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DISTINGUISHING COMPOUNDS FROM PHRASES IN KUSAAL

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Abstract

This study examines how compounds can be distinguished from phrases in Kusaal, a Mabia language spoken in the Upper East region of Ghana as well as two neighbouring countries: Burkina Faso and Togo. Both compounds and phrases involve the combination of lexemes. It is, therefore, important to establish clear-cut criteria for distinguishing between them. However, due to individual language uniqueness, there are no universally acceptable criteria that work for all languages, necessitating the identification of language-specific features. An outstanding matter which complicates the issue of the demarcation between compounds and phrases in Kusaal emanates from the orthography where a modifying adjective in a phrase is written together with its head noun as a single word, much like noun+adjective compounds which are also written together as single units. Using primary data collected through semi-structured interviews and secondary data gathered from Kusaal dictionaries, the study finds displacement, coordination, and inflection as criteria for distinguishing phrases from compounds. In contrast, orthography, stress and compositionality are less reliable for distinguishing compounds from phrases in the language. This descriptive study contributes to our understanding of word formation, one of the grey areas in the study of the grammar of Kusaal.

Keywords: Morphology, compounds, phrases, Kusaal, Mabia languages

1. Introduction

The purpose of this paper is to discuss how Kusaal compounds words like those in Table 1 may be distinguished from phrases in the language.

Table 1. Sample of Kusaal compounds

Constituents	Meaning	Compound	Meaning
pu'a-na'aba	woman-chief	pu'ana'ba	queen
nu-bil	hand-small	nubil	finger
nɔɔr-gban	mouth-leather	nɔɔgban	lips
saa-ku'om	rain-water	saku'om	rainwater

Compounding is a prominent word formation process by which languages of the world increase their word stock. It has, therefore, attracted a great deal of research attention, such that, as Appah (2017a:13) observes, “virtually every important question about the nature of compounding in specific languages and across language families has been asked”. The main questions relate to definition (Bauer 2006, Fabb 1998, Fábregas & Scalise 2012, Montermini

2010), classification (Bisetto & Scalise 2005, Scalise & Bisetto 2009) and how to delineate compounds from derived words on the one hand (Bauer 2005, Ralli 2010) and phrases on the other (Ackema & Neeleman 2010, Appah 2009a, b, 2019a, Bauer 1998, Bisetto & Scalise 1999, Booij 2012, Giegerich 2004, 2008, 2009, Jackendoff 2009, 2010, Katamba & Stonham 2006, Lieber 1992, Payne & Huddleston 2002, Scalise & Vogel 2010, Spencer 1991). However, notwithstanding the extensive literature on compounding, and the almost universal presence of compounds, it remains appropriate to acknowledge that there are hardly any universally accepted answers to all the relevant questions, especially the question of the distinction between compounds and phrases (see Lieber & Štekauer 2009, Omachonu & Abraham 2012). Indeed, several attempts to establish distinguishing criteria exist in the literature (see, inter alia, Bauer 2001, Booij 2012, Katamba & Stonham 2006). However, due to individual language uniqueness, there is no clear-cut approach to distinguishing compounds from phrases that works for all languages. It is, therefore, imperative to identify language specific features that serve as tools for this purpose.

There are several reasons why the question of how compounds may be distinguished from phrases has been a matter of interest in the relevant literature. One is the formal similarities between the two construction types. That is, both compounds and phrases primarily combine words, differing only because compounding combines words to form other words whose constituents may be written together, hyphenated or simply juxtaposed, resulting in word-level constructions which may not be formally distinguishable from phrases. Spencer (1991:310) captures the problem well when he observes that:

Compounding [...] is prototypically the concatenation of words to form other words. However, we have often no satisfactory, unequivocal way of distinguishing between a compound word and a phrase. This means that when compounding is a freely generative process (as it usually is) we are hard put to know whether we are looking at morphology or syntax or both (or, perhaps, something else).

Another reason why there must be means of distinguishing compounds from phrases is that the grammatical relations that exist between the immediate constituents of compounds and the elements of phrases has been observed to be the same – subordination, modification/attribution or coordination (Appah 2013a, 2019a, Scalise & Vogel 2010). Based on this, a third reason is suggested. That is, although compounds are words, they exhibit a type of invisible internal syntax (Jackendoff 2009, Scalise & Vogel 2010). For example, to interpret the English compounds *taxi driver*, *hard ball* and *poet painter*, one must ‘add’ some kind of syntactic relation between the two constituents (i.e. *driver of a taxi*, a ball *which is hard*, poet *and* painter) and this “internal syntax” is not overtly marked (cf. Scalise & Vogel 2010:1).

Booij (2012:84) suggests two further reasons why it is not easy to distinguish between compounds and phrases. He notes that “phrases can have the same function as words, that of labels for name-worthy categories” and that “compound patterns often derive historically from phrasal word combinations”, hence the formal similarity between compounds and phrases.

Compounding has generally garnered very little scholarly attention in Kusaal. Aside from snippets from Abubakari (2018) and Musah (2018), which are PhD dissertations on the grammar of Kusaal which dedicate some attention to morphology, this is the first paper dedicated to the study of an aspect of compounding in Kusaal. Thus, it is hoped that, aside from serving its pioneering role on compounding in Kusaal, this study will engender further discussions on compounding in other Maba languages.

The rest of the paper is divided into five sections. Section 2 gives a brief background information on Kusaal and its speakers as well as data collection and methodology. In section

3 we attempt to characterize a compound and a phrase to provide a general scope for the study. Section 4 reviews how compounds and phrases have been differentiated in the literature. Section 5 shows how the criteria for distinguishing compounds from phrases apply to the Kusaal data. Section 6 summarises and concludes the paper.

2. The Kusaal language and its people

Kusaal is a Mabia language spoken in Ghana, Burkina Faso and Togo by a group of people who refer to themselves as Kusaas_(PL), Kusaa_(SG). It is one of the Central Mabia subgroup of Mabia languages (Bodomo 2020), previously known as the Western Oti-Volta subgroup of Gur languages (Greenberg 1963, Westermann & Bryan 1952) of the Niger-Congo language family. The Mabia nomenclature is a compound word composed of two morphemes: *ma* ‘mother’ and *bia* ‘child’. Bodomo (2020) argues that the term better describes the languages under this group since the two morphemes are lexemes in almost all the languages.

In Ghana, Kusaal is spoken in six districts in the Upper East Region: Bawku, Garu, Tempani, Pusiga, Zebilla, and Binduri (see Abubakari 2018, 2022). There are two dialects of the language: Agole and Atoende. The Atoende dialect is spoken in Zebilla and its neighbouring communities whilst the Agolle dialect is spoken in Bawku, Garu, Tempene and surrounding communities.

