The Argument-Adjunct Scale: Applied Nominal and Locative Phrases in Xhosa

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This paper examines the categorial status of applied elements in Xhosa with respect to their argumenthood or adjuncthood. By analyzing the response of nominal and locative applied elements to various criteria and diagnostics and by adopting the hypothesis of a scalar distinction between arguments and adjuncts, the author proposes the following: The applied noun phrase approaches the prototype of argumenthood to a great degree, while the applied locative phrase is placed in the intermediate zone of the continuum, closer to the pole of adjuncthood than is the case of the nominal variant. The article provides further evidence that (a) an approximate and relative scale is more realistic than an exact and numerical scale, and that (b) the valency status of a verb is, to an extent, conditioned by the dependent elements, thus failing to be directly and/or exclusively projected by the verbal head.

1. Introduction[1]

Applicatives (i.e. applicative verb constructions) and applied noun and locative phrases have extensively been studied for Xhosa and other Nguni languages (e.g. Zulu and Ndebele).[2] They have also been widely analyzed in the Bantu language family (cf. Section 3). In Nguni languages, applicative verbal stems are derived by means of the morpheme *-el-* which increases the valency[3] pattern of an underlying verb[4] (intransitive or transitive) by an additional position.[5] In Xhosa, the standard view is that the nominal or locative elements that fill that extra position created by the applicative morpheme are arguments (Du Plessis & Visser 1992, 1998). The present paper analyzes the status of such applied elements from the theoretical standpoint recently proposed in a collection of papers that formed a thematic issue of *Language Discovery* 12(2). This approach treats the categories of argument(hood) and adjunct(hood) as compositional and constructional prototypes, and the relationship between them as gradient and fuzzy (Arka 2014, Creissels 2014, Forker 2014, Haspelmath 2014 and Wichmann 2014; see also Aarst 2008; for details see Section 2 below).

The study will be structured in the following manner: I will begin with a detailed presentation of the theoretical framework in Section 2. In Section 3, I will introduce evidence. In particular, I will analyze the response of applied nominal and locative phrases to the criteria and diagnostics

[1]I would like to thank Marianna Visser for inspiring me to write this paper and for extensively commenting on the previous versions of it.

[2]The terms 'applied noun phrase' and 'applied locative phrase' will be explained in detail in section 3. In general, an applied noun phrase is a noun phrase licensed by an applied verb. An applied locative phrase is also licensed by an applicative verb. However, it corresponds to a construction that in Xhosa grammars is referred to as locative. This construction contains a noun phrase on the one hand, and a locative affix and/or suffix, or a locative preposition on the other hand.

[3]An alternative term to valency, especially common in formal/generative approaches is 'argument structure' (Borik & Mateu 2014:7).

[4]In generative approaches, the term 'root' is employed.

[5]In order to remain neutral regarding their status as arguments or adjuncts, I will refer to these "extra" entities as 'slots', 'positions', 'elements', or 'items'.

proposed by the theory. In Section 4, I will discuss the findings in light of the theoretical framework, determining the categorial status of the two types of applied elements. Section 4 will conclude the paper.

2. Framework[6]

The issue of distinguishing arguments from adjuncts is complex. It has troubled scholars for the last fifty years and remains unresolved (Wichmann 2014:1). The problem starts with the very definition of the two concepts and the criteria that enable one to classify something as argument or adjunct.[7]

In general, for defining an item as argument or adjunct, two major criteria have been proposed: the semantic and the syntactic criterion. The semantic criterion asserts that certain expressions are viewed as central to the predicate, whereas others are peripheral.[8] The former are referred to as arguments. The latter are adjuncts (Forker 2014:27). The semantic criterion implies that arguments are necessary to saturate the predicate. They are profoundly involved in the event conveyed by the verb to the degree that if not present, that event cannot be conceived. In other words, arguments are actors that matter to the situation expressed by the predicate, constituting crucial elements of the process to which it refers. They are entailed by the lexical verb and not by other contextual elements. In contrast, adjuncts are not necessary to complete the predicate and to conceive the situation it expresses. They fail to be entailed by the lexical verb. Rather, they matter to the situation as a whole and constitute background props (Tesnière 1959, Van Valin 2001:93, Farrell 2005:31, Creissels 2014:42, Forker 2014:27, Haspelmath 2014:3-4, Schikowski, Paudyal & Bickel forthcoming). The syntactic criterion concerns a specific verb and not the situation it portrays. It examines whether the syntax of a language requires that verb to be filled out (or accompanied) by an element. If it does so, that element is an argument. In a contrasting case, it is an adjunct (Forker 2014).

Semantic argumenthood or adjuncthood (i.e. being an argument or adjunct) is sometimes viewed as (relatively) universal and therefore suitable for comparative and crosslinguistic studies. This probably stems from the fact that in typological studies, meaning (or function) is viewed as "more basic" than form (or structure). To be exact, in typology, onomasiological analysis (which studies strategies that can express a given concept) precedes semasiological analysis (which studies concepts that can be associated with a given form). In typology, the "meaning-first" approach is preferred over the "form-first" approach as the first step in research (Croft 2003:13-14). The approach to arguments and adjuncts is sometimes similar. Since argumenthood and adjuncthood can be expressed in a variety of manners (mostly language specific), to constitute comparative concepts they should be rather defined semantically than syntactically, i.e. independently from their structural formulations (Creissels 2014).[9]

Whatever the exact view is on where the analysis should begin, evidence shows that semantic valency and syntactic valency cannot be equated (Haspelmath 2014:4). There is no straightforward correspondence between the semantic concept of argument as an essential participant and its formal expression or syntactic necessity. To put it simply, semantically essential participants do

[6]I used a similar framework in a study dedicated to the Arusa (Maasai) language (Andrason & Karani forthcoming). Without being reproduced literally, the present section partially overlaps with the theoretical section of that paper.
[7]Ideally, such criteria should be applicable to all languages (Wichmann 2014). Realistically, this may not be possible (Haspelmath 2014).
[8]This criterion largely relies on decisions made by descriptive linguists, probably aided by native speakers' intuitions, and, to some extent, remains ad hoc.
[9]For a more cautious view concerning the existence of any crosslinguistically universal concept of argumenthood, see Haspelmath (2014).

not have to be expressed in syntactic terms (Van Valin 2001:93, Haspelmath 2013:4, Creissels 2014:42-43). Inversely, elements that are not semantically essential may appear as syntactically obligatory (Haspelmath 2013:4).

Even though semantic argumenthood and adjuncthood may be more basic and more easily applicable to comparative studies than their syntactic equivalents, they are not flawless. Relying on decisions made by descriptive linguists and on native speakers' intuition, the semantic definitions of the two concepts are imprecise, heavily psychological, and testable with difficulties.[10] More objective and empirically testable methods are necessary for the detection of arguments and adjuncts in specific languages. These methods are referred to as (syntactic) criteria or diagnostics. They too, however, have limitations (Engel 1977, Vater 1978, Somers 1984). Most importantly, although sometimes one condition is singled out,[11] scholars disagree which criterion or diagnostic is decisive (both necessary and sufficient) and applicable to all languages. Therefore, a list of possible criteria and diagnostics is proposed (Forker 2014:28). But even the list itself is debatable and varies depending on the researcher's views.

As already mentioned, in this study, I will adopt a list that can be inferred from a thematic issue of *Linguistic Discovery* 12(2) dedicated to arguments and adjuncts and their distinction. This list consists of major criteria and specific diagnostics. As criteria, the following are distinguished: obligatoriness, latency, co-occurrence restrictions, grammatical relations, iterability and learnability/predictability (Forker 2014, Haspelmath 2014). First, arguments are necessitated by the predicate, while adjuncts are optional (Koenig et al. 2003:72, Forker 2014:29).[12] As explained above, this obligatoriness can be semantic or syntactic with no one-to-one correlation. Only the latter will be relevant to this study as the former is, in my view, too elusive. To recall, syntactic arguments are required by the syntax of a language, while adjuncts are not (Forker 2014:29). Second, arguments necessitate a definite reading when unexpressed, whereas adjuncts also admit an indefinite reading. That is, arguments can be left out only if they are accessible in the context. Indefinite and inaccessible arguments cannot be omitted (ibid.).[13] Third, prototypical arguments are restricted to specific predicates. They cannot be used with any predicate. In contrast, adjuncts are not restricted to any particular predicates, being compatible with many, if not all, verbs (Forker 2014:30).[14] Fourth, arguments are terms (i.e. subject, direct object, indirect object etc.), while adjuncts are non-terms (i.e. oblique; ibid).[15] Fifth, arguments are non-iterable, while adjuncts are iterable. That is, adjunct may be added "freely" to any clause, whereas arguments cannot (Forker 2014:31). Sixth, from a language acquisition perspective, arguments are verb-specific and must be learned separately for each verb. The use of adjuncts is independent of specific predicates (Haspelmath 2014:5).[16] As diagnostic techniques, the following are postulated (Forker 2014:32): First, arguments are morphologically coded in a fixed manner, while adjuncts admit a greater variety or flexibility as far as their encoding is concerned. Second, arguments exhibit morphological case marking, while adjuncts tend to be marked by means of adpositions. Third, arguments are marked for grammatical cases, while adjuncts are rather marked for semantic cases. Fourth, in head-marking languages, arguments are indexed on verbs, while adjuncts are not. Fifth,

