Chapter 8

Reconstructing suffixal phrasemes in Bantu verbal derivation

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This chapter introduces the notion of suffixal phrasemes to designate the semantically non-compositional complexes of suffixes which emerged across time and space in Bantu to renew morphology in several verbal derivation categories. It is shown that such verb derivational phrasemes can be reconstructed to different ancestral stages as far back as Proto-Bantu (PB) and possibly beyond. The oldest instance of such a suffixal phraseme in Bantu is the causative **-ɪdi*, which is reconstructed to PB as the phraseologisation of applicative **-ɪd* and the short causative **-i*, in addition to the previously reconstructed simplex PB causative suffixes **-i* and **-ic*. The Bantu ancestral language that emerged after the North-Western Bantu branches had split off created a new causative marker, i.e. **-ɪki*, through the non-compositional reanalysis of neuter **-ɪk* and short causative **-i*. Around the same stage, the long passive suffix **-ɪbʊ* rose as an aggregation of the middle suffix **-Vb*, well-attested in North-Western Bantu, and the short PB passive suffix **-ʊ*. Much younger but still of considerable time-depth are reciprocal phrasemes produced out of a complex of PB associative/reciprocal **-an* preceded by either causative **-ɪdi* (i.e. **-ɪzyan*) or intensive **-ang/*-ag/*-ak* (most often **-angan*). These causative, passive and reciprocal suffixes are all built on a final element that goes back to at least PB and whose semantics and syntax it copied. Other suffixal phrasemes rather adopted the role of their initial element, while stills others developed idiosyncratic functions in which the input of their historical components can only be inferred.

1 Introduction

The propensity of Bantu verbal derivation suffixes to fuse or combine into a new suffix conveying a meaning that is not simply the direct sum of the meanings of

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its historical components has been recognised by numerous scholars (see among others Meinhof 1910; Dammann 1954; Stappers 1967; Guthrie 1970; Meeussen 1973; Bastin 1986; Hyman 2007; 2018). In this chapter, we adopt the proposal of Beck & Mel'čuk (2011) to consider such semantically non-compositional suffixal complexes as "morphological phrasemes", more specifically "suffixal phrasemes", and (re)assess whether such complexes can be reconstructed to Proto-Bantu (PB).

Meeussen (1967: 92) did not reconstruct complex derivation suffixes to PB. His nine reconstructed verbal derivation suffixes, also known as extensions, are all considered to be simplex: **-ị* "causative", **-id* "applicative", **-ik* "impositive", **-ik* "neuter", **-am* "stative", **-an* "reciprocal", **-at* "contactive", **-ú* "passive", **-ud* "tr. reversive" and **-uk* "intr. reversive". Among these suffixes, causative **-í* and passive **-ʊ* (as they are usually noted today) stand out in three regards, i.e. they bear a high tone, they consist of only a vowel segment and they occupy a far-right position in the morphological template of the verb stem. Although Hyman (2022 [this volume]) shows that their exceptional high tone is a later innovation, their V shape still contrasts with the more common VC shape of other PB extensions. Moreover, their morphotactic behaviour is particular in that their templatic position in the verb stem's derivational suffix slot is the one furthest removed from the root. They tend to be stacked after all other derivational suffixes, i.e. just before the final vowel (Hyman 2003c; Good 2005). These two remarkable features, i.e. their vocalic form and their specific position in the verb template, have been taken as possible evidence for them being old Niger-Congo voice suffixes, which were possibly integrated in different later derivational suffixes (see Hyman 2007: 161).

Another special feature that causative **-í* and passive **-ʊ́* share is that after Meeussen (1967) they have both been reconstructed as having a phonologically conditioned allomorphy. As for the passive, following Stappers (1967), Schadeberg (2003: 78) posits **-ʊ* occurring after C and **-ibʊ* after V (repeated in Schadeberg & Bostoen 2019: 186). As for the causative, Meeussen (1967: 92) already posits a possible allomorph **-íc* (**-ịc- ?* in his writing), but without specifying any conditioning. Following Bastin (1986: 130) and in line with the conditioning of the passive allomorphy, Schadeberg (2003: 78) reconstructs an original complementary distribution in PB: **-i* after C and **-ici* after V (repeated in Schadeberg & Bostoen 2019: 174). Bastin (1986: 130) furthermore reconstructs a second long ("polyphonic") causative suffix **-ɪdi*, which she considers to be a later innovation resulting from the "fixing" ("*figement*" in her words) of PB applicative **-ɪd* and PB causative **-i*. Strikingly, **-ɪdi* ends in the same vowel as that of short causative **-i*, just like the other long causative **-ici*, and just like the long passive **-ɪbʊ*, which also ends in the same vowel as that of the short passive **-ʊ*.

In this chapter, we analyse these semantically non-compositional complex causative and passive suffixes as "morphological phrasemes", in line with Beck & Mel'čuk (2011). We also critically reassess their actual time depth with regard to the Bantu family tree. We claim that, contrary to common acceptance, causative **-ɪdi* should be reconstructed to PB, while passive **-ɪbʊ* only emerged at a later ancestral stage. We also argue against the reconstruction of VCV shape for the long causative suffix **-ici*. It should be reconstructed as Meeussen (1967: 92) proposed, i.e. **-ic* without a final vowel. This latter suffix is not a Bantu-internally created morphological phraseme, but a Niger-Congo retention.

In §2, we introduce the concept of "morphological phraseme" and show that semantically non-compositional sequences of verb derivational suffixes are widespread in Bantu. In §3, we demonstrate that reciprocal suffixes ending in PB **-an* are among the most common morphological phrasemes in Bantu verbal derivation and that they can be reconstructed to ancestral nodes with considerable time depth in the Bantu family, but not to PB (see Dammann 1954; Bostoen et al. 2015; Bostoen Forthcoming; Dom et al. Forthcoming). In §4, we claim that passive **-ɪbʊ* is a morphological phraseme that emerged through the non-compositional reanalysis of a suffixal aggregation consisting of middle **-Vb* and passive **-ʊ*. We furthermore argue that the long passive suffix should be reconstructed as **-ɪbʊ*, with an initial half-close front vowel instead of a close one, and not to PB, but to a later stage. In §5, we analyse causative **-ici* and **-ɪdi* along the same lines before reconsidering their distribution within and outside of Bantu. Conclusions follow in §6.

2 Suffixal phrasemes in Bantu verbal derivation

A well-known feature of Bantu languages is that they can stick two or more derivational verb suffixes to the verb root. Reconstructing such combinations of extensions to PB is challenging, as Meeussen (1967: 92) already admitted: "A verbal base can have more than one suffix, but such suffix sequences are difficult to illustrate with reconstructed bases, since these forms are productive and highly unstable". He does recognise, nonetheless, that the combination of suffixes in Bantu languages is governed by certain principles: "Some characteristics of suffix sequences can, however, be given: -ik-, -am-, (-ad-), -at- would occupy first position; -ị́- and -ú- have last position (even after pre-final and after C of -ịde), and -ú- absolute last (even after -ị́-); a tentative and probably too strict order of possible succession is the following: (ad) at am/ik, ud/uk an id ị́ ú." Considering extensive comparative data, both Hyman (2003c) and Good (2005) confirm that the ordering of Bantu derivational suffixes indeed does not happen haphazardly, but is

ruled by a historical template. The recurrent templatic suffix order they identify in present-day Bantu languages only partially corresponds to the one proposed by Meeussen (1967: 92), in part because they do not consider all reconstructed extensions. Hyman (2003c: 261–262) proposes a pan-Bantu "CARP" template, actually "CARCP", i.e. CAUS-APPL-RECP-CAUS-PASS or *-*ici-ɪd-an-i-ʊ* (in our notation), in which the long and short PB causative suffixes occupy distinct positions. Hyman (2003c) postulates that this template goes back to PB. Good (2005) provides evidence to reconstruct part of it, i.e. the "CAT" *-*ici-ɪd-i* or "causative-applicative-transitive" sequence. He uses "causative" to refer to the so-called "long causative" *-*ici* and "transitive" to refer to the so-called "short causative" *-*i*. The fact that the ordering of productive Bantu derivational suffixes obeys to such a template does not mean that suffixes are always ordered in that way. The default order can be overruled by other constraints, such as the so-called "Mirror Principle" (MP) (Baker 1985), according to which affix order mirrors the order of syntactic operations. As for the sequencing of verbal derivation suffixes in Bantu, this implies that the suffix furthest removed from the root has syntactic scope over the one closest to the root, as illustrated in (1) for Swahili G42d. While *pigiana* in (1a) is a reciprocalised applicative (lit. [[beat an eyelid to] each other]), *pigania* in (1b) is an applicativised reciprocal (lit. [[beat each other] for that salt]). While (1b) respects both the CARCP template and the MP, MP overrules CARCP in (1b) in that the reciprocal suffix occurs before the applicative.

(1) Swahili G42d

a. *Yule mtu na Luteni Pinju walipigiana kope.* (Mwenegoha 1975: 87)
yu-le *m-tu* *na* *L.P.* *wa-li-pig-i-an-a* *kope*
PP_1-DIST.DEM 1-person and L.P. SP_2-PST-beat-APPL-RECP-FV 9.eyelid
'That person and Luteni Pinju winked at each other.'

b. *[W]akiona chumvi hupigania ile chumvi.* (Velten 1901: 69)
wa-ki-on-a *chumvi* *hu-pig-an-i-a* *i-le*
SP_2-COND-see-FV 9.salt HAB-beat-RECP-APPL-FV PP_9-DIST.DEM
chumvi
9.salt
'If they see salt, they usually fight with each other for that salt.'

However, the MP can also be overruled by CARCP as shown in (2) with data from Chewa N31b. Both in (2a) and in (2b) the templatic CARCP is followed. In terms of syntactic operations, however, (2a) is an applicativised causative ([[make cry] with sticks]), while (2b) is a causativised applicative ([make [stir with spoon]]). The MP is violated in (2b), because the applicative suffix occurs after the causative.

(2) Chewa N31b (Hyman 2003c: 248)

a. *a-lenjé a-ku-líl-íts-il-a mw-aná n-dodo*
2-hunter SP_2-PROG-cry-CAUS-APPL-FV 1-child 9-stick
'The hunters are making the child cry with sticks.'

b. *a-lenjé a-ku-tákás-íts-il-a m-kází m-thíko*
2-hunter SP_2-PROG-stir-CAUS-APPL-FV 1-woman 3-spoon
'The hunters are making the woman stir with a spoon.'