Abubakar (2018, 2022) explains that, although there is no official census on the number of speakers of Kusaal across the West African sub-region, it is estimated that there are over two million native speakers of the language. According to the Ghana Statistical Service, based on its 2010 population and housing census, there are 534,681 speakers of Kusaal in the various regions and districts of Ghana. With a total population of 24,658,823 (GSS 2012), Kusaas make approximately 2.2% of the population of Ghana as at 2010 (Abubakari 2018, 2022).

2.1 Data Collection and Methodology

The data for this study is sourced from Naden (2015), a Kusaal Agole dictionary. We also solicited additional information via semi-structured interviews with native speakers of the language in Garu, Binduri and Bawku. The first author is also a native speaker of the language whose intuition helped with the grammaticality judgement of some of the constructions and words used. The research is entirely qualitative.

3. Characterising compounds and phrases

This section deals briefly with how the two constructions; compounds (3.1) and phrases (3.2), are characterised in relevant literature. For purposes of illustration, the discussions are further supported with some data from Kusaal.

3.1. Characterising a compound

Compounding is a major word formation process which is characterised simply as the process of putting together two or more words to form a new word. The literature is replete with definitions of the concept which tend to be language specific, although some appear to claim cross-linguistic applicability. Marchand (1969:11) explains that compounds are a combination of two or more words that form a morphological unit. Katamba & Stonham (2006:55) indicate that compounds consist of, at least, two bases which could be words or, at any rate, root morphemes. Fabb (1998:66), on his part, argues that a compound is a word which consists of two or more words. Olsen (2001:280) similarly defines compounds as combination of two free

forms or stems, to form a new complex word. Carstairs-McCarthy (2018:65) adds that compounds are formed by the combination of roots while Ralli (2013:10) asserts that compounds are made up of more than one lexeme which can be realised as words or stems based on the language under investigation.

Booij (2012:77) describes compounds as “consisting of the combination of lexemes into larger words”. The strength of this definition lies in the fact that it identifies the constituents of compounds as potentially independent lexical items, much like the definition of compound as the result of a process of forming a word “by concatenating two or more bases each of which potentially occurs alone elsewhere in the grammar as a syntactic atom” (Appah 2013b:73). This characterisation makes it possible to distinguish a compound from a derived word which must contain at least one affix as an immediate constituent (see Lieber & Štekauer 2009, Omachonu & Abraham 2012). However, it has been observed that the difference is not so clear-cut because “a lexeme may develop into a derivational morpheme” (Booij 2012:87). Again, the elements that make up compounds in some languages may not be free-standing words, but rather stems or roots (Omachonu & Abraham 2012). However, Lieber & Štekauer (2009:2) argue that the use of the term lexeme is “specific enough to exclude affixes but broad enough to encompass the roots, stems and free words that make up compounds in typologically diverse languages”. The examples in Table 2 are Kusaal nominal compounds whilst those in Table 3 are suffix-derived nouns.

Table 2. Kusaal nominal compounds

	Constituents	Gloss	Compound	Meaning
a	nu’ug+bil	hand+small	nubil	finger
b	teŋ+pvvg	land+stomach	teŋpvvg	city
c	tubir+pv-wvnm	ear+NEG-hear	tubpvwvnm	disobedient person

Table 3 Derived nominals in Kusaal

	Base	Meaning	Derived word	Gloss	Meaning
a	pa’al	teach	pa’al-vg	teach-NMLZ _[ACTION]	lesson/teaching
b	pa’al	teach	pa’a-n/pa’a-nip	teach-NMLZ _[AGENT]	teacher
c	wa’	dance	wa’a-b	dance-NMLZ _[ACTION]	dancing
d	wa’	dance	wa’a-wa’ad/wa’a-d	dance-NMLZ _[AGENT]	dancer

Table 2 shows two lexical items (free morphemes) combined to form new words. In Table 2a, for instance, we have the noun *nu* ‘hand’ combining with the adjective *-bil* ‘small’ to form *nubil* ‘finger’ (any of the ten). Even though Table 2c is more complex as it contains a verb *wvm* ‘to hear’, a negative morpheme *pv* and a noun *tubir* ‘ear’ compared to the other two that are each composed of two nouns, it divides into two lexemes as the negative morpheme is not a separate lexeme.

In his critique of extant definitions, Altakhaineh (2016c) argues that most definitions are narrow since they fail to acknowledge the fact that phrases can be elements of compounds in some languages, like English, *over the fence gossip* in which the first constituent is a prepositional phrase $[[\textit{over the fence}]_{PP} \textit{gossip}]_N$. He also argues that the definitions do not shed light on how compounds may be distinguished from phrases, except, in his opinion, studies like Bauer (2001) and Plag (2003). Bauer (2001:695), for example, explains that a “[c]ompound is a lexical unit made up of two or more elements, each of which can function as

a lexeme, independent of the other(s) in other contexts, and which shows some phonological and/or grammatical isolation from normal syntactic usage.” Writing on English compounds, Plag (2003:135) suggests that “a compound is a word that consists of two elements, the first of which is either a root, a word or a phrase, the second of which is either a root or a word.”

Altakhaineh (2016c), by following Plag (2003)’s argument, attempts to give what he reckons would be a cross-linguistically applicable definition of compounds. He defines a compound as “a complex word that consists of at least two adjacent elements, where the non-head is normally non-referential. Each of these elements is either a word, combining form or a phrase, so that the whole compound is a combination of these elements” (Altakhaineh 2016c:81).

A detailed discussion of Altakhaineh’s definition and the supporting data lies outside the scope of the present paper. It is worth noting, however, that portions of it are not clear enough. For example, it is unclear what is meant by “the whole compound is a combination of these elements”. Of course, formally, every linguistic expression, unless it is a simplex form, is expected to be “a combination of [its constituent] elements”. Again, the idea of the non-referentiality of the non-head constituent may not necessarily be uniquely defining of compounds *per se* because even phrases may have non-referential non-head constituents (cf. Haspelmath & Sims 2010:191-92). This confirms our view that what a compound may be defined based on language-specific criteria as well as established cross-linguistically acceptable criteria like the fact that there must be at least two constituents where ideally one is the head, and the non-head may be a combining form, another lexeme, or a phrase.

To set the stage for the discussion of the demarcation of the boundaries of compounds and phrases in Kusaal, we spell out what a phrase is in the next section.

3.2 Characterising phrases

Katamba & Stonham (2006:353) describe a phrase as “a syntactic constituent whose head is a lexical category, i.e. a noun, adjective, verb, adverb or preposition”. They add that it may consist of one, two or more words. Radford (2009:39) similarly expects phrases to be made up of two or more words. Thus, he observes that “the simplest way of forming a phrase is by merging [...] two words together” as found in *help you* which is a phrase formed by merging the word *help* with the word *you*. It must be noted, however, that a phrase can minimally contain only one word, like *help* in (1a) which has the same distributions as *help you* in (1b).