[10]As explained, they draw on descriptive linguists' decisions, which may be, at times, relatively subjective. In extreme situations, they rely on the speaker's (or a linguist's) introspection into the conceptual nature of the event portrayed by the predicate.
[11]For instance, a pro-verb test or anaphoric verb test (Haspelmath 2010, 2014:3).
[12]The adverb *badly* in *He behaves badly* would constitute an argument according to this criterion (Forker 2014).
[13]This justifies the pro-drop or null anaphora tests (see also the use of the verb *win*; Forker 2014:29).
[14]As a result, arguments depend on the meaning of the verb from which they draw their semantic role (ibid.).
[15]However, certain, less prototypical arguments may also be obliques (Forker 2014).
[16]Nevertheless, not all arguments are verb-specific. Subjects, for instance, are relatively predictable (Haspelmath 2014:5).

arguments have the potential to access all valency-changing processes (e.g. passivization), while adjuncts do not. Sixth, arguments usually occupy a position that is closer to the verb, while adjuncts may be placed further from the verb (for instance, at the clause boundary). The position of arguments also tends to be more restricted in the clause, while the position of adjuncts is more flexible (Forker 2014:32-38). Lastly, since adjuncts are sometimes defined as relations,[17] while arguments are not,[18] in some languages, adjuncts can be introduced by overt relational predicates (Schaefer & Egbokhare 2014).

The discussion above shows that neither criteria nor diagnostics constitute a unified set. That is, both the set of criteria and the set of diagnostics contain elements of a differential and, to an extent, unrelated nature. This means that valency (and thus argumenthood and adjuncthood) is a composite concept consisting of and/or being derivable from a number of finer-grain or more atomic concepts (Forker 2014).[19]

The concepts of argumenthood and adjuncthood are not only composite, but also scalar (Aarst 2008, Forker 2014, Creissels 2014, Arka 2014).[20] This means that the distinction is not binary, i.e. in terms of dichotomy, but rather gradient (Langacker 1987, Croft 2001, Keizer 2004, Aarts 2008, Wichmann 2014). This gradient nature implies that there is no clear-cut borderline separating arguments and adjuncts. On the contrary, there is a large sphere – a transition phase – where constructions or items mix the properties of the two categories. Although this continuum is fuzzy (Forker 2014), it may be fragmentized into sub-categories if necessary (Arka 2014).[21]

The argument-adjunct scale (or continuum) is developed by postulating two ideal prototypes – an ideal argument (or a state of canonical argumenthood) and an ideal adjunct (a state of canonical adjuncthood). These prototypes are ideal categories in the sense that they fulfill all possible criteria, which may play a role in the definition of arguments or adjuncts discussed above (Arka 2014). The strategy consists of observing how a realistic construction complies with the criteria and/or how it performs on the diagnostic tests. Subsequently, in light of these observations, the construction is matched with a point on the argument-adjunct cline. It can match one of the postulated prototypes (the extreme poles of the scale) or it can be located in the intermediary sections of the continuum, thus mixing certain properties of the two categories and constituting a less prototypical instantiation of the ideal categories of argument or adjunct (Forker 2014:27).

As there are a number of criteria and diagnostics, the cline seems to be inherently fuzzy and the location of a construction on it not easily calculable. However, both the scale and the position of an item on it can be rendered more workable, namely more discrete and more precise. This is sometimes achieved by introducing the so-called argument-index analysis. This index specifies the extent to which an element approaches the prototype of argument or adjunct in exact numerical terms, ranging from 1.00 (prototypical argument) to 0.00 (prototypical adjuncts; Arka 2014:61). Nevertheless, the actual progression from one end to the other is gradual and no discrete borderline exists in any fragment of the continuum.[22] Generally, items regarded in concrete languages as

[17]That is, "an adjunct is a predicate whose argument is the event described" (Schaefer & Egbokhare 2014:23; following Croft 2001).
[18]They are semantic arguments of a head.
[19]According to Jacobs (1994), the notion of valency consists of seven sub-concepts: obligatoriness, involvement, semantic necessity, exocentricity, formal specificity, selectional restrictions, and associatedness (Haspelmath 2014:7).
[20]In fact, they are "multi-scalar", as each criterion may be scalar itself (Forker 2014).
[21]The former approach corresponds to fuzzy logic of a virtually infinite number of gradients, while the latter corresponds to the multi-value logic of many, albeit only finite values.
[22]If necessary, the scores can be grouped into larger sections and the scale can be divided into more discrete categories: arguments, obliques and adjuncts. Sometimes, finer-grained categories can be postulated, e.g. semi-arguments, semi-adjuncts or semi-obliques (Arka 2014:56-57, 78). It should however be borne in mind that the exact grouping and extent of each class are arbitrary. What is realistic is the cline and the fuzzy transition from one prototype (1.00) to

arguments would score high on the scale (e.g. close to 1.00). Items defined as obliques[23] would score less, being placed in intermediate values (e.g. 0.50). Lastly, items regarded as adjuncts would receive the lowest mark (e.g. close to 0.00; Arka 2014:62).

One should also note that in a specific language each occurrence of an item may receive a different value on the scale. That is, the score is construction- and context-specific (Aarts 2008:186).[24] Accordingly, general concepts (e.g. subject, direct object, locative etc.), even if restricted to one language, can be located in different zone of the scale. This, in turn, implies that each language-specific category can correspond to a section of the cline (not only to one point on it) if analyzed in its totality. This makes the gradient and fuzzy nature of argument-adjunct distinction even more evident (Arka 2014:77).

Applicatives, which constitute the topic of this paper, epitomize the scalar nature of the argumenthood-adjuncthood distinction and this distinction's complexity. In Xhosa and related African languages, applicatives are related to two principal concepts: beneficiary and location/direction.[25] Applicatives commonly license (new) items with the semantic role of beneficiary. Crosslinguistically, the status of beneficiaries is unstable. They may exhibit behavior that places them closer to arguments or closer to adjuncts on the continuum (Creissels 2014). That is, in some languages, beneficiaries are encoded in a manner analogous to adjuncts,[26] whereas in others they may be encoded like arguments.[27] Applicatives also involve locative or directional

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the other (0.00; Arka 2014:77). The scalar nature is posited even for the semantic argumenthood and/or adjuncthood as both can range from a prototypical semantic argumenthood (highest degree of involvement in an event) to a prototypical semantic adjuncthood (the lowest degree of involvement; Creissels 2014:41, 46). Semantically, the highest degree of involvement concerns participants that are profoundly affected by the event (for instance, being created, destroyed or substantially altered). The lowest degree involves participants totally unaffected by the event (Creissels 2014:46).

[23]Obliques are regarded as less prototypical arguments (i.e. lower on the scale), the prototypical being core arguments (Arka 2014:62). Although the criteria distinguishing core items from obliques are language-specific, certain crosslinguistic tendencies are noted. Core items exhibit no overt flagging, are indexed, offer TAM governing properties, and possess unrestricted access to various syntactic operations. For obliques, the situation tends to be opposite (Creissels 2014:44).

[24]As the degree of argumenthood and adjuncthood is construction specific, the valency status in terms of argument or adjunct is conditioned not only by the property of the lexical verb but also the context, including the characteristics of the dependent (Arka 2014:56, 77-78). Generally, animate, specific, individuated items that are used as adjuncts can be upgraded to the status of an argument more easily than those that are non-thematic, non-animate, non-specific and non-individuated (Arka 2014:56-57, 66, 68-71). Other factors can be deixis, word class, and affectedness (Arka 2015:57, 72, 74). For instance, depending on their own characteristics, different locative constructions can strike differently on the argumenthood-adjuncthood scale. The exact value is determined not only by the verb but holistically by the entire construction, being entailed by the verb and the locative itself (Arka 2014:71-72). Thus, argumenthood and adjuncthood derive from an interplay between the properties associated with the head (thematicity) and the properties of the dependent, all of them activated in a specific context (Arka 2014:75). Since the classification of an item on the argument-adjunct scale depends on traits that draw on the dependent, a unidirectional, top-down, lexically based projectionist view of argumenthood and adjuncthood can be questioned (regarding the projectionist approach consult Levin & Rappaport Hovav 1995, Rappaport Hovav & Lewin 1998). The status of an item is not entirely determined in the lexicon and from there projected to syntax. It is rather constructionist, drawing from two directions: from the top (i.e. from the head or lexical predicate) and from the bottom (i.e. from the dependent, filling item), both located in a specific context (Arka 2014:57, 76-78). The constructionist view is not limited to typological and cognitive approaches, but may also be found in formal/generative frameworks (cf. Borer 2005, Acedo-Matellán 2010, Harley 2011). For a recent overview of the issue of argument structure in formal/generative grammar see Borik & Mateu (2014).

