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Verbal Extensions in Tshiluba

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1. INTRODUCTION

In this work I am going to discuss the nature and productivity of verbal extension in Tshiluba, a Bantu language spoken in South-Eastern Congo-Kinshasa.

Verbal extensions – i.e. suffixes placed between the radical and the final inflection of a verb, in order to "extend" the radical and form verbal derivates – are a phenomenon that typically characterizes Bantu languages; Guthrie (1967-71) and Alexandre (1981), in fact, consider the presence of these suffixes among the main criteria to establish whether a language belongs or not to the Bantu family.

However, the number, type and form of verbal extensions varies considerably among languages. The structure of verbal extensions is generally -V- or -VC-, but in modern languages reinforced forms, like -VCV-, are more commonly observed.

Guthrie (1967-71), in his *Common Bantu*, reconstructs 16 different verbal extensions for Proto-Bantu, some of which have merged in modern languages. Schadeberg (1983), instead, reconstructs only 9, blending together some of Guthrie's but also adding different ones. Speculating on their work, integrated with the observations made by Burssens (1946), Willems (1949) and Beckett (1951), as well as with my personally-conducted field-work (Cocchi 1990), I have highlighted 11 different suffixes for Modern Tshiluba, as in the following table:

Tshiluba extensions [1]	Definitions	Reconstructed forms in Proto-Bantu
-il- / -el- / -in- / -en-	Applicative	* -ID-
-ish- / -esh- / -ij- / -ej-	Causative	* -I- / * -ICI-
-angan-	Reciprocal	* -AN-
-ibu- / -ebu-	Passive	* -U- / * -IBU-
-ik- / -ek-	Neutro-Passive	* -IK-
-ik- / -ek-	Neutro-Active/Impositive	* -IK-
-am-	Stative/Positional	* -AM-
-ul- / -ol- / -un- / -on-	Reversive	* -UD-
-ulul- / -olol- / -unun- / -onon-	Repetitive	* -UDUD-
-akan-	Extensive/Intensive	?
-at-	Contactive	* -AT-

Though verbal extensions are generally treated as a unitary phenomenon in the literature on Bantu languages, nonetheless several differences can be observed among them, and in particular I claim that extensions can be divided into two groups, which share an analogy of behaviour.

In particular, not all verbal extensions are equally productive. Some of them are highly so, and could in principle apply to any verb (unless the semantic meaning of the latter contrasts with that of the suffix), even derived ones: these verbal extensions may in fact easily combine with others in multiple derivation. Among them we find causative, applicative, passive and reciprocal. These extensions typically cause a change in the grammatical functions − as well as in the linear order − of the constituents of the sentence, as will be discussed later on; I will call them 'syntactic extensions'.

On the contrary, other extensions are relatively rare, and are generally found, in an almost idiosyncratic way, together with certain verbs or certain semantic classes of verbs. On the other hand, there are also some verbal radicals which are always accompanied by an extension, or by different extensions, and hardly ever appear in the simple form. In both cases, sometimes the extensions change the meaning of the radical in a regular and predictable way, while other times the meaning of the complex word formed by radical + extension is totally unpredictable. I will call them 'lexical extensions'.

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[1] For most suffixes more forms are given, which arise from the application of (regular) vowel and consonant harmony rules to the main form. Thus [i] > [e] , and [u] > [o], if the preceding syllable contains a middle vowel; analogously, [l] > [n] if the radical ends with a nasal sound (cf. Willems 1949).

In the rest of the paper I will discuss each extension in turn, their properties as well as their possibility to combine with others; finally I will speculate on the differences that can be drawn between syntactic and lexical extensions.

2. A DESCRIPTION OF TSHILUBA VERBAL EXTENSIONS

2.1. *Applicative*

This extension, which shows four different morphological forms in Tshiluba (see table above) 'applies' the action described in the verb to someone or something. As a consequence, the syntactic properties of the verb change, in that a new object (the so-called 'applied object'; see Baker 1988, Bresnan and Moshi 1990, and many others) is introduced. The applied object in Tshiluba is thematically identified, in most cases, as a beneficiary/maleficiary or goal, but also, more limitedly, as an instrumental or even locative; in other words, the applied verb indicates that the action takes place for or towards someone/something, for his benefit (or to his detriment), but also by means of him/it, or towards some place.

