

Chapter 10

On reconstructing the Proto-Bantu object marking system

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This chapter critically examines the divergent hypotheses about the Proto-Bantu (PB) object marking system proposed by Meeussen (1967) and Polak (1986). It then builds on their insights with additional data and details of analysis and develops a new reconstruction of PB object marking, including its place in a larger system of topicality marking also involving the subject marker.

1 Introduction

Bantu object marking consists of a set of single morphemes, i.e. object markers (OMs), also called object prefixes or infixes in some studies, one or more of which immediately precede the verb root, and index objects of the transitive verb. The OM as a grammatical category contrasts with the independent or free pronoun (PRO), called “substitutive” by Meeussen (1967: 105). Unlike the OM, the PRO may index any of a predicate’s nominal arguments, including its subject. It has the basic syntactic occurrence privileges of other nominals. Also unlike the OM, the PRO tends to be polymorphemic, by reduplication and/or suffixation of a deictic marker, whose shape commonly reflects the Proto-Bantu (PB) vowels **e/*o*, as in Swahili G42d (*ye-*)*ye* < **yu-e* [class 1 - e] ‘singular animate referent’, *wao* < **ba-ba-o* [class 2 - class 2 - o] ‘plural animate referent’.¹ Finally, PRO occurs in all Bantu languages, OM in most but not all of them. One key problem is to establish what the historical relationship between OM and PRO is. For present purposes,

¹Swahili differs from many Bantu languages in using class 1/2 markers for indexing not only humans but also animals (cf. Wald 1975).



the guiding questions are whether PB had an OM system, and if so, how it was organised.

Current Bantu OM systems are highly diversified. They range from languages with no OMs at all (NOMs) to languages in which a virtually unlimited number of OMs can be prefixed to a single verb stem, i.e. multi-OM systems (MOMs). In between, there are those languages with a system allowing a single OM per verb stem (SOMs) and those with what I call partial OM systems in which some objects can be indexed by OMs but others cannot, depending on either their inherent topicality (animacy status) or thematic/semantic role (TR), or both these factors. As I argue in this chapter, OMs are the most complex component of a topic marking system that also includes the subject marker (SM).

This chapter is organised as follows: §2 reviews the divergent hypotheses regarding the PB OM system proposed by Meeussen (1967) and Polak (1986); §3 identifies and discusses the more detailed factors involved in examining the variation within and across Bantu OM systems in order to inform decisions about the nature of the PB system, and about the directions of change from the PB system to the various current-day Bantu systems; §4 examines diversity within the three major types of OM, i.e. the MOM, SOM and NOM systems; §5 discusses alternative historical hypotheses about the PB OM system and the directions of change from PB to the current-day diversity in those alternative hypotheses; §6 makes concluding remarks about what currently appears to be the most promising PB reconstruction, and indicates a number of issues that require further research to either support or cast doubt on that reconstruction.

2 Conflicting hypotheses on the PB OM system

The few previous reconstructions of the PB OM system differ on the relative chronology of SOM and MOM systems. Meeussen (1967: 110) proposed that: “In a verb form there may be more than one infix [= OM], the nearest to the radical corresponding to the object nearest to the verb in comparable constructions (or: the last infix corresponds to the first object) [...]”. It is not completely clear what Meeussen had in mind here, since he does not declare a fixed order for either the OM or corresponding postverbal object sequence. However, it fits the description of some current MOM systems, such as the one in Ganda JE15 and some varieties of Tswana S31, where OMs and postverbal objects are fixed in a “mirror image” relationship (cf. Bearth 2003: 127) according to the grammatical relation (GR). OM_[DO]-OM_[IO]-V corresponds to V...NP_[IO]-NP_[DO]. One or the other of these orders is common in a wide area of the East Bantu interior

from north to south about which Meeussen was especially knowledgeable. However, as discussed in §4, there are other languages in that area, such as Rwanda JD61, and elsewhere, such as Kwanyama R21, where neither the order of OM_s nor that of postverbal object NPs is fixed or conditioned by GR. Meeussen's reconstruction was frankly programmatic. He did not refer to any current-day Bantu languages for evidence. Although his reconstruction is supported by synchronic attestations covering a variably large part of the Bantu domain, they fall short of encompassing the entire Narrow Bantu area. Therefore, Meeussen's reconstruction of PB – understood as representing at minimum the period of unity of all Narrow Bantu languages – has remained problematic.