[25]In certain African languages applicatives are also related to instrumental concepts (e.g. Swahili).

[26]For instance, in Mandinka, where beneficiaries occupy the post-verbal position like locatives; compare *diŋolu ye* 'for the children' with *karambuŋo to* 'at the school' (Creissels 2014:47). In contrast, arguments are typically located in the pre-verbal position, i.e. before the verbal base (*A ye a ke* 'He did it').

[27]Compare the sentence *Mary baked John a cake* in English with *Mary baked a cake for John* (Creissels 2014:48). The

ideas, as they commonly refer to: (a) places where the event referred to by the verb takes place, (b) places from which it originates (e.g. sources); and c) places to or towards which it heads (e.g. goals). Locatives, like beneficiaries, can travel along the argumenthood-adjuncthood scale exhibiting the status closer to arguments or closer to adjuncts, depending on a language and/or construction in which they appear. Thematic,[28] individuated,[29] specific locatives can be attracted towards the pole of argumenthood, while non-thematic, poorly individuated, and non-specific locatives tend to exhibit a more adjunct-like character (Arka 2014:69, 71).

3. Evidence

In this section, I will present properties of the applicatives in Xhosa, focusing on those traits that are relevant for the determination of the position of an applied slot on the argument-adjunct scale. As already mentioned, in Xhosa, the applicative affix *-el-* increases the verb's valency by one non-subject position, which can be filled out by a N(oun) P(hrase; see Section 3.1) or by a L(ocative) P(hrase; see Section 3.2).[30] For each type, I will first study the response of the applied slot to the six criteria relevant for the determination of their categorial status as arguments or adjuncts (Forker 2014). Next, I will examine the nominal and locative applied slots in respect to the six diagnostic techniques.[31]

I will treat the classification proposed by Du Plessis & Visser (1992, 1998) as my point of departure or a type of a null hypothesis. According to these scholars, the categorial status of the nominal and locative applied slots is identical, both being defined as arguments. The evidence provided in this section, and its subsequent discussion in section 4, will demonstrate that this classification may be enhanced and rendered more nuanced.

3.1 Applied noun phrases (NP)

The presence of an applied NP is usually obligatory. That is, the syntax of Xhosa requires that the predicate extended by the affix *-el-* be accompanied by an applied noun in order to be complete (Du Plessis & Visser 1992, 1998). This holds true both for the applicatives derived from intransitive verbs (1a) and the applicatives derived from transitive verbs (1b). Inversely, the absence of an applied noun phrase renders the sentence incomplete (1c-d).

(1) a. Le nkwenkwe i-balekela **ibhola**[32]
CL9.DEM CL9.boy CL9-run.APPL CL5.ball
'This boy runs for the ball.'

argument-like encoding is especially evident if the expression of beneficiaries in applicatives is obligatory and not only optional. The obligatory promotion is found in Tswana where beneficiaries can only be encoded as objects of applicative verbs (Creissels 2014:49, 51). The facultative promotion appears in Lingala where beneficiaries can be encoded as adjuncts or as arguments of applicative verbs (Creissels 2014).

[28]Thematic items are conceptualized as part of the situation referred to by the verb (Arka 2014).

[29]Individuated items are conceptualized as possibly affected or acted upon (Arka 2014).

[30]As already mentioned, the term 'locative phrase', used in this paper, refers to a nominal element accompanied by locative affixes or a locative (agglutinative) preposition (cf. Section 3.2 below).

[31]Xhosa applicatives have been studied extensively (Du Plessis & Visser 1992, 1998, Dyubeni 1993, Du Plessis 1978, 2010). For analysis of applicatives in other Nguni and southern Bantu languages see Hlungwani (1997), Letooane (1995), Makhado (1996), Makhubu (1997), Mkhabele (1999), Motsei (1993) and Du Plessis (2010).

[32]The applied NPs (Section 3.1) and LPs (Section 3.2) will be highlighted in bold. I will follow the manner of glossing adopted by Creissels (2014) in his Tswana (Bantu) examples. When it is not indicated otherwise, the examples provided in this section draw from the author's database. All such examples have been elicited from native speakers of Xhosa.

b. Ndi-phekela amakhwenkwe **ukutya**
I-cook.APPL CL6.boy CL15.food
'I cook food for the boys.'

c. *Le nkwenkwe i-balekela [-][33]
CL9.DEM CL9.boy CL9-run.APPL
intended: 'This boy runs for the cup.'

d. *Ndi-phekela [-] ukutya
I-cook.APPL CL15.food
intended: 'I cook food.'

In agreement with the latency condition, it is impossible to leave the argument syntactically unexpressed if it is inaccessible in the context and/or if its interpretation is indefinite. In fact, in the case of the applied NP in Xhosa, even definite and accessible arguments cannot be omitted.[34]

As far as co-occurrence restrictions are concerned, applied NPs in Xhosa are more restricted than canonical adjuncts (which can virtually occur with any predicate) but less restricted than canonical arguments (which are limited to specific predicates). To be exact, applied noun phrases – tautologically – only appear with applicatives. Furthermore, their presence is constrained by the fact that for certain verbs it is a locative and not a mere noun phrase that is (or should be) used (see Section 3.2). Overall, the presence of applied nouns is conditioned by the meaning of the verb. Such a behavior approximates them to arguments (cf. Forker 2014:30).

In Xhosa, nominal elements that fill out the place created by the applicative affix can be regarded as terms. In general, in applicative verbs formed from intransitive verbs, applied NPs function as direct objects. For applicative verbs formed from transitive verbs, applied NPs approximate indirect objects. As the notions of a direct and an indirect object are themselves complex, I will give a detailed explanation of the categorization of applied NPs as terms.

In the case of applicatives derived from intransitive roots, applied NPs behave in a manner analogous to direct objects in Xhosa (cf. Du Plessis 2010:118). That is, their syntactic properties (such as word order, pronominalization, object agreement and passivization) are fully analogous to those of direct objects. To be exact, for such verbs, applied NPs are the only, and thus primary objects. The applied NP immediately follows the verb (2a-b) and if moved to other non-canonical positions usually triggers object agreement on the verb (3a-b). The applied NP may also be replaced by a pronominal affixed agglutinated to the verb. Both in the case of agreement and pronominalization, the applied NP uses the same pronominal forms as direct objects (4a-b). Observe that Xhosa uses the same pronominal affixes for direct and indirect objects.) In passive constructions, the applied NP is promoted to the subject position and triggers a subject concord with the verb (5a-b). The following examples illustrate these specific properties of applied NPs by comparing them with direct objects in non-applicative constructions:

(2) a. Ndi-vuyela **umfundi**
I-be.happy.APPL CL1.student
'I am happy for the student.'

b. Ndi-bona umfundi
I-see CL1.student

[33]The symbol [-] marks an empty slot.
[34]In contrast, adjuncts can be omitted in Xhosa even if they are indefinite and inaccessible.

'I see a student.'

(3) a. Umfundi ndi-**yam-**vuyela
CL1.student I-CL1-be.happy.APPL
'I am happy for the student.'

b. Umfundi ndi-yam-bona
CL1.student I-CL1-see
'I see a student.'

(4) a. Ndi-**yam**-vuyela
I-CL1-be.happy.APPL
'I am happy for him.'

b Ndi-yam-bona
I-CL1-see
'I see him.'

(5) a. **Umfundi** **u**-vuyelwa ngabantu
CL1.student CL1-be.happy.APPL.PASS by.CL2.person
'People are happy for the student.'

b. Umfundi u-yabonwa
CL1.student CL1-see.PASS
'The student is being seen.'

In applicatives derived from transitive verbs, the applied NP generally behaves in a manner typical of indirect objects in Xhosa (Plessis & Visser 1992:30, 1998:86). In many aspects this behavior suggests that the applied-object is the primary object of the applicative verb. First, as far as word order is concerned, the applied NP precedes the non-applied direct object. This complies with the word order of non-applicative ditransitive verbs (e.g. *nika* 'to give'), in which indirect objects of a non-applicative verb precedes the direct object:

(6) a. Ndi-bhalela **umfundi** ileta
I-write.APPL CL2.student CL5.letter
'I write a letter to a student.'

b. Ndi-nika umfundi ileta
I-give CL2.student CL5.letter
'I give a letter to a student.'

Second, the applied NP (i.e. the NP licensed by an applied verb/affix) may be pronominalized and/or trigger object agreement on the verb by employing the same set of pronouns as the indirect object of non-applied predicates. These pronominal affixes are, however, formally indistinguishable from direct object affixes:

(7) a. Ndi-**m**-bhalela ileta
I-CL1-write.APPL CL5.letter
'I write him a letter.'

b. Ndi-m-nika ileta
I-CL1-give CL5.letter
'I give him a letter.'

