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Abstract

This paper re-examines two types of constructions that have featured in the discussion of possessor ascension in Bantu: one type – an applicative construction – is associated with alienable possession, and the other – non-applicative – is associated with inalienable possession. The study shows that the former expresses affectedness, and that the possessor reading arises only by construal; whereas the latter expresses a part–whole relationship. The paper argues that the two constructions differ in more significant ways than has previously been acknowledged; and that their distinct derivations cannot be captured by traditional possessor ascension (PA) analyses. The putative ''alienable'' possessor constructions belong to the class of (benefactive) applicative constructions and should be analyzed as such. The paper proposes that the socalled ''inalienable'' possessor constructions can best be accounted for by positing the existence of ''enlarged arguments'' wherein the possessum functions as a nominal predicate which more narrowly pinpoints the locus of the action described by the verb.

1. Introduction

Many languages of the world provide for at least two ways of expressing the possessor relation: in one, both the possessor and the possessum appear in a single noun phrase headed by the possessum, as shown in (1a); and in the other, the two nominals are expressed as distinct constituents, as shown in (1b).

(1) a. The horse kicked Penny's shin (Levin, 1993:71)

    b. The horse kicked Penny in the shin

In this pair (1a) is said to be the basic structure from which (1b) is derived through a processes known as possessor ascension (PA) whereby the possessor is 'raised' to assume the grammatical function of its host NP (see, for example, Baker, 1988a; Davies, 1997; Hyman, 1977; Hyman et al., 1970; Kim, 1989; Kimenyi, 1977, 1980; Perlmutter and Postal, 1983a; Scotton, 1981, and related works). In Bantu languages there are two distinct constructions which are said to be manifestations of PA: in the first type the verb is inflected with an applicative affix, but in the second the affix is absent from the verb. The following examples from Chichewa illustrate.

2. a. Tadala a- na- thyol -a ndodo ya-mwana
SM-PST-break-FV stick ASSOC-child
'Tadala broke the child's stick' [Lit: 'Tadala broke the stick of the child']

b. Tadala a- na- thyol -er -a mwana ndodo
SM-PST-break-APPL-FV child stick
'Tadala broke the child's stick' (or 'Tadala broke a stick for the child')

3. a. Mphatso a- na- thyol -a mwendo wa-mwana
SM-PST-break-FV leg ASSOC-child
'Mphatso broke the child's leg' [Lit: 'Mphatso broke the leg of the child']

b. Mphatso a- na- thyol -a mwana mwendo
SM-PST-break-FV child leg
'Mphatso broke the child's leg'

In both (2) and (3), (a) represents the underlying structure from which (b) is derived: that is, the possessor is raised from its underlying position and becomes the surface direct object. Note that in each case the raising of the possessor results in the deletion of the prepositional element and the concomitant creation of a double object construction. Thus, (2b) and (3b) are supposedly similar in every respect except for the fact that theverb is inflected with an applicative suffix in (2b) whereas in (3b) it is not. Note, though, that (2b) has two potential meanings: one possible meaning is that the stick in question belonged to the child; and the other meaning is that the stick may not necessarily have belonged to the child, but that the child was nevertheless affected (either in a beneficiary or maleficiary sense) by its being broken. The significance of the ambiguity in (2b) will become clear in the sections that follow. The variation in verbal morphology is said to be directly linked to the alienability of the possession: it is postulated that PA triggers an

applicative suffix on the verb when the possession is alienable, but that no such affixation occurs when the possession is inalienable. The difference in alienability between the stick and leg thus accounts for the contrast in verbal morphology between (2b) and (3b). A structure corresponding to (3b) is ruled out whenever the possession is inalienable, as shown in (4)–(6).

4. *Ke rob-a Opa thupa Sotho (Voeltz, 1976)
I break-FV Opa stick
'I break Opa's stick'

5. *Mumbi w- a- guz -a Tombi njinga CiNsenga (Simango, 1995)
SM-PST-pull-FV bicycle
'Mumbi pulled Tombi's bicycle'

6. *n- ka- hend omwaan enkoni Haya (Hyman, 1977)
I- PST- break child stick
'I broke the child's stick'

Cross-linguistic evidence suggests that alienable and inalienable possessions tend to display different morphological characteristics: alienable nouns invariably represent the marked category whose expression across languages requires more morphological expenditure (Heine, 1997a,b). Thus, it would seem that in the Bantu case the applicative affix represents that 'extra morphological expenditure' required for expressing alienability. The premise of the PA account is the assumption that each pair of sentences in (1), (2) and (3) convey the same meaning – an assumption that has been questioned by other researchers (notably, Blake, 1984; Chappell and McGreggor, 1995; Heine, 1997a,b).

This paper re-examines the putative PA construction in Bantu by taking a closer look at facts from Chichewa. It is shown that the PA account of constructions like those in (2b) and (3b) lumps together unrelated constructions of which only one type expresses a possessor–possessum relationship. The paper argues that whereas (3b) inherently expresses a possessor relationship, the possessor reading of (2b) arises from construal rather than from the inherent meaning of the expression. The paper holds that a derivational relationship between (2a) and (2b) is untenable, and that a theory of grammar needs to postulate different underlying representations for (2b) and (3b).

2. A Relational Grammar analysis

Formal analyses of possessor ascension have appeared in various syntactic frameworks – most notably within the theory of Relational Grammar (RG).[1] The goal of the various accounts is to show that there is a derivational relationship between the (a) sentences in (1), (2) and (3), and the corresponding (b) sentences. Relational Grammar seeks to account for the grammatical-function changes that occur in the derivation of these sentences. I will first present a brief overview of the key features of RG before showing how this framework accounts for PA constructions. Relational Grammar holds that the basic structure of a clause involves primitive grammatical relations (GRs) which obtain between linguistic elements of the clause: predicates hold the P(redicate) relation, whereas arguments hold TERM relations such as SUBJECT (or 1), DIRECT OBJECT (or 2), INDIRECT OBJECT (or 3), etc.; and adjuncts typically hold the OBLIQUE relation. The GRs associated with arguments of a predicate are hierarchically ordered with respect to their prominence on the Relational Hierarchy in which SUBJECT is the highest GR (1 > 2 > 3 > . . . > OBLIQUE). The theory also claims that the structure of a clause may include a number of strata, or levels of derivation, in which these primitive grammatical relations figure from the initial through to the final stratum (see also Davies and Dubinsky, 2004; Rosen, 1984): and that in each stratum only one dependent of the clause can bear a particular GR in accordance with the Stratal Uniqueness Law (Perlmutter and Postal, 1983b). In the course of derivation nominal dependents may assume new GRs by advancement (i.e. assuming a higher GR) or by demotion (i.e. assuming a lower GR). A chômeur relation, in which a linguistic element goes into retirement, arises whenever a GR borne by one dependent of a clause in one stratum is borne by another dependent of the same clause in a succeeding stratum. In a possessor ascension construction the verb is assumed to initially take a large NP (consisting of the possessum and the possessor) as its argument: it assigns to this NP the GR of direct object. In the course of derivation the possessor raises to assume the GR of its host, and the remnant phrase becomes a chômeur. The derivation of the (b) sentences in (1–3) is represented by the relational network (RN) in (7).

[1] *Fillmore (1968), working within a TG framework, represents one of the earliest accounts of the derivational link between the sentences in (1).*

7.