Polak (1986) pursued Meeussen's program by examining a widespread sample of Narrow Bantu languages. She accepted the notion of a PB OM category (p. 374), but implicitly rejected Meeussen's MOM hypothesis on the basis of the relative rarity of MOM languages in her sample (e.g. pp. 371, 374, 403ff). Thus, she favoured the notion that the current languages lacking the OM category, i.e. many north-western Bantu languages of Guthrie's zones A and B and adjacent areas (zones C, D and H), lost the PB OM. Evidence presented in this chapter questions Polak's assumption of rarity of MOM systems across Bantu, both on the basis of data beyond her sample and, to a lesser extent, failure to account for some full MOM languages within her own sample, e.g. Tswana in the south-eastern part of the Bantu domain and Bangi C32 in the deep northern interior.

Significantly for the MOM issue, one of Polak's most historically relevant findings was that there is an intermediate category of partial MOM systems spread across a large part of the interior Narrow Bantu area (zones C-F, H, L-M): languages, such as Rimi F32 in (1), which allow a sequence of two OM_s provided that the second one is what she calls "monophonic" ("monophone" in French), i.e. CV-N- or CV-i- with N- being OM_{1SG} and i- being the reflexive (Polak 1986: 403ff). She hypothesises that it is an innovative constraint allowing a double OM sequence to occur only if it does not violate a principle that only a single syllable is exclusively reserved for object marking.

(1) Rimi F32 (adapted from Woolford 2000: 113)

- a. *a-limu va-a-mu-N-tum-i-a*
2-teacher SM₂-PST-OM₁-OM_{1SG}-send-APPL-FV
'The teachers sent him to me.'
- b. ** *a-limu va-a-mu-ku-tum-i-a*
2-teacher SM₂-PST-OM₁-OM_{2SG}-send-APPL-FV
intended: 'The teachers sent him to you.'

As a non-syllabic homorganic nasal, the Rimi OM_{1SG} N- attaches to the initial consonant of the following verb root allowing the syllabic OM₁ *mu-* to occupy the only slot reserved for an OM. In point of fact, OM_{1SG} N- fuses in (1) with the initial consonant of the verb root to form the complex pre-nasalised onset *nt-* of the next syllable. The homorganic nasal N- is a common form of OM_{1SG} in much of Narrow Bantu, whether or not the monophonic OM principle is in effect. Where it is in effect, it establishes an intermediate category between MOM and SOM languages. Polak (1986: 404) conjectures that full MOM systems arose by loss of the monophonic OM constraint. Research reported in the present chapter shows further distinctions among partial MOM systems in which there are other constraints that limit OM sequences on the basis of the relative inherent topicality status (e.g. animacy) and/or transitivity status (i.e. the grammatical or thematic role) of the indexed objects.

Polak (1986: 374) establishes two other categories relevant to the present chapter: (1) languages without OMs (i.e. “*langues sans infixes*”), which I call NOM languages and which are most concentrated in the north-western part (especially zone A), but occur less frequently in adjacent areas (i.e. zones B-D); (2) languages with incomplete series of OMs (i.e. “*séries incomplètes d’infixes*”), an intermediate category between SOM and NOM systems, which I call partial SOM systems. The partial SOM category is also subject to much cross-Bantu diversity, based largely on the inherent topicality of the indexed object.

In sum, Polak’s categorisation of OM systems forms a continuum that ranges from NOM through SOM to MOM with intermediate/partial systems in-between these three major types. Much of the problem of reconstruction lies in determining the direction of change for the numerous points between the polar NOM and MOM types.

3 Factors of variation in Bantu OM systems

This section discusses a number of recurrent factors involved in differentiating Bantu OM systems.