The applicative extension thus substitutes for a preposition like *for*, *to*, etc. Some independent prepositions indeed exist in Tshiluba, but their use is very limited and the applicative construction is strongly preferred [2]:

1.	a	muana	u-sumb-a	tshimuma	bua mfumu
		boy	1-buy	fruit	for chief
		'the boy buys fruit for the chief'			
	b	muana	u-sumb-il-a	mfumu	tshimuma
		boy	1-buy-APPL	chief	fruit
		'the boy buys fruit for the chief			

If the applicative extension attaches to a transitive verb, the derived verb comes to have two objects. Interestingly, in many languages, like Swahili − the so-called "asymmetrical languages", cf. Bresnan and Moshi (1990) − the

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[2] Bantu verbal forms are composed of several parts, as indicated in the glosses: a subject prefix (the number indicates which noun class it belongs to), the radical, verbal extensions (if any), and the final vowel/inflection. I have purposefully abstracted away from more complex forms, which may involve a Tense/aspect affix between the prefix and the radical, and eventually one or more object affixes between the radical and the extension, as their discussion would be immaterial for the present purpose. For the same reason, I will not discuss the role of the final vowel.

two objects do not behave alike: only the applied object carries the properties which characterize real objects (i.e. the possibility to become the subject of the corresponding passive clause, and to attach to the verb radical under the form of an object affix; cf. Baker 1988), while the direct object loses these properties. In other languages, like Tshiluba − thus called "symmetrical languages" − the two objects both exhibit the mentioned properties (cf. Cocchi 1992, 2000). The only difference between them lies in word order: the applied object always precedes the direct object, as seen in (1b) above; this avoids ambiguity of interpretation when the two objects are both animate. Interestingly, when the applied object is expressed by P+DP, it follows instead the direct object, as in (1a).

In symmetrical languages like Tshiluba, the applicative extension can combine also with intransitive verbs, which become transitive, in that the applied object syntactically behaves like an object (see (2) below, from Cocchi 1992:121). In asymmetrical languages, instead, it is impossible to form the applicative with an intransitive verb, as shown in Chichewa in (2b) (from Baker 1988:255):

2.   a   muntu   u-lu-il-a   mfumu
                man   1-come-APPL   chief
                'the man comes for the chief'
       b   * chiphadzuwa   chi-a-fik-ir-a   mfumu
                beautiful woman   subj-Tense-come-APPL   chief
                'lit.: the beautiful woman has come for the chief'

This extension is very productive and can easily attach to all radicals, both simple and derived ones, and even to applicative verbs, like (1b) above, giving rise to double applicative structures [3]:

3.   muana   u-sumb-id-il-a   mfumu   tshimuma
                boy   1-buy-APPL-APPL   chief   fruit
                'The boy buys fruit for the chief, on behalf of somebody else'

Structures like (3) are indeed quite marginal; though their existence is reported in older descriptions of the language (Willems 1949:124-5; Burssens 1946:73), they are nowadays only acceptable if one of the two applied objects is left implicit, as in the example above.

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[3] In Tshiluba there is a regular phonological rule, according to which l > d before -i (Willems 1949). Thus, in the sentence in 3. in the text, the first applicative suffix -il- > -id-.

2.2. Causative

This suffix is very productive and present in all Bantu languages, often with more formal variants. In Tshiluba the shorter form reconstructed for Proto-Bantu, *-I-, has gone lost; nonetheless two different causative suffixes are present, as seen in the Table above [4]. Most radicals generally opt for one or the other morphological variant, though some radicals may combine with both; in this case the economy of the language speculates on the difference and the two derived verbs will have a (slightly) different meaning.

The semantic contribution provided by the causative extension is 'cooperation': 'to make/help/oblige someone (to) do something', but also 'to make someone become somehow' (with intransitive verbs). The causative suffix, thus, substitutes for an independent causative verb, like English *make*, which has no equivalent in Tshiluba.

Like applicative, also the causative extension causes a change in the grammatical functions of the arguments of a verb: the derived verb will have one extra-argument, which is semantically an agent (the causer), and represents the subject of the complex verb, while the former subject of the non-derived verb (the causee) syntactically behaves as an object. If the simple verb is transitive, the causative complex verb will thus have two objects:

4.	a	muana	u-sumb-a	mukanda	
		boy	1-buy	book	
		'the boy buys the book'			
	b	mukaji	u-sumb-ish-a	muana	mukanda
		woman	1-buy-CAUS	boy	book
		'the woman makes the boy buy the book'			

As in the preceding case, in Tshiluba both DPs can be considered 'real' objects, and share the same properties (though the causee obligatorily precedes the patient/theme), while in asymmetrical languages only the causee behaves as a real object, while the patient/theme loses the relevant properties.