Third, as far as passivization is concerned, the behavior of an applied NP found in applicative constructions which are derived from transitive predicates, complies with the behavior exhibited by indirect objects of ditransitive (non-applicative) verbs in Xhosa. However, from a crosslinguistic perspective, the behavior of applied NPs is less exemplary of indirect objects, rather approximating such noun phrases to direct and/or primary objects. To begin with, the applied NP can be promoted to the subject position, thus yielding the subject concord on the verb. In such cases, the direct non-applied object (i.e. the object of the basic verb stem) remains in the object position (see examples (8a-b) for applicatives and (8c-d) for non-applicatives).

(8) a. Ndi-kuphekela **abantwana** ukutya
I-cook.APPL CL2.child CL15.food
'I cook food for the children.'

b. **Abantwana** **ba-**yaku-phekelwa ukutya
CL2.child CL2-CL15-cook.APPL.PASS CL15.food
'The food is being cooked for the children.'
lit. 'The children are being cook the food.'

c. Ndi-nika abantwana ukutya
I-give CL2.child CL15.food
'I give food to the children'

d. Abantwana ba-yaku-nikwa ukutya
CL2.child CL2-CL15-give.PASS CL15.food
'The children are being given food.'

In applicative passive constructions, if one of the two NPs is pronominalized by means of verbal affixes, only the applied NP may be promoted to the subject position (9a). In contrast, the direct object of an applicative verb cannot be promoted to the subject role if the applied NP is pronominalized on the verb (9b; cf. Dyubeni 1993:96-97, 99-100). This may suggest a higher status of the applied NP than that of the non-applied direct object and thus its interpretation as a primary object (compare a similar observation for Tswana noted by Creissels 2014). However, one should bear in mind that the same phenomenon is found with non-applicative ditransitive verbs (9c-d).

(9) a. **Abantwana** **ba-**yaku-phekelwa (Dyubeni 1993:96)
CL2.child CL2-CL15-cook.APPL.PASS
'It is cooked for the children.'

b *Ukutya ku-**yaba**-phekelwa (ibid.:97)
CL15.food CL15-CL2-cook.APPL.PASS
intended: 'Food is cooked for them.'

c. Abantwana ba-yaku-nikwa
CL2.child CL2-CL15-give.PASS
'The children are being given it.'

d. *Ukutya ku-yaba-nikwa
CL15.food CL15-CL2-give.PASS
'The food is being given to them.'

If the non-applied object is to be promoted to the subject position and the applied NP realized pronominally in passives in the object position, the applied NP must be encoded by means of an absolute pronoun. Inversely, if the applied NP is encoded by means of an absolute pronoun, the non-applied (direct) object may appear in the subject position (10a). If the applied NP functions as a subject in the passive, the non-applied direct object may also appear as an absolute pronoun in the object position (10b):

(10) a. Ukutya ku-phekelwa **bona** (Dyubeni 1993:97)
CL15.food CL15-cook.APPL.PASS CL2.ABS
'Food is cooked for them.'

b. **Abantwana** **ba**-phekelwa kona (ibid.)
CL2.child CL2-cook.APPL.PASS CL15.ABS
'It is cooked for the children.'

As far as the last criterion (i.e. iteration) is concerned, the applied NP cannot be iterated and the predicate freely expanded by a series of different applied NPs. This is contrary to canonical adjuncts in Xhosa, which may be added freely to the predicate and accumulated in a clause. Therefore, example (11) is generally ungrammatical. Of course, this may be rendered acceptable if the conjunction *na* 'and' is used (that is *abafundi nootitshala nabazali*). However, in such a case, one would deal with coordination and not with iteration.[35]

(11) *Ndi-phekela **abafundi** **ootitshala** **abazali** ukutya
I-cook.APPL CL2.student CL2a.teacher CL2.parent CL15.food
intended: *'I cook food for students, teachers, parents.'

As for the diagnostics, the following should be noted: the morphosyntactic encoding of applied NPs is uniform. It does not allow for alternative variations, which complies with the encoding characteristic of arguments in Xhosa. To be exact, all applied NPs are encoded in the same manner as non-applied arguments in Xhosa, lacking any specific morphological marking – they merely display the appropriate class-prefix.

The applied NP is never marked by means of adpositions, contrary to adjuncts that in Xhosa regularly are introduced by adpositions agglutinated to the noun. This approximates the applied NP to the category of a morphological case rather than an adpositional case, even though nouns are not morphologically inflected for case in Xhosa.

Most semantic properties of the applied NP link it to a grammatical case (namely the dative) rather than to a semantic or spatial case. However, as will be evident from the subsequent

[35]It should be noted that adjuncts do not necessitate coordination in order to be reiterated (e.g. *I met him yesterday*$_1$ *at 5:30 pm*$_2$ *in a small coffee shop*$_3$ *in Central Park*$_4$ *in New York*$_5$).

discussion, this categorization is not discrete. Overall, the applied NP may assume a variety of semantic roles depending on its own properties and on discourse factors of the context in which it is employed (Du Plessis & Visser 1998:80).[36] For underlying intransitive verbs, the applied NP offers three principal roles: (broad) beneficiary (12a), goal (purpose) (12b) and cause (12c).[37]

(12) a. Le ndoda i-buyela **inkosi** (Du Plessis & Visser 1998:82)
CL9.DEM CL9.man CL9-return.APPL CL9.chief
'This man returns for (the benefit / on behalf of) the chief.'

b. Le nkwenkwe i-balekela **indebe** (Du Plessis & Visser 1998:82)
CL9.DEM CL9.man CL9-run.APPL CL9.cup
'This boy runs for (the purpose of) the cup.'

c. Ingozi i-hlele **imvula** (Du Plessis & Visser 1998:82)
CL9.accident CL9-happened.APPL CL9.rain
'The accident happened because (for the reason) of the rain.'

For underlying transitive verbs, the semantic roles of the applied object are comparable to those typical of underlying intransitive verbs. That is, with animate noun phrases, the most common reading is beneficiary (13a) while for inanimate noun phrases it is goal (purpose; 13b) and cause (14c; Plessis & Visser 1998:86-90).

(13) a. USipho u-qhubela **uyise** imoto (Plessis & Visser 1998:86)
CL1a.Sipho CL1a-drive.APPL CL1.his-father CL9.car
'Sipho drives the car for his father.'

b. Umtshakazi u-khethela **umtshato** ilokhwe (ibid.:88)
CL1.bride CL1-choose.APPL CL3.wedding CL9.dress
'The bride chooses a dress for the wedding.'

c. U-m-khetela **ntoni** unyana (ibid.:90)
you-CL1a-select.APPL what CL1a.son
'Why are you selecting the son.'

Although the meanings of beneficiary, goal (purpose) and cause predominate, applied NPs can also bear other roles, namely source (14a), direction (14b), and, less commonly, theme (14c-d) and recipient (15e; Du Plessis & Visser 1992:28-29, 1998:82-84).

(14) a. U-bhacela **umqeshi**
CL1-flee.APPL CL1.employer
'He flees from the employer.'

[36]Thus, the semantic role is not available at the level of lexicon but rather emerges at a constructional level (Du Plessis & Visser 1998:80).

[37]The beneficiary role is typical of animate nominal phrases. It is also common with nouns marked for the feature of human control, i.e. "humans are indirectly concerned with these nouns", e.g. *igaraji* 'garage', *isikolo* 'school' (Du Plessis & Visser 1998:82). The goal (purpose) role predominates with inanimate noun phrases (Du Plessis & Visser 1992:27-28, 1998:82). The causal role is regular with the interrogative *ni* 'what': *Balilelani*? 'Why are they crying?' (Du Plessis & Visser 1998:84). It should be noted that the beneficiary reading can surface as benefactive ('for the benefit of'), replacement or substitution ('on behalf of' or 'instead of') and malefactive (to the detriment of; Du Plessis & Visser 1998:82).

b. U-ngxamele **uloliwe**
CL1-hurry.APPL CL11.train
'He hurried up to the train.'

c. U-khalazela **umqeshi**
CL1-complain.APPL CL1.employer
'He complains about the employer.'

d. U-cacele **ukutya**
CL1-like.APPL CL15.food
'He likes the food.'

e. U-mangalela **isikolo**
CL1-complain.APPL CL7.school
'He complained to the school.'

If one imagines a prototypical grammatical and a prototypical semantic case as two opposite extremes of a continuum, the range of semantic roles offered by the applied NP locates it in a zone between a grammatical and semantic case, close to the area occupied by a dative case. The semantic role of recipient, which can be sometimes borne by the applied NP is regularly associated with the dative.[38] The roles such as beneficiary and goal (purpose) – the most typical of the applied NP – also constitute, crosslinguistically, common meaning extensions of the dative. It should however be noted that out of all the "dative" roles, it is beneficiary and goal roles (less grammatical but more semantic) that are regular of the applied NP, while the recipient (more grammatical and less semantic) is significantly less frequent.[39] Additionally, the role of a theme, likewise sporadically available with the applied NP, locates it even closer to grammatical cases as this role is typical of direct objects encoded by the accusative. Nevertheless, more spatial roles such as direction, location as well as source attract the applied NP toward the other, more semantic pole of case-continuum.