While templatic suffix orders can be both mirroring and non-mirroring, as in (2), non-templatic orders, as in (1b), can only be mirroring. According to Hyman (2003c) and Good (2005), there are no cases in Bantu of non-templatic suffix sequences that are not mirroring. Additionally, every language which allows non-templatic orders also has the templatic equivalent. Given that from a synchronic point of view non-mirroring templatic orders can be accounted for neither syntactically nor semantically, they are best considered as the product of history and, as such, they challenge the assumedly non-arbitrary relation between morphology and syntax/semantics.

Even more challenging for the correlation between verbal derivation morphology and syntax/semantics are those suffix sequences in which the syntactic role and/or the semantic import of each separate suffix are no longer clearly identifiable. Unlike the suffix orders dealt with by Hyman (2003c) and Good (2005), such complex suffixes are semantically and/or syntactically non-compositional. Take for example the suffix *-anil* in Mozambican Ngoni N122 (Kröger 2016). It is a disyllabic extension in which one can clearly identify the reflexes of RECP **-an* and APPL **-ɪd*. Synchronically, however, this extension is one and indivisible and functions as a "pluractional" marker. It signals that the action expressed by the verb is done by many subjects simultaneously or successively, in contrast to *-ang* which rather marks that the action affects several objects, as shown in (3).

(3) Ngoni N122 (Kröger 2016)
Xi-pexa a-pêt-a kw-a-kem-ang-a aka-ganja-mundu.
7-hare SP_1-pass-FV INF-OP_2-call-PL-FV 2a-friend-his
A-hik-anil-a v-oha.
SP_2-come-PL-FV 2-all
'Hare went to call his friends [one by one, like going from door to door]. They all came [one by one].'

Semantically, *-anil* evokes "plurality of participants" (see Lichtenberk 1985), which Bostoen et al. (2015) propose as the underlying semantic notion accounting

for the semantic shifts that **-an* underwent across Bantu. It also evokes the notions of "intensity", "iterativity", "persistence", "duration", "continuation", which reflexes of applicative **-ɪd* may express across Bantu, often in reduplicated or triplicated form depending on the language and the phonotactics of the root with which it combines (see Trithart 1983: 153; Pacchiarotti 2020: 159–166). Nevertheless, *-anil* conveys neither reciprocity, the productive grammatical meaning of the reflexes of **-an* in Ngoni, nor any of the productive uses of **-ɪd*, such as licensing a supplementary object which can be a beneficiary, an instrument or a location (Heidrun Kröger, p.c.). What is more, it is definitely not a combination of the productive meanings of its two components. Given that the suffix ordering in *-anil* is at odds with the CARCP template, its original compositional meaning must have obeyed the MP with the applicative having syntactic scope over the reciprocal, i.e. [[do each other X] for Y]), just like Swahili *pigania* in (1b), which is synchronically still compositional. The present-day *-anil* suffix does not reflect this configuration at all.

Syntactically too, it no longer reflects its historical components, as it is neither valence-decreasing as **-an* tends to be, nor valence-increasing as **-ɪd* often is. Synchronically, *-anil* is valence-neutral.

A suffix like Ngoni N122 *-anil*, which is historically aggregated but synchronically non-compositional, is an instance of what Beck & Mel'čuk (2011) call a "morphological phraseme". Phrasemes are best known in the domain of multiword expressions, such as clichés, collocations, and idioms, but Beck & Mel'čuk (2011) show that restricted or phraseologised complex expressions not only exist at the level of the phrase. They equally occur at other language levels, especially in morphology. Sequences of bound morphemes may manifest the same features as lexical-syntactic phrasemes, i.e. paradigmatic restrictedness and syntagmatic non-compositionality.

Let us illustrate these two features with the Swahili proverb *Heri kufa macho kuliko kufa moyo* 'It's better to go blind than to despair'. This proverb is in itself a conventionalised saying containing two phrasal idioms built on the verb *kufa* 'to die', i.e. one with *macho* 'eyes' and another with *moyo* 'heart'. The same verb serves as the matrix of a number of other Swahili idioms, e.g. *kufa masikio* 'to go deaf' [lit. 'to die' + 'ears'] and *kufa sauti* 'to lose voice, be hoarse' [lit. 'to die' + 'voice']. All of these sayings are paradigmatically restricted in that *kufa* cannot be replaced by any other verb commonly used to express loss or disappearance, such as *kupotea* 'to get lost, be lost, disappear' or *kukata* 'to cut'. The same holds for the nouns combining with *kufa* 'to die'. The paradigmatic restrictedness of these sayings is nicely illustrated by comparing them to the idiom *kukata tamaa* 'to despair, lose hope' [lit. 'to cut' + 'desire, greed, lust, passion']. It is a synonym

of *kufa moyo*, but neither *kufa tamaa* nor *kukata moyo* are appropriate sayings in Swahili. All of these phrasal idioms are also syntagmatically non-compositional in that their meaning is not simply the sum of the semantic values of its components. Beck & Mel'čuk (2011) would consider the Swahili sayings with *kufa* as non-compositional phrasemes or idioms, because unlike in collocations, none of the components serves as "semantic pivot" of the complex expression. In a common Swahili collocation like *kufa ajali* 'to die in/from an accident', *kufa* is the semantic pivot since the complex expression is about dying and *ajali* 'accident' simply determines the cause of death. Similarly, *macho ya kuangaza* 'bright eyes' is a collocation in which *macho* 'eyes' is the semantic pivot and *ya kuangaza* 'of shine' the modifier. In an idiom like *kufa macho* 'to go blind', however, neither *kufa* nor *macho* is the semantic pivot, even if their respective semantic contribution is transparent.

In the same way as *kufa macho* is a lexical-syntactic phraseme, the above-cited Ngoni N122 pluractional suffix *-anil* is a morphological phraseme. The sequence of suffixes *-an* and *-il* is paradigmatically restricted in that none of them can be replaced by another suffix to generate the same meaning. It is also syntagmatically non-compositional as none of the historical components serves as the semantic pivot, even if the possible semantic contribution of its two components has not become entirely opaque.

Just like non-compositional lexical phrasemes at the syntactic level, morphological phrasemes can also manifest variable degrees of semantic transparency. A good case in point in comparison with Ngoni *-anil* is Swahili *-ikan*, which is a lexically conditioned allomorph of the so-called "neuter" or "stative" *-ik* (see Ashton 1944: 226–229). Most verb roots select the simplex suffix *-ik*, whose vowel displays harmony with mid root vowels, e.g. *vunj-a* 'break (tr.)' > *vunj-ik-a* 'get/be broken, be breakable', *som-a* 'read' > *som-ek-a* 'be read(able)'. However, a restricted set of roots only occur with the complex allomorph *-ikan*, e.g. *pat-a* 'get' > *pat-ikan-a* 'be available', *wez-a* 'can' > *wez-ekan-a* 'be possible, feasible'. Other roots can take both, e.g. *on-a* 'see' > *on-ekan-a* 'be visible' (but *on-ek-a* 'appear, be visible, perceptible' is attested), *changany-a* 'mix' > *changany-ik-a* 'be mixed' (but *changany-ikan-a* 'be mixed' may also be heard). In other words, Swahili stative verbs with *-ik* and *-ikan* do not fall into neat categories allowing either one or the other or both, but manifest a cline with marked preferences at each end (Schadeberg 2004). The fact that certain verb stems may take *-ik* and *-ikan* suggests that the addition of *-an* must have been semantically motivated at some point in time, most likely conveying that the stative event involved multiple participants. Synchronically, however, this semantic motivation has become opaque. Therefore, the neuter suffix *-ikan* is to be considered semantically

non-compositional. Compared to Ngoni pluractional *-anil*, both are combinatorily constrained but manifest variable degrees of semantic non-compositionality. In Swahili, *-ikan* conveys the same neuter meaning as *-ik*. Hence, only the semantic contribution of *-an* has become opaque. In Ngoni, however, the pluractional meaning of *-anil* is reducible to the productive meaning of neither *-an* nor *-il*. Thus, in the case of Swahili, given that *-ikan* conveys the same meaning as the simplex allomorph *-ik*, one could analyse *-ik* as the semantic pivot of the morphological aggregation and thus question whether it is not rather a collocation than an idiom. Beck & Mel'čuk (2011: 192) use the term "derivational affixal collocations" to refer to such "combinations of derivational affixes, one of which is chosen freely based on its meaning and the other of which is added automatically as its collocate".

Another feature that Ngoni *-anil* and Swahili *-ikan* have in common is that they are quite language-specific. They do not seem to have a very large geographic spread within the Bantu family and can thus be assumed to be of recent origin.[1] However, there are several morphological phrasemes which do have a wide distribution across Bantu and are suitable for reconstruction at some ancestral Bantu stage. Before we consider the reconstruction of the reciprocal, passive and causative suffixal phrasemes, which are at the core of this chapter, we briefly deal with frequentative/iterative/intensive *-agʊd* (transitive) and *-agʊk* (intransitive). In some languages, such as Mbukushu K333 in (4), both the transitive and intransitive equivalents are reported; in others, such as Nyamwezi F22 in (5), only one of the two. As the Mbukushu data in (4b) show, the simplex underived root is not always attested in the language, a fact that points towards a certain degree of lexicalisation.

(4) Mbukushu K333 (Wynne 1980; Fisch 1998: 126)

a. *ghamb-a* 'speak' > *ghamb-**aghur**-a* 'talk a lot'
yend-a 'go' > *yend-**aghur**-a* 'walk around (aimlessly)'
nw-a 'drink' > *nw-**aghur**-a* 'be addicted to alcohol'

b. *dham-a* > *dham-**aghuk**-a* 'roll and swing of ship by waves'
'sink to bottom' *tjoth-**aghuk**-a* 'be very much ashamed'
*túk-**aghuk**-a* 'make slight cracking noise, as boiling fat'

[1]Similar complex derivational suffixes have been observed though in other Bantu languages. For instance, Maganga & Schadeberg (1992: 164) report some lexicalised instances of *-anɪl* in Nyamwezi F22. However, these do not have the same pluractional meaning as in Ngoni. This suggests that Nyamwezi *-anɪl* is probably an independent development.