(=1b)	kick	horse	shin	Penny
(=2b)	thyola	Tadala	ndodo	mwana
(=3b)	thyola	Mphatso	mwendo	mwana
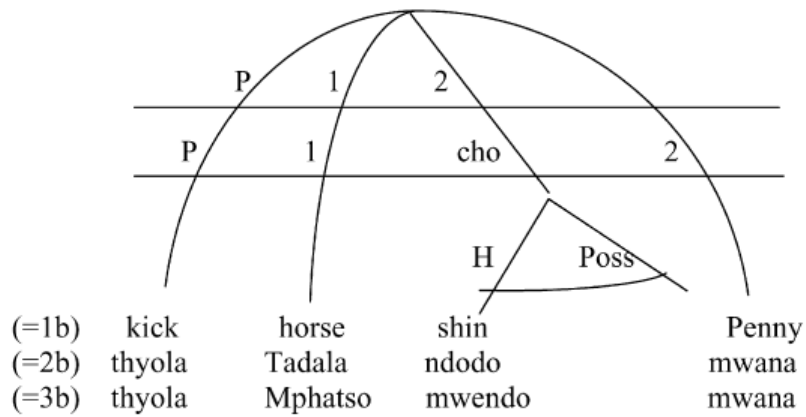
This RN thus captures the PA derivations for both English and Chichewa. According to (7) each clause consists of a single predicate and, significantly, the possessum is associated with the 2 relation in the initial stratum of the clause. For Chichewa the variation in verbal morphology between (2b) and (3b), as we have noted, is not related to the derivation of the sentence as such, but to the alienability of the possessor–possessum relationship. Although an analysis which seeks to account for the alternation in verbal morphology between (2b) and (3b) on the basis of alienability might seem elegant, the analysis does not provide sufficient evidence to prove that a derivational relationship does, indeed, exist between those sentences corresponding to (a) and those corresponding to (b). Further, as will become evident below, the analysis does not explain why (2b) and (3b) differ in significant ways in terms of their semantic and distributional properties. It is argued, in the present study, that (7) fails to account for the semantic and syntactic differences that exist between constructions in which the applicative suffix appears on the verb and those constructions in which this suffix is absent.

The following arguments are made in this paper (i) a derivational relationship between structures corresponding to (a) and those corresponding to (b) in (2) and (3) is not tenable; (ii), as a corollary of (i), constructions in which the applicative affix appears on the verb (e.g. (2b) and related structures) do not inherently express possession; but rather, they express affectedness and, as such, these sentences belong to the general class of (benefactive) applicative constructions; (iii) only constructions corresponding to (3b), to the extent that they express a possessor relationship, can conceivably be accommodated within the PA analysis. Note though that such sentences necessarily express a part–whole relationship which can best be accounted for by positing the existence of ''enlarged arguments'' in the sense of Mirto and Rosen (1993).

3. Problems with the PA analysis

The PA analysis, which posits a derivational relationship between (a) and (b) in (2) and (3), has to contend with a number of problems. To start with, the analysis does not explain the meaning differences between each pair of sentences; second, the analysis does not explain why, on the one hand, certain inalienable possessions pattern like alienable possessions syntactically and, on the other hand, why other nouns (e.g. items of clothing) show characteristics of both alienable and inalienable possessions; and further, the analysis does not explain why the purported derived structures have different distributional properties. I will address each of these problems in turn.

3.1. Equivalence of meaning

An analysis which posits a derivational relationship between a pair of sentences needs to show that there is a meaning equivalence between the sentences in question. In this particular case a PA construction must express the same relation between possessor and possessum as that expressed in the supposed underlying structure. A closer examination of the sentences in (2) and (3) reveals that in each case there are significant semantic differences between (a) and (b). Sentence (2a) specifically asserts that Tadala broke a stick belonging to the child. The sentence merely states this fact and does not in any way indicate whether or not the child was affected by Tadala's action. In contrast, (2b) makes no specific claims about whose stick Tadala broke: the stick could have belonged to the child, or to Tadala, or to a third party, or to no one for that matter. Further, (2b) implies that the child was in some way affected by the action described by the verb. This sentence means that the child either benefited (if the action was pleasing to the child) or suffered (if the action was displeasing to the child) as a result of Tadala's action. Thus, (2a) and (2b) differ in two important ways with respect to their meanings: the identity of the possessor and the effect of Tadala's action on the child. If the two sentences are indeed related

through derivation, it is difficult to explain how these meaning differences are introduced into the structure. In (3), sentence (a) differs from (b) primarily in terms of the specification of physical contiguity of the possessor in relation to the possessum. To start with, (3a) makes no claims regarding the location of the child's leg when Mphatso broke it. It is possible that, as would be under normal circumstances, the leg was part of the child when the event occurred. But it is also possible that at the said time the leg in question had been detached from the child either as a result of an accident or through some surgical operation. Regardless of the real life circumstances surrounding the leg, (3a) merely asserts that Mphatso broke a leg belonging to the child. Sentence (3b), on the other hand, necessarily means that Mphatso broke a leg which constituted a part of the child at the time. In effect the sentence means that by breaking the leg, Mphatso broke the child. Uttering (3b) would be false if the situation was such that Mphatso broke a leg that had previously been detached or severed from the child. Clearly (3b) overlaps with (3a) with respect to the identity of the possessor: both sentences identify the child as the possessor of the leg. However, the two sentences differ in that (3b) specifies the location of the possessum whereas (3a) does not.

3.2. Alternation in verbal morphology

Languages which mark alienability typically do so by placing the relevant markers on the noun itself – either on the possessor or on the possessum (Chappell and McGreggor, 1989; Nichols, 1992). In the Bantu case neither the possessor nor the possessum is marked for alienability but, instead, alienability is said to be marked on the verb by an applicative suffix. Thus, PA is said to have distinct morphological effects on the verb depending on whether the possession is alienable or inalienable. The applicative suffix then can be treated as a kind of agreement marker denoting the feature [+ alienable], and we could assume that the feature [_ alienable] is marked by a null morph on the verb. Now, if possession in PA constructions is indeed marked by a verbal affix (an applicative for alienables and a null affix for inalienables) then we should not expect such constructions to permit a possessor phrase – i.e. a prepositional modifiers of the head noun (e.g. ASSOC-N as in (2a)) – to occur in the same clause since such a phrase would be superfluous. However, as will be shown in section 3.5 below, the applicative suffix can co-occur with a possessor phrase, which suggests that this affix is not an agreement marker indexing the feature [+ alienable] on the verb. This affix, it turns out, signals the presence of an affected argument in the clause rather than the alienability of the possessum. Verbal morphology is typically associated with relation-changing rules because such rules apply on the verb (Dowty, 1982); and since PA is a relation-changing rule its application is likely to show morphological effects on the verb. However, the evidence suggests that PA is not morphologically marked on the Bantu verb and thus an alternative analysis is required to account for the alternation in the verbal morphology shown in (2b) and (3b).

