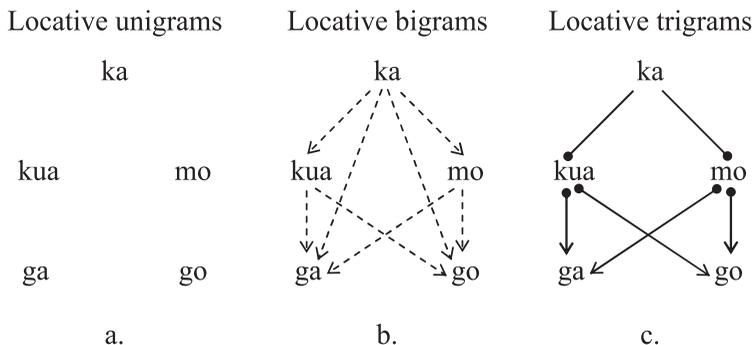


Figure 5. “Duodecim Scripta” for the locative *n*-grams in Northern Sotho

of the individual locative particles *ka*, *kua*, *mo*, *ga*, and *go* as well. The main new views on these so-called unigrams are as follows: (a) the frequency distribution for the five individual locative particles indicates that there is a GREATER tendency to refer to highly specific defined localities (*ka* and *go*) than to refer to locality in general (*kua*); (b) the locative particle *mo* is best seen in terms of a semantic continuum based on DEGREE OF DELIXIS; and (c) the locative particle *go* can occur in apposition to NONHUMAN COMPLEMENTS, specifically neologisms.

Apart from this, scrutinizing the corpus for the higher-order *n*-grams revealed just twelve locative structures out of the 3,900 theoretically possible 25 bigrams, 125 trigrams, 625 quadrigrams, and 3,125 quinquegrams. Eight different locative bigrams and four different locative trigrams have been attested with an amazing overall symmetry. In Figure 5a the individual locative particles have been placed as follows: on top the particle *ka* (which refers to a ‘highly specific’ locality), below this on the left *kua* and *ga* (which refer to a ‘nonspecific’ and ‘rather vague’ locality respectively), and on the right *mo* and *go* (which refer to a ‘relatively specific to vague’ and ‘specific’ locality respectively). No lines join any locative particle, so this figure represents the five locative unigrams. In Figure 5b, however, dashed lines joining individual locative particles represent the eight different locative bigrams. The arrows on the dashed lines, none of which can be reversed, indicate the order in which these particles must occur. In forming the locative trigrams, six of the eight bigram lines are used (the two not being used jump one level, immediately ending in a node without continuation to another bigram), as shown in Figure 5c. Arrows on the solid lines show the order of the particles, the bullets the optional paths. The symmetry between the *n*-grams as well as the perfect internal symmetry for each *n*-gram is unmistakable when Figures 5a to 5c, the “Duodecim Scripta,” are considered together.

Table 6. Summary of the semantic content and requirements for complements of the studied locative *n*-grams

Locative <i>n</i> -gram	Semantic content	Complement requirement
<i>ka kua</i>	Refers to 'a locality which is distant from both speaker and addressee, who are in turn in close proximity to one another'; 'over there (at)'.	Category A: not followed by any complement; Category B: part of a verbal relative construction; Category C: followed by a complement with a [+locative] connotation.
<i>ka kua ga</i>	Group A: <i>ka kua ga X</i> refers to 'a restricted locality which is quite distant from both speaker and addressee, which is associated with X, who is the owner of the locality which is being referred to'; 'over there at so-and-so's home/place/neighborhood'; Group B: 'over there beyond/across/behind/below/above/etc.'	Group A (2/3 of the cases): the complement is a [+human] noun or a [+human] possessive pronoun; Group B (1/3 of the cases): the complement is a [-human] noun or a [-human] pronoun.
<i>ka kua go</i>	Refers to 'a locality which is quite distant from both speaker and addressee, but which is defined in terms of (the physical presence of) a person or some other uniquely identifiable referent'; 'over there, close to a particular person/object'.	The nature of the complement is determined by the selection restrictions posed by <i>go</i> .
<i>ka mo</i>	In the majority of cases the meaning is determined by the semantic import carried by <i>mo</i> .	Category A (not followed by any complement) and Category B (part of a verbal relative construction): are <i>not</i> locative bigrams; Category C: the complement has a [+locative] connotation.
<i>ka mo ga</i>	Group A: refers to 'a locality which is delimited to some extent, which is quite close to both speaker and addressee and which belongs to the individual in terms of whom the locality is defined'; 'here at so-and-so's home/place/neighborhood'; Group B: 'on the side of (the object represented by the complement)'.	Group A (over 9/10 of the cases): the complement is a [+human] noun or a [+human] possessive pronoun; Group B (less than 1/10 of the cases): the complement is a [-human] noun or a [-human] pronoun.
<i>ka mo go</i>	Refers to 'a restricted space, close to the person or object represented by the complement, which has a uniquely identifiable referent'; 'here, close to a particular person/object'.	Groups of complements are A: pronouns; B: nouns with the feature [+human]; C: proper names; D: nouns with the feature [-human] preceded by a demonstrative qualifier or referring to new concepts.