As already mentioned, the applied NP may be indexed on the verb. First, the applied object can be replaced by means of pronominal affixes in the same manner as the direct and/or indirect object of transitive verbs (see also example 8a above):

(15) a. Ndi-phekela **abantwana** ukutya (Dyubeni 1993:60)
I-cook.APPL CL2.child Cl15.food
'I cook food for children.'

b. Ndi-**ba**-phekela ukutya (ibid.)
I-CL2-cook.APPL CL15.food
'I cook food for them.'

Second, the applied NP can be co-indexed with a pronominal affix agglutinated to the verb, triggering object agreement. This occurs if the applied object is to be specified (16a) or if it is moved out of its canonical position (16b).

[38]In this role the applied NP may be equivalent to the indirect object in non-applicative verb (cf. *Ndinika umtwana incwadi* 'I give the child a book' versus *Ndibalela umtwana ileta* 'I write the child a letter').
[39]Observe that from a crosslinguistic perspective, indirect objects that offer a recipient role are more argument-like than indirect objects that offer a beneficiary role (Ozón 2007, Aarts 2008:186).

(16) a. Ndi-**ba**-phekele **abantwana** ukutya
I-CL2-cook.APPL.PERF CL2.children CL15.food
'I cooked food for the children.'

b. **Abantwana** ndi-**ba**-phekela ukutya
CL2.child I-CL2-cook.APPL CL15.food
'I cook food for the children.'

If two NPs – the applied and the non-applied – are to be pronominalized at the same time, one of them must be expressed as the absolute pronoun. That is, when the applied NP is realized as a verbal affix, the non-applied object surfaces as an absolute pronoun (17a). Inversely, if the applied NP appears as an absolute pronoun, the non-applied object may be incorporated with the verb as a pronominal affix (17b).

(17) a. Ndi-**ba**-phekela kona (Dyubeni 1993:61)
I-CL2-cook.APPL CL15.ABS
'I cook it for them.'

b. Ndi-ku-phekela **bona** (ibid.)
I-CL15-cook.APPL CL2.ABS
'I cook it for them.'

Applied NPs allow for all valency-changing processes in Xhosa. Most importantly, they can be passivized.[40] The properties of applied NPs in passives have been discussed previously in this section. To recapitulate, applied NPs – both in applicatives derived from intransitive (18a) and transitive verbs (18c) – can be promoted to the subject position in a passive construction (Dyubeni 1993:96). In such cases, the verb may exhibit a subject agreement with the applied NP promoted to the subject role (18b and 18d).[41] Thus, the applied NP exhibits the same behavior as the most prototypical arguments in Xhosa, namely direct and/or indirect objects of non-applied verbs.

(18) a Ndi-cacele **ukutya**
I-like.APPL.PERF CL15.food
'I like food.'

b. **Ukutya** **ku**-cacelwe
CL15.food CL15-like.APPL.PASS.PERF
'The food is liked.'

c. Ndi-phekela **abantwana** ukutya
I-cook.APPL CL2.child CL15.food
'I am cooking food for the children.'

[40]Applicatives can also be extended by the causative affix *is*, the secondary applicative affix *el* and the reciprocal affix *an*. They can sometimes be used with the de-transitive affix *ek*.
[41]In applicatives formed from transitive verbs, the direct object can also be promoted to the subject position and trigger agreement on the verb: *Ukutya **ku**phekelwa abantwana* (Dyubeni 1993:96) 'Food is cooked for the children'.

d. **Abantwana** **ba**-yaphekelwa ukutya (Djubeni 1993:96)
CL2.child CL2-cook.APPL.PASS CL15.food
'Food is (being) cooked for the children.'

As explained above, if two internal NPs are to be expressed pronominally, only the applied NP can be used as the subject in a passive construction. That is, in multiple object constructions, applied objects are, syntactically, primary objects (cf. Creissels 2014:51). The applied NP can always be promoted to the role of the subject in a passive construction (19a). In contrast, the non-applied NP sometimes cannot, as the presence of an applied index on the verb makes it impossible to promote the non-applied object to the position of the subject (19b); see analogous behavior in Tswana observed by Creissels 2014:51, mentioned previously). One should however bear in mind that this behavior is not limited to the applied object but also pertains to the indirect object of non-applied verbs (19c).

(19) a. Abantwana **ba**-yaku-phekelwa (Dyubeni 1993:96)
CL2.child CL2-CL15-cook.APPL.PASS
'It is cooked for the children.'

b. *Ukutya **ku**-yaba-phekelwa (ibid.:97)
CL15.food CL15-CL2-cook.APPL.PASS
'Food is cooked for them.'

c. *Ukutya ku-yaba-nikwa
CL15.food CL15-CL2-give.PASS
'The food is given to them.'

It has also been mentioned that the applied NPs regularly appear in the position closest to the verb. That is, applied NPs immediately follow the inflected verb, either in applicatives derived from intransitive verbs (where they constitute the only nominal slot), or in applicatives derived from transitive verbs (where there is another nominal slot – the direct object). This means that if two NPs are used, the applied one is placed closer to the verb than the non-applied one (20a). This behavior is typical of all indirect objects in Xhosa. However, in some cases, this word order can be altered and the applied NP can be located after the non-applied object. This happens especially if the applied NP is animate and the non-applied (direct) object is inanimate so that the interpretation of their roles (as beneficiary and theme respectively) is evident irrespective of their positon (20b).[42]

(20) a. Ndi-phekela **isikolo** ukutya (Dyubeni 1993:62)
I-cook.APPL CL7.school CL15.food
'I cook food for the school.'

b. Ndi-phekela ukutya **umtwana**
I-cook.APPL CL15.food CL1.child
'I cook food for a child.'[43]

[42]In cases where the alternation may lead to semantic and syntactic ambiguity (e.g. where the two objects are inanimate), the applied object can be preceded by a prefix, delivering a locative structure. This phenomenon is also found with non-applicative ditransitive verbs such as *ukunika* 'to give'.
[43]However, for some informants this word order seemed incorrect. They rather used the expressions with agreement: *Ndiphekela umntwana ukutya* or *Ndimphekela ukutya untwana*.

The position of applied objects is relatively restricted. As mentioned above, applied objects tend to appear immediately after the verb. If moved to the pre-verbal position (fronting or left dislocation) the pronominal agreement typically appears on the verb (cf. 21; see also example 17b above).[44] These properties are consistent with the behavior of non-applied nominal arguments in Xhosa in general. In contrast, the position of adjuncts in Xhosa is significantly less restricted (Du Plessis & Visser 1998). Adjuncts can appear at the beginning or at the end of the clause, and their movement does not generally require agreement on the verb.

(21) Umfundi ndi-**m**-bhalela ileta
CL1.student I-CL1-write.APPL CL5.letter
'To the student I write a letter.'

3.2 Applied locative phrases (LP)

The applied LP is the other possible slot licensed by the applicative suffix in Xhosa (Du Plessis & Visser 1992:133). As mentioned previously, the LP is a noun accompanied by a locative marker: either an affix *e-* and *e-…-ini* (and its allomorphs) or an agglutinative preposition *ku-* (see further below in this section). The LP is obligatory in these types of applicative verbs and, thus, necessary for such predicates to be completed. In this manner, locatives that in non-applied structures constitute peripheral and omissible items, are promoted to the status of the core elements of a predicate (Plessis & Visser 1992:51, 1998:154).

(22) a. Ndi-fikele **e-sititshi-ni**
I-arrive.APPL.PERF LOC-CL7.station-LOC[45]
'I arrived at the station.'

b. *Ndi-fikele
I-arrive.APPL.PERF
intended: 'I (have) arrived.'

The applied LPs cannot be omitted, not only if it is indefinite and inaccessible, but also if its interpretation is definite and it is accessible in the context (cf. the latency criterion; Croft 2001:276, Forker 2014:29).

Applied LPs are more restricted than canonical adjuncts in Xhosa. Canonical adjuncts – which can also exhibit a locative marking – may virtually occur with any predicate. In contrast, applied locatives, by definition and tautologically, can only be found with applicative verbs. In fact, they are restricted to a certain number of such applicative predicates as many of applicatives require the use of an NP rather than an LP (cf. section 3.1). Overall, the presence of an applied LP is licensed by the meaning of the verb and must be learned individually, as is exemplary of arguments.

Applied LPs are not canonical terms as they cannot be classified as prototypical direct or indirect objects. As far as word order is concerned, in applicatives derived from intransitive verbs, the applied LP immediately follows the verb. However, in applicatives derived from transitive verbs, the applied LP regularly follows the nominal object (cf. 23a), contrary to indirect object of

[44] If following a direct non-applied object, and if inanimate, the applied NP may sometimes be headed by a prefix, exhibiting a locative marking.