(5) Nyamwezi F22 (Maganga & Schadeberg 1992: 167: 167)

but-á	'cut (sth. big)'	> *but-**ágʊl**-a*	'cut into small pieces'
lum-á	'bite'	> *lum-**ágʊl**-a*	'bite many times'
ol-á	'drink'	> *ol-**ágʊl***	'draw many lines'

In Mbukushu, the simplex suffix *-ag* is not reported, while both *-ul* and *-uk* are labelled "inversive" (Fisch 1998: 127–129), also known elsewhere in Bantu as "separative" or "reversive" (see Dammann 1959; Schadeberg 1982). In Nyamwezi, *-ag* is an inflectional marker carrying a habitual meaning, among other things, while simplex *-ul* is a transitive "separative" as in Mbukushu (Maganga & Schadeberg 1992: 167). Maganga & Schadeberg (1992: 167) consider the iterative or pluractional meaning of *-agʊl* as the sum of the meanings of its components, but this seems hard to sustain. It is true that the meaning of the complex *-agʊd*/*-agʊk* suffix in Mbukushu and Nyamwezi is close to the one reconstructed for its first element, see Sebasoni (1967: 134): *"La préfinale du verbe bantou a dû être -ag-, avec le sens de durée, de répétition, de continuité"* ["The pre-final of the Bantu verb must have been *-ag-*, with the meaning of duration, repetition, continuity"].[2] However, the contribution of the second element has become strictly syntactic, i.e. signalling the difference between transitive and intransitive. Neither *-ʊd* nor *-ʊk* has retained the "reversive" (Dammann 1959) or "separative" (Schadeberg 1982) semantics reconstructed as their original meaning, but only their transitivity and intransitivity respectively. In this regard, *-agʊd*/*-agʊk* differ from Swahili *-ikan* and Ngoni *-anil*, in that in the latter two morphological phrasemes the syntactic impact of the second element is less apparent: *-an* is valence-decreasing just like *-ik*, while the usual valence-increasing role of applicative *-il* is lost. Semantically, however, *-agʊd*/*-agʊk* is non-compositional, just like *-ikan* and *-anil.* Moreover, as is the case for *-ikan*, and to a lesser extent for *-anil*, the meaning of *-agʊd*/*-agʊk* is also closely related to the historical meaning of its first element, while the second element seems to have become semantically opaque.

In terms of geographical distribution, *-agʊd*/*-agʊk* are attested in a cluster of more or less adjacent languages belonging to zones F, J, K, L, and M, and to group S10, as far as we can tell from a preliminary, non-exhaustive survey.

[2]The *-ag* suffix is both functionally and positionally distinct from Bantu derivational suffixes and therefore called "pre-final" instead of "extension". Due to this peculiar status it has not been examined with regard to the CARCP template. Sebasoni (1967: 131) considers this "pre-final" to have three distinct forms which are historically related but synchronically largely in complementary distribution: *"[…] -ag- prédomine au nord-est et à l'est du domaine bantou, -ak- au nord, -anga- à l'ouest et au sud"* ["… *-ag-* prevails in the north-east and east of the Bantu domain, *-ak-* in the north, *-anga-* in the west and south"].

These are some of the westernmost Eastern Bantu (EB) languages and easternmost South-Western Bantu (SWB) languages. Although SWB and EB are actually not discrete clades in the phylogeny of Grollemund et al. (2015), the contiguous spread of *-agʊd*/*-agʊk* does crosscut several subclades. Hence, these morphological phrasemes can hardly be posited as an innovation reconstructable to a specific ancestral node in the Bantu family tree. Their geographic pattern rather suggests that they are an areal feature. Morphology is commonly seen as more resistant to borrowing in contact situations than other aspects of language. Nonetheless, morphological copying has been shown to happen, especially between related languages that are typologically similar, in which case its effects are hard to distinguish from both common inheritance and drift or parallel innovation within a language family (see Dimmendaal 1987; Mithun 2013). At the same time, even if morphological copying did underlie the current distribution of *-agʊd*/*-agʊk* within Bantu, more in-depth research would be needed to explain how such a specific morphological innovation could have spread over such large distances.

In any event, what we retain for our current purposes from all that precedes in this section are the following three observations:

1. Morphological phrasemes do exist in Bantu verbal derivation and commonly consist of a sequence of two suffixes that go back to at least PB (as we discuss in the next section, sequences of three such suffixes also occur);

2. They commonly convey a meaning that is identical or closely related to that of the first element in the sequence, while this second element tends to become semantically opaque and has at most a syntactic role if any;

3. Some of these verb derivational phrasemes are language-specific and thus of recent origin, while others have a wider cross-linguistic distribution and must have originated in earlier ancestral times.

These insights are important for our historical analysis of reciprocal, passive and causative suffixal phrasemes that follows. Unlike frequentative *-agʊd*/*-agʊk*, for each of these derivations, non-compositional complex suffixes can be reconstructed to different ancestral nodes in the Bantu family tree. Moreover, unlike for *-anil*, *-ikan* and *-agʊd*/*-agʊk*, reciprocal, passive and causative phrasemes rather adopt the original meaning of their last element than that of their first element.

3 Reciprocal suffixal phrasemes

Reflexes of PB **-an* are known to be extremely polysemous (Dammann 1954; Mugane 1999; Maslova 2007). As surveyed in Bostoen et al. (2015), they convey, across Bantu, meanings as diverse as sociative/collective, reciprocal, natural collective, natural reciprocal, chaining, antipassive, intensive/extensive, iterative, comitative/instrumental, body action middle, cognition middle, spontaneous event middle, potential, etc. Verb stems incorporating *-an* tend to be highly lexicalised and to cover meanings which are associated with the agent-oriented part of the semantic middle domain (Dom et al. 2016), especially – but not exclusively – in languages having a long productive reciprocal marker. Dammann (1954) already noticed that several Bantu languages have at least two reciprocal markers, i.e. the direct reflex of **-an* and a longer suffix in which *-an* is preceded by another element. He also observed that the simplex marker tends to be "frozen" (*"erstarrt"*) in those languages, while the complex one is productively used in new derivations (*"Neubildungen"*). Dammann (1954) furthermore discerned that historically speaking the first element is very often either a causative suffix (commonly a reflex of **-ici* or **-ɪdi*) or an intensive suffix (commonly a reflex of **-ang, *-ag* or **-ak*), whose original meaning got bleached, given that the productive non-compositional meaning of the complex suffix is simply reciprocal. Each type of complex reciprocal suffix identified by Dammann (1954) is illustrated in (6a) and (7a) respectively. In both Woyo H16dK and Kwezo L13, these complex suffixes are productively used to express reciprocity. As shown in (6b) and (7b), the two languages also still have verb stems with *-an* in their lexicon. These verbs very often refer to natural reciprocal situations, i.e. symmetrical events that inherently involve two or more participants (Dom et al. Forthcoming).

(6) Woyo H16dK (Dom et al. Forthcoming)

a. *Bôbá ba bacyentó kunizyana betikunizyana mpyanza.*
boba ba ba-cyento kun-izyan-a ba-iti-kun-izyan-a
old_person CONN$_2$ NP$_2$-woman plant-RECP-FV SP$_2$-HAB-plant-RECP-FV
N-pyanza
NP$_9$-cassava
'The old women often plant cassava for each other.'

b. *kwel-án-a* 'marry'
mon-án-a 'meet'
sak-án-a 'play, have fun'

(7) Kwezo L13 (Forges 1983: 285–286)

a. *Muwáya nênzi mugúdàlangăna îfu.*
mu-way-a ne-nzi mu-gu-dal-angan-a i-fu
SP_{2PL}-leave-FV with-her LOC_{18}-INF-observe-RECP-FV NP_8-habit
'You leave with her to observe each other's habits.'

b. *gu-z-ăn-a* 'to bump into each other'
gú-fw-ăn-a 'to resemble'
gú-m-ăn-a 'to discuss, argue with'

While a systematic comparative study of the geographic distribution and various functions of complex reciprocal markers ending in *-an* is pending, we show in this chapter that certain derivational phrasemes involving reciprocals such as *-izyan* in Woyo and *-angan* in Kwezo have a greater time depth than others (cf. e.g. *-anil* in §2) and can be reconstructed to given nodes in the Bantu family tree. As argued in great detail in Dom et al. (Forthcoming), this is certainly the case for Woyo *-izyan*, the most conservative reflex of the reciprocal phraseme **-ɪzyan*, reconstructable to Proto-Kikongo, the most recent common ancestor of the Kikongo Language Cluster (KLC), a discrete sub-branch of the West-Coastal Bantu (WCB) branch (de Schryver et al. 2015; Pacchiarotti et al. 2019). **-ɪzyan* is a non-compositional complex of causative **-ɪdi* (see infra) and reciprocal **-an*. Dom et al. (Forthcoming) argue that **-izyan* rose as a productive reciprocal marker through generalisation of its original compositional meaning 'reciprocity of causation', i.e. 'cause each other to do X' (satisfying both the CARCP template and the MP), to "reciprocity" more generally. This generalisation was followed by a usage expansion from primarily intransitive verb types to other verb types. The initial causative **-ɪdi* must have already become semantically bleached in Proto-Kikongo as the reflex of **-izyan* is attested as a productive reciprocal marker in all KLC subgroups. Given that little derivational verb morphology has survived in the remainder of WCB, it is hard to say whether **-ɪzyan* possibly goes back to the most recent common ancestor of the entire branch.

However, as discussed in Bostoen (Forthcoming) and summarised in (8), several SWB languages have a very similar reciprocal phraseme.

(8)

Mbundu H21	*-ažan*	Salampasu L51	*-asyan*
Lucazi K13	*-asian*	Ruund L53	*-ijaan*
Luvale K14	*-asan*	Kanincin L53	*-azyaan*
Lwalwa L221	*-asyan*	Kwanyama R21	*-afan*
Songye L23	*-ijeen*	Ndonga R22	*-athan*
Luba-Hemba L34	*-izyen*	Herero R30	*-asan*

The question is whether the forms in (8) could go back to the same proto-form **-ɪzyan*. Attributing to them a certain time depth as reciprocal markers is definitely plausible if one reckons that they are no longer productive. Synchronically, most languages in (8) use their inherited reflexive prefix to refer to reciprocal situations, whether or not in combination with the long reciprocal suffix. As argued in Bostoen (Forthcoming), compared to the KLC, the SWB languages have initiated a further cycle of innovation in reciprocal marking. In the KLC, **-ɪzyan* replaced **-an* as a productive reciprocal marker in Proto-Kikongo and the simplex suffix became a highly lexicalised middle marker. In SWB, the complex marker met the same fate as **-an* in the KLC, after the reflexive prefix had elbowed it out as a productive marker of reciprocity which developed reflexive-reciprocal polysemy.