Of the “twelve lines” of the Duodecim Scripta, the focus in this article has been on all four locative trigrams, and the two main formative bigrams (*ka kua* and *ka mo*). One question still remains unanswered, namely, why do the locative particles of Northern Sotho combine in certain ways, but not in others? As was indicated in the introduction, it was initially surmised that combinatorial possibilities are determined by semantic factors. This does not seem to be the case. In several instances, it has been pointed out that locative particles that apparently have incompatible semantic features do indeed co-occur. No evidence could furthermore be found that the order in which locative particles appear is determined by the degree of specificity expressed by the relevant particles. Since these issues could not be resolved, we decided to concentrate on the analysis of combinations that do occur, rather than to try and explain why certain combinations are not found. The salient features of the six n-grams that were analyzed for the purposes of this study have been tabulated in Table 6.

Once all studied structures are brought together, as done in Table 6, the symmetry between the locative n-grams in Northern Sotho becomes apparent.

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Appendix 1. Brief outline of the noun class system and concordial agreement in Northern Sotho

Northern Sotho, also known as Sepedi or Sesotho sa Leboa, is a southeastern Bantu language with code S32 in Guthrie’s (1967–1971) classification. Approximately 4.2 million people speak it in the Republic of South Africa. Like all Bantu languages, it is characterized by a nominal class system and concordial agreement. A total of seventeen noun classes are distinguished, each characterized morphologically by a class prefix. Classes 1 to 10 are arranged in pairs, with the unevenly numbered classes containing singular forms and the evenly numbered ones the corresponding plural forms. The classes are semantically heterogeneous, with the exception of: (a) classes 1 and 2, which contain only nouns referring to human beings; (b) class 15, which is the infinitive class; and (c) classes 16, 17, and 18, as well as two unnumbered locative classes, which contain nouns referring to locality. The locative classes have lost their productivity in that the prefixes of these classes cannot be affixed to nouns to generate locative meanings. A locative suffix *-ng* is used instead, combined with LOCATIVE PARTICLES. The dominant word order is SVO, with nominal determiners appearing in the postnominal position.

Compare Table A, which lists the concordial morphemes that are relevant for this article.

Note that the alternatives following the slash in the SC column are used for SC#:CONS (with # = all classes), and for SC#:REL and SC#:SIT (with # = classes 1 and 1a only).

Note further that three basic positions are distinguished for the demonstratives of Northern Sotho. When used deictically, these demonstratives refer to an object that is (a) relatively close to both speaker and addressee (position 1), (b) closer to the addressee where addressee and speaker are relatively far apart (position 2), and (c) far away from speaker and addressee, who are in close proximity to one another (position 3). Demonstratives can furthermore be used referentially, that is, to refer to an object or person mentioned earlier in the discourse, thus representing given information.

Compare also the relevant information for first and second persons in Table B.

Subject concords mark the syntactic relation between the subject and the verb, and with the exception of imperatives, subject agreement is compulsory. Compare:

- (i) *Basadi ba reka dipuku lebenkeleng.*
ba-sadi ba-reka di-puku le-benkele-ng
 NP2-woman SC2-buy NP10-book NP5-shop-LOCS
 ‘Women buy books at the shop.’

In cases where the subject is deleted, the subject concord functions as a pronoun, for example:

- (ii) *Ba reka dipuku lebenkeleng.*
ba-reka di-puku le-benkele-ng
 SC2-buy NP10-book NP5-shop-LOCS
 ‘They buy books at the shop.’