3.3. Alteration in the valence of the verb

The PA analysis does not explain how the verb's valence is altered in the course of derivation. The verb thyola 'break', for example, is transitive – which means it typically subcategorizes for one NP as shown in (2a) and (3a). Note, however, that in the corresponding (b) sentences the same verb seems to support an additional NP. This suggests that PA is a valence-increasing process which licenses a new argument into the verb's predicate-argument structure and presumably assigns this argument a specific thematic role. In the case of (2b) the alteration of the verb's valence can conceivably be explained by positing that the applicative suffix licenses the additional argument. This explanation, however, assumes that the applicative affix is a predicate and not a mere reflex of PAwhere the affix signals the presence of a possessum with the feature [+ alienable].[2] The characteristic of the applicative as a valence-increasing verbal extension is well known and literature on this subject abounds (e.g. Alsina and Mchombo, 1990, 1993; Baker, 1988a,b; Bresnan and Moshi, 1990; Hoffman, 1991; Simango, 1995, 2003; and references in those works). In the case of (3b), however, the extra argument seems to be unlicensed as the usual valence-increasing morphology (which typifies Bantu verbs) is missing. In the absence of extra morphology it is difficult to account for the apparent increase in the number of arguments which the verb can support in the derived structure.[3] In short, the PA analysis cannot uniformly account for the apparent increase in the valence of the verb in (2b) and (3b).

> [2] *A reviewer has suggested that a possible analysis of this structure would be that of possessor control involving multiattachment rather than PA. Note though that in the PA analysis, the possessor has no (independent) grammatical relation in the initial stratum since it only forms part of a larger NP. In a control construction the possessor would be an argument of both the verb thyola 'break' and the applicative affix and presumably bear its own grammatical relation (e.g. direct object) in the initial stratum. I am rather reluctant to adopt this analysis on the grounds that there is no evidence to suggest that the*

possessor bears the direct object relation in (3a) – the diagnostics of object marking and passivization rule out this possibility. Further, there is no independent evidence to suggest that the thyola is a control verb: typically this verb does not take infinitival or clausal complements (as would be expected of control verbs). And lastly, the control analysis would not, in my view, adequately account for the status of the possessum with respect to its grammatical relation(s) in this clause. Thus, the PA analysis, its inadequacies notwithstanding, would be a better alternative (but see below for a more viable alternative).

[3] *In GB theoretic framework (Chomsky, 1981) a derivation which arbitrarily increased the number of arguments would violate the Projection Principle as it would not observe the subcategorization properties of the lexical items involved.*

3.4. Determining alienability

A language which grammatically distinguishes alienable from inalienable possessions needs to consistently make this distinction for the possessed nominals in question. That is, one would expect to see a pattern in which alienable possessions are kept apart from inalienable possessions by a clearly identifiable feature. In Fijian, for example, the difference between alienable and inalienable possessions is marked morphologically on nouns: the possessive morpheme is preposed for alienables and suffixed for inalienables (see Fillmore, 1968:62). What is inalienable, naturally, varies from language to language since the definition of inalienability is largely dependent on culture-specific conventions (Heine, 1997a:85). There are, however, some broad conceptual domains to which inalienable possessions belong: these include kinship terms, bodyparts, and relational spatial concepts, as Heine points out. Now, assuming that the applicative affix is the feature which distinguishes alienable from inalienable possessions in Chichewa, one would expect alienable possessions in this language to always occur in structures in which an applicative affix appears on the verb and for inalienable possessions to show the opposite distributional pattern. What is interesting, however, is that while body parts typically occur in structures like (3b), kinship terms only appear in structures like (2b) as shown in (8).

8. a. Ulemu a- na- nyamul –ir –a Chikondi mwana
SM-PST-carry-APPL-FV Chikondi child
'Ulemu carried Chikondi's child' (or 'Ulemu carried the child for Chikondi')

b. *Ulemu a- na- nyamul –a Chikondi mwana
SM-PST-carry-FV Chikondi child
 'Ulemu carried Chikondi's child'

Kinship relations, as we have indicated, are inalienable; thus in (8) the child can be considered as an inalienable possession of its parent. Granted this inalienability we would expect (8a) to be illformed and (8b) to be well-formed, but the opposite is the case here. The fact that the applicative suffix co-occurs with an inalienable possession (8a) is significant: it provides further proof that this affix does not represent verbal agreement for the feature [+ alienable] and, therefore, it cannot be the grammatical feature that distinguishes alienable from inalienable possessions in this language. Note that under the PA analysis, the applicative affix is central in coding the alienability of possessions. However, what we have seen so far suggests that not only is alienability indistinguishable on morphological basis, but also that the feature [±alienable] is probably not grammaticalized in Chichewa and related languages. In this regard, it is interesting to note that there are some nominals in Chichewa, denoting items of clothing (or parts thereof), which typically stand for what would be considered as alienable possessions with respect to a person. Such nominals occur in both types of constructions, as shown in (9).

9. a. John a- na- masul –a zipi wa-nga
SM-PST-unfasten-FV zipper ASSOC-1SG.POSSESS
'John unfastened my zipper'

b. John a- na- ndi-masul –ir –a zipi
SM-PST-OM-unfasten-APPL-FV zipper
 'John unfastened my zipper' (or John unfastened the zipper for me')
c. John a- na- ndi-masul –a zipi
SM-PST-OM-unfasten-FV zipper
'John unfastened my zipper'

In (9b) the applicative suffix appears on the verb and (9c) the suffix is absent. These facts suggest that in this language zipper is treated as an alienable possession on some occasions and as an inalienable possession on others. In turn, this suggests that the said possessor and possessum stand in different relationships to each other on different occasions. If this is indeed the case, then these relationships cannot be captured by making reference to alienability because zipper is, by nature, an alienable possession. It is clear here that what determines whether or not the applicative suffix should appear on the verb is unrelated to the alienability of the possessed noun. To understand why both (9b) and (9c) are possible, we need to analyze the meanings of these sentences and the discourse conditions under which each sentence would be uttered. Note that (9a), which is presumed to represent the underlying structure for the other two sentences, merely asserts that John unfastened the speaker's zipper without indicating whether the zipper in question was part of some other object, or where the zipper was located at the time. Further, (9a) does not indicate whether or not the speaker was affected by John's action. In contrast, (9b) makes no specific claim as to whose zipper John unfastened (the translation merely provides one of the possible meanings): the zipper could be John's, or the speaker's, or someone else's. Further, (9b) necessarily implies that (i) the speaker was affected by John's action and (ii) the zipper in question was possibly not part of a garment the speaker was wearing at the time. It would be rather odd for the speaker to utter (9b) if the said zipper was part of the garment he/she was wearing. Now, an examination of (9c) reveals that the sentence specifically means John unfastened a zipper which constituted a part of a garment the speaker was wearing at the time. That is, the zipper in question could not have been part of a garment hanging on a laundry line, or part of a wallet in the speaker's pocket. Thus, given these differences in meaning it seems unlikely that both (9b) and (9c) could be derived from (9a) as predicted by the PA analysis.