[45] All the locative markers found in locative applied constructions will be glossed by means of LOC. In cases where the prefix *e-* or the agglutinative preposition *ku* are used, the gloss will surface as LOC-x. When the circumfix *e-…-ini* is employed the construction will be glossed as LOC-xxx-LOC.

non-applicative verbs and the applied NP discussed in Section 3.1. Furthermore, applied LPs are rarely indexed on the verb, neither by pronominalization (23b) nor by object agreement (23c; see further below in this section). Nevertheless, they are characteristics that also link the applied LP to grammatical terms. In passive constructions, the applied LP (24a and 25a) may be promoted to the subject position, thus triggering subject concord with the verb (24b and 25b). This is typical of direct and indirect objects as well as applied NPs (cf. section 3.1 above).

(23) a. Ndi-bhalela ileta **ku-Sipho**
I-write.APPL CL5.letter LOC-CL1a.Sipho
'I write the letter to Sipho.'

b. *Ndi-**ku**-bhalela ileta
I-CL15[46]-write.APPL CL5.letter
intended: 'I write him a letter.'

c. *Ndi-**ku**-bhalela ileta **ku-Sipho**
I-CL15-write.APPL CL5.letter CL1a.Sipho
intended: 'I write the letter to the child.'

(24) a. Abantu ba-buyela **e-doloph-ini**
CL2.person CL2-return.APPL LOC-CL9.town-LOC
'People return to the town.'

b. **E-doloph-ini** **ku**-buyelwa ngabantu[47]
LOC-CL9.town-LOC CL15-return.APPL.PASS by.CL2.person
'People return to the town.'

(25) a. Ndi-bhalela ileta **ku-mfundi**
I-write.APPL CL5.letter LOC-CL1.student
I write a letter to the student.'

b. **Ku-mfundi** **ku**-bhalelwa ileta
LOC-CL1.student CL15-write.APPL.PASS CL5.letter
'A letter is being written to the student.'

Lastly, as far as the criteria are concerned, the applied locatives seem to allow iteration (26a). That is, the clauses that contain an applicative verb and an LP may be expanded by more than one LP in a non-coordinating manner so that more than one locative expression is accumulated in the clause. However, the subsequent LPs are in fact not applied LPs *sensu stricto*, but rather "ordinary"

[46]This gloss refers to a locative element, which exhibits the same agreement as class 15. Therefore, it could also be glossed as locative agreement.

[47]However, sentences (24b and 25b) can also be interpreted as indefinite with no subject concord agreement. This is especially evident if the locative follows the verb or if there is a pause between the locative and the verb. This confusion stems from the fact that the concord subject prefix *ku* can be used both as a locative concord (*Emzini kucocekile* 'It is clean at home'; Mtoba 1985:72) and as existential thus referring to indefinite subject (e.g. *Kuyabanda* 'It is cold'). Although there are instances of an unambiguous locative *ku* in Xhosa (e.g. when a locative is employed in the subject positon and no pausal intonation is involved), and the applied LP could be viewed as triggering the concord subject prefix *ku* when promoted to a subject in passives, in passive constructions, *ku* is generally treated as an instance of the existential *ku* rather than the locative subject concord (Mtoba 1985:72-75). Nevertheless, the latter cannot be ruled out.

locative adjuncts, which as explained may be added freely. Thus, the sentence in (26a) can be further expanded by other adjuncts, for instance by *eMzantsi Afrika ngoJune* 'in South Africa in June'. This, in turn, would mean that applied locatives cannot be iterated (26b). This confusion, which exists with inanimate locatives, seems to be absent with animate applied locatives. This type of an applied locative cannot be reiterated, unless by means of coordination. If an inanimate locative is added to an animate applied LP, the former will be reinterpreted as an adjunct (26c)

(26) a. Abantu ba-buyela **e-doloph-ini** **e-Mpuma-Koloni**
CL2.person CL2-return.APPL LOC-CL9.town-LOC LOC-Eastern.Cape
'People return to the town in the Eastern Cape.'

b. *U-sebenzela **ku-nyana**, **e-mfazi-ni**
CL1-work.APPL LOC-CL1a.son LOC-CL1.wife-LOC
intended: 'He works for his son, his wife, the school.'

c. U-sebenzela **ku-nyana**, **e-sikolw-eni**
CL1-work.APPL LOC-CL1a.son LOC-CL7.school-LOC
'He works for his son in the school.'

As for the diagnostics, the morphosyntactic encoding of applied LPs is not uniform. The applied LP exhibits three main variants: *e-…-ini* and its allomorphs (*edolophini* 'in/to the town'), *e-* (*egaraji* 'in/to the garage') and *ku-* (*kumfundi* 'to the student'). However, the range of locative affixes usually found with applied LPs is more limited than is the case of all types of adjuncts indicating location. Apart from the encoding mentioned above, locative adjuncts can be introduced by various locative prefixes, prepositions or prepositional phrases with more specific semantic values: *nga* 'near to', *ngaphandle kwa* 'outside', *ngaphakati kwa* 'inside', *phezu kwa* 'on (top) of', etc. While these are common with locative adjuncts, they do not normally occur with applied locatives, especially if a non-locative/directional role is profiled (cf. further below in this section).

Applied LPs are marked by means of typical locative prefixes which have an adpositional character even though they are agglutinated to the noun. These marking *grosso modo* complies with the encoding characteristic of locative adjuncts in Xhosa. Inversely, applied LPs differ from typical arguments, which do not possess any marking of a prepositional type, being only marked for the noun class prefix.

Applied LPs exhibit semantic properties that link them to semantic cases rather than to a genuine grammatical case (Du Plessis 2010). The most common semantic roles conveyed by the applied LP are exemplary of semantic cases (direction, locative) and more semantic roles of grammatical cases (beneficiary, goal). However, instances of roles typical of grammatical cases are also found. To be exact, with underlying intransitive verbs, the applicative affix usually introduces a locative slot with the role of direction (27a), location (27b) or exclusive location (27c; also referred to as implicit contrast). All of them are typical of spatial cases (Plessis & Visser 1998:154-158).[48]

[48]Expressions of source in non-applicatives are interpreted as direction in applicatives, while locative meaning remain as such in applicatives or gives rise to the value of exclusive location (implicit contrast; Du Plessis & Visser 1998:154-158).

(27) a. Le ntombi i-buyela **e-doloph-ini** (Plessis & Visser 1998:156)
CL9.DEM CL9.girl CL9-return.APPL LOC-CL9.town-LOC
'This girl is returning to the town.'

b. Uloliwe wa-fikela **e-sitishi-ni** (ibid.:158)
CL11.train CL11. PAST-arrive.APPL LOC-CL7.station-LOC
'The train arrived at the station'

c. Abantu ba-lilela **e-caw-eni** (ibid.:158)
CL2.person CL2-cry.APPL LOC-CL9.church-LOC
'The people cry only in the church.'

A similar range of semantic roles can be attested with underlying transitive verbs: direction (28a), location and exclusive location (28b; Plessis & Visser 1992:55-57, 1998:160-164).

(28) a. U-qhubela imoto **e-sikolw-eni**
CL1-drive.APPL CL9.car LOC-CL7.school-LOC
'He drives the car to the school.'

b. U-sikela inyama **e-tafile-ni**
CL1-cut.APPL CL9.meat LOC-CL9.table-LOC
'He cuts meat only on the table.'

Apart from the semantic roles specified above, which are typical of semantic cases rather than grammatical cases, applied locatives can also express less spatial nuances: purpose/goal (29a), beneficiary (29b), recipient (29c-d) and theme (29e; Du Plessis & Visser 1992:51-54, 1998:154, 158). All of these roles relate the applied LP to grammatical cases. The roles of goal, beneficiary and recipient relate it to the dative, while the role of theme relates it to the accusative.[49] The non-spatial and more grammatical roles are more common with animate locatives.

(29) a. Wa-vukela **e-bhasi-ni**
CL1.PAST-wake.up.APPL LOC-CL9.bus-LOC
'He woke up to catch the bus.'

b. U-sebenzela **ku-nyana** wakhe
CL1-work.APPL LOC-CL1a.son his
'He works for his son.'

c. U-mangalela **ku-nyana** wakhe
CL1-complain.APPL LOC-CL1a.son his
'He complains to the son.'

d. Umfundi u-bhalela ileta **ku-yise** (Du Plessis & Visser 1992:57)
CL1.student CL1-write.APPL CL5.letter LOC-CL1.his.father
'The student writes a letter to his father.'

[49] As already explained, among the dative roles, goal and beneficiary are more semantic than that of recipient (Ozón 2007).

e. Indoda i-krokrela **e-mfazi-ni** (Du Plessis & Visser 1992:51)
CL9.man CL9-be.suspicious LOC-CL1.woman-LOC
'He is suspicious of the woman.'