- (1). a. We are trying to *help*.
b. We are trying to *help you*.

An important feature of phrases is that they are headed constructions with the head playing the critical role of determining the grammatical and semantic properties of the whole phrase (Radford, 2009). For example, in the phrase *help you* (1b), because the head *help* is a verb, the whole construction will have the distribution of a verb. Again, the whole compound is about the action of *helping* rather than the pronoun *you* which refers to a person because *help* is the head.

The foregoing and the content of the previous section provide a general scope for the debate, having brought us face to face with one of the principal reasons why the whole enterprise of distinguishing compounds from phrases is important. That is, just like compounds, phrases may consist of two or more words, as illustrated in (2). As Bauer (2003:135-36) puts it, compounding shares identical properties with phrase formation in that they sequence lexemes. Thus, the number of lexemic constituents in a construct may not accurately indicate whether that construct is a compound or phrase (see Altakhaineh 2016c:60).

(2)

<i>Constituents</i>	<i>Compounds</i>	<i>Phrases</i>
<i>nwad+bibi-s</i> moon+small-PL	<i>nwadbibis</i> 'stars'	<i>ya tita-da</i> house.PL big-PL 'big houses'
<i>nu'u+bil</i> hand+small	<i>nu'ubil</i> 'finger'	<i>zɔ kul</i> run go.home 'run home'
<i>naa_yir</i> chief-house	<i>naayir</i> 'palace'	<i>bi sabulug wɔk la</i> child black tall DEF 'the tall black child'

In the next section, we review literature on the distinction between compounds and phrases.

4. Distinguishing between Compounds and Phrases: the criteria

As our discussions so far have shown, the question of how to distinguish between compounds and phrases is not a trivial one. Therefore, a lot of research attention has been focused on it with the application of varying phonological, syntactic, and semantic criteria to distinguish, for example, nominal compounds from syntactic constructions like noun phrases and genitive constructions whose constituents tend to be similar to nominal compounds. We briefly discuss how some studies have applied certain criteria in attempts to distinguish compounds from phrases in some languages.

As noted above, Booij (2012) gave two main reasons why it is not easy to distinguish between compounds and phrases: their functional similarity as labels for name-worthy categories, and their formal similarity which results from the observation that compound patterns often derive historically from phrasal word combinations. In illustrating the formal similarity mentioned above, Booij uses the German expression for "red cabbage" which is an Adjective+Noun compound *Rotkohl* as opposed to the Dutch expression for the same item *rode kool* which is a noun phrase. Booij explains that whilst the German expression is a compound, the Dutch expression is a phrase because the adjective in the Dutch expression bears an inflectional ending *-e* which marks agreement since adjectives in Dutch phrases must agree with the nouns they modify in terms of gender, number, and definiteness. The German expression, on the other hand, is a compound because the adjective does not take inflection in this circumstance. The German expression *ein rot-er Kohl* "a red cabbage", however, is clearly a noun phrase because of the adjectival ending *-er* (see Booij 2012:84).

Bauer (2003:136) and Rosenbach (2007:143) also explain that a sequence of N+N in English can be equivalent to possessive plus noun. Thus, whereas the data listed under 'compounds' in (3) are usually seen as exemplifying morphology, the data listed under 'phrases' in (3) are viewed as part of syntax.

(3) Compounds	Phrases
a. dog house	dog's house
b. lawyer fees	lawyer's fees
c. Sunday lunch	Sunday's lunch

Haspelmath & Sims (2010:191) presents similar observation about what obtains in Lango. However, we will show that this criterion cannot be used to distinguish between compounds and phrases in Kusaal because there are no overt markings of possession in the language. The

2009). In the next section, we consider the various criteria, weaving the discussion around a relatively recent attempt to pull together the criteria that have been proposed for distinguishing compounds from phrases (Altakhaineh 2016c), and show how Kusaal fits in, as we test the criteria with data from Kusaal to find out whether they could be useful in differentiating compounds from phrases in this language.

5. Distinguishing compounds from phrases in Kusaal

As shown above, the need to distinguish compounds from phrases has been observed cross-linguistically for various reason, including the formal and semantic similarities between the two constructs. The parameters that have been used in this endeavour include orthography, stress, modification, compositionality, displacement, insertion, referentiality, coordination, replacement of the second element by a pro-form, ellipsis, and inflection & linking elements (cf. Altakhaineh 2016c, Appah 2017a, 2019a, Bauer 1998, Giegerich 2004, 2008, 2009, Haspelmath & Sims 2010, Spencer 1991). Very little, if any at all, can be said of studies in Mabia languages that have attempted using any of the criteria above to distinguish compounds from phrases. This work, thus, discusses these parameters to determine which of them can be used to differentiate compounds from phrases in Kusaal. Our exploration will support the view that the various criteria for distinguishing phrases from compounds tend not to be cross-linguistically applicable (see Haspelmath & Sims 2010:187-95).

5.1. Orthography

The writing systems of languages may provide criteria for identifying compounds from other construction types. In several European languages, orthography provides enough basis for distinguishing compounds from phrases (cf. Altakhaineh 2016c). For example, in Czech and Slovak, a compound is spelled as one word and a syntactic phrase as separate words (Lieber & Štekauer 2009:7). Also German compounds are often spelled as single words but coordinates (e.g., *rot-grün* ‘red and green’, *schwarz-rot-gold* ‘black and red and golden’ and *Dichter-Maler-Komponist* ‘poet and painter and composer’) are typically written with hyphens (Neef 2009:396). However, English orthographic convention is not very helpful in distinguishing compounds from phrases as some compounds are written as one word with or without hyphens (e.g., *horse-trade*, *overflow* and *egghead*) while others (e.g., *body language*) are often written as separate words. Even English dictionaries are not consistent as seen for the various renditions of the same expression *girlfriend* (*Hamlyn’s Encyclopaedic World Dictionary* and *Webster’s Third New International Dictionary*), or *girl-friend* (*Concise Oxford Dictionary*, 7th Edition). Thus, orthography is not a very reliable criterion for distinguishing between compounds and phrases especially in a language like English (cf. Altakhaineh 2016c:61-62).

The spelling systems of Mabia languages are gradually gaining attention as researchers look for ways to harmonise the orthographies of these languages. Suggestions on how compounds should be written has been one critical issue. Bodomo & Abubakari (2017:179), observe that the spacing of constituents that form compounds in the orthography of these languages is one basic problem. They propose that if the first constituent of a compound loses its ending, then the second constituent should be joined to the first and the two written as one word as demonstrated in Table (4).