In many cases the causative suffix cannot be separated from the radical any longer: in these cases the complex causative verb acquires an idiosyncratic meaning:

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[4] I have found no principled explanation of why there co-exist two different causative suffixes in Tshiluba, -ish- (pronounced with a voiceless palatal fricative consonant) and -ij- (with a voiced one). The -esh- and -ej- variants are regularly due to vowel harmony rules.

5.   a   muana   u-long-a
             boy   1-learn
             'the boy learns'
        b   mukaji   u-long-esh-a   muana
             woman   1-learn-CAUS   boy
             'the woman teaches the boy' (lit.: 'the woman makes the boy learn').

Like applicative, causative is very productive and freely applies to both simple and derived radicals. Also double causative structures are possible, though their occurrence is nowadays very restricted and marginal, unlike formerly (Willems 1949:127; Burssens 1946:74), and are acceptable only if one of the two causers is left implicit, as in the following example:

6.   mukaji   usumb-ish-ish-a   muana   mukanda
                woman   1-buy-CAUS-CAUS boy   book
                'the woman makes someone make the boy buy the book'.

2.3. Reciprocal

This suffix, reconstructed as *-AN- in Proto-Bantu, presents in Tshiluba a reinforced form, -angan-. This extension indicates an action that takes place between two parts, and is applied to any verb which is compatible with such semantic interpretation:

7.   a   baledi   ba-nang-a   muana
             parents   2-love   boy
             'the parents love the boy'
        b   baledi   ba-nang-angan-a
             parents   2-love-REC
             'the parents love each other'

The typical reciprocal meaning has idiomatically widened, and this suffix may also indicate that an action continues and extends over time and/or space. It may even marginally take an associative meaning like 'to do something together'.

       The reciprocal extension also changes the syntactic configuration of a verb, but in the opposite sense with respect to the preceding cases. Indeed, while the latter would add a new object, this extension applies to transitive verbs, which become intransitive and lose their direct object, as seen in (7b) vs. (7a). Obviously, this suffix can attach only to verbs with a plural subject, or a conjoined subject.

2.4. *Passive*

The passive extension is present in most Bantu languages; the shorter form reconstructed for Proto-Bantu, *-U-, has gone lost and we observe only the continuation of the reinforced form, -ibu-.

Passivization is a cross-linguistically attested detransitivization process, i.e. it converts transitive verbs into intransitive ones: the external argument (agent) of the transitive counterpart disappears – or is expressed by an optional oblique constituent – and the internal argument (patient/theme) becomes subject [5]; as such, it agrees with the verb, as indicated by the form of the subject prefix (cf. (8b) vs. (8a)):

8. a   muana   u-sumb-a   tshimuma
        boy   1-buy   fruit
        'the boy buys fruit'
   b   tshimuma   tshi-sumb-ibu-a (kudi muana)
        fruit   7-buy-PASS   (by boy)
        'fruit is bought by the boy'

This extension can in theory be applied to all transitive verbs [6], and is highly productive: crucially, not only transitive verbs, as in (8), but also intransitive verbs which have become transitive through derivation (i.e. causative or applicative verbs) can be made passive in Tshiluba; see (9) below. Passivization is thus the syntactic process which applies last; this is morphologically confirmed by the fact that the suffix -ibu- always follows the other extensions, and precedes only the final inflection (cf. Baker 1985):

9. a   muana   u-lu-il-a   mfumu   (cf. 2.)
        boy   1-come-APPL   chief
        'the boy comes for the chief'

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[5] The agent oblique constituent is preceded by a preposition, whose form depends on the person feature of the DP agent. The preposition *ku* indeed combines with the copula: *kudi* in (8b) is given by ku+ùdi = 'he is', with a class 1 subject. Kudi muana, thus, literally means something like 'there where the boy is'. For the 1st person singular we would have *kundi* < ku+ndi, etc.

[6] Actually, an impersonal active form (prefixed by class 2 subject prefix ba-) is nowadays often preferred to the -ibu- passive, especially in the oral language. Class 2 contains plural nouns indicating humans; therefore, the class 2 prefix we observe in this form stands for a generic subject like 'people', as in *ba-sumb-a tshimuma* = 'people buy fruit/fruit is bought'. The passive voice can also be expressed by means of a 'nominal' form of the verb, comparable to our past participle, which intrinsically contains a passive meaning. However, the -ibu- passive represents the earlier attested occurrence of this phenomenon.