Tracing back the suffixes in (8) to a single proto-form **-ɪzyan* is also a likely hypothesis from a formal point of view, as their shapes vary roughly along the same lines as those in the KLC. The only feature not attested in the KLC is the final front mid vowel observed in Songye and Luba-Hemba. Nevertheless, the mid vowel in Songye and Luba-Hemba could be easily explained as a coalescence of the final vowel of **-ɪdi* and the vowel of **-an*. As for the first vowel of the suffixes in (8), the front vowel of the causative suffix was maintained in a few languages, while the low vowel of **-an* was copied to the first syllable in most other languages. The second front vowel of the causative suffix was retained, as in Lucazi K13 *-asian*, underwent gliding, as in Lwalwa L221 *-asyan*, or was absorbed in the preceding fricative, as in Luvale K14 *-asan*, a common phonological process in Bantu known as "Y-absorption" (Bastin 1986; Hyman 2003b; Bostoen 2008). As for the fricative, it is voiced in a minority of languages, while elsewhere voiceless. Dom et al. (Forthcoming) argue that the voiceless reflexes in the KLC are the outcome of "spirant devoicing", a phonological process common not only in the KLC (Bostoen & Goes 2019), but also elsewhere in Bantu (Nurse & Hinnebusch 1993; Nurse 1999; Labroussi 2000; Bostoen 2009: 206). That is exactly where the shoe pinches for SWB. Several SWB languages in (8) which have a reciprocal marker with a voiceless fricative, such as Lucazi (*-asian*), Luvale (*-asan*), Kwanyama (*-afan*), Ndonga (*-athan*) and Herero (*-asan*), do not undergo spirant devoicing according to the surveys of Janson (2007: 111–115) and Fehn (2019: 249). For those languages one would need to assume a first phraseme component that started out voiceless, such as causative **-ici* (instead of causative **-ɪdi*). This would imply that not all forms in (8) go back to a putative **-ɪzyan* at the level of Proto-SWB. On the other hand, the fricatives /*f*/, /*th*/ (=[*θ*]) and /*s*/ of the suffixes in Kwanyama, Ndonga and Herero respectively cannot be reflexes of the **c* in **-ici*. The regular reflex of PB **c* in those languages is /*h*/ (and /*x*/ in

Kwanyama) (Fehn 2019: 246). Both Janson (2007) and Fehn (2019) only consider spirantisation within the root. It is well-known that sounds in (grammatical) affixes do not necessarily undergo the same regular changes as those in the root (see for instance Nurse 2008: 112 with regard to Bantu TAM affixes). Therefore, it might well be that all suffixes in (8) do go back to **-ɪzyan*.[3] If so, this form could be reconstructed to Proto-SWB and, by extension, to an ancestral node overarching both Proto-SWB and Proto-Kikongo.

Let's take a look at whether possible reflexes of **-ɪzyan* are found elsewhere in major Bantu subgroups. In this respect, it is interesting to observe that Bangubangu D27 attests a suffix *-izeen* which marks reciprocity in conjunction with the reflexive prefix *yi-* (Meeussen 1954a: 28), as shown in (9).[4] This suffix could easily be a regular reflex of **-ɪzyan*, its final mid vowel resulting from a coalescence of the final vowel of **-ɪdi* and the vowel of **-an*, just like in the SWB languages Songye (*-ijeen*) and Luba-Hemba (*-izyen*) discussed above. The genealogical status of this language spoken in the Maniema region of eastern DRC is not straightforward.[5]

(9) Bangubangu D27 (Meeussen 1954a: 28)

*u-yi-móy-**ézéén**-a*	'to see one another'	*cf. u-mon-á*	'to see'
*u-yi-húmb-**ízéén**-a*	'to punch one another'	cf. *u-humb-án-a*; *u-humb-á*	'to punch'
*u-yi-tág-**ézéén**-a*	'to call one another'	cf. *u-tag-án-a*	'to call'

There are also Central-Western Bantu (CWB) languages which have a non-compositional suffix of the type "causative + reciprocal". One of them is Mongo

[3]One could also assume that the potential reflexes of **-ɪzyan* attesting irregular spirant devoicing are instances of morphological copying (cf. supra). However, certainly Kwanyama (*-afan*) and Ndonga (*-athan*) manifest rather language-specific outcomes of spirantisation, i.e. */f/* and */th/* respectively. Also the suffix' retention of the front vowel following the fricative in Lucazi (*-asian*) is unique. These idiosyncrasies make scenario of suffix borrowing less likely. Luvale (*-asan*) and Herero (*-asan*) have a more commonly attested potential reflex of **-ɪzyan*, but no languages in the neighbourhood from which they could have borrowed it.

[4]Bangubangu D27 has a second complex reciprocal marker, which is not productive, i.e. *-agan* (Meeussen 1954a: 28).

[5]Bangubangu D27 is not included in the phylogeny of Grollemund et al. (2015), but several close relatives, such as Lega D25 and Holoholo D28, are. They are considered to be part of Eastern Bantu (EB), as they were in the earlier lexicostatistical study of Bastin et al. (1999) (see also Vansina 1995). However, the support values in the Grollemund et al. (2015), which separate the D20 cluster from the Luba cluster L30, which is considered to be SWB, are quite low. The dividing line between SWB and EB is thus not sharp. As a consequence, the D20 cluster could have well been labelled SWB, just like the L30 cluster could have been considered EB instead of SWB.

C61 in (10). Along with several other complex suffixes ending in *-an*, i.e. *-Van* (< **-ɪkan*), *-Vngan* (< **-angan*), *-Vtan* (< **-atan*), Hulstaert (1965: 241–243) also identifies *-Vsan*. The first vowel of these complex suffixes is always a copy of the root vowel. All of these phrasemes built on *-an*, which Hulstaert (1965) considers to be "unproductive extensions", occur on lexicalised derived verb stems. As illustrated with *-Vsan* in (10), their middle meanings cannot be directly derived from the extant underived base verb, if any. The fact that none of these suffixes is still productive and that all of them express lexicalised middle meanings rather than productive reciprocity suggests that their phraseologisation is not of recent origin.

(10) Mongo C61 (Hulstaert 1965: 242)

*kák-**asan***	'be nervous'	*cf. kák* 'extract'
*kak-**asan***	'invade everything'	cf. *kak* 'be violent'
*kék-**esan***	'be crossed'	cf. *kék* 'block'
*kek-**esan***	'scowl, frown'	
*líng-**isan***	'hide'	cf. *líng* 'wrap, roll up'

Nonetheless, it is rather unlikely that Mongo *-Vsan* is a reflex of **-ɪzyan* (i.e. PB **-ɪd-i-an*), as the language has a direct reflex of **-ɪd-i*, i.e. *-ej* (Hulstaert 1965: 255–257, 289), which is in itself unproductive and quite rare. Verbs marked with *-ej* are always transitive and convey a notion of intensity, which is a common functional reassignment of the causative across Niger-Congo (Hyman 2007: 161). As shown in (11), a limited set of them combines with *-an* to convey reciprocity (Hulstaert 1965: 286).

(11) Mongo C61 (Hulstaert 1965: 256–257, 286)

bók	'throw'	> *bók-ej*	'throw in'	> *bók-ej-an*	'throw e.o. in'
im	'murmur'	> *im-ej*	'express agreement'	> *im-ej-an*	'believe e.o.'
kɔt	'cut'	> *kɔt-ej*	'make scarifications'	> *kɔt-ej-an*	'scarify e.o.'
lend	'watch'	> *lend-ej*	'watch with impatience'	> *lend-ej-an*	'watch e.o.'
táng	'name'	> *táng-ej*	'promise'	> *táng-ej-an*	'promise e.o.'

Formally speaking, the *-ej-an* sequence in Mongo could be a regular reflex of **-ɪzyan*. However, semantically speaking, unlike **-ɪzyan*, it is compositional. Except maybe in the example *lend-ej-an* 'watch each other', the meanings of verbs ending in *-ej-an* in (11) convey both the intensive semantics of *-ej* and the

reciprocity of *-an*. So, *-ej-an* is not a suffixal phraseme in Mongo. Nonetheless, the synchronic situation in Mongo is still relevant to the development of the phraseme **-ɪzyan*, as it could reflect the stage immediately preceding the phraseologisation of a sequence of two distinctive suffixes into one non-compositional suffix. The fact that *-ej* is unproductive in Mongo and quite rare makes it the perfect candidate to become the first and semantically void component of a morphological phraseme signalling reciprocity.

In North-Western Bantu, we could not retrieve any reciprocal phrasemes ending in *-an* and having a causative suffix as the semantically empty first component. We did not discover any formally matching but semantically compositional equivalents of **-izyan* either, as we did with *-ej-an* in Mongo. One does find, however, sequences of causative and reciprocal suffixes, which are not entirely compositional and do not express a reciprocal meaning. Their causative suffix looks like a reflex of **-ici*. In Kundu A122, for instance, Ittmann (1971: 297) reports that the combination of causative *-isɛ* with *-ana* expresses a "causal state", i.e. a middle situation type as illustrated in (12). The same sequence, also expressing a (causal) state, occurs in Duala A24, as shown in (13).

(12) Kundu A122 (Ittmann 1971: 297)
kɛlɛ 'become sick' > *kɛ́lìsanɛ* 'be sick-making'
tángà 'quarrel' > *tángìsanɛ* 'be quarrelsome'

(13) Duala A24 (Ittmann 1939: 147)
*bɔb**isan**ɛ* 'be incapable of resistance'
*tongw**isan**ɛ* 'be conductive, get along'
*bw**ésàn**ɛ* 'be deadly'
*bɔ́l**ìsan**ɛ* 'be curative'

In sum, a reciprocal phraseme **-ɪzyan*, which developed from the sequence of causative **-ɪdi* and reciprocal **-an*, seems to be reconstructable to an ancestral stage from which both the WCB and SWB subgroups emerged. This ancestor could correspond to node 6 in the phylogenetic tree of Grollemund et al. (2015). However, one should then suppose that it got lost in EB, at least as far as we can tell from our admittedly incomplete assessment of its geographic distribution. According to this same survey, **-ɪzyan* is not attested as a reciprocal phraseme in languages descending from any of the branches higher up in the tree, although we do find similar but compositional sequences in CWB. In this branch, we find phrasemes built on the sequence of causative **-ici* and reciprocal **-an*, suggesting that this specific suffix order has also been subject to phraseologisation into **-ɪsyan*. A systematic comparative study of these causative-reciprocal sequences

across Bantu would be beneficial to tease apart reflexes of **-ɪzyan* from those of **-ɪsyan* and to gain a better understanding of their time depth within Bantu.