Object agreement, however, is not compulsory. Object concords are only used when the object noun phrase does not appear in a given sentence:

- (iii) *Ba di reka lebenkeleng.*
ba-di-reka le-benkele-ng
 SC2-OC10-buy NP5-shop-LOCS
 ‘They buy *them* at the shop.’

Also relevant to this article is the “verbal relative construction,” which normally consists of a demonstrative, a subject concord, and a verb stem to which the relative suffix *-go* has been affixed:

- (iv) *Basadi ba ba balago dipuku.*
ba-sadi ba ba-bala-go di-puku
 NP2-woman DEM2-i SC2-read-RELS NP10-book
 ‘Women who read books.’

The morphology of the Northern Sotho verb is of a derivational nature, with an extended system of verbal suffixes. The canonical forms of the most important

Table A. *Noun class system and concordial agreement in Northern Sotho*

Cl.	NP	Example	SC	OC	PC	DEM			PRO	PPRO	PPROc	QPRO
						i	ii	iii				
1 1a	mo- Ø-	<i>mosadi</i> 'woman' <i>malome</i> 'uncle'	o / a	mo	wa	yo	yoo	yola	yena	gagwe		yohle
2 2a	ba- bo-	<i>basadi</i> 'women' <i>bomalome</i> 'uncles &c'	ba / ba	ba	ba	ba	bao	bale	bona	bona	gabo	bohle
3	mo-	<i>monwana</i> 'finger'	o / wa	o	wa	wo	woo	wola	wona	wona		wohle
4	me-	<i>menwana</i> 'fingers'	e / ya	e	ya	ye	yeo	yela	yona	yona		yohle
5	le-	<i>lebone</i> 'light'	le / la	le	la	le	leo	lela	lona	lona		lohle
6	ma-	<i>mabone</i> 'lights'	a / a	a	a	a	ao	ale	ona	ona		ohle
7	se-	<i>selepe</i> 'axe'	se / sa	se	sa	se	seo	sela	sona	sona		sohle
8	di-	<i>dilepe</i> 'axes'	di / tša	di	tša	tše	tšeo	tšela	tšona	tšona		tšohle

9	N- Ø-	<i>mpša</i> 'dog' <i>hlogo</i> 'head'	e / ya	e	ya	ye	yeo	yela	yona	yona		yohle
10	diN- di-	<i>dimpša</i> 'dogs' <i>dihlogo</i> 'heads'	di / tša	di	tša	tše	tšeo	tšela	tšona	tšona		tšohle
14	bo-	<i>bodulo</i> 'residence'	bo / bja	bo	bja	bjo	bjoo	bjola	bjona	bjona		bjohle
(6)	ma-	<i>madulo</i> 'residences'	a / a	a	a	a	ao	ale	ona	ona		ohle
15	go-	<i>go ruta</i> 'to learn'	go / gwa	go	ga	mo	moo	mola	gona	gona		gohle
16	fa-	<i>fase</i> 'below'	go / gwa	go	ga	fa	fao	fale	gona	gona		gohle
17	go-	<i>godimo</i> 'above'	go / gwa	go	ga	mo	moo	mola	gona	gona		gohle
18	mo-	<i>morago</i> 'behind'	go / gwa	go	ga	mo	moo	mola	gona	gona		gohle
N-	N- Ø-	<i>ntle</i> 'outside' <i>pele</i> 'in front'	go / gwa	go	ga	mo	moo	mola	gona	gona		gohle
(24) <i>ga-</i>	ga-	<i>gare</i> 'middle'	go / gwa	go	ga	mo	moo	mola	gona	gona		gohle

Table B. *Concordial agreement for first and second persons in Northern Sotho*

	SC	OC	PRO	PPRO	PPROc
1SG	ke	N-	nna	ka	
1PL	re	re	rena	rena	gešo
2SG	o	go	wena	gago	
2PL	le	le	lena	lena	geno

Table C. *Canonical forms of the most important verbal extensions in Northern Sotho*

Canonical form of extension	Name	Meaning
-il...e	perfective	past tense, states
-el-	applicative	'to', 'for', 'on behalf of', 'in the direction of', ...
-iš-	causative	'cause to', 'help', ...
-(i)w-	passive	imparts a passive meaning
-an-	reciprocal	imparts a reciprocal meaning

verbal extensions are given in Table C; the actual realization of these suffixes is determined by phonological rules.