Table 4. Proposed orthography for Mabia compounds (Bodomo and Abubakari 2017:179)

	Language	Constituents	Gloss	Compound	Meaning
a	<i>Dagaare</i>	<i>bie+doo</i>	child+man	<i>bidoo</i>	young man/son
b	<i>Kusaal</i>	<i>biig+bil</i>	child+little	<i>bibil</i>	little child

Similarly, Musah, Naden & Awimbilla (2013:32-33), maintaining the view that compounds are written as single words in Kusaal, suggest that any first noun that loses part of its form should be combined with the adjoining noun to form a compound. The resulting words are fused as shown in Table 5a-f.

Table 5. Proposed orthography for Kusaal compounds (Musah, Naden & Awimbilla 2013)

	Constituents	Gloss	Compound	Meaning
a.	<i>daam+bin</i>	liquor+faeces	<i>dabin</i>	alcohol yeast
b.	<i>wevg+naaf</i>	deep bush+cow	<i>wenaaf</i>	buffalo
c.	<i>bin+tam+pig+ir</i>	faeces+mud+ball]	<i>bintipigidvg</i>	dung-beetle
d.	<i>teŋ+pvvg</i>	land+stomach	<i>tempvvg</i>	city-centre
e.	<i>wevg+baa</i>	deep bush+dog	<i>wε-baa</i>	leopard
f.	<i>sinlinsin'ugpaanlvŋ</i>	spider+web	<i>sinlinsin'ipaanlvŋ</i>	spider-web
g.	<i>Atine+daar</i>	Monday+day	<i>Atine daar</i>	Monday
h.	<i>Atilata+daar</i>	Tuesday+day	<i>Atilata daar</i>	Tuesday
i.	<i>Alaarib+daar</i>	Wednesday+day	<i>Alarib daar</i>	Wednesday

Although one may not entirely rule out their existence, we are yet to come across compound words that are written as separate words except the names of the days of the week which are consistently written as separate words (Table 5g-i) probably because they are borrowed from Hausa which also borrowed them from Arabic (Abubakari et al. 2023). Indeed, when used without *daar* ‘day’, the morphemes *Atine*, *Atilata* and *Alaarib* (Table 5g-i) can only be interpreted as personal names for people born on the respective day of the week – Monday, Tuesday and Wednesday.

On hyphenation, Musah, Naden & Awimbilla (2013) argue that a compound is hyphenated if the first base ends with a [+syllabic] and the second base also begins with a [+syllabic]. The hyphen, they explain, is intended to avoid a long concatenation of vowels or syllabic sounds. The examples in Table (6) are used as illustrations.

Table 6. Hyphenated Compounds (Musah, Naden & Awimbilla 2013:33)

	Constituents	Gloss	Compound	Meaning
a	<i>saa+ian'asvg</i>	rain+flas	<i>Sa-ian'asvg</i>	lightning
b	<i>pv'a+elij</i>	woman+marriage	<i>pv'a-elij</i>	betrothed

The orthographic rule that requires that if a compound constituent loses part of its phonological material, it should be fused with the second constituent to form one word is similarly proposed for phrases especially N+Adj phrases. A modifying adjective is attached to its head noun to form a single word if the latter loses part of its base. This is demonstrated in Table (7) where (7a, b) are phrases whose constituents are written together as single words and (7c, d) where the constituents are written as separate words because the constituents are in their full forms.

Table 7. N+Adj Phrases

	Constituents	Gloss	Compound	Meaning
a	<i>bvvg+bil</i>	goat+small	<i>bvbil</i>	kid
b	<i>pε'og+piel</i>	sheep+white	<i>pepiel</i>	white sheep
c	<i>pu'a+venla</i>	woman+beautiful	<i>pu'a venla</i>	beautiful women
d	<i>paŋ+tita'ar</i>	strength+big	<i>paŋ tita'ar</i>	great strength

Clearly, the orthographical convention of Kusaal poses a challenge for the attempt to

distinguish between compounds and phrases, especially N+Adj compounds and N+Adj phrases. Kusaal can, therefore, be grouped with languages like English which cannot be said to have a reliable orthographic demarcation between these two grammatical constructs.

5.2. Stress

Stress marking is another proposed criterion for distinguishing compounds from phrases in some languages, including English (Haspelmath & Sims 2010:192), Danish (Bauer 2009:402), Dutch (Don 2009:379-80), Hungarian (Kiefer 2009:531), Polish (Szymanek 2009:472-73), and Maipure-Yavitero (Zamponi 2009:587, 92). Stress marking is generally not a characteristic of Kusaal and Mabia languages. For instance, Hudu (2010:19) asserts that “Dagbani and other Gur languages are not stress marking”. Thus, this criterion cannot be applied to distinguish compounds from phrases in Kusaal.

5.3. Modification of constituents of compounds

Another criterion that has been used to distinguish compounds from phrases is modification. It is argued, for instance, that in an Adj+N compound in English, the first constituent cannot be modified while the first constituent of a phrase containing similar constituents can be modified. For example, the word *very* can modify an adjective that is part of a phrase, such as a *very black bird* while pointing at a crow, but it is not permissible to say *a very blackbird* if the referent is the genus *Agelaius* (see Altakhaineh 2016c:64, Lieber & Štekauer 2009:12). The reason is that the first constituent is not the head and that non-head constituents cannot be modified independently (cf. Appah 2016b:266, Giegerich 2005:574, Ralli & Stavrou 1998:244). Indeed, it is expected that, being words, any modifier will have scope over the entire word and not individual constituents, especially non-head constituents.

As demonstrated by Abubakari (2018, 2022), Kusaal adjectival modifiers of nouns in both morphology and syntax occur to the right of the nominal, yielding the structure $N_{root/stem} Adj_{num}$. This is illustrated in (6a) and (6b) for singular and plural nouns respectively, where the stem of the head noun is followed by the adjective which also marks number. As can be seen, the head noun *buug* 'goat' becomes *bu-* when the adjective *wɔk* 'tall' is added.

- (6) a. bú+wɔk piélúg lá
 goat+tall.SG white.SG DEF
 ‘the tall white goat’
- b. bú+wá'á piélís lá
 goat+tall.PL white.PL DEF
 ‘the tall white goats’

The non-head adjective constituent cannot be modified independently if the construct is a compound while the adjective constituent of a similar looking construct can be modified if it is a phrase. The modified phrase has a different interpretation from the compound and these interpretations are context driven since both the phrase and the compound have the same constituents, written and pronounced the same way, as in (7).