The same holds for reciprocal phrasemes ending in *-an* and taking as first element the intensive suffixes **-ang, *-ag* or **-ak*, which Sebasoni (1967: 131) considers to be largely in complementary geographic distribution. Unlike reflexes of **-ɪzyan* and **-ɪsyan*, this kind of reciprocal phrasemes is scattered across EB. In the West Nyanza subgroup of Great Lakes Bantu, for instance, *-angan*/*-agan* is the productive reciprocal marker in Talinga JE102 (Paluku 1998: 229), Nyoro JE11 (Maddox 1938: 37), Tooro JE12 (Rubongoya 1999: 202), Ganda JE15 (Livinhac et al. 1921: 116; Hyman (2022 [this volume])),[6] Soga JE16 (Nabirye 2016: 326), Nyambo JE21 (Rugemalira 1993: 148), and Haya JE22 (Kuijpers 1922: 98). It is also found further south in Ndengeleko P11 (Ström 2013: 210–211) and Yao P21 (Mchombo & Ngunga 1994). In Lamba M54, *-akan*/*-aŋkan* is an associative marker which "indicates that two or more subjects are associated together in the action of the verb" (Doke 1938: 198).

In SWB, *-angan* is or once was a productive reciprocal marker in several zone L languages (Bostoen Forthcoming), such as Kwezo L13 (Forges 1983: 261, 285), Kete L21 (Kamba Muzenga 1980: 132, 137), Luba-Kasai L31a (Kabuta & Schiffer 2009: 102), Kanyok L32 (Mukash Kalel 1982: 156; Stappers 1986: 14), and Luba-Katanga L33 (Nkiko 1975: 39).

The suffixal phraseme *-angan* is also attested in WCB, especially in the KLC. In Manyanga H16b, for example, Laman (1936: 199) describes how "semireciprocal verbs are formed by adding the suffix *-angana* to the primary stem of the verb" and "express that one of the parts in the action is active while the other is indifferent", e.g. *fin-angan-a* 'approach', *nam-angan-a* 'follow something, attach oneself to'. In Ntandu H16g, Daeleman (1966: 185) labels the suffix as "alterative". Its semantics are close to those of its cognate in Manyanga: "The bases with *-angan-* appear to indicate a reciprocal event in which the effective contribution comes from one side, i.e. an event that is directed towards others or elsewhere (and therefore can also be called extensive)", e.g. *bul-angan-a* 'bump into someone else, encounter, meet, debouch into', *fil-angan-a* 'approach, be near, be right behind'. Remarkably, traces of *-angan* are even found in WCB languages outside of the KLC, where the verbal derivation system has usually become severely eroded. In Tiene B81, for example, Hyman (2010: 31) considers the *-neŋa* extension occurring in some rare relic reciprocal verbs, such as *lé-neŋa* 'eat with each

[6]Hyman (2022 [this volume]) argues that **-agan* has been phonologically reparsed in Ganda JE15 as *-a-gan*, which can be taken as synchronic evidence for the fact that the historical complex of *-ag* and *-an* suffix became monomorphemic.

other', *nú-neŋa* 'drink each other', *pé-neŋa* 'give each other', *té-neŋa* 'injure each other', as a reflex of **-angan*.[7]

As discussed above, reflexes of **-angan* also occur in CWB languages such as Mongo. According to our current sketchy documentation, **-a(n)gan/*-akan* phrasemes, which express reciprocity or a closely related meaning, are scattered across languages of the CWB, WCB, SWB and EB branches, but have not been observed in NWB. In other words, they could go back as early as node 5 in the phylogenetic tree of Grollemund et al. (2015). A dedicated study would be needed, however, to corroborate this preliminary assessment. Not only the geographic distribution of phrasemes ending in *-an* and having one of the allomorphs of the PB intensive suffix (**-ang, *-ag, *-ak*) as first element should be studied more systematically, but also the question of whether all current-day attestations really result from one single phraseologisation at a given ancestral node or should rather be seen as parallel innovations. Further research is also needed on whether the complementary geographic distribution between **-ang, *-ag* and **-ak* observed for the simplex intensive suffix also persists in the phraseme. This would help discern whether **-angan, *-agan* and **-akan* are allomorphs of the same underlying morpheme or whether they should be taken as independent morphological phrasemes.

4 Passive suffixal phrasemes

Following Stappers (1967), Schadeberg (2003: 78) reconstructs a phonologically conditioned allomorphy for the passive suffix, i.e. **-ʊ* occurring after C and **-ibʊ* after V (repeated in Schadeberg & Bostoen 2019: 186).[8] Hyman (2003c) resumes both allomorphs under "P" in the CARCP template, unlike the causative suffixes which are assigned distinct positions. Neither Stappers (1967) nor Schadeberg (2003: 78) are explicit on the ancestral stage to which this allomorphy should be

[7] "The above four C(V)- roots occur with traces of the reciprocal extension *-neŋ-* inherited from the PB plural + reciprocal sequence **-a(n)g-an-* found in a number of daughter languages (cf. Haya *-angan-*, Ganda *-agan-*). In the Tiene reflex, the velar + coronal sequence is metathesised to coronal + velar, in conformity with the place restrictions on prosodic stems. Significantly, there are no vestiges of the reciprocal with CVC- or CVCVC- verb bases, precisely because *-neŋ-* would require a fourth syllable. It is again clear that derived stems are maximally trisyllabic in Tiene." (Hyman 2010: 31)

[8] If this was indeed the original conditioning, it was not conserved as such in many present-day Bantu languages. In some languages, such as Swahili G42d (Mpiranya 2015: 110–115; Racine 2015: 56–58) and Soga JE16 (Nabirye 2016: 330), the functional distribution between the reflexes of the short and long allomorph is different. In others, the allomorphy has been given up entirely in favour of one form, for instance *-iibw* in Luba-Kasai L31a (Meeussen 1962: 10).

reconstructed, but one could implicitly assume that it is PB. We argue here that it should not be reconstructed to PB, i.e. node 1 in Grollemund et al. (2015), but that it only emerged after NWB had branched off.

Before we elaborate on this new hypothesis, we note that the reconstruction of the short passive suffix *-ʊ to PB is well established (see Meeussen 1967: 92; Stappers 1967; Guthrie 1971: 9; Heine 1972/73: 177; Schadeberg 2003: 78). Ever since Torrend (1891: 272–273), the wide distribution of *-ʊ across Bantu has been acknowledged (see also Werner 1919: 147). Its reflexes are attested in all major branches of Narrow Bantu, including NWB, where it is quite rare. We have retrieved reflexes of *-ʊ in Bubi A31, viz. *-ɔ* (Bolekia Boleká 1991: 151), Mpongwe B11a, viz. *-o* (Gautier 1912: 116–119), Orungu B11b, viz. *-o* (Ambouroue 2007: 205), and in Tsogo B31, viz. *-u* (Raponda-Walker 1937: 47). In all of these languages the passive is realised as the final vowel of the verb form, unlike in Benga A34 where it is reported as *-w* in front of the final inflectional vowel (Mackey 1855: 34, 44), as is usually the case in Bantu. Decisive for reconstructing passive *-ʊ to PB is the existence of Niger-Congo cognates outside of Bantu, in Atlantic languages among others, as reflected in the reconstruction of neutro-passive $^{*}\text{-}V_{[+back]}$ to Proto-Atlantic by Doneux (1975: 107) (see Hyman 2007: 151). The occurrence of the short passive suffix at the two extremes of the Niger-Congo area led Voeltz (1977: 64) to reconstruct passive *O to Proto-Niger-Congo. PB passive *-ʊ is therefore to be considered as a Niger-Congo retention.

In contrast with *-ʊ, passive *-*ibʊ* does not have reported cognates outside of Bantu. Nonetheless, long passive suffixes have a wide distribution within Bantu, as evidenced by the first PB passive reconstruction ever, i.e. *-*igwa* by Meinhof (1906: 76), who reckons that it is often shortened to *-wa* on the surface. Apart from the same short suffix *-wa*, Werner (1919: 147) also identifies *-igwa* along with a series of other long forms, i.e. *-iwa*, *-edwa ~ -idwa*, *-ebwa ~ -ibwa*. The consonantal variation observed in long passive suffixes is one of the arguments which led Stappers (1967) to propose *-*i-ʊ* as reconstruction for the long form and to posit, for the first time, a complementary distribution between short *-ʊ after C and long *-*i-ʊ* after V. According to Stappers (1967), the appearance of intervocalic consonants would be a later development restricted to EB and SWB languages. He considers intervocalic /*b*/ as the most widespread, i.e. occurring in a contiguous area comprising most of zones L, D and E (including J). Attestations of intervocalic /*d*/ and /*g*/ are relatively rare and scattered across EB. Stappers (1967) retrieves instances of /*g*/ in Gusii JE42, Shambaa G23, Gogo G11, Bena G63, Yao P21, Tonga M64, and possibly also in Pokomo E71 and Nilamba F31, while he reports occurrences of /*d*/ in Mambwe M15, Nyiha M23, Nyanja N31a, Nyungwe N43, Tonga N15, and Ronga (not clear which one). Stappers (1967: 145) conjectures

that the *-ɪdʊ* type could have applicative **-ɪd* as first element. Stappers (1967) was also the first one to analyse the long allomorph as a morphological phraseme, which has the short form **-ʊ* as its last element. He believes the preceding front vowel to be a reflex of the short causative **-i*. This hypothesis is implausible given that the long passive allomorph never triggers spirantisation, while causative **-i* commonly does across Bantu (Bastin 1986; Hyman 2003b; Bostoen 2008).