For a detailed discussion of passive in Tshiluba, see Willems (1949), Cocchi (1991).

| b | mfumu | u-lu-id-ibu-a | (kudi muana) |
| | chief | 1-come-APPL-PASS | (by boy) |

'lit.: the chief is come for by the boy'

In Tshiluba and in the other symmetrical Bantu languages, when passive applies to a ditransitive verb like *kupa* ('give'), which selects for two internal arguments (a direct and an indirect object), or to a verb which has got two objects thanks to a former derivation process (causative or applicative), both objects can in turn become subject: see the passive sentences in (10a-b) below, which correspond to the active applicative sentence discussed in (1b) above:

| 10. | a | mfumu | u-sumb-id-ibu-a | tshimuma | kudi muana |
| | | chief | 1-buy-APPL-PASS | fruit | by boy |

'the chief is bought fruit by the boy'

| | b | tshimuma | tshi-sumb-id-ibu-a | mfumu | kudi muana |
| | | fruit | 7-buy-APPL-PASS | chief | by boy |

'fruit is bought to the chief by the boy'

Finally, intransitive verbs can be made passive in Tshiluba, not only when they have acquired an object through causative or applicative derivations, but also when they select for a locative complement. A locative in Bantu is in fact assimilated to a real object, and as such can become the subject of a passive clause (cf. Stucky 1976):

| 11. | a | mukaji | u-lu-a | ku nzubu |
| | | Woman | 1-come | to house |

'the woman comes home'

| | b | ku nzubu | ku-lu-ibu-a | kudi mukaji |
| | | to house | 17-come-PASS | by woman |

'lit.: to home is come by the woman'

Notice that the locative preposition *ku* behaves like a real class prefix (and as such is treated by grammars, which individuate three 'locative' noun classes) [7], and controls subject agreement on the verb, in place of the class 9 prefix n- of the noun *nzubu*. It goes without saying that a transitive verb with a locative complement will have two objects, while a simple intransitive verb with no locative complement cannot passivize at all.

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[7] In all Bantu languages, locative prepositions form new noun classes together with the nouns they precede; the preposition thus replaces the noun original prefix in all syntactic functions, e.g. subject or object agreement. In Tshiluba we have class 16 *pa* 'on'; class 17 *ku* 'to' and class 18 *mu* 'in' (cf. Willems 1949, Stucky 1976).

2.5. Neutro-passive

Like passive -ibu-, the neutro-passive suffix -ik- attaches to a transitive verb, which becomes intransitive, and its sole argument will be identified as the patient/theme. The difference consists in the fact that, in the present case, the agent is totally excluded (non-agentive passive); cf. (12a) vs. (12b). The situation mirrors what happens in English, as shown in the translations:

12.   a   tshibi   tshi-kang-ik-a   (*kudi muana)
               door   7-close-NP   (*by boy)
               'the door closes (*by the boy)/the door is shut'
         b   tshibi   tshi-kang-ibu-a   (kudi muana)
               door   7-close-PASS   (by boy)
               'the door is closed (by the boy)'

This suffix may also have a potential connotation, i.e. indicate that a process has not taken place yet, but is likable to. (12a) can thus be translated as 'the door can be closed' too. This nuance is more evident in a sentence like (13):

13.   mayi   ma-nu-ik-a
               water   6-drink-NP
               'water can be drunk/is good to drink'.

2.6. Neutro-active/Impositive

The suffix -ik- may also convey a different meaning with respect to the neutro-passive analysed in section 2.5. This second occurrence of -ik-, called neutro-active, recalls causative, though the 'oblige to do' meaning is lost in favour of 'help do', especially in the sense of 'help into a position' (hence the label "impositive", as in Schadeberg 1983).

       The difference between the two homophonous extensions is shown in their mutual exclusion patterns [8]: while the neutro-passive always affixes to a transitive verb, which becomes intransitive, as observed above, the reverse takes place with the neutro-active: it attaches to an intransitive verb, and the derived complex form will be transitive; as such, it can also be passivized, as in (14b):

14.   a   muntu   u-shik-ik-a   muana
               man   1-sit-NA   boy

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[8] Indeed two different suffixes have been reconstructed for Proto-Bantu (Guthrie 1967-71).

'the man seats the boy'
b   muana   u-shik-ik-ibu-a   kudi muntu
    boy   1-sit-NA-PASS   by man
    'the boy is made to sit / is seated by the man'.