- (7) a. *nu'u+bil* *hali* [[nu'ubil] hali] *[nu'u [bil hali]]
 hand+small very
 ‘tiny finger’

b. *nu'u+bil hali* [nu'u [bil hali]]
 hand+small very
 'a very small hand'

c. *O mɔr nu'ubil hali*
 3SG has hand.small very
 'S/he is a professional thief'

Thus, N+Adj compounds do not allow the modification of the adjective constituent in isolation, as illustrated by bracketing in (7a), however, the entire construct can be modified. *Nu'ubil* also means 'thief' and when modified with *hali*, it is interpreted as a 'professional thief', as shown in (7c). In (8a-b) are other examples showing the grammaticality of modifying compounds with other adjectives.

(8) a. *na'a+pua sabulug la*
 chief+woman black DEF
 'the dark-skinned queen'

b. *naasaa+bugum pii-pil*
 whiteman+fire bright
 'bright light'

Unlike compounds, both the phrase and its non-head constituent can be modified by the intensifier *hali* 'very'. Consider examples (9) and (10) and the bracketing to the right of the (b) examples.

(9) a. *ya titada*
 hous.PL big.PL
 'big houses'

b. *ya titada hali* [[*ya titada*] *hali*], [*ya* [*titada hali*]]
 house.PL big.PL very
 'very big houses'

(10) a. *bv+bil*
 small+goat
 'a small goat'

b. *bv+bil hali* [[*bv bil*] *hali*], [*bv* [*bil hali*]]
 small+goat very
 'a very small goat'

While the modification of a non-head constituent of compounds renders it ungrammatical, the modification of the entire construct is permissible. Non-head constituents of phrases, on the other hand, can be modified as well as the entire construct. This is consistent with previous observations on the modification of non-head constituents of compounds (Altakhaineh 2016c, Appah 2016b, Giegerich 2005, Lieber & Štekauer 2009, Ralli & Stavrou 1998).

5.4. Compositionality

Booij (2012:209) observes that “[t]he general principle for the semantic interpretation of both morphological and syntactic structures is the compositionality principles” which suggests that the meaning of a complex linguistics expression must emanate from the meanings of its constituent parts and their arrangement in the linguistic expression. As Neef (2009:394) puts it, “[a] complex linguistic expression is considered to be compositional if its meaning is determined by both the meanings of its parts and the way it is structured.” Thus, given a complex linguistic expression that is made up of *sea* and *blue*, the meaning should differ depending on the order in which they are combined, so that *sea blue* (a type of *blue*) should mean something different from *blue sea* (a type of *sea*). It is widely accepted that compounds can generally be divided into two – those whose meanings emanate from their constituents (endocentric compounds) and those whose meanings, either in part or whole, do not emanate from their constituents, called exocentric compounds (Appah 2016a, 2017a, b, 2019b, Bauer 2008, 2010, 2016). At the heart of the distinction is the idea of the head constituent which determines the categorial and semantic properties of the compound and is usually modified by the non-head constituent. An endocentric compound has a head constituent. That is, a compound with the structure YX will have X as the head and Y serving as a modifier, expressing something related to X. This is commonly observed in N+N compounds (Bauer 1979, 1998, Downing 1977, Spencer 2011). Consider the endocentric compounds in Table 8 where the second constituents function as heads and the first constituents serve as modifiers. For instance, *baa yir* ‘doghouse’ is a type of house and not a type of dog; *na'apu'a* ‘chief’s wife’ is a type of wife not a type of chief; *na'asaateŋ* ‘Europe’ is a type of geographical location not a whiteman and *zabasv'vg* ‘sword’ is a type of knife not a type of war.

Table 8. Compositional (endocentric) N-N compounds in Kusaal

Constituents	Gloss	Compound	Translation
<i>baa+yir</i>	dog+house	<i>baa yir</i>	doghouse
<i>na'a+pu'a</i>	chief+woman	<i>na'apu'a</i>	queen mother
<i>na'asaa+teŋ</i>	whiteman+land	<i>na'asaateŋ</i>	Europe
<i>zaba+sv'vg</i>	war/fight+knife	<i>zabasv'vg</i>	Sword
<i>pɔɔg+gur'</i>	farm+guard	<i>pɔgur'</i>	farmguard
<i>yir+in+kɔnbvg</i>	home+animal	<i>yinkɔnbvg</i>	domestic animal

Exocentric compounds tend not to have head constituents and so cannot be compositional by either syntactic or semantic measure. In Table 9 are examples of Kusaal exocentric compounds that are semantically non-compositional.

Table 9. Non-compositional (exocentric) N-N compounds in Kusaal

Constituents	Gloss	Compound	Translation
<i>na'asa+bugum</i>	whiteman+fire	<i>na'asaabugum</i>	electricity
<i>zug+sɔb</i>	head+owner	<i>Zugsɔb</i>	God almighty
<i>kparib+piim</i>	robe+arrow	<i>kparipiim</i>	needle

Contrary to the generally accepted view that compounds tend not to be compositional, some linguists argue that compounds, in many languages, are very productive and often compositional especially when contexts are considered (Benczes 2005, 2006, Kavka 2009, Lieber 2005). As Kavka (2009:33) observes, “their status will be understood more readily if they are viewed as parts of concrete, contextually defined utterances”.

Compositionality is argued to be one of the most important criteria for distinguishing

compounds from other free combinations. That is, while phrases tend to be compositional, compounds tend to be non-compositional, much like idiomatic expressions (Altakhaineh 2016c, Kavka 2009). Some examples of compositional compounds in English are *houseboat*, *committee meeting* and *bookshop*, while *egghead*, *redskin* and *blue-stocking* are non-compositional (Altakhaineh 2016c:67). Comparing these to phrases, Altakhaineh (2016c:67) argues that there are phrases that are compositional and others that are not: *white lie*, and *old hand* are non-compositional, whereas *beautiful house*, *long journey* and *tall man* are compositional. Thus, it is suggested that this criterion for compoundhood should be dismissed at least for languages like English.

Compounds in Kusaal cannot be distinguished from phrases on the grounds of compositionality. Kusaal has compounds that are clearly compositional and others that are non-compositional as exemplified in (11).

(11)

Compositional compounds	Non-compositional compounds
i. <i>ku'o+svŋ</i> water+good 'clean water'	i. <i>teŋ+pɔvɔ</i> land+stomach 'city'
ii. <i>bi+pv'a</i> child+wife 'child's wife/ daughter-in-law'	ii. <i>karim+saam</i> read+father 'teacher'

Additionally, the language has phrases that are compositional and others that are non-compositional as shown in (12) where the non-compositional phrases look more idiomatic because their meanings do not depend on the meanings of their constituents.