In order to understand why Stappers (1967) proposes **-i-ʊ* as basic form for the long passive allomorph, it is important to see that he does not factor in the effect of diachronic sound change. He does not consider the possibility that *-iw*, its most widespread current-day reflex, could go back to a **-iCʊ* proto-form whose intervocalic consonant went lost. On the contrary, Schadeberg (2003: 78) does consider diachronic phonology and proposes **-ibʊ* as reconstruction for the long form. Intervocalic **b* is indeed the most plausible reconstruction here, not only because it is the consonant that occurs most often in those present-day languages having a long passive allomorph with intervocalic consonant, but also because intervocalic **b* lenition and loss is quite common in EB; see for instance Guthrie (1967: 71) for the reflexes of **ba* in root-initial position. In front of a back vowel, **b* elides even more easily than before other vowels; see for instance Nurse (1999: 6) who posits the weakening of **b* before "labial vowels" as a shared innovation of the North-East Coast Bantu subgroup. As for the two other stops observed in the long passive suffix of certain EB languages, /*g*/ could certainly result from a fortition subsequent to the loss of **b*. Yao P21, for instance, which has an *-igw* passive extension, does sometimes have /g/ where **b* went lost, e.g. **bʊmb* 'mold in clay' > *ku-gumb-a*, **bʊdʊng* 'be round' > *ku-gulung-a* (Viana 1961). The emergence of intervocalic *d/l* is more difficult to account for. An epenthetic *l* seems more plausible than positing it as a reflex of applicative **-ɪd*, but this would need more historical-comparative phonological research. In any event, as these long passive suffixes with *d/l* represent a very local development, their status is insignificant in terms of deep-time reconstruction.

Simply put, we do agree with Schadeberg (2003: 78) that reconstructing **b* as the consonant of the long passive allomorph is the most plausible hypothesis, especially if one reckons that simplex middle suffixes ending in /*b*/ occur in NWB (see also Schadeberg 2003: 78; Bostoen & Nzang-Bie 2010). As discussed below, this middle suffix ending in /*b*/ is the one we consider to be the historical first component of passive **-ibʊ*. However, first, we would like to propose a revision to the reconstruction for the initial vowel proposed by Schadeberg (2003: 78) and copied by Schadeberg & Bostoen (2019: 186). Schadeberg (2003: 78) does not reconstruct the long passive form with a near-close front vowel, i.e. [ɪ], as Stappers (1967) does for the forms with an intervocalic consonant, but with a

close front vowel, i.e. [i]. This seems unjustified, as the long passive allomorph never triggers spirantisation,[9] which would be expected (at least in some languages) if it were a close vowel. Moreover, it often undergoes vowel harmony with root mid vowels (e.g. Swahili *ib-iw-a* 'be stolen' vs. *ol-ew-a* 'be married'), as PB second-degree front vowels often do (e.g. Swahili *pik-i-a* 'cook for' APPL vs. *som-e-a* 'read for' APPL, *saf-ish-a* '(make) clean' CAUS vs. *wez-esh-a* 'enable' CAUS). Based on this evidence, the long passive allomorph should be reconstructed as **-ɪbʊ* instead of **-ibʊ*.[10]

The key question to be answered here is to which ancestral Bantu stage **-ɪbʊ* should be reconstructed, and by extension the allomorphy with **-ʊ*. As mentioned above, no cognates have been reported outside of Narrow Bantu. As for its distribution within Bantu, Stappers (1967: 141–142) does not report any attestations of the long allomorph in NWB and CWB languages. Our review of available NWB and CWB sources slightly changes this picture. In both subgroups, we could only identify relics of the **-ʊ*, but none of **-ɪbʊ*, except in one language that Grollemund et al. (2015) classify as part of NWB, i.e. Kota B25, as shown in (14).[11]

(14) Reflexes of passive **-ɪbʊ* in Kota B25 (Piron 1990: 124)
Édíbwɛ̀kɛ̀.
à-é-dí-ìbù-àk-à
SP_1-NEAR_FUT-eat-PASS-IPFV-FV
'He will be eaten.'

No attestations of **-ɪbʊ* have been found in Guthrie's zone A. What several NWB languages of zone A do have, however, as already pointed out by Schadeberg (2003: 78), is a suffix "of the general shape **-(a)b(e)* (the vowels differ from

[9] Spirantisation is not to be confused here with the palatalisation of bilabials which the short passive allomorph *-w* triggers in several zone S languages (see Ohala 1978), unlike the long passive allomorph *-iw* which never has this palatalising effect, e.g. Zulu S42 *lob-a* 'write' > *lob-w-a* 'be written' > *lotsh-w-a* vs. *ab-a* 'divide' > *ab-iw-a* 'be divided' (van der Spuy 2014).

[10] Note that Hyman (2007: 151, 2018: 177) does write **-ɪb-ʊ* for the long passive allomorph, i.e. with a near-close front vowel and as a combination of two suffixes, even if he refers to Schadeberg (2003) as his source.

[11] The genealogical status of Kota and other languages of Guthrie's B20 group is problematic. As Bastin & Piron (1999: 156–159) point out, not only does B20 split into two separate genealogical subgroups, but the one including Kota also shifts affiliations among WCB, CWB and NWB depending on the lexicostatistical method applied. This is a typical instance of what they call a "floating group" ("*groupe flottant*"). It is likely that language contact played an important role in the genesis of Kota and its closest relatives.

language to language), with a meaning described as passive(-like), neuter or middle voice". As the list in (15) shows, this middle affix is indeed quite widespread in zone A languages.[12] Its degree of productivity varies from language to language, and in most of them, it may also serve as a grammatical marker of passive voice.

(15) Reflexes of middle *-*VbV* in NWB

Lundu A11	*-àb*	(Kuperus 1985)
Kpe A22	*-av(-ɛ)*	(Hyman 2007: 160)
Wovia A222	*-vɛ̂*	(Richter 2013)
Duala A24	*-Vbɛ̀*	(Biloa 1994)
Noho A32a	*-abe*	(Schadeberg 1980)
Basaa A43a	*¨-b-a*	(Hyman 2003a)[13]
Bakoko A43b	*-ɓɛ̀*	(Kenmogne 2000)
Nen A44	*bí- ~ bé-*	(Mous 2003)
Maande A46	*pí- ~ pé-*	(Taylor 1986)
Gunu A622	*bá-*	(Orwig 1989)
Ewondo-Fang A70	*-VbV*	(Alexandre 1966; Essono 2000; Van de Velde 2008; Bostoen & Nzang-Bie 2010)[14]

Formally speaking, the middle suffixes in (15) occur in different shapes, i.e. VC, VCV and CV, mostly as a suffix. In this case it is not clear to what extent their final vowel is distinct from the common Bantu inflectional final vowel. In the A44, A46 and A60 languages, the earliest NWB offshoots (Bastin et al. 1999; Bastin & Piron 1999; Grollemund et al. 2015),[15] for reasons unknown, it is a prefix. Regardless of their morphological status, all shapes in (15) have a non-back final vowel and as such they could never be reflexes of *-*ɪbʊ*. As for the first vowel, there is quite some variation, but it is striking that most often it is either /*a*/ or a copy of the root vowel (hence *-Vb*) in Duala A24 and the A70 languages. The same holds true for all CVCVC verb stems ending in **b* in BLR3 (Bastin et al. 2002), as shown in (16).

[12] So far, we could not retrieve any attestations of middle **-Vb* in the B10-30 languages, which are also commonly seen as genealogically part of NWB (see Bastin et al. 1999; Bastin & Piron 1999; Grollemund et al. 2015), only relics of the short passive **-ʊ* (cf. supra).

[13] The symbol ¨ indicates a height umlaut that occurs with certain suffixes (Hyman 2003a: 274).

[14] As discussed in Bostoen & Nzang-Bie (2010), the most recent common ancestor of the Bantu A70 languages developed a productive passive suffix **-Vban*, which is a suffixal phraseme combining middle *-VbV* and reciprocal *-an* in a semantically non-compositional way.

[15] There is general agreement to classify A44 and A46 languages together with A60 languages, mostly because of the close relatedness of their lexicon (Dieu & Renaud 1983; Mous & Breedveld 1986). Together, these languages from Central Cameroon are known as the "Mbam" subgroup and considered to be an important link between Narrow Bantu and Wide Bantu, also known as Bantoid (Bastin & Piron 1999: 155; Bostoen & Grégoire 2007: 76).

(16) Bantu Lexical Reconstructions with **-a/Vb* extension (Bastin et al. 2002)

**jódob*	'become soft'	(attested in Guthrie's zones C J N M P S)
**pùdʊ́b*	'be seized with convulsions'	(L M)
**cìdɪb*	'shake one's feet'	(J L)
**kɪdɪb*	'walk sp.'	(H L)
**tɪɪtɪɪb*	'walk with a slight stoop, walk with difficulty'	(J)
**jíjab/jíjɪb*	'know'	(B H/B C G H J K M N R S)
**kokob/kakab*	'walk with a slight stoop'	(R S/L M)
**kádab*	'wash one's hands'	(J R)
**kàdab*	'crawl on all fours'	(L)
**cadab*	'struggle'	(L M)
**jikab*	'perforate'	(K S)
**játab/jítab/jítab*	'answer call'	(A S/J K L M N/D R S)

The reconstructions in (16) not only share this formal feature, but nearly all also have in common that their meaning belongs to a subcategory of the semantic domain of the middle (see Kemmer 1993), such as body action, emotion, cognition, (change of) state. Only the last two forms in (16) have meanings that do not really fit into that pattern, but it is well-known that verb stems including non-productive derivational suffixes easily develop idiosyncratic meanings and syntactic features that are at odds with those of the once productive suffix (see Bastin 1985; Good 2007; Pacchiarotti 2020: 167–260). Because the reconstructions in (16) have reflexes well outside NWB (including EB as can be seen from the Guthrie zones included), this probably means that some lexicalised middle verb stems ending in **b* are quite old and represent relics of a derivational *-Vb* suffix that once used to be more productive. The fact that this morpheme is still described as a distinct affix in several NWB languages probably indicates that it was longer productive there than elsewhere in Bantu. Outside of NWB, it is rarely identified as a separate extension, although this might merit more systematic investigation. It could well be mentioned as an unproductive suffix in languages whose morphology was described in quite some detail. A comprehensive perusal of big dictionaries might also prove useful in this regard.