Contrary to applied NPs, applied LPs are normally not indexed on the verb as pronominal object affixes. Thus, they do not exhibit object agreement in case of movement (30a) or for specification (30b) analogous to that found with applied NPs.[50] However, when moved to the initial position, the verb may take the pronominal subject affix (or the agreement affix) of the locative *ku* class (30c-d). As explained, this use of *ku* may be understood not as the subject agreement with the locative *ku* class but rather as the existential (indefinite) subject. This existential reading is evident in the case of subject inversion where the applied LP follows the verb and the subject (30e; Mtoba 1985, Visser 2005).[51] All these properties are typical of locative adjuncts rather than arguments in Xhosa.

(30) a. ***E-ntombi-ni** ndi-**ku**-khenkethela[52]
LOC-CL9.daughter-LOC I-CL15-visit.APPL
intended: 'The daughter's place I am visiting.'

b. *Umfundi u-**ku$_i$**-hambela **e-ntombi-ni$_i$**
CL1.student CL1-CL15-visit.APPL LOC-girl-LOC
intended: 'Student visits the girl.'

c. **E-cawe-ni** **ku**-lilela abantu
LOC-CL9.church-LOC CL15-cry.APPL CL2.people
'People are crying in the church.'

d. **E-sitratwe-ni** **ku-**gcwele iimoto
LOC-CL7.street-LOC CL15-be.plentiful.APPL.PERF CL10.car
'The street is full of cars.'

e. **Ku**-lilela abantu **e-cawe-ni**
CL15-cry.APPL CL2.people LOC-CL9.church-LOC
'People are crying in the church.'

As mentioned above, an applied LP allows for certain valency-changing processes in Xhosa, such

[50]This is related to the fact that the use of pronominal object affixes or object concord with locative classes in Xhosa is extremely limited, contrary to many other Bantu languages, where it is common. Nevertheless, there are cases where the latter phenomenon (object agreement) can be found. This occurs under the following highly restricted conditions: the verb must be abstract (it cannot be concrete), the locative must be expressed (it cannot be omitted and only the pronoun is used), exclusively nouns with the prefix *e-* can be used (phrases with *ku* can never be used), and the locative noun cannot be modified (Du Plessis & Visser 1998:50). The object prefix *ku* (albeit not of locative nature) may also be found in a sentential function. This type is employed as a pronoun referring to what has been previously stated (i.e. to the preceding clause or sentence): *Ubawo ukuvile oko* 'Father has heard that' (Mtoba 1985:74).

[51]Inversely, relatively clear cases of the locative *ku* are found in the following instances: after locative constructions and nouns belonging to the locative class that appear in a subject position (*Phandle kumdaka* 'It is dirty outside' or *Emzini kucocekile* 'It is clean at home' Mtoba 1985:71-72); with locative uses of *kho* (*Esikolweni kukho abantwana* 'At school there are children'); with the locative demonstrative *apha* (*Apha kuseQonce* 'This is King William's Town'); and after *apho* in relative clauses (*Ekhaya apho kuzolileyo* 'At home where it is quiet'; Mtoba 19885:71- 72). Accordingly, if the applied LP occupies a subject postion and there is no pausal intonation, the prefix *ku* can be interpreted as an instantiation of the locative *ku* and hence of subject agreement (M. Visser personal communication).

[52]The examples (34a) and (34b) are grammatical if the pronominal affixes are eliminated. Thus, specification and movement do not require object agreement contrary to prototypical arguments in Xhosa.

as passivization. In passives, applied LPs can be promoted to the subject position and trigger subject agreement with the verb. This property is found with applicatives derived from underlying intransitive (31a) and transitive (31b) verbs. To be exact, the applied LP can occur as the subject in a passive construction, while the direct object (if it is expressed in the clause built around an active applicative verb) remains in the object position (see again 31b).[53]

(31) a. **E-doloph-ini** **ku-**yabuyelwa ngabantu
LOC-CL9.town-LOC CL15-return.APPL.PASS by.CL2.person
'People return to the town.'

b. **E-khaye-ni** lethu **ku**-cingelwa imali
LOC-CL5.house-LOC ours CL15-think.APPL.PASS CL9.money
'In our house there is concern about money.'

The applied LP regularly appears in the position further from to the verb than any other nominal slots. If the applicative is derived from an underlying transitive verb, the applied LP is placed after the direct objects (32a). If the applicative construction is derived from an underlying ditransitive verb, the applied LP appears after the two objects, that is, further to the right than the direct and indirect objects (the latter encoded by the applied NP; 32b). Of course, if the applicative structure is derived from an intransitive verb, the applied LP appears closest to the verb, as no other object or nominal slot intervenes. However, although applied locatives occupy a position that is more distant from the verb than is the case of prototypical arguments, they also occur closer to the verb than prototypical adjuncts. This means that adjuncts usually follow the applied LP (32c).

(32) a. Ndi-memela abafundi **e-khaye-ni** lam
I-invite.APPL CL2.student LOC-CL5.house-LOC mine
'I invite students to my home.'

b. Indoda i-hlawulela uThemba inkomo **e-gqirhe-ni**
CL9.man CL9-pay.APPL CL1a.Themba CL9.cow LOC-witchdoctor-LOC
'The man pays a cow to the witchdoctor on behalf of Themba.'

c. Nda-fikela **e-Kapa** ngoMqibelo 18.June ngo-1994
I.PAST-arrive LOC-Cape.Town on.Monday 18.June in.1994
'I arrived in Cape Town on Monday 18 June 1994.'

With a few underlying ditransitive verbs (e.g. *ukunika* 'to give' and *ukuthuma* 'to send'), the use of the applicative affix and locative marking makes it possible to shift the indirect object encoded by the applied NP from the immediate post-verbal position (33a) to the position after the direct

[53]As already explained, in passives the prefix *ku* is usually viewed as an instantiation of the existential *ku* (Mtoba 1985). This is certainly true of passive constructions such as *Kufunwa incwadi ngumfundi* 'The book is wanted by the student' (lit. 'There is being wanted a book by the student)' where the verb makes use of the existential *ku* subject prefix (Mtoba 1985, Visser 2005). It is clearly relayed to the subject inversion construction in which the existential *ku* is used (Mtoba 19885:82). Compare *Inyama iyatyiwa* 'Meat is being eaten' with *Kutyiwa inyama* 'Meat is being eaten', and *Abafundi banikwa incwadi* 'The students are given a book' or *Incwadi inikwa abafundi* 'The book is being given to students' with *Kunikwa abantwana incwadi (ngabantu)* 'Children are given a book (by people)'; Mtoba 1985:84-85). However, since the LP appears in the subject position, corresponds to a locative class, and no pausal intonation is involved, these instances can also be viewed as examples of the locative *ku* and thus subject agreement (M. Visser personal communication).

object (33b):[54]

(33) a. Ndi-thumela **abantwana** imali
I-send.APPL CL2.child CL9.money
'I am sending the children money'

b. Ndi-thumela imali **e-bantwane-ni**
I-send.APPL CL9.money LOC-children-LOC
'I am sending money to the children.'

The position of applied locatives is less restricted than the position of objects (including the applied NP), although it is more restricted than the position of temporal, instrumental and locative adjuncts. As explained above, although the LP usually appears after any other object, it can be moved to the pre-verbal position (fronting or left dislocation). In such a case, the movement fails to trigger object agreement (34a) and optionally may yield locative subject agreement, which is similar to and sometimes indistinguishable from the existential *ku* (34b).

(34) a. **E-doloph-ini** abantu ba-yabuyela
LOC-CL9.town-LOC CL2.person CL2-return.APPL
'People return to the town.'

b. **E-doloph-ini** **ku**-buyela abantu
LOC-CL9.town-LOC CL15-return.APPL CL2.person
'People return to the town.'

4. Discussion

The evidence indicates that, with respect to almost all the criteria and diagnostics, the applied NP performs as if it were an argument. First, the applied NP responds to the six criteria in a manner similar to canonical arguments. That is, the applied NP fulfills the criterion of syntactic obligatoriness. As is representative of arguments, the presence of the applied NP is required by syntax – the applied NP being necessary for the verb to be complete. The applied NP is obligatory to the extent that it cannot be left unexpressed, even though it is contextually accessible and/or definite.[55] With respect to the criterion of co-occurrence, the applied NP exhibits an intermediate character. That is, the presence of an applied NP is more restricted than the presence of canonical adjuncts, albeit possibly less restricted than canonical arguments. As for the criterion of grammatical relations, the applied NP is a term (similar to a primary object and a direct/indirect object) which is typical of arguments. Furthermore, applied NPs cannot be iterated and, to a degree, must be learned, at least to a greater degree than prototypical adjuncts. Thus, as far as the criteria of iterability and learnability are concerned, the applied NP approximates canonical arguments.