(12)

Compositional phrases	Non-compositional phrases
i. <i>teŋ tita'ar</i> land big 'big towns/country'	i. <i>mɔr pɔvɔ</i> have stomach 'be pregnant'
ii. <i>dap venla</i> man.PL beautiful.PL 'handsome men'	ii. <i>lɔ nɔɔr</i> tie mouth 'to fast'
iii. <i>nyan diisvɔ</i> shame feed.NML 'shame, disgrace'	iii. <i>tis sida</i> give truth 'agree'
iv. <i>mɔr sam</i> have debt 'be indebted'	iv. <i>pu'a diir</i> woman eat.NML 'marriage'

It is worth pointing out that the forms of the constituents of compounds tend to be different from the forms of the constituents of phrases, even if it is the same lexeme. For instance, '*bipu'a*' is supposed to be '*biig+pu'a*' but in both spoken and written forms of the language '*bipu'a*' is used as the standard form. However, if *biig pua* 'child wife' is construed as a phrase, the meaning somehow changes to 'a boy's wife', thus the referent is not an in-law of the speaker. Thus, although the constituents of both the compound and the phrase are the same their

meanings differ. Example (13a-c) further illustrate this, showing the ungrammaticality of using a compound form where a phrasal form is expected (13c).

- | | | |
|------|--|--|
| (13) | Compositional Compound | Phrase |
| a. | <i>ku'o+svɲ</i>
water+good
'the clean water' | b. <i>kuom kane an svɲ la</i>
water which is good DEF |
| c. | <i>*ku'om svɲ</i>
'clean water' | |

Additionally, when the constituents of a non-compositional compound are split and used in a phrase, the latter acquires a different meaning. For instance, the compound in (14a) will be rendered as in (14b) for a noun phrase.

- | | | |
|------|--|---|
| (14) | Compound | Noun Phrase |
| | <i>teŋ+pɔvɔg</i>
land+stomach
'city' | <i>teŋ la pɔvɔg</i>
land DEF stomach
'inside the town/ main town' |

5.5. Displacement

One criterion which promises to be efficient is 'displacement'. Fábregas & Scalise (2012:121) show that displacement is one successful way of identifying compounds from phrases in English, since in English it is possible to displace a constituent from a phrase but not from a compound. This is because, being words, compounds have lexical integrity which is violated when a constituent is extracted or displaced (Booij 2009, Chomsky 1968). Thus, it is ungrammatical to extract 'truck' from the compound 'truck driver' in (15a) but is felicitous to extract the same item from the corresponding VP in (15b) '... drives trucks'.

- (15) a. **Truck is what he likes a [_____ driver].*
 b. *Trucks are what he [drives _____].* (cf. Altakhaineh 2016c:67)

A rendition of the above situation in Kusaal results in a similar observation where *dɔriba* 'driver' cannot be extracted from (16a) as it results in the ungrammatical construction in (16b), whilst extraction is possible in (17a) as evidenced by (17b) and (17c).

- | | | |
|------|----|---|
| (16) | a. | <i>O anɛ [tazi dɔriba]</i>
3SG COP taxi driver
'He is a taxi driver.' |
| | b. | <i>*Tazi ka o nɔŋ [____-dɔriba]</i>
taxi FOC 2SG like driver |
| (17) | a. | <i>O [dɔribid nɛ tazinam]</i>
3SG drive.IMPV FOC taxis
'He drives taxis.' |

- b. *Tazinam ka o [dɔribid-___]*
 taxis FOC 3SG drive.IMPV
 ‘He drives TAXIS.’
- c. *Tazinam anɛ dine ka o dɔribid*
 taxis COP what FOC 3SG drive.IMPV
 ‘Taxis are what he drives.’

The slot represents the gap left by the constituent *tazinam* ‘taxis’ extracted to the sentence initial position where it receives a focus interpretation and followed by the focus particle *ka*. As explained by Jackendoff (2009), this criterion shows that compounds are not built by syntactic rules as phrases are, making compounds lack internal syntactic structure.

5.6. Insertion

Insertion, just like displacement, provides a clear way of delineating compounds from phrases in some languages. Lieber & Štekauer (2009:11-12) show that insertion provides one way of identifying compounds from phrases in English. They argue that while it is possible to insert a word like *ugly* into a phrase like *a black bird*, it is impossible to insert the same word in the compound *blackbird*. *Ugly* can only be used in modifying the whole compound as in *ugly blackbird* (see Altakhaineh 2016c:68).¹ This is clearly related to what we discussed in section 5.3 under modification.

In Kusaal, some phrases are written as separate words. Compounds, on the other hand, often have two or more bases written together as single words with final morphemes deletion in the first constituent. A modifier cannot occur between the constituents of a compound. However, this is possible in a phrase. See illustration below with the modifier *svɛ* ‘good’.

(18)	Compound	Phrase
a.	<i>nid+kvvd</i> man+kill.NOM _[AGENT] ‘murderer’	<i>nid.svɛ kvvr</i> man.good funeral.NOM’ ‘good man’s funeral’
b.	<i>ku’o+nuudim</i> water+drink.NOM ‘drinking-water’	<i>ku’o.svɛ+nuub</i> water.good+drink.NOM drinking of good water
c.	<i>ku’onuudim svɛ</i> ‘good drinking water’	
d.	<i>*ku’osvɛ+nuudim</i> Intended: ‘good drinking water’	

Previous research has also established possible situations where demonstratives and quantifiers have been identified as possible criteria for separating compounds from phrases in Arabic (cf. Altakhaineh 2016c). It is important to indicate that the demonstratives *nwa* ‘this’, *kanna* ‘that’, the quantifiers *sieba* ‘some’ *wusa* ‘all’ and *za’a* ‘all’ can be inserted in N+N phrases but not in N+N compounds in Kusaal.

¹ It has been noted that there is one potential exception to this general principle: the category of phrasal verbs (Lieber & Štekauer 2009).

(19)	NN Phrases	<i>ningbiŋ kpaam</i> skin oil 'skin pomade'	<i>ningbiŋ sieba kpaam</i> skin some oil 'pomade for certain skin types'	<i>ningbiŋ nwa kpaam</i> skin this oil 'pomade for this skin type'
	NN Compounds	* <i>bin'isnwakpaam</i> 'butter'	<i>bin'iskpasvŋ nwa</i> butter this 'this butter'	

The general observation is that insertion is a fairly reliable criterion for differentiating compounds from phrases in Kusaal. Possible permutations of compounds or phrases involving other word categories where the modifiers, quantifiers and demonstratives could be used as a criterion for differentiating these constituents have not been covered and is open for further investigation.