3.5. Determining the possessor

As noted in section 3.2, sentences in which an applicative suffix appears on the verb permit the possessor to be specified by a prepositional modifier of the head noun. It has been pointed out that this evidence argues against the suggestion that the applicative marks inalienable possession. In this section we provide further evidence which suggests that an insightful account of the contrast between (9b) and (9c) cannot be made by positing the same derivation for the two structures, as the PA analysis suggests. These sentences differ with respect to their co-occurrence with a specified possessor in that whereas constructions like (9b) permit the possessor to be specified by a prepositional modifier of the head noun, sentences similar to (9c) do not permit the possessor to be specified in this way. Consider (10) and (11):

10. a. John a- na- ndi-masul –ir –a zipi wa-nga
SM-PST-OM-unfasten-APPL-FV zipper ASSOC-1SG.POSSESS
'John unfastened my zipper for me'

b. John a- na- ndi-masul –ir –a zipi wa-ke
SM-PST-OM-unfasten-APPL-FV zipper ASSOC-3SG.POSSESS
'John unfastened his zipper for me'

c. John a- na- ndi-masul –ir –a zipi wa-nu
SM-PST-OM-unfasten-APPL-FV zipper ASSOC-2PL.POSSESS
'John unfastened your zipper for me'

d. John a- na- ndi-masul –ir –a zipi wa-thu
SM-PST-OM-unfasten-APPL-FV zipper ASSOC-1PL.POSSESS
'John unfastened our zipper for me'

11. a. *John a- na- ndi-masul –a zipi wa-nga
SM-PST-OM-unfasten-fv zipper ASSOC-1SG.POSSESS

b. *John a- na- ndi-masul –a zipi wa-ke
SM-PST-OM-unfasten-FV zipper ASSOC-3SG.POSSESS

c. *John a- na- ndi-masul –a zipi wa-nu
SM-PST-OM-unfasten-FV zipper ASSOC-2PL.POSSESS

d. *John a- na- ndi-masul –a zipi wa-thu
SM-PST-OM-unfasten-FV zipper ASSOC-1PL.POSSESS

The PA analysis does not explain why the same derivation creates this contrast. The facts in (10) are instructive: it is possible to specify the possessor in such structures because the applicative suffix does not specify this. More importantly, (10) provides strong evidence against a PA analysis of applicative constructions: note that the introduction of another expression to specify the possessor would not be possible if the said possessor had already raised and surfaced as an object prefix on the verb, triggering the applicative suffix in the process. What is more interesting in (10) is that the NP which is presumed to have undergone raising is consistently interpreted as a beneficiary/maleficiary of the action rather than the possessor. This clearly shows that the NP that appears in the direct object position in (9b) and similar sentences is not a raised possessor but rather, a beneficiary or maleficiary argument independently introduced into the clause by the applicative affix. As we have also noted, constructions in which the applicative affix appears on the verb make no specific claim as to which noun is the possessor. More importantly such sentences always have a benefactive/malefactive reading irrespective of whether or not the possessor is specified: this is true not only for Chichewa, but also for Haya (Hyman, 1977), ciNsenga (Simango, 1995), and Kinyarwanda (Davies, 1997; Kimenyi, 1977, 1980). What this shows is that these sentences are essentially benefactive applicative constructions and that the possessor construal arises because the possessor is not specified. Whenever the possessor is specified, as is evident in (10), the possessor reading of the assumed ascendee disappears. It is worth noting that the possessor interpretation associated with applicative constructions is only one of a range of readings (and not necessarily the primary reading) for such sentences: the primary (and constant) meaning encoded by the applicative affix seems to be that of affectedness. This can be explained by the fact that a person is usually affected by actions done to something belonging to them; and for this reason it is construed that an affected individual is a possessor. The close semantic/pragmatic link between possessives and benefactives has long been noted in many languages around the world: this link has resulted in the creation of linguistic forms which show possessor-benefactive polysemy (see Croft, 1991; Heine, 1997a,b; Lichtenberk, 2002; Pinker, 1989). Croft (1991) has suggested that the benefactive role arises out of coming into possession of an item; and in the same vein, Pinker (1989:117) has suggested that benefactive relations should be subsumed as metaphorical cases of possession. Heine (1997a,b) has argued that the close link between possessives and benefactives is a result of a grammaticalization process in which benefactive constructions gave rise to possessive constructions. In opposition to this view Lichtenberk (2002) has argued, based on evidence from Toqabaqita and related Oceanic languages, that the possessor relation is conceptually more basic and that it is the possessives that give rise to benefactive marking. I eschew the debate on the direction of grammaticalization for now as it is rather tangential to the main focus of the current study. Suffice to say that in Bantu studies the applicative construction has been associated with both possessive and benefactive constructions. Davies (1997), for example, maintains that the applicative affix signals the ascension of alienable possessions, and goes on to argue that such constructions are ambiguous (i.e. having both a possessor and benefactive reading) because alienable possessor ascension and benefactive are signaled by homophonous morphemes. Elsewhere, Trithart (1977) proposes that all benefactive applicative constructions start off as possessor constructions. This position seems untenable given the evidence presented in (10): notably that the possessor can be specified by another expression after the putative possessor has already undergone raising. Recall from section 3.1 that sentences corresponding to those in (11), unlike those in (10) do indeed express a possessor relationship – which suggests that they are the true exemplars of possessor constructions. Such constructions, not surprisingly, do not permit the possessor to be specified by a prepositional modifier of the head noun because the possessor is now raised. The object prefix on the verb thus can only be interpreted as representing the possessor of the item in question. It seems that for sentences analogous to (11) a PA analysis would correctly account for the status of the object prefix (i.e. that it is a raised possessor) and the impossibility of inserting a prepositional modifier which naturally follows from possessor ascension. There is further evidence which argues for treating applicative constructions as benefactive constructions rather than possessor constructions: this evidence comes from relativization facts. In Chichewa benefactive constructions it is possible to relativize the patient NP but not the benefactive NP (see also Alsina and Mchombo, 1990; Baker, 1988b). What is interesting in this regard is that sentences corresponding to (2b) and (3b) exhibit asymmetrical behaviour with respect to relativization: (2b) permits what is assumed to be the possessum to relativize but prohibits the assumed possessor from doing so. The reverse occurs in (3b) in which the assumed possessum relativizes but the possessor does not. These facts are illustrated in (12) and (13). 12. a. Iyi ndi ndodo imene Tadala a- na- thyol –er –a mwana DEM COP stick REL SM-PST-break-APPL-FV child 'This is the stick which Tadala broke for the child' b. *Uyu ndi mwana amene Tadala a- na- thyol –er –a ndodo DEM COP child REL SM-PST-break-APPL-FV stick 'This is the child for whom Mary broke the stick' 13. a. *Ili ndi dzanja limene Mphatso a- na- thyol–a mwana DEM COP hand REL SM-PST-break-FV child 'This is the hand which Mary broke the child' b. Uyu ndi mwana amene Mphatso a- na- thyol–a dzanja DEM COP

child REL SM-PST-break-FV hand 'This is the child whom Mary broke a hand' In (12) ndodo 'stick' behaves like a typical patient NP of a benefactive applicative construction in that it relativizes whereas mwana 'child' behaves like a typical benefactive NP and fails to relativize. In (13) dzanja 'hand' fails to relativize, which suggests that it is not a patient NP in the clause, whereas mwana relativizes, which suggests that it is the patient NP in the clause. If we accept that the non-applicative constructions do indeed involve possessor ascension we can account for the facts in (13) by assuming that the possessor mwana having raised puts the possessum dzanja en chômage and by further assuming that in Chichewa chômeurs are not accessible to relativization. This analysis, however would not account for the facts in (12) where an apparent chômeur ndodo 'stick' (which is an underlying object of the base verb but a surface chômeur in the derived structure) relativizes. I leave open the discussion on what can and what cannot relativize in Chichewa for the moment, and return to it in section 5. 3.6. Summary Our observations this far show that (i) the PA analysis captured in (7) does not adequately account for syntactic processes that seem to increase in the verb's valence without the mediation of morphology; (ii) the criterion of alienability fails to account for the structural as well as semantic similarities between (3b) and (9c); (iii) Bantu applicative constructions, though often associated with inalienable possessor ascension, are not possessor constructions at all. These facts need to be systematically accounted for in any theory of grammar.