2.7. *Stative/Positional*

Very widespread within the Bantu domain, the suffix -am- is the stative counterpart of neutro-active -ik-. It expresses a state, a situation, the fact of being in a position. Like neutro-active, this extension attaches to intransitive radicals (often the same that occur with neutro-active), but the complex verb will also be intransitive:

15.   muana   u-shik-am-a   (cf. (14a))
          boy   1-sit-STAT
          'the boy sits'.

2.8. *Reversive*

The reversive suffix -ul- (and its variants obtained through vowel and consonant harmony rules) permits to reverse the meaning of the action expressed in the simple radical, as in (16):

16.   a   muana   u-kang-a   mulangu
           boy   1-cork   bottle
           'the boy corks a bottle'
    b   muana   u-kang-ul-a   mulangu
           boy   1-cork-REV   bottle
           'the boy uncorks a bottle'

This extension is not widely used, as the contrary of a verb is more often expressed by a different radical. However, this suffix may also imply a 'separation' meaning, and this is why it is also labelled "separative".

Guthrie also reconstructs for Proto-Bantu a different suffix, *-uk-, which is described as the intransitive counterpart of -ul-. For Tshiluba (personally conducted interview, Cocchi 1990), it is instead plausible to assume that -uk- represents the combination of -ul- and neutro-passive -ik-. Indeed, whenever we would expect the combination -udik-, this is always substituted by -uk- [9]:

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[9] The combination -udik- can sometimes be accepted, but is viewed as obsolete and

17	tshibi	tshi-kang-uk-a
	door	7-close-REV+NP

'the door stays open'.

2.9. *Repetitive*

The -ulul- extension marks the repetition of the action expressed by the verb: it indicates that the action has been performed several times, or rather it has been prolonged over time:

18	muana	w-amb-ulul-a	bulelela
	boy	1-tell-REP	truth

'the boy tells the truth again and again/repeats the truth'

This suffix is scarcely productive; it may even sometimes be confused with reversive -ul-.

As it is rather extended per se, it blends with the following suffix in case of multiple derivation (e.g. -ulul- + appl. -il- > -uluil-; -ulul- + caus. -ij- > -uluj-; etc.).

2.10. *Extensive/Intensive*

The -akan- suffix expresses the extension or amplification of an action either in time or in space, or even in intensity:

19	bidia	bi-kwat-akan-a
	maize pudding	8-stick-EXT

'the maize pudding sticks completely (on the bottom of the pan)'

It is not very productive and combines with a limited number of radicals. As in the preceding case, it blends with the following suffix in case of multiple derivation (e.g. -akan- + passive -ibu- > -akibu-).

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can always be substituted by -uk-. Moreover, this is not the sole case of morphological blending of two suffixes, as will be shown later on. However, Schadeberg (1983:61-9) does not agree with this analysis.

2.11. Contactive

The scarcely productive suffix -at- indicates that two or more objects touch or are brought into contact by means of the action expressed by the verb. Most of the radicals it attaches to cannot be found without that extension:

20   kamelo   ka-lam-at-a   ku mutshi
          camel   12-tie-CONT   to tree
          'the camel is tied to the tree'.

3.   TWO CLASSES OF EXTENSIONS

In the previous section we have discussed each extension in turn and their main features. As hinted at in the Introduction, verbal extensions are generally analysed as a unitary phenomenon in the literature (cf. Schadeberg 1983); nonetheless, the numerous differences of behaviour they show are best accounted for by grouping them into two groups: 'syntactic extensions' and 'lexical extensions'.

To be more precise, I argue that lexical extensions are simply suffixes which add an extra significance to the semantic import of the verb radical, or rather change the meaning of a complex verb, in case a radical is always accompanied by an extension [10]; indeed, idiosyncrasies aside, the semantic contribution provided by these extensions is rather constant. On the other hand, syntactic suffixes do not only change the semantic meaning of a verb, but also add a new argument to the clause, or remove one.

Crucially, consider causative and applicative extensions: when added to a transitive radical, the complex verb will end up having two objects, both with equal object properties in Tshiluba [11]. Moreover, when these extensions attach to an intransitive radical, this will become transitive, as the applied object and causee behave like direct objects. In this regard, Baker (1988) assumes that these complex forms are the result of an incorporation process, where a constituent is incorporated into the verb. In other words, it is as if a causative extension stood for a transitive causative verb like *make*, and an applicative extension were the

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[10] Interestingly, complex verbs derived with lexical extensions are often listed in the dictionaries together with simple verbs (cf. De Clercq 1937, Willems 1960).