5.7. Referentiality

Referentiality is another semantic criterion suggested in the literature for separating compounds from phrases (inter alia, Altakhaineh 2016c, Haspelmath & Sims 2010, Saeed 2016). Referentiality is defined by Saeed (2016:11) as “the relationship by which language hooks onto the world”. For instance, the anaphoric or referencing expression *he* in *he is a coward* identifies an entity, person/individual in the world as its referent. Relating this to compounds, it is observed that non-head constituents are commonly generic and non-referential. Haspelmath & Sims (2010:191) explain that a dependent noun in almost all compounds, does not denote a particular referent, but an entire class. In the Kusaal example *naasaa+bugum* 'electricity' [lit. whiteman+fire], the constituent *naasaa* 'whiteman' does not have a specific referent or entity in the context of the meaning of the compound. The head of the compound *bugum* 'fire', on the other hand, refers to a specific thing which can be modified by different modifiers on occasion, as in *bugum+saana* [fire+charcoal] 'charcoal-fire' and *bugum pipilim* 'bright light' [lit. fire bright] where a type of fire and a type of light are respectively described. Additionally, compounds in Kusaal can be either left or right headed as in *bugum pipilim* 'bright light' and *naasaa+bugum* 'electricity' [lit. whiteman+fire] respectively. This means that modifiers in compounds can either qualify the left or the right element which functions as the head. To further exemplify the non-referentiality of non-head constituents of compounds in Kusaal, we see that the non-head constituents of the two compounds below, do not refer specifically to any entities that are contextually and referentially identifiable in the world.

(20) a. <i>nwad+pielig</i> moon+white 'moonlight'	b. <i>nwad+bibis</i> moon+small.PL 'stars'
c. <i>nwad pipilim</i> moon bright 'bright moon'	d. * <i>pielig pipilim</i>

It is important to note that, contrary to the widely held view about the non-referentiality of non-head constituents of compound, Bauer (1998) argues that they occasionally serve as discourse antecedents for pronouns, such as *so I hear you are a real cat-lover. How many do you have now?* This is also discussed by Bauer, Lieber & Plag (2013:464). The Kusaal data, however,

suggests that referentiality is quite a reliable criterion for the purpose of identifying compounds (21b) from phrases (21a).

- (21) a. *dau bil* b. *nu'ubil*
 man small hand+small
 'small man' 'finger'

In the examples in (21) whilst *bil* 'small' refers to the head noun *dau* 'man' in (21a), the same word has no specific reference in the compound *nu'ubil* 'finger' in (21b). It must be pointed out that it is not just any small hand that can be referred to as a finger. For example, relative to a full-grown man, a baby's hand is a "small hand", but that does not make the baby's hand a "finger". Thus, this example, shows the non-compositionality of the compound as well as the non-referentiality of the head constituent *nu'u* 'hand' as it is not a specific hand that is referred to in the compound.

5.8. Coordination

The three kinds of grammatical relations that occur between constituents of phrases (modification, subordination and coordination) also occur in compounds. The only difference is that compounds usually do not have overt markers for them (Appah 2013a, Jackendoff 2010, Jackendoff & Audring 2020, Scalise & Vogel 2010). Thus, unlike phrases, compound constituents are not easily coordinated using conjunctions (see Altakhaineh 2016c:70, Fábregas & Scalise 2012:120). It is on this basis that the bracketed portions of the example in (22a) is regarded as a phrase while the one in (22b) is treated as a compound, although the two elements (tea & bread) are in both (22a) & (22b). Indeed, the meaning of the composite *tea bread*, is a bit more than the sum of the meanings of *tea* and *bread*.

- (22) a. *He likes [tea and bread].* (phrase)
 b. *He likes [tea bread]* (compound)

Coordination is quite a reliable criterion for distinguishing phrases from compounds in Kusaal. Whilst the constituents of phrases can be coordinated, the various constituents in compounds cannot be coordinated using either the noun phrase or verb phrase coordinators: *ne* and *ka* respectively in Kusaal. The following examples which can pass as phrasal compounds in English cannot be rendered in similar form in Kusaal.

- (23) a. He is a bicycle and motor repairer.
 b. She is a rice and beans seller.
 c. He is a farm and game lover

- (24) a. *O anε onε maan moto ne kεεkenam.*
 3SG COP someone makes motor CONJ bicycle
 'He is someone who repairs motors and bicycles'
- b. *O anε onε nεη kuob ne tεn'εsvg.*
 3SG COP someone like farm.NML CONJ hunt.NML
 'He is someone who loves farming and gaming.'

- c. *O anε one kuosid mui nε beŋa.*
 3SG COP someone sell.IMPV rice CONJ beans
 ‘S/he is someone who sells rice and beans.’

It can be observed that the coordinate compounds in English are rendered as coordinate phrases in Kusaal. It is therefore observed that, whilst phrases can be coordinated, compounds do not lend themselves easily to coordination in Kusaal. Additionally, any attempts to break a compound into its composite parts and use the coordinator *nε* or *ka* where applicable, changes the meaning of the compound to something entirely different.

- | | | |
|------|---|---|
| (25) | <p>Compounds</p> <p>i. <i>ba'a+biig</i>
 father+son
 ‘my father’s son/sibling’</p> <p>ii. <i>bin'iskpaam</i>
 milk.oil
 ‘butter’</p> | <p>Coordinate phrases</p> <p>i. <i>ba'a nε biig</i>
 father CONJ son
 ‘father and son’</p> <p>ii. <i>bin'isim nε kpaam</i>
 milk CONJ oil
 milk and oil’</p> |
|------|---|---|

In effect, coordination, as demonstrated, provides a good basis for differentiating compounds from phrases in Kusaal.

5.9. Inflection

Inflection is one of the criteria suggested for differentiating compounds from phrases in the literature although it appears not to be entirely effective as a cross-linguistic criterion. Inflectional languages commonly inflect the individual words of phrases when same cannot be said of compounds which are composed of not full forms of words but stems (Lieber & Štekauer 2009). Using Hebrew and Arabic for instance, it has been shown that free pluralization of non-head proves reliable in differentiating between phrases and compounds (Altakhaineh 2016a:8-9, 2016b, d:135). However, some examples from English show that although most compounds are inflectionless (*houseboat* and *spaceship*) others described as ‘descriptive genitives (*children’s hour* or *girls’ club*) take inflections (Altakhaineh 2016c:70, Bauer, Lieber & Plag 2013:436, Lieber 2005:376).

Inflectional marking on N+Adj phrases in Kusaal presents two situations: (i) the possibility of realising number on the individual lexemes in the phrase, and (ii) the possibility of number marking only on the modifier (Abubakari 2018:52, 2022).