4. The grammar of enlarged arguments

Mirto and Rosen (1993), based on evidence from Amharic, Korean and Homeric Greek, argue that there is a universal syntactic phenomenon in which some verbs can idiosyncratically take what might be called 'enlarged' arguments. In such constructions a whole, or holonym, has its actual referent specified by an extra predication, a part, or meronym (see also Heine, 1997b). They note that not every predicate in a language has the property of taking an enlarged argument; thus the interpretation of an argument as an enlarged expression depends on the verb used. To illustrate this point, they discuss the entailment patterns in the following sentences.

14. a. They bought texas (= Mirto and Rosen, 1993, exx. 2)

   b. They bought Northern Texas

15. a. They invaded Texas (= Mirto and Rosen, 1993, exx. 3)

   b. They invaded Northern Texas

These sentence pairs have different entailment patterns: while (14a) entails (14b), (14b) does not entail (14a). The entailment patterns are reversed in (15) in that while (15a) does not entail (15b), (15b) does entail (15a). Of particular interest in the present study are the entailment patterns in (15). Note that if Northern Texas is invaded, uttering (15a) would be true: in this case the whole (Texas) identifies the locus of the action more loosely than the part (Northern Texas). Texas and Northern Texas thus stand in a part–whole relation. Mirto and Rosen argue that in such a relation, the part is a predicate: its function is to clarify or identify the actual locus of the action described by the verb. Four semantic conditions, presented in (16), are required for this type of predication.

16. a. The whole is the enlarged argument which identifies the locus of the action more loosely than the part. The verb must be one that allows the whole to be interpreted as an enlarged expression.

   b. The whole behaves as if it actually denotes the part which is the locus of the action.

   c. The part, a noun predicate, identifies the locus more narrowly.

   d. In an acceptable meronymic pair, the part must be recognized as a 'part' of the whole pragmatically.

The conditions laid out in (16) are satisfied by (3b) and (9c). Note that what are assumed to be possessor nominals can be interpreted as enlarged arguments that loosely identify the loci of the actions 'break' and 'unfasten', respectively; thus satisfying condition (16a). Note also that the two nominals are expressed as if they are the actual patients of the actions described by the verbs, thus satisfying condition (16b). The presumed possessed nominals (i.e. mwendo 'leg' and zipi 'zipper') identify the loci of the actions of the verbs more narrowly, thus satisfying condition (16c). The relation between Texas and Northern Texas in (15) is similar to that between mwana 'child' and mwendo 'leg' in (3b). We have also noted above that zipi 'zipper' in (9c) is pragmatically

conceived as part of the speaker by virtue of its being a part of an item of clothing the speaker is wearing, which satisfies condition (16d).

The relation between a whole and its part is what underlies the syntax of enlarged arguments and, as Cruse (1979) points out, it is one of the fundamental sense relations that structure the vocabulary of a language. In most studies this relation has often been associated with the syntax of body parts (Fox, 1981; Hyman, 1977) or inalienable possession (Cheng and Ritter, 1988; Kim, 1989; Kimenyi, 1977; Scotton, 1981; among others). But, as is evident from (9c), this phenomenon is not restricted to just body parts or inalienable possessions. The phenomenon requires the part and the whole to be contiguous. For example, (3b) cannot be uttered to describe a situation in which Mphatso breaks a leg that has previously been severed from the child specifically because, even though the leg can still be thought of as a body part of the child (and its inalienable possession), it is no longer contiguous to the child. Such a situation would violate condition (16c) as the leg would no longer identify the locus of the action with respect to the rest of the body. Thus, the only way to describe this situation would be by uttering (3a), or alternatively by a sentence like (17), which is itself ambiguous.

17. John a- na- thyol –er –a mwana mwendo
SM-PST-break-APPL-FV child leg

'John broke the child's leg' [or 'John broke the leg for the child']

In linguistic theory, a distinction is often made between individual-level and stage-level predicates (see Barker, 1998; Fernald, 2000; Ja¨ger, 2001; Ogawa, 2001; Rapoport, 1991; Stowell, 1991; and references therein). Individual-level predicates (e.g. intelligent, tall, know, etc.) attribute enduring or essential properties to an individual and are thus associated with permanent properties of that individual. Stage-level predicates (e.g. drunk, happy, sick, etc.), on the other hand, attribute temporary properties to an individual at a particular time and place and, as such, are associated with temporary or transitory properties of those individuals. The distinction between individual-level and stage-level predicates, however, is far from clear cut: in this respect Ja¨ger (2001) has suggested that predicates lie on a kind of continuum with prototypical individual-level predicates on one end and prototypical stage-level predicates on the other. In the same vein, Fernald (2000:5) has noted that the distinction between individual-level and stage-level predicates is tendential rather than categorical; specifically individual-level predicates ascribe tendentially permanent properties of their arguments. It turns out, however, that in the lexicon generally most verbs are stage-level predicates. Ogawa (2001) extends the syntactic distinction between stage-level and individual-level predicates to alienable and inalienable possessions and suggests that only stage-level predicates can express the relation between a whole and its part in the way described here. Ogawa observes that individual level predicates cannot express this relationship. Evidence from Chichewa seems to support Ogawa's position: consider the contrast between (18) and (19).

18. John a- na- gwir –a mwana mutu
SM-PST-hold-FV child head
'John held the child (by the) head'

19. *John a- na-dziw –a mwana mutu
SM-PST-know-FV child head
'John knew the child (by its) head'

The verb gwira 'hold' (18) is clearly a stage-level predicate as it describes a transitory state and, as would be expected, it can take an enlarged argument. The verb dziwa 'know' (19), on the other hand, is an individual-level predicate and, as such, fails to take an enlarged argument.

Although the distinction between stage-level and individual-level predicates sheds some light on the verb types which participate in expressing the part–whole relation, this distinction does not tell the whole story: not all stage-level predicates in a language can take what can be termed as enlarged arguments. Consider the contrast in grammaticality between (20) and (21):

20. John a- na- kok –a Chimwemwe Malaya
SM-PST-pull-FV shirt
'John pulled Chimwemwe (by the) shirt'

21. *John a- na-tenth –a Chimwemwe Malaya
SM-PST-burn-FV shirt
'John burned Chimwemwe (by the) shirt'

Fernald (2000) has suggested that all non-stative verbs fall into the category of stage-level predicates. On this basis both koka 'pull' (20) and tentha 'burn' (21) qualify as stage-level predicates since they are both non-stative verbs. What is interesting here is that these two verbs contrast with respect to their ability to take an enlarged argument: note that whereas koka 'pull' can be used to describe a part–whole relation between Chimwemwe and the shirt, the verb tentha 'burn' cannot be used to describe this relation even in the context in which Chiwemwe is wearing the said shirt. The critical difference seems to lie in the entailment patterns of the two verbs in the context envisioned here: intuitively, if a person is wearing a shirt and the shirt is pulled, the force of pulling is likely to materially affect the person as much as it affects the shirt. For example, if the person in question is walking or running in a particular direction, the force applied on the shirt, if applied in the opposite direction from that in which the person is going, can prevent him/her from moving in the chosen direction with ease. The significance here is that the effect of this force is on the (whole) person and not just the shirt; and if more force is applied the person can, in fact, be forced to move towards the source of this pulling force.