[11] Baker (1988) claims that an argument of a verb can be considered as a real (accusative) object when it can surface as a pronominal object affix, and become subject in the corresponding passive clause; cf. also Bresnan and Moshi (1990), Cocchi (1992, 2000).

morphologically bound counterpart of a preposition like *to*, *for*: as both these elements introduce a new argument, verbal extensions will do the same job. This assumption is confirmed by the well-formedness of complex constructions in Tshiluba, where applicative and causative extensions are added simultaneously to the same radical: if the latter is transitive, the result will be a complex verb with three objects, all with equal object properties [12]:

21	mukaji	u-sumb-ish-il-a	mfumu	muana	tshimuma
	woman	1-buy-CAUS-APPL	chief	boy	fruit

'the woman makes the boy buy fruit for the chief'

If the two processes instead apply to an intransitive radical, the complex verb will nonetheless have two real objects:

22	mukaji	u-lu-ish-il-a	mfumu	muana
	woman	1-come-CAUS-APPL	chief	boy

'the woman makes the boy come for the chief'.

With passive and reciprocal, the reverse holds: these extensions apply to a transitive (simple or complex) verb, which becomes intransitive [13]; it is as if the verbal extension itself represented an argument of the verb. Indeed, Baker, Johnson and Roberts (1990) analyse passive as the process through which the verb (or better the verbal morphology) incorporates the subject; in other words, passive morphology would act as the external argument. Something similar can be said for the reciprocal extension, which incorporates the object and, as such, also counts as an argument.

Among lexical extensions, while contactive, extensive, reversive and repetitive suffixes provide a purely semantic contribution, a partially different situation is represented by neutro-passive, neutro-active and stative. The presence of these suffixes seems in fact to be linked to the number of arguments of the clause too: as discussed in section 2, neutro-passive converts a transitive verb into an intransitive, while neutro-active and stative extensions attach to intransitive radicals (often the same ones), giving as output a transitive verb in

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[12] See in this regard the discussion in Cocchi (1992), where it is assumed, contra Baker (1988), that a complex verb may have as many extra-objects as the number of Case assigners it incorporates, and the total number may exceed two.

[13] Obviously, if passive applies to a verb with more objects, as in (21)-(22), the number of objects will simply be reduced by one, as one of the objects (any of them) becomes the sentence subject. On the contrary, in asymmetrical languages, only one of the objects shows real object properties, and is able to become the sentence subject in a passive clause (cf. Bresnan and Moshi 1990, Cocchi 1992).

the former case, and an intransitive in the latter.

The main difference between these and what I have called syntactic extensions (and the reason why I have put the former together with truly lexical extensions) principally lies in a very different degree of productivity: while applicative, causative, passive and − to a certain extent − reciprocal extensions can virtually attach to all verbs [14], the number of radicals which admit neutro-passive, neutro-active and stative is strongly limited, and a lot of such radicals are never found in the simple form, i.e. without any extension. This implies that, while syntactic extensions are genuine derivational suffixes, which imply a change in the grammatical functions of the constituents of the sentence, neutro-passive, neutro-active and stative represent part of the lexical entry, a part devoted to signal the (in)transitivity of a verb.

The examples shown above confirm this thesis. The neutro-passive suffix -ik- in (12a) simply implies that the verb in question has an intransitive reading, just as its English counterpart *close* may have − as indicated in the translation − though it is not morphologically differentiated from the transitive reading. The neutro-active -ik- and the stative -am- alternate in the examples in (14) and (15) above, so that the same radical is transitive in the first, and intransitive in the second; such an alternation is expressed in English by the use of two different lexical entries, which are however morpho-phonologically similar (i.e. *sit* vs. *seat*, *lie* vs. *lay*), as the verbs in (14)-(15) are.

Further evidence in support of the division of verbal extensions into two groups finally comes from the order and mutual exclusion patterns of the suffixes: on the one hand, we rarely observe more than one lexical extension at a time, while syntactic extensions easily combine among themselves and with lexical extensions; on the other hand, in multiple derivation, lexical extensions are always adjacent to the radical, while syntactic extensions are placed afterwards, as in the following example:

23	muana	u-kang-ik-ish-il-a	mfumu	tshibi
	boy	1-close-NP-CAUS-APPL	chief	door
	'the boy has the door shut for (the benefit of) the chief'			

This confirm that the relationship between radicals and lexical extensions is very strict, while syntactic extensions show a much higher degree of autonomy.

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[14] Passive and reciprocal, of course, can only affix to transitive (simple or derived) verbs.

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