In brief, we wish to propose that the long passive suffix **-ɪbʊ́* is a suffixal phraseme that developed out of a sequence of the "middle" **-Vb* suffix and the short passive **-ʊ́*. The question that needs to be answered to substantiate this claim is how the long passive allomorph ended up with the near-close vowel **ɪ*

and not with either **a* or a copy of the root vowel. Variations like in **jíjab* and **jíjɪb* 'to know' in (16) and the fact that certain NWB in (15) have *-ab* instead of *-Vb* suggest that the original suffix had **a* and that the copy of the root vowel is a later innovation. If such is the case and the first element of **-ɪbʊ* has indeed its origin in this middle suffix, the long passive allomorph can only have emerged at a stage where the change towards **-ab* > **-Vb* had already happened. The stabilisation of the near-close front vowel in **-ɪbʊ* could then be seen as a further innovation. The productivity of **-Vbʊ* as a passive allomorph may have induced paradigm levelling, i.e. the suppression of variation at a morpheme boundary in favour of one vowel. Why this uniformisation privileged **ɪ* is hard to say. Is it because it was the vowel most common in roots taking the **-Vb* suffix? Or by analogy with several other derivational suffixes (i.e. applicative, neuter, impositive) starting with *-ɪ*? Was this the result of a harmony process triggered by the short passive suffix **-ʊ*? More in-depth comparative research is needed to answer these questions.

As to the ancestral stage to which the long passive allomorph **-ɪbʊ* should be reconstructed, it can definitely be posited at node 6 in the phylogeny of Grollemund et al. (2015), i.e. the most recent common ancestor of WCB, SWB and EB. The presence of **-ɪbʊ* in Kota B25 could indicate that the suffix actually goes back as far as node 3. However, as discussed above, the genealogical status of Kota and its closest relatives is tricky. It straddles NWB, CWB and WCB probably due to the fact that contact between languages from these different branches contributed to Kota as we know it today. For the time being, the sole occurrence of **-ɪbʊ* in Kota cannot be taken as solid evidence for its reconstruction above node 6 in the tree of Grollemund et al. (2015). More attestations elsewhere in NWB would be needed, for instance in Kota's close relatives from Guthrie's B10-30 groups, once these are better described. If **-ɪbʊ* were reconstructed back to node 3, one would also need to explain why it is absent from the B10 and B30 languages and also from the CWB languages of zone C, the two branches that split off after node 3 and before node 6. However, it is well-known that passive morphology underwent quite some innovation in zone C (see Meeussen 1954b; Schadeberg 2003). A more in-depth study might therefore be needed to exclude that no remnants of **-ɪbʊ* can be identified in CWB and the B10-30 languages. If no new attestations are identified in these languages, **-ɪbʊ* could be seen as a shared innovation indicating that WCB, SWB and EB are more closely related among each other than with NWB and CWB, which would corroborate the internal Bantu classification proposed by Grollemund et al. (2015).

5 Causative suffixal phrasemes

Bastin (1986: 130) reconstructs three distinct causative suffixes: **-ici*, **-i* and **-ɪdi* (or in her orthography of the day: **i̧ci̧*, **i̧* and **idi̧*). She considers the first two to be PB, while the last one would be of more recent origin. In this section, we mainly reassess the abundant data and analyses already present in her in-depth historical-comparative study of Bantu causative morphology to draw some different conclusions.

Bastin (1986: 130) considers the reconstruction of **-ici* and **-i* to PB as beyond any doubt, first and foremost due to their general distribution within Bantu. In the case of **-ici*, Bantu-internal evidence is corroborated by comparative Niger-Congo data. Bastin (1986: 101) links PB **-ici* with Proto-Niger-Congo **ti* and **ci* as proposed by Voeltz (1977: 60–63). These two Niger-Congo suffixes would have merged in Proto-Benue-Congo and resulted in a single reflex **-ici* in PB (see Voeltz 1977: 61; Bastin 1986: 92). More systematic comparative research within Niger-Congo would be needed to either substantiate or discard Voeltz' merger hypothesis, but it is crystal clear that Bantu causative *-is* suffixes, as the reflexes of **-ici* most commonly look like, have cognates across Niger-Congo, as far as Atlantic and Gur (see Hyman 2007). Unlike PB **-ici*, Bastin (1986: 101) considers the PB short causative **-i* to be a Bantu-specific innovation.

In the light of the preceding sections, especially the one on the passive, considering the PB short causative suffix as more recent than the PB long causative suffix sounds counterintuitive, especially since PB **-ici* seems to end in PB **-i*, much like passive **-ɪbʊ* ends in PB **-ʊ*. This alleged innovation is also at odds with the conjecture of Hyman (2007: 161) that PB "causative **-i* and passive **-ʊ* are old voice suffixes". We therefore believe that two assumptions of Bastin (1986) might need revision: (1) that causative **-i* is not attested beyond Bantu; (2) that the long causative suffix **-ici* really ends in a vowel.

As for the occurrence of causative **-i* elsewhere in Niger-Congo, identifying cognates of a vocalic suffix is obviously not an easy job. It is always hard to tell whether similar vowel-only suffixes in other branches of Niger-Congo do not result from the loss of a consonant. Nonetheless, Atlantic languages such as Bijogo (Segerer 2002) and Kisi (Childs 1995), for example, do have a causative suffix *-i* (see Hyman 2007: 154), which could well be a cognate of PB **-i*. In other words, both the short and long PB causative suffixes seem to go a long way in Niger-Congo.

Concerning the VCV shape of the PB long causative suffix, it is important to realise that Bastin (1986: 66) starts out from the question whether the long causative

suffix, which commonly has a voiceless fricative consonant in Bantu, should be reconstructed as **-ɪc*, **-ic*, **-ɪci*, **-ici*, or still as **-ɪki*. She does consider the possibility of a PB long causative suffix **-ic* without final vowel, as actually proposed by Meeussen (1967: 92). Her consideration of reconstructions with final vowel was prompted by earlier proposals that all or part of the present-day causative suffixes with a voiceless fricative (mainly /*s*/ or /*ʃ*/) should be seen as the reflexes of a causative phraseme **-ɪki* (see Meinhof 1910: 43), consisting of impositive **-ɪk* and short causative **-i* (Guthrie 1970: 219). Bastin (1986: 100) herself admits that in very few present-day languages the reflex of **-ici* displays a final vowel, neither on the surface nor underlyingly. She also recognises that in numerous languages the reflex of **c* in front of **i* is not different than before any other vowel. Furthermore, she acknowledges that it is impossible in many languages to tell apart the reflexes of **ki* and **ci* (and even **cɪ* of less relevance here). Finally, and most importantly, she concedes that there are languages where the voiceless fricative cannot be a reflex of **k* followed by **i*, while there are others where it can only be a reflex of **k* followed by **i* (Swahili *-ish* for example), and not of **c(i)* (Bastin 1986: 92–100). In other words, Bastin (1986) provides all evidence to argue against a unified account of all long Bantu causative suffixes having a voiceless fricative, but she still comes up with a single PB **-ici* reconstruction.

Critically reassessing her evidence, we deem it necessary to distinguish between two distinct causative suffixes that gave rise to present-day reflexes with a voiceless fricative or affricate: (1) **-ic* as proposed by Meeussen (1967: 92), which goes back to PB, and (2) **-ɪki* of later origin. The fact that certain current-day languages have two distinct causative suffixes ending in a voiceless fricative/affricate is strong evidence in favour of this hypothesis. Cuwabo P34 is one such language. Its reflex of PB causative **-ic* is *-i?*. Its causative *-ec*, realised in free variation as either [*ec*] or [*etʃ*], is a regular reflex of **-ɪki* and regularly corresponds to Swahili *-ish*. Similarly, Cuwabo causative *-uc/-oc* is reflex of **-ʊki* (and corresponds to Swahili *-ush*, as in *anguka* 'fall' > *angusha* 'make fall') (see Guérois & Bostoen 2016). While Cuwabo causative *-uc/-oc* unmistakably results from the unification of separative **-ʊk* and causative **-i*, more research is needed to determine whether causative **-ɪki* results from the phraseologisation of neuter **-ɪk* and causative **-i*, or rather from impositive **-ɪk* and causative **-i* as proposed by Guthrie (1970: 219). Determining the time depth of the causative phraseme **-ɪki* is greatly complicated by the fact that its reflexes are so difficult to distinguish from those of **-ic* and would thus require a new dedicated study.

Once one recognises the need to posit at some ancestral stage the emergence of a causative phraseme **-ɪki*,[16] then the PB causative suffix **-ic* can perfectly be reconstructed without final vowel, all the more because /*s*/ or /*ʃ*/ are the commonest reflexes of **c* across Bantu anyway, also in the absence of a following close front vowel (see Guthrie 1967: 76). This also perfectly ties in with the Bantu-external evidence. Causative suffixes having /*s*/ or /*ʃ*/ are widespread throughout Niger-Congo (see Voeltz 1977; Hyman 2007), and beyond (Hyman 2014). Hence, simply reconstructing a VC shape ending in PB **c* seems to do the job. Considering both Bantu-internal and Bantu-external evidence, reconstructing **-ic* to PB, as proposed by Meeussen (1967: 92), is thus more plausible than **-ici* as advanced by Bastin (1986).[17]

We are then left with the third widespread Bantu causative suffix, i.e. **-ɪdi*, which Bastin (1986: 130) analyses as a historical aggregation of PB applicative **-ɪd* and PB causative **-i*, an idea put forth already by Meinhof (1910: 43). Due to spirantisation commonly triggered by causative **-i*, the *d of **-ɪdi* typically has a voiced fricative reflex, unlike the fricative reflex of *k in **-ɪki*, e.g. Swahili G42d *-iz* as in *fany-iz-a* 'make do' vs. *-ish* as in *anz-ish-a* 'make start' (see Miehe 1989), or **-ic*, e.g. Cuwabo P34 *-eð* as in *weénjêð-a* 'add, increase (tr.)' vs. *-iʔ* as in *téy-iʔ-a* 'make laugh' (Guérois & Bostoen 2016). In contrast to the two other Bantu causative suffixes, i.e. **-i* and **-ic*, Bastin (1986: 130) questions the PB status of **-ɪdi*. Although she acknowledges its wide distribution, she believes it to be of more recent origin and sees its emergence as potentially correlated with the regression of **-i* as a productive causative suffix. She furthermore allows the possibility that the unification of **-ɪd* and **-i* into causative **-ɪdi* recurrently took place as a parallel innovation.