Now, consider the scenario in which someone burns a shirt (or part of a shirt) which another person is wearing (21). Note that the shirt can, quite conceivably, burn without the person wearing it getting burned (or sustaining burns for that matter). For example, John could hold a lighted cigarette against Chimwemwe's shirt, burning a hole into the shirt without Chimwemwe being aware of this. In this particular case then, the effects of the verb 'burn' are only restricted to the shirt and do not extend to the person wearing that shirt. What this shows is that a part–whole relation between Chimwemwe and the shirt cannot be established with respect to the verb 'burn'. The contrast between (20) and (21) can thus be accounted for. In (20) the main proposition is that John pulled Chimwemwe; and what the nominal 'shirt' does is to merely add a qualification to this proposition by making more specific which part of Chimwemwe John pulled (see Ogawa, 2001; Rothstein, 1983, for related discussion). In (21), on the other hand, the main (and, possibly only) proposition is that John burned the shirt. There is no entailment relation between this proposition and the proposition that John burned Chimwemwe.[4]

What we have seen this far is that the syntax of enlarged arguments has a unique characteristic in Bantu: the verb appears to take an extra argument without the mediation of a transitivizing affix. In such structures, mono-transitive verbs seem to function like ditransitive verbs, as is evident in (3b), (9c), (18) and (20); and intransitive verbs (including passivized and stativized verbs) seem to have the capacity to take a nominal complement. This is illustrated in (22) and (23), from Chichewa, and (24) from Haya.

22. Limbani a- na- thyo –k –a mkono
SM-PST-break-STAT-FV arm
[Lit. 'Limbani got broken arm'], i.e. 'Limbani's arm got broken'

23. Mavuto a- na- f –a maso
SM-PST-die-FV eyes
[Lit. 'Mavuto died eyes'], i.e. 'Mavuto's eyes died' (means: 'Mavuto became blind')

24. Omwaana n- aa- shaash' omutwe (Haya: Hyman, 1977:108)) child PR-he-ache head
[Lit. 'The child is aching the head'], i.e. 'The child has a headache'

In (22) the verb thyok-a 'break', which has been detransitivized by the sative affix –k (see Dubinsky and Simango, 1996; Mchombo, 1993, for analysis) seems capable of taking a noun phrase complement. The same is true of the prototypical intransitive verbs corresponding to die (23) and ache (24).

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[4] A reviewer has noted that structures with inalienable possession generally require an OM on the verb with the concomitant topicalization of the possessor as shown in (i).

(i) nyumba a-a-i-sasula tsindwi house they-perf-om-dismantle roof 'The house, they have dismantled the roof' The reviewer notes that the grammaticality of such sentences degenerates considerably once theOMis removed as shown in (ii), and questions whether there is anything that regulates the appearance of OM in such constructions. (ii) ?a-a-sasula nyumba tsindwi they-perf-dismantle house roof 'They have dismantled the roof of the house' The contrast in grammaticality between (i) and (ii) seems to rest not on the presence or absence of OM on the verb, as the reviewer suggests, but, rather, on the presence of an overt subject NP: the grammaticality of (ii) improves considerably with an overt subject. Given that Chichewa is a pro-drop language, the marginal grammaticality of (ii) is rather unexpected: it is possible that such constructions require either an overt subject or a topic NP – OM, according to Bresnan and Mchombo (1987), is bound to a floating topic in the clause. I leave this question open pending further research to shed light on why enlarged arguments require an obligatory subject/topic in the clause.

4.1. Accounting for the apparent alteration in the verb's valence

Processes that alter the verb's valence in Bantu languages are typically marked by the appearance of either an applicative or a causative affix on the verb, if the process increases the number of arguments supported by the verb; or the appearance of either the passive or stative affix, if the process reduces the number of arguments. Such processes are accounted for by positing morpholexical rules within lexicalist theories of syntax, or incorporation rules within transformational approaches. The phenomenon being examined here, however, cannot be accounted for in the same way because there are no independent transitivizing morphemes which one can refer to. Now, on the assumption that the valence of the verb is not altered in such constructions we need to establish the status of the 'extra nominal' which appears in these sentences.

Initial indications are that the extra nominal is not an argument of the verb; and this is a position which has been taken by a number of scholars in the past. Cheng and Ritter (1988), for example, propose that in double object constructions like (3b), (9c), (18) and (20) the two postverbal nominals constitute a small clause; consisting of a predicate and an argument. In the same vein, Kim (1989), Mirto andRosen (1993), Ogawa (2001), have also proposed that theNPthat denotes the part is a predicate, not an argument of the verb. Since any category can function as a predicate (Williams, 1980) treating the part-NP as a predicate seems to be a step in the right direction. The whole, as Mirto and Rosen (1993) propose, is an argument of the part at some abstract level. What itmeans is that sentences such as (3b), (9c), (18) and (20) involve multiple predication whereby the verb takes an enlarged argument whilst the second predicate (the part-nominal) serves to pinpoint the locus of the action described by the verb. To use the terminology from Relational Grammar, these constructions involve predicate union; and it is to this predicate union analysis that I now turn.

5. A predicate union analysis

Davies and Rosen (1988), working within the framework of Relational Grammar, propose that syntactic constructions in which two or more predicates are dependents of the same clause involve predicate union. They argue that such constructions should be treated as single-clause structures because there is evidence that all the predicates and nominals are dependents of the same clause node. This analysis, as noted in Simango (2003), takes cognizance of the fact that each predicate has a unique lexical entry (in the sense of Selkirk, 1982) which not only includes its subcategorization and selectional properties but also information pertaining to (i) the initial grammatical relation it assigns to its argument(s), and (ii) the point at which the predicate itself can be introduced into the clause relative to other predicates in the same clause. In this regard, two types of predicates can be distinguished: non-union predicates, such as verbs, which are obligatory in clause structure, and union predicates such as affixes and part-NPs, which are essentially optional in the clause. Each predicate bears the P-relation to the clause (and thus heads a P-arc) within a specific domain in which it initializes its arguments – that is, it assigns Q-roles and grammatical functions (GFs) to them. Union constructions involve predicates that originate in different strata of the clause: the predicate that originates from the initial stratum (or initial Psector) of the clause loses its P-relation (i.e. it becomes a chômeur) when another predicate is introduced into the clause. Each argument is assigned a specific GF by the predicate that initializes it; and in the course of derivation an argument can lose this GF (by either being put en chômage or by being reassigned a new GF) if an argument with a similar GF is later introduced into the clause by another predicate.