Second, as far as diagnostics are concerned, on most tests the applied NP performs as a canonical argument. The encoding of the applied NP is uniform. Although there is no

[54]This phenomenon is comparable to the so-called dative shift. The dative shift allows for the indirect object to be moved to the positon after the direct object. This is made possible by expressing the indirect object by means of an LP instead of an NP: *Ndibuza umfundi umbuzo* 'I am asking the student a question' versus *Ndibuza umbuzo kumfundi* 'I am asking a question to the student'. In Xhosa, the dative shift is limited to few verbs (Du Plessis & Visser 1992:61).
[55]This does not violate the latency criterion. The latency criterion would be transgressed if inaccessible and/or indefinite applied NPs could be omitted, which never occurs in Xhosa. If anything, the behavior of the applied NPs in Xhosa renders them "more arguments", as they can never be left unexpressed.

morphological case in Xhosa, the marking of the applied NP may be understood as basically morphological (like any prototypical argument in Xhosa) and never adpositional (which is typical of adjuncts). The applied NP is commonly indexed on the verb, which is also typical of arguments. This indexation surfaces as both pronominalization and object agreement. The applied NP may likewise undergo valency changing processes, especially passivization, thus behaving as an exemplary argument. Lastly, as far as its position in the clause is concerned, the applied NP exhibits typical properties of arguments. It is located closest to the verb, and in fact closer than any other argument. It is also relatively restricted, especially if compared to the adjuncts. In contrast, with respect to the diagnostic of grammatical and semantic case, the applied NP exhibits properties of a mixed nature. Overall, the semantic properties locate the applied NP closer to the grammatical case than to the semantic case. To be exact, the applied NP most commonly behaves as a variant of the dative case. However, in its less prototypical roles, the applied NP may travel in both directions on the case continuum, that is towards a more grammatical case (recipient and theme) or towards a more semantic case (locative).

The behavior of the applied LP is more erratic. The applied LP may respond to the criteria and perform on the diagnosing tests as if it were an argument, an adjunct or an intermediate category. First, the six criteria jointly suggest an intermediary status for the applied LP on the continuum of argumenthood and adjuncthood. On the one hand, responding to certain criteria, the applied LP behaves in a manner exemplary of arguments. The applied LP is obligatory in an applicative verb, thus behaving as an argument. The omission of an applied LP is never allowed, including if the LP is definite and accessible in the context. Accordingly, indefinite and inaccessible applied LPs can never be left unexpressed, which is consistent with the latency criterion. With respect to the criterion of co-occurrence, the applied LP is also more restricted than canonical adjuncts in Xhosa and usually must be learned. On the other hand, the remaining two criteria locate the applied LP in an intermediate zone of the argument-adjunct scale. As far as the question of grammatical relations is concerned, the applied LP is not a genuine term. It may be viewed as relatively remote from the categories of primary/secondary objects and direct/indirect objects. The applied LP also tolerates superficial iteration, although what seems to be an iterated applied LP is in fact a new, non-applied locative adjunct. This may yield fuzzy cases.

As far as the diagnostics are concerned, the applied LP most often responds in a manner that is not typical of arguments. Rather, the applied LP performs as if it were an adjunct-like category or a mixed category. To be precise, the encoding of the applied LP is not uniform, although it is more uniform than the encoding of adjuncts in general. The encoding seems to be closer to adpositional marking rather than to a genuine case. The applied LP combines features of a grammatical case and a semantic case. Nevertheless, the range of theta-roles and in particular the roles that are the most prototypical of the applied LP (i.e. locative and direction) approximate it closer to the semantic case, or at least to a highly semantic side of the dative case. In the manner characteristic of adjuncts, the applied LP is normally not indexed on the verb by means of pronominal object affixes. However, the verb may take the pronominal subject affix of the locative *ku* class. As explained, this can also be viewed as the existential type of *ku*. In such a case, the applied LP would fail to trigger any type of agreement. The position of the applied LP is less restricted than the position of arguments in Xhosa. The applied LP is also located at further distance from the verb than is the case of other arguments in Xhosa. In contrast, one property demonstrates that the applied LP may also behave in an argument-like manner. To be exact, the applied LP allows for certain valency-changing processes in Xhosa, especially for passivization where it may possibly be promoted to the subject position and/or role.

Before proposing a unified categorization of the applied NP and the applied LP, it should be recalled that each criterion and diagnostic condition is scalar in itself (cf. Forker 2014). That is, the

criteria and diagnostics do not allow for binary oppositions in terms of either fulfillment or non-fulfillment. This implies that the applied NP and LP may exhibit mixed characteristics with respect to every single criterion or diagnostic. As a result, the overall extent of argumenthood or adjuncthood of the applied NP and LP (if both are viewed as holistic categories) is not easily computable and their position on the argument-adjunct continuum cannot be precisely determined. In other words, the computation of all conditions into one digit or a point on the scale (or into an exact range of digits or points) may not be possible. What can be achieved, is the estimation and relative positioning of the applied NP and the applied LP. That is, it is possible to hypothesize a position that is approximate (i.e., numerically imprecise and fuzzy) and one that locates the applied NP and the applied LP in relation to other NPs (typical arguments) and LPs (typical adjuncts), as well as in relation to each other.

If taken in its integrity, the applied NP is close to the argumenthood pole of the argument-adjunct continuum. It seems that only certain semantic properties pull the applied NP slightly away from the extreme that symbolizes canonical argumenthood. Otherwise, the applied NP behaves as an exemplary argument, sometimes even more prototypical than non-applied objects in applicative constructions. Accordingly, the applied NPs are arguments to a comparable degree as any other non-applied arguments. Each group offers a slightly distinct mixture of properties and compensates less canonical behavior with respect to one condition by more canonical behavior with respect to the others. The location of the applied LP on the argument-adjunct scale is less clear-cut. As the applied LP exhibits both argument-like and adjunct-like traits it is an intermediate category. Therefore, it may be viewed as spanning the middle sections of the scale, being located between other more canonical categories. On the one hand, it approximates canonical argumenthood to a lesser degree than prototypical arguments in Xhosa, including the applied NP. On the other hand, it behaves in a less adjunct-like manner than the prototypical adjuncts. These mixed properties of the applied LP make it impossible to classify it either as an argument or as an adjunct. Rather, as proposed above, the form attests to an intermediate fuzzy state on the argument-adjunct scale.

Given the properties of the applied NP and the applied LP, it is possible to postulate the following relative cline of argumenthood-adjuncthood in Xhosa: nominal non-applicative objects and applied NPs > applied LPs > other locative and temporal expressions.[56]

5. Conclusion

The present study demonstrates that the applied NP and the applied LP have a dissimilar status on the argument-adjunct. The applied NP approaches the pole of argumenthood to a great degree, while the applied LP is placed in the intermediate zone of the continuum. Accordingly, the applied LP occupies the area relatively closer to the pole of adjuncthood than is the case of the applied NP. In this manner, the paper offers a more nuanced approach to applied NPs and LPs than the categorization proposed by Du Plessis & Visser (1992, 1998) for whom both classes are arguments.[57]

[56]Although locatives function typically as adjuncts in Xhosa, they can sometimes be used in a manner closer to arguments (Du Plessis & Visser 1992:133, 1998:170). This occurs if locatives appear with verbs of motion (*Ndiya ehotele* 'I am going to the hotel') and verbs that allows for the dative shift, whereby the sequence [indirect object + direct object] is replaced by the sequence [direct object + locative]: *Ndibuza umfundi umbuzo* > *Ndibuza umbuzo kumfundi* 'I ask the student a question' (Du Plessis & Visser 1998:172).

[57]The definition offered by Du Plessis & Visser (1992, 1998) may still be regarded as correct given the assumption adopted by these scholars. That is, according to Du Plessis & Visser, the decisive criterion for the categorization of an element as an argument or an adjunct is its obligatoriness (arguments) or non-obligatoriness (adjuncts). Of course, Du Plessis & Visser (ibid.) are fully aware of dissimilar behavior of the two classes of the applied arguments, noticing for instance that applied NPs are objects while applied LPs are not.

Furthermore, the results of this article corroborate two other views proposed in the thematic issue of *Linguistic Discovery* 12(2). First the data suggest that, even though the exact numerical scale (Arka 2014) may offer certain benefits (and may be the ultimate goal of future research) at this stage, it is not realistic. The more realistic scale is approximate (non-numerical) and relative (it positions categories of a language in relation to each other). Accordingly, the solution proposed by Forker (2014) seems more workable. Second, given the contribution of the semantic and morphosyntactic properties of the applied NP and LP to their argument-adjunct status, the present study provides further arguments supporting the hypothesis according to which the valency status of the verb is, to an extent, conditioned by the dependent elements and not directly or exclusively projected by the verbal head (Arka 2014).

Abbreviations

APPL: applied, ABS: absolute pronoun, CL: class, LOC: locative, LP: locative phrase, NP: noun phrase, PASS: passive, PERF: perfect.

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