It seems unlikely that the morphological phraseme **-ɪdi* was innovated multiple times and would thus be a relatively recent creation. The two main reasons to think so are (1) its general distribution in the Bantu domain and (2) its highly lexicalised status. With regard to its spread across Bantu, Bastin (1986: 101–105)

[16] Positing **-ɪki* also accounts for the lengthening of the final inflectional vowel *-a*, which is observed after the long causative suffix in certain Great Lakes Bantu languages, e.g. Shi JD53 *àasunisaà* 'he made grow' (Bastin 1986: 100, see also Trithart 1977: 78–79 for the same phenomenon in Haya JE22). The final *i* of the causative is fully assimilated to the final vowel but with conservation of its quantity, which results in a long *aa*.

[17] As for the first vowel of **-ic(i)*, Bastin (1986: 73–91) concludes after a systematic review of the comparative Bantu-internal evidence that both the close and half-close front vowel could be reconstructed as the original one. She eventually opts for the first-degree **i*, because Voeltz (1977: 60–63) proposed the same for Proto-Niger-Congo. To put it differently, to possibly revise the first vowel of the PB long causative suffix, one would need to reassess comparative data from elsewhere in Niger-Congo, which goes beyond the scope of this chapter.

herself identifies instances of **-ɪdi*, which commonly have a spirantised reflex of **d* (either a voiced fricative or affricate), in all major Bantu branches except NWB. However, she also reports a causative suffix with the shape -Vl(V) in several NWB languages of zone A, i.e. Kpe A22, Su A23, Duala A24, Benga A34, Ewondo A72a and Bulu A74a, which she considers to be a possible reflex of **-ɪdi* (Bastin 1986: 127–129). Our systematic survey of available sources for NWB languages led us to identify several other reflexes, listed in (17). Most of them do have a fricative or affricate consonant. Reflexes of the causative suffix **-ɪdi* are thus also well attested in NWB.

(17) Reflexes of causative **-ɪdi* in NWB

Bafo A141	*-dʒi*	(Apuge & Neba 2011)
Bakoko A43b	*-jɛ̀*	(Kenmogne 2000)
Kpa A53	*-zɨ̀*	(Guarisma 2000)
Tuki A601	*-ij*	(Kongne Welaze 2004)
Kol A832	*-ə̀zə̀*	(Henson 2007)
Kako A93	*-ìdy*	(Ernst 1998)
Mpongwe B11a	*-iz ~ -ez*	(Gautier 1912)

Another argument against the recent origin of **-ɪdi* is the observation that it rarely acts as a productive causative suffix. In most languages, it is attested with a variable number of lexicalised verbs but cannot be used productively to derive causative verbs. As Bastin (1986: 119–120) nicely summarises, this is especially so in WCB, SWB and EB languages, where the reflex of **-ic* or **-ɪki* is often the most productive causative suffix.[18] The fact that **-ɪdi* manifests such high degree of lexicalisation in the latest offshoots of the Bantu family runs against the hypothesis that it is a late and parallel innovation. Even more decisive in this regard is the fact that **-ɪdi* itself has become one of the constituents of a new phraseme, i.e. reciprocal **-ɪzyan* (see §3), which could be reconstructed as far as node 6 in the phylogenetic tree of Grollemund et al. (2015). To be involved in the creation of a new suffixal phraseme at such a deep ancestral stage, **-ɪdi* must have become non-compositional well before.

After having carefully reconsidered the available evidence, it seems safe to postulate that **-ɪdi* is a third causative that can be reconstructed to PB, i.e. node 1 in Grollemund et al. (2015). While **-i* and **-ic* were inherited from older Niger-Congo ancestral stages, **-ɪdi* seems to be a PB innovation that emerged through the phraseologisation of applicative **-ɪd* and causative **-i*.[19]

[18]Many CWB languages of zone C only have the reflex of **-ɪdi* as a long causative suffix.

[19]Bastin (1986) did not consider the possible distribution of **-ɪdi* beyond Narrow Bantu and, as

In sum, causative morphology turns out to be the most diverse and innovative within Bantu. This is definitely so if one reckons that we have not considered here causative(-like) suffixes, such as impositive **-ɪk* and transitive separative **-ʊd*, and the morphological phrasemes in which these and other suffixes are involved, e.g. **-ɪki*, **-ʊki* and **-ʊdi*. These merit a systematic and comprehensive study. Unlike other verbal derivational categories, PB not only retained two distinct Niger-Congo causative suffixes, i.e. **-i* and **-ic*, but also created a new causative phraseme **-ɪdi*. As we discussed in §2–4, the creation of such phrasemes for the passive and the reciprocal only happened at later ancestral stages within Bantu language history. Similarly, causative morphology, phrasemic innovation for causative morphology happened after PB, as can be seen in the reflexes of **-ɪki* in languages such as Swahili and Cuwabo.

6 Conclusions

In this chapter, we have shown that the creation of suffixal phrasemes is a common strategy to innovate Bantu verbal derivation morphology. We have identified semantically non-compositional aggregations of existing suffixes in derivational categories as diverse as the pluractional, neuter, intensive, reciprocal, passive and causative. Some of these phrasemes adopt the semantics and syntax of one of their constituents, either the first or the last element, while others develop idiosyncratic functions in which the original contribution of their historical components can at best be surmised. A more comprehensive typology of morphological phrasemes in Bantu derivational morphology would be most welcome. Interestingly, just like certain verbal derivational categories innovate their morphology by stacking a new suffix to their inherited suffix, interrogatives in Bantu (and elsewhere in the world) also manifest a very strong tendency for continuity in their evolution. As Idiatov (2022 [this volume]) shows, a new interrogative is almost always based on another pre-existing one.

We furthermore demonstrated that verb derivational phrasemes can be reconstructed to different ancestral stages in Bantu history, up to PB. Innovation through the coinage of suffixal phrasemes is most advanced in causative morphology, as the oldest phraseme we reconstruct is PB **-ɪdi*, which emerged out of the concatenation of applicative **-ɪd* and short causative **-i*. Hence, PB did not only have causative **-i* and **-ic* (and not **-ici* as proposed by Bastin 1986, though maybe **-ɪc* instead of **-ic*, see footnote 17), inherited from ancestral Niger-Congo

far as we can judge, possible Niger-Congo cognates of PB **-ɪdi* have also not been reported elsewhere. Admittedly, we did not carry out a systematic perusal of the relevant literature.

stages, but also **-ɪdi*. Two of the reasons why causative morphology started to renew so early are probably the exceptional vocalic shape of **-i* and the specific morphophonological processes it triggers, as well as the fact that it already had a highly lexicalised status in PB. This is to be expected given that it is a Niger-Congo inheritance. The functional distribution of the three PB causative suffixes along the lines of categories such as direct and indirect causation and intensity merits further study. Innovation in causative morphology did not stop in PB as younger causative phrasemes such as **-ɪki* also occur across Bantu, especially outside of NWB. As suggested by one of the reviewers of this chapter, the fact that causative suffixes are often functionally reassigned to the excessive/intensive marking may also have contributed to their frequent innovation in form.

That more innovation happened at ancestral nodes posterior to the split-off of NWB is clear from the passive and reciprocal phrasemes we propose in this chapter. First of all, we argued that the long passive suffix should be reconstructed with an initial near-close front vowel, i.e. **-ɪbʊ* instead of **-ibʊ*, and that it does not go back to PB. The phraseologisation of the middle suffix **-Vb*, well-attested in NWB and possibly going back as far as PB (node 1), and the PB passive suffix **-ʊ* did not happen before node 3 and probably not even before node 6 in the phylogeny of Grollemund et al. (2015), i.e. the most recent common ancestor of WCB, SWB and EB. This morphological phraseme could be a shared morphological innovation suggesting that these subgroups are indeed more closely related to each other than to the rest. The exceptional short vocalic shape of the PB passive suffix **-ʊ* was a good structural motivation to innovate passive morphology.

The reciprocal phrasemes ending in **-an* and having either causative **-ɪdi* (i.e. **-ɪzyan*) or intensive **-ang/*-ag/*-ak* (most often **-angan*) as a first element also have a relatively deep ancestry. Although more dedicated studies are required to better define their exact time depth, we claim that they could have emerged at nodes 5 or 6 in the phylogeny of Grollemund et al. (2015). Just like passive **-ɪbʊ*, these reciprocal phrasemes could thus also be diagnostic for Bantu internal classification. Unlike with the causative and passive suffixes, the main motivation for innovation in reciprocal morphology was not the shape of PB **-an*, but the fact that it tends to become lexicalised and undergo semantic shift within the middle domain.

To conclude, we would like to point out that phraseologisation in verbal derivation morphology probably already happened well before PB. As Hyman (2018: 193) suggests, morphological phrasemes also occur in Bantoid languages outside of Narrow Bantu, where CVC-shaped extensions in languages such as Noni and Lamnso? probably result from the fusion of two suffixes. Hyman (2007: 161) also

identifies fusion via prosodic restriction and phonological erosion as a common process of derivational suffix innovation in Niger-Congo. Some PB derivational suffixes, which tend to be seen as simplex, could therefore also be morphological phrasemes in origin. A diachronic reassessment of the separative pair **-ʊk/*-ʊd* from a wider Benue-Congo/Niger-Congo perspective might be beneficial in this regard. The formal and functional commonalities of neuter **-ɪk* and intransitive separative **-ʊk* on the one hand, and applicative **-ɪd* and transitive separative **-ʊd* on the other, suggest a historical link and the possibility that **-ɪk* and **-ɪd* might have been a diachronic component of **-ʊk* and **-ʊd,* respectively, or the other way around. If some of them are indeed morphological phrasemes, their creation must have happened at the stage of PB or before, as all of them go back to at least the most recent common ancestor of all (Narrow) Bantu languages.

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Abbreviations

APPL	applicative
C	consonant
CARCP	causative-applicative-reciprocal-causative-passive
CARP	causative-applicative-reciprocal-passive
CAT	causative-applicative-transitive
CAUS	causative
COND	conditional
CONN	connective
CWB	Central-Western Bantu
DEM	demonstrative
DIST	distal
EB	Eastern Bantu
FUT	future
FV	final vowel
HAB	habitual
INF	infinitive

IPFV	imperfective
LOC_X	locative prefix of class x
N	nasal
NWB	North-Western Bantu
OP_X	object prefix of class/person x
PASS	passive
PB	Proto-Bantu
PL	pluractional
PP_X	pronominal prefix of class x
PROG	progressive
PST	past
RECP	reciprocal
SP_X	subject prefix of class/person x
SWB	South-Western Bantu
V	vowel
WCB	West-Coastal Bantu (aka West-Western Bantu)

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