- | | | | |
|------|--|--|---|
| (26) | <p>Noun Phrase (SG)</p> <p>a. <i>dav venliŋ</i>
 man beautiful
 ‘handsome man’</p> <p>b. <i>pv'a giŋ</i>
 woman.SG short.SG
 ‘short woman’</p> <p>c. <i>yir tita'ar</i>
 house.SG big.SG
 ‘big house’</p> | <p>Noun Phrase (PL)</p> <p><i>dap venla</i>
 man.PL beautiful.PL
 ‘handsome man’</p> <p><i>pv'a gima</i>
 woman.SG short.PL
 ‘short women’</p> <p><i>ya tita'ada</i>
 house.PL big.PL
 ‘big houses’</p> | <p>Unacceptable permutations</p> <p><i>*dap venliŋ</i>
 man.PL beautiful.SG</p> <p><i>*dau venla</i>
 man.SG beautiful.PL</p> <p><i>*pv'ab gima</i>
 woman.PL short.PL</p> <p><i>*yir tita'ada</i>
 house.SG.big.PL</p> <p><i>*ya tita'ar</i>
 house.PL big.SG</p> |
|------|--|--|---|

It is important to add that, anytime number is marked on the head in the phrases above, same must reflect on the modifier, however, the reverse is not always the case. Thus, number is marked on (i) modifier only, (ii) both head and modifier and (iii) never head alone. This can be said to follow cross-linguistic observation of inflectional languages.

Compounds present a regular pattern in number marking. Comparing inflectional marking on phrases to that of compounds, we observe that number is only marked on the head of the compound. This will answer any question of why so-called phrases that are written as single units are not considered as compounds. The main reason is that, as a single word, inflection appears only ones in the compound and is usually marked on the head constituent which is the locus of inflections (Lieber & Štekauer 2009). Generally, then, phrases and compounds can be said to inflect differently in Kusaal.

(27)

Compounds (SG)	Compounds (PL)	Unacceptable permutations
<i>ba'a+biig</i> father.child.SG 'sibling'	<i>ba'a+biis</i> father.child.PL 'siblings'	* <i>ba'anambiis</i> father.PL.child.PL * <i>ba'anambiig</i> father.PL.child.SG
<i>karim+saam</i> read.father 'teacher'	<i>karim+saamna</i> read.father.PL 'teachers'	* <i>karimnamasaamna</i> read.PL.father.PL * <i>karimnamasaam</i> read.PL.father.SG
<i>nwad+bil</i> moon.small 'star'	<i>nwad+bibis</i> moon.small.PL 'stars'	* <i>nwadnama bibis</i> moon.PL. star.PL * <i>nwadnama bil</i> moon.PL small.SG

In general, whilst compounds follow a regular pattern of inflecting for number on only the head, phrases do not. Phrases can have number marked on every constituent. Furthermore, expressions that could be described as 'descriptive genitives' in Kusaal, also considered as compounds, show a systematic pattern such that they do not take inflection. As indicated in Abubakari (2018), Kusaal does not have an overt inflectional marker for the genitive (28a, b). However, number marking on descriptive genitives only occurs on the non-head of the compound (29a-d). Any additional number marking on the head word implies multiples of the referent of the compound.

- (28) a. *Wina'am siig*
God spirit
'God's spirit'
- b. *zimi la'ad*
fish item.PL
'fishnets, fishing equipment'
- (29) a. *biis dɔɔg*
child.PL.POSS room
'children's room'
- b. *biis sana*
chile.PL hour
'children's hour'
- c. *Adolub yir*
Adolub.POSS house
'Adolub's house'
- d. *pu'ab tuongat*
woman.PL.POSS leader
'women's leader'

Generally, the observation in this subsection is that inflection is one possible criterion for distinguishing compounds from phrases in Kusaal. The following table presents a summary of basic observations.

(30) Inflectional markings on phrases and compounds

Phrases	Compounds
Can inflect only modifier	Inflects only head
Can inflect both head and modifier	Cannot inflect head and modifier
Cannot inflect only head	Cannot inflect modifier
	Absence of genitive inflection
	Number marked on only modifier for descriptive genitives

There remains a question about the eligibility of the proposals to classify N+Adj of the form stem+adjective as compounds (Bodomo & Abubakari, 2017; and Musah et al., 2013). Although the root is what gets attached to the modifier, making it the semantic head, yet it is not the constituent that carries inflection, as demonstrated in (31).

(31)

Constituents	Gloss	Compound	Translation
<i>bi+wɔk</i>	child+tall+SG	<i>biwɔk</i>	‘tall child’
<i>bi+wa’a</i>	child+tall+PL	<i>biwa’a</i>	‘tall children’
<i>bi+svɔ</i>	child+good+SG	<i>bisvɔ</i>	‘good child’
<i>bi+suma</i>	child+good+PL	<i>bisuma</i>	‘good children’

These examples behave more as phrases than compounds in inflectional marking. Thus, the modifier is what takes the number inflection unlike the head which is marked for number in compounds. Classifying N+Adj of the form stem+adjective as compounds, as suggested by Bodomo & Abubakari (2017) and Musah, Naden & Awimbilla (2013) based on orthography alone, is therefore problematic. Following this, it is suggested that the compoundhood of stem+adjective constructs should be assessed using other criteria such as modification, insertion among others. This ensures that ‘true’ N+Adj compounds like (32a, b) are distinguished from N+Adj phrases like (33a, b).

(32) a. *nwad+biig*
 moon.SG+child.SG
 ‘star’

b. *nwad+bibis*
 moon.SG+child.PL
 ‘stars’

(33) b. *bv+bil*
 Goat.SG+small+SG
 ‘kid’

b. *bv+bibis*
 goat.SG+small.PL
 ‘kids’

Additionally, the orthographic guide for demarcating compounds from phrases need to be relooked since the situation does not appear as simple as proposed.

6. Conclusion

This research has investigated various criteria proposed in the literature for distinguishing compounds from phrases and examined their viability for the task against data from Kusaal. The study finds that while criteria such as orthography, stress, and compositionality, are unreliable for distinguishing compounds from phrases in the language, others, such as displacement, coordination, inflection, referentiality, insertion, and modification, are very useful diagnostic tools for this purpose in Kusaal. The systematic application of these criteria to Kusaal data contributes to our understanding of word formation in the language with a possible extension of the phenomenon in Mabia languages in general. The contribution of this study lies in two areas: (i) it serves as a useful empirical resource as it presents and analyses a wealth of Kusaal examples, which can potentially enhance further research on the morphology and compounding patterns of the language. (ii) Additionally, it is a contribution to the theoretical debate on compounding as it evaluates proposed criteria and their cross-linguistic applicability. This enhances our understanding of the factors that distinguish compounds from phrases. The study has its limitations which provide avenue for further research. It will be worth investigating the historical development of compounds and their relationship to phrasal constructions. This can provide insights into the diachronic processes that shape the morphological structure of the language. Again, a comparative study of compounding in the Mabia languages will uncover patterns that can contribute significantly to discourses on this subject matter. Furthermore, the findings raise issues on constructions such as stem+adjective formations. These often exhibit identical features. Future study could delve deeper into these borderline cases, potentially refining the criteria for compoundhood and shedding light on the intricate interplay between morphology and syntax.

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