Predicates in a union construction have different lexical specifications which determine the specific stratum in which their P-arcs can originate. Specifically, the P-arc of a nominal predicate is specified to originate in the initial stratum of the clause (Mirto and Rosen, 1993) whereas the Parc of an affixal predicate (e.g. an applicative morpheme) is specified to originate in a non-initial stratum (Dubinsky, 1994, 1997). Verbs generally head P-arcs originating in the initial stratum of the clause; however, when verbs participate in union constructions, they are left unspecified with respect to the stratum in which their P-arc can originate. What is significant here is that the part-NP of a part–whole construction and the applicative morpheme are associated with different levels of syntactic derivation: the part-NP heads a P-arc in the first stratum of the clause whereas the applicative only heads a P-arc in subsequent strata, but never in the first stratum. The implications of these observations are as follows: (a) when a verb takes an enlarged argument, as in (3b), the verb does not head a P-arc in the initial stratum of the clause, and (b) when a verb combines with an applicative affix, as in (2b) the verb heads a P-arc in the first stratum. With respect to the grammatical relations which individual predicates assign to their arguments, Mirto and Rosen (1993) note that cross-linguistically predicates that are morphologically classified as non-verbs (e.g. nominal predicates) consistently have an unaccusative valence; that is their arguments start off as direct objects, as predicted by the Unaccusative Hypothesis (Perlmutter and Postal, 1978). Elsewhere (e.g. Simango, 1995) it has been noted that the benefactive applicative predicate assigns the direct object relation to its argument. Granted these observations, let us now show how applicatives and non-applicative constructions are associated with distinct structures, starting with derivations out of intransitive verbs. As we noted in section 4.1, an intransitive verb can take an enlarged argument and thus occur in what superficially appears to be a transitive clause since the verb is followed by a nominal expression. The postverbal nominal, as is now clear, is not an argument of the verb, but a predicate which more narrowly identifies the locus of the action described by the verb. In (23), for example, the verb f-a 'die' is intransitive; and the nominal expression maso 'eyes' serves to specify the part of the person that died. The derivation of (23) can be represented by the Relational Network (RN) in (25).

25.
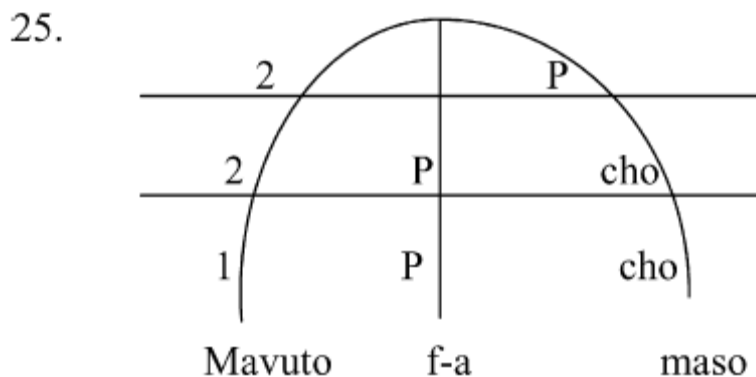
The claim here is that in the initial stratum of the clause, the nominal predicate maso 'eyes' initializes the NP Mavuto as its argument and assigns it the 2 relation. This is consistent with the unaccusative valence of nominal predicates, as noted above. In the second stratum, the intransitive verbal predicate f-a 'die' is introduced into the clause: it inherits the argument Mavuto from the previous stratum, and, in keeping with the Stratal Uniqueness Law and the Motivated Chômage Law (Perlmutter and Postal, 1983b), puts the predicate maso en chômage. In the final stratum, the nominal Mavuto undergoes unaccusative advancement (i.e. advances to the 1 relation) to satisfy the Final 1 law, which requires all sentences to have a surface subject. Note that this analysis would also account for the derivation of (22) and (24). In contrast, an applicative construction formed out of an intransitive verb, such as (26), can be represented by the RN in (27).

26. Mavuto a- na- f –er –a ife
SM-PST-die-APPL-FV us
'Mavuto died for us'

27.
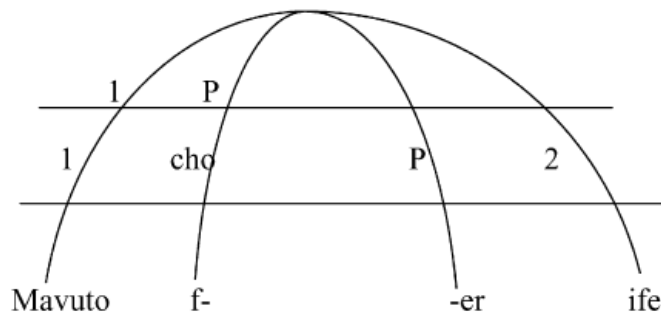
Here, the verb f-a 'die' heads a P-arc in the first stratum where it initializes the subject NP.[5] In the next stratum the applicative predicate initiates its P-arc and initializes the nominal ife 'us' and assigns it the 2 relation. The verb is, accordingly, placed en chômage. Note that although (27) starts off with one argument in the clause, it ends up with two arguments in the final stratum because the applicative predicate introduces a new argument. The structure in (25), in contrast, contains only one argument throughout the course of derivation.

The analysis adopted here allows us to show the structural difference between (2b) and (3b) both of which are derived out of the transitive verb thyol-a 'break'. The derivation for (3b) is represented by the RN in (28).

28.
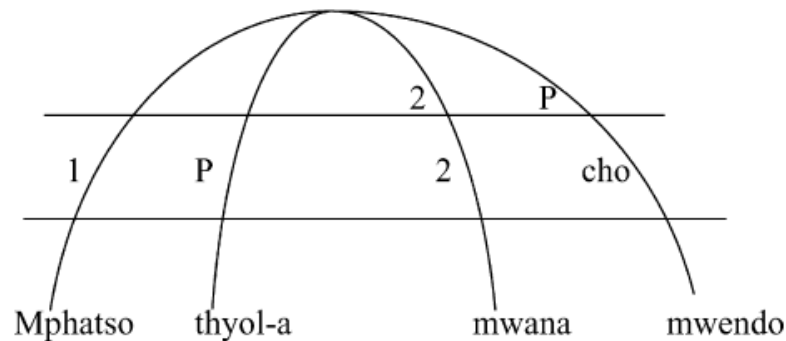
Here again, the nominal predicate mwendo 'leg' initializes the argument mwana 'child' and assigns it the 2 relation in the initial stratum of the clause. In the second stratum, the transitive verbal predicate thyol-a 'break' is introduced into the clause: it initializes the nominal Mphatso and assigns it a 1 relation and inherits the argument mwana from the preceding stratum in the usual way. The predicate mwendo consequently becomes a chômeur. Note that although the clause starts off with an intransitive stratum it is transitive in the final stratum, which is consistent with the valence of the verb thyol-a.

[5] I ignore, here, the possibility that the verb f-a 'die' might be an unaccusative verb, which would entail that its sole argument starts off as 2 and then advances to 1 prior to the introduction of the applicative predicate in the clause. The critical contrast between (25) and (27) is that f-a initiates a P-arc in the initial stratum in (27) and only does so in a noninitial stratum in (25).

Sentences in which the applicative morpheme appears on the verb have distinct structures and are thus derived differently, even though they can also be accounted for within a predicate union analysis (Simango, 1995, 2003). The derivation of (2b), for example can be accounted for by the Relational Network (RN) represented in (29).