Northern Sotho is also a tone language, where a difference in tone between words that are morphologically similar can result in a difference in meaning between these forms. Two basic tonemes are distinguished, namely, a high tone (´) and a low tone (˘), although more detailed distinctions can be drawn. For the purpose of this study, it has been decided not to indicate tone, since it does not have a direct bearing on the topic at hand.

For a detailed description of the grammar of Northern Sotho, Lombard et al. (1985) and Van Wyk et al. (1992) can be consulted.

Appendix 2. Abbreviations used

Ø	zero affix
1SG	first person singular
1PL	first person plural
2SG	second person singular
2PL	second person plural
APPL	applicative extension (-el-)
AUX	auxiliary verb stem
CONJi	conjunction 1 (<i>ge</i>)
CONJii	conjunction 2 (<i>gore</i>)
CONN	connective (<i>le</i>)
CONS	consecutive mood
COP	copula (<i>ke</i>)

COPVii	copulative verb stem 2 (- <i>le</i>) [other copulative verb stems are: - <i>ba</i> , - <i>na</i> , and - <i>se</i>]
DEM#-x	demonstrative of class #, with x = i = position 1, x = ii = position 2, x = iii = position 3 [in Tswana: x = ia = position 1, variant a]
DIM	diminutive suffix (-(<i>ny</i>) <i>ana</i>)
LOCi	locative particle 1 (<i>ka</i>)
LOCiia	locative particle 2a (<i>kua</i>)
LOCiib	locative particle 2b (<i>mo</i>)
LOCiiaa	locative particle 3a (<i>ga</i>)
LOCiibb	locative particle 3b (<i>go</i>)
LOCS	locative suffix (- <i>ng</i>)
NP#	nominal prefix of class # [used for nouns and adjectives]
OC(#)	object concord [to this 1SG, 1PL, 2SG, 2PL, or a class # can be appended]
PASS	passive extension (-(<i>i</i>) <i>w-</i>)
PC#	possessive concord of class #
PERF	perfect extension (- <i>il...e</i>)
POT	potential morpheme (<i>ka</i>)
PPRO(#)	possessive pronoun [to this 1SG, 1PL, 2SG, 2PL, or a class # can be appended]
PPROc	communal possessive pronoun [to this 1PL, 2PL, and class 2 can be appended]
PRO(#)	pronoun [to this 1SG, 1PL, 2SG, 2PL, or a class # can be appended]
QPRO#	quantitative pronoun of class #
REL	relative mood
RELS	relative suffix (- <i>go</i>)
SC(#)	subject concord [to this 1SG, 1PL, 2SG, 2PL, or a class # can be appended]
SIT	situative mood
SLF	secondary locative formative [in Tswana]

Notes

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1. The term “particle” is used in a somewhat idiosyncratic way in grammatical studies of Northern Sotho. Within the structuralist approach, which forms the basis for most of the descriptions of Northern Sotho grammar, particles are regarded as a separate word category, based on the fact that they conform to certain word tests. Particles are however said to be less autonomous than other word categories such as, for example, nouns, pronouns, and verbs. In an alternative approach to grammatical description as represented by the work of Poulos and Louwrens (1994), these particles are regarded as prefixes, and what is termed the complement in the structuralist approach, as the base (cf. Louwrens 1994: 133). Note also that a brief grammatical sketch of Northern Sotho may be found in Appendix 1.

2. Interlinear translations are only provided for clauses in which locative particle groups appear. In the translation provided for the examples, an attempt was made to strike a balance between a free translation and a reasonable representation of the inherent semantic content of the sentence or phrase in question. Unfortunately, this sometimes resulted in an unnatural and stilted translation.
3. For a detailed discussion, see Prinsloo (1979) and Louwrens (1991: 112–133).
4. Some Northern Sotho grammarians shunned locative particles altogether, such as, for example, Lombard et al. (1985), who devote less than half a page to the issue.
5. The standardized spelling is *setrata*, thus *setrateng*, but throughout this article the original orthography as well as all nonstandard forms as found in the corpus were retained.
6. *Ka kua* can also be followed by a locative particle group introduced by the locative particles *ga* and *go*, but these are discussed under separate headings.
7. Despite its locative connotation, the noun *mošate* ‘the royal village’ belongs to class 3, not 18, as is evidenced by its plural form *mešate* (class 4) and the concords which it uses: possessive concord *wa* (class 3), position 1 demonstrative *wo* (class 3), etc.
8. The standardized spelling is *kitšhi*, or alternatively *khwitšhi*.
9. Although *bana* ‘children’ is not abstract, the locative suffix added to *bana* does to some extent give it an abstract meaning.
10. The noun *lapa* ‘homestead’ is used without the customary NP *le-*. Its membership of class 5 can, however, be deduced from other concordial morphemes with which it appears: *lapa le* ‘this homestead’ (*le-Ø* = DEM5-i), *lapa la X* ‘homestead of X’ (*la* = PC5).

References

- Cole, Desmond T. (1955). *An Introduction to Tswana Grammar*. Cape Town: Longman Penguin Southern Africa.
- COSATU. Congress of South African Trade Unions, [<http://cosatu.org.za>].
- de Schryver, Gilles-Maurice (2002). Web for/as corpus: a perspective for the African languages. *Nordic Journal of African Studies* 11(2), 266–282.
- ; and Gauton, Rachéle (2002). The Zulu locative prefix *ku-* revisited: a corpus-based approach. *Southern African Linguistics and Applied Language Studies* 20(4), 201–220.
- ; and Prinsloo, Daniël J. (2000). The compilation of electronic corpora, with special reference to the African languages. *Southern African Linguistics and Applied Language Studies* 18(1–4), 89–106.
- Gauton, Rachéle (1995). The Zulu locative — a diachronic perspective. Unpublished doctoral dissertation, University of Pretoria.
- (2000). Locative noun classes in Bantu: the case for recognizing two additional locative noun class prefixes. In *Proceedings of the 2nd World Congress of African Linguistics, Leipzig 1997*, Ekkehard H. Wolff and Orin D. Gensler (eds.), 525–542. Cologne: Rüdiger Köppe.
- Guthrie, Malcolm (1967–1971). *Comparative Bantu: An Introduction to the Comparative Linguistics and Prehistory of the Bantu Languages*, 4 vols. Farnborough: Gregg.
- Lombard, Daniël P.; Van Wyk, Egidius B.; and Mokgokong, Pothinus C. (1985). *Introduction to the Grammar of Northern Sotho*. Pretoria: J. L. van Schaik.
- Louwrens, Louis J. (1991). *Aspects of Northern Sotho Grammar*. Pretoria: Via Afrika Limited.
- (1992). The conceptualisation of spatial relationships as expressed by locative structures. *South African Journal of African Languages* 12(3), 107–111.

- (1994). *Dictionary of Northern Sotho Grammatical Terms*. Pretoria: Via Afrika Limited.
- Poulos, George; and Louwrens, Louis J. (1994). *A Linguistic Analysis of Northern Sotho*. Pretoria: Via Afrika Limited.
- Prinsloo, Daniël J. (1979). Lokatiefvorming in Noord-Sotho. Unpublished M.A. thesis, University of Pretoria.
- (1981). 'n Semantiese analise van lokatiewe in Noord-Sotho. *Studies in Bantoetale* 8(1), 58–92.
- ; and de Schryver, Gilles-Maurice (2001). Monitoring the stability of a growing organic corpus, with special reference to Sepedi and Xitsonga. *Dictionaries: Journal of The Dictionary Society of North America* 22, 85–129.
- Serudu, Maje S.; Makena, Rathuthu I.; Mampuru, Deborah M.; and Mogale, K. I. (1994). *Sesotho sa Leboa sa Mahlahla Mphato 10*. Pretoria: De Jager-HAUM.
- Van Wyk, Egidius B.; Groenewald, Pieter S.; Prinsloo, Daniël J.; Kock, Johannes H. M.; and Taljard, Elsabé (1992). *Northern Sotho for First-years*. Pretoria: J. L. van Schaik.
- Ziervogel, Dirk (1970). Lokatiefvorming met pre- en suffikse in die Bantoetale. Unpublished doctoral dissertation, University of Pretoria.
- (1971). The Bantu locative. *African Studies* 30(3–4), 371–384.