29.
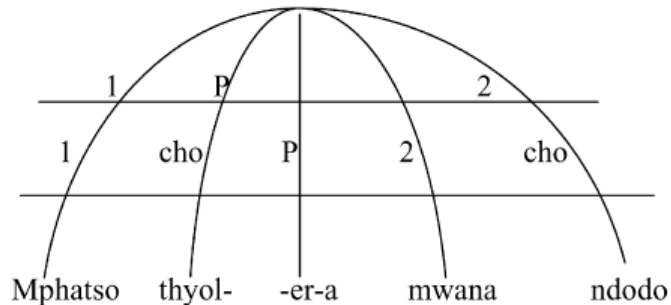
In this structure, the verbal predicate thyola originates from the initial stratum of the clause where it initializes the nominals Mphatso and ndodo 'stick', assigning them the grammatical relations of 1 and 2, respectively. In the next stratum, the applicative predicate –er is introduced into the clause: it initializes the argument mwana and assigns it the 2 relation. As a result, the predicate thyola becomes a chômeur, as does the NP ndodo. It is worth pointing out here that although the nominal mwana is the surface direct object in both (28) and (29), the two derivations are quite distinct: this NP is initialized by the part-NP in the initial stratum in (28), and only introduced later in the course of derivation by the applicative predicate in (29). The present analysis has provided the answer to the mystery surrounding the process which superficially appears to transitivize the Bantu verb without the mediation of morphology. What we have shown is that the valence of the verb in (3b), (9c), (18), (20), (22), (23) and (24) is not altered in the course of derivation: the extra NP is not an argument of the verb, but rather, a nominal predicate. An immediate question that arises out of the present analysis is whether the nominal predicate can co-occur with the applicative in the same clause, as a reviewer has suggested. The fact that two distinct derivations are involved in generating the sentences discussed in this work does not preclude the possibility of both derivations occurring in the same sentence. That is, and enlarged argument (which is initialized by a nominal predicate) can co-occur with an applicative predicate, whose argument is the affectee. For example, if the action described in (3b) affected the speaker, then (30) would be uttered to describe this situation.[6]

[6] *I thank an anonymous reviewer of Lingua for drawing my attention to this particular example.*

30. Mphatso a- na- ndi- thyol -er -a mwana mwendo SM-PST-OM-break-APPL-FV child leg
'Mphatso broke the child's leg for me'

Note that (30) necessarily implies that a part–whole relation exists between the child and the leg, and that the speaker is affected by Mphatso's action on the child. The derivation of (30) is represented by the RN in (31).

 Here again the nominal predicate mwendo 'leg' initializes the argument mwana 'child' in the initial stratum of the clause, and assigns it the 2 relation in the usual way. The transitive verb thyol-a 'break' is introduced in the second stratum: it initializes the NP Mphatso, which it assigns the 1 relation, and inherits the argument mwana from the preceding stratum. The nominal predicate, accordingly, is placed en chômage. In the final stratum, the applicative predicate –er is introduced into the clause: it initializes a single NP, the argument –ndi- 'me', and assigns it the 2 relation. The predicate thyola and the NP mwana are, as a result, placed en chômage. The RN in (29) is thus well-formed as it observes the Stratal Uniqueness Law as well as the Final 1 Law. It is interesting to note that if a part–whole relationship between the child and the broken item cannot be established a sentence analogous to (30) becomes ungrammatical as (32) illustrates.

32. *Mphatso a- na- ndi- thyol -er -a mwana ndodo
SM-PST-OM-break-APPL-FV child stick
 'Mphatso broke the child's stick for me'

In (32), both the child and the speaker are, presumably, affected by Mphatso's action. I conjecture here that the unacceptability of (32) is due to the presence of an unlicensed (affectee) argument in the clause: the valence of applicative predicate only permits it to license one argument; and in this instance, the applicative licenses the NP mwana 'child' as the affectee (this is evident from the fact that the sentence becomes fine if OM is made to co-refer with mwana). The affixal argument – ndi- 'me' then, is the offending argument as it is unlicensed in the clause. Intuitively, it is possible for two individuals to be separately affected by the same event. In (32), for instance, Mphatso may have broken a stick belonging to the speaker's child, and both the child and the speaker may have been affected by Mphatso's action. However, the grammar of Chichewa does encode the presence of two affectees in the same clause. Whether a grammar can, in fact, express the 'simultaneous' affectedness of two or more individuals in a single clause is a topic that I leave aside pending future research.

Let us end by returning to the relativization puzzle we encountered in (12) and (13) and hazard a possible solution to the puzzle. We have now established that ndodo 'stick' (2b) and mwendo 'leg' (3b) do not have the same status in the clauses in which they occur (the former is an argument of the verb whereas the latter is a predicate). Now, recall that in Chichewa, the patient NP in an applied benefactive construction can relativize but the benefactive NP cannot (see Alsina and Mchombo, 1990; Baker, 1988b). In these constructions, as we have argued, the patient NP is an initial 2 but a surface chômeur whereas the benefactive NP has no relation in the initial stratum but it is a surface 2. Now, let us suppose that there is a language-specific constraint which permits only those arguments that head some arc in the initial stratum to relativize; and let us further suppose that elements that head a P-arc in some stratum are inaccessible to relativization. These constraints would explain why in the applicative construction the patient NP relativizes whereas the beneficiary argument fails to relativize. In (12) the patient NP ndodo 'stick' relativizes whereas mwana 'child', the beneficiary argument does not. The RN in (29) shows that ndodo heads a 2-arc in the initial stratum and that mwana heads no arc in this stratum; and this explains the asymmetrical behaviour of the two nominals with respect to relativization. The second assumption we have made explains why mwana relativizes in (13) while dzanja 'hand' does not. Note that by (28) mwana heads a 2-arc in the initial stratum whereas dzanja heads a P-arc. If relativization is available only to a subset of arguments (those that head an arc in the initial stratum) and not to predicates then the asymmetrical behaviour of the nominal mwana in (12) and (13) is explained.

6. Conclusion

The evidence presented in this paper highlights the problems inherent in the PA analysis which posits a derivational relationship between sentences corresponding to (a) and those corresponding to (b) in (1), (2), (3): the semantic evidence presented here and elsewhere (e.g. Blake, 1984; Chappell and McGreggor, 1989, 1995; Heine, 1997a,b) argues against this derivational relationship. More importantly, the paper has also shown that Bantu constructions in which an applicative affix appears on the verb (e.g. (2b)) express affectedness and not (alienable) possession and, as such, belong to the general class of (benefactive) applicative constructions. Lastly the paper has shown that the putative ''inalienable possession'' constructions (e.g. (3b)) belong to a class of constructions which express a part–whole relationship: these constructions are best accounted for by positing the existence of ''enlarged arguments'' as proposed by Mirto and Rosen (1993). The Chichewa facts lend support to the view, advanced by Mirto and Rosen, that linguistic theory needs to recognize the existence of a syntactic construction in which an enlarged argument has its actual referent specified by extra predication. And the predicate union account adopted here has shown that in such constructions, the valence of the verb is not altered in any way and that what appears to be an ''extra argument'' of the verb is, in fact, a nominal predicate whose function is to pinpoint the locus of the action described by the verb.

Appendix A

The following abbreviations are used in the glosses:

APPL = applicative

ASSOC = associative

COP = copula

DEM = demonstrative

FV = final vowel

OM = object marker

PR = present tense

PST = past tense

REL = relative

SM = subject marker

STAT = stative

Tone is not marked and noun classes are not indicated.

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