3.1 Number of OMs allowed in sequence

OMs allowed in a sequence range from none to an indeterminate number, a continuum segmentable into three major types: (1) MOM, (2) SOM, and (3) NOM. There is variation in the tolerance of speakers of MOM languages to allow beyond 2 or 3 OMs in sequence, either on a community or idiosyncratic basis (cf.

Marlo 2015: 1). The more pressing historical issue is whether the earliest version of a MOM system evolved before or after the earliest version of the SOM system.

3.2 Contextual topicality

Contextual topicality (ConTop) is a discourse notion. As I use the term, a topic is an old, given or deducible referent, usually first introduced into a discourse by an NP or pronoun, and marked as topical by the SM or OM in relevant subsequent clauses. Examples (2) and (3) below represent the ConTop function of the OM in two Bantu languages of non-adjacent zones.

- (2) Nkore JE13 (Asimwe 2014: 159)
omu-kazi, ti-tw-a-mu-bugana
 1-woman NEG-SM_{1PL}-PST-OM₁-meet
 NP_{OBJ}... SM-TM-OM-V
 ‘The woman, we didn’t meet her.’
- (3) Dzamba C322 (Bokamba 1971: 229)
imu-nkanda, a-mu-kóm-el-aki omo-konzi
 3-letter SM₁-OM₃-write-APPL-PST 1-chief
 NP_{OBJ}... SM-OM-V
 ‘The letter, he wrote it to the chief.’

This construction, common to all Bantu OM languages, is often appropriately called “topicalisation”. The pattern consists of an object of any information status, functioning as a topic about which the following clause provides new information, both in the event/state denoted by the verb and the relation of concurrent verbal arguments to each other, as if to answer the question ‘What about the topic?’.

Bantu languages vary in the obligatoriness of the OM in this syntactic/discourse context. In most of Narrow Bantu, the OM obligatorily indexes a topicalised human object. More problematic is the OM indexing of an inanimate object. Quite generally in Niger-Congo, inanimate objects may be omitted as understood in the larger discourse context instead of being referred to anaphorically, regardless of their definiteness. As a decontextualised construct in sentence grammar, an inanimate topicalised object may strongly favour OM reference, as in Dzamba (3) above, but that favourability might be pragmatic in nature rather than grammatically obligatory. Obligatory OM indexing of topicalised objects, regardless of their animacy, seems to be strongest in the south-eastern part of

the Bantu domain, for instance in Nguni S40. Meanwhile, the extreme polarisation between compelling OM indexing of human objects but highly disfavoured OM indexing of inanimate objects is localised to the central east coast and adjacent interior, for example Matuumbi P13 (Odden 1984), Matengo N13 (Yoneda 2011). The more extreme absence of OM indexing of objects of the inanimate noun classes occurs locally in adjacent Makhuwa P31 (Stucky 1985; Katupha 1991; van der Wal 2009). For discussion of how this trend affected Swahili, see Wald (2001).

3.3 Inherent topicality

In contrast to ConTop, Inherent Topicality (InTop) is a feature of the NP itself, independent of its discourse context. It is a relative ranking of topics that has a diverse array of influences across the OM area. Often referred to as the person-animacy hierarchy, a comprehensive arrangement of the relative ranking is represented in (4) below.

- (4) reflexive > 1SG > 2SG > human (> animate) > inanimate

Certain aspects of these relative rankings vary across Bantu. The reflexive (REFL) OM is high on the scale because in most contexts it indexes the subject of the clause in a second role as object, where the subject of a clause is higher ranked than any object, indeed often the only topic in the clause (e.g. with intransitive verbs). Nevertheless, among MOM languages, there is some variation in the relative positions of the OM_{REFL} and OM_{1SG} such that some have fixed OM_{1SG}-OM_{REFL} order and others OM_{REFL}-OM_{1SG} order, regardless of their TRs (cf. Marlo 2014: 91–93). Similarly, in some areas, interpersonals (first and second persons) are not distinguished for relative InTop, because both are equally given as discourse participants, e.g. in Shambaa G23 (Riedel 2009: 140).

Where InTop plays a role, interpersonals are invariably ranked higher than other referents, and humans (or personified animals) higher than inanimates. Where personal plural objects are currently ranked differentially from singulars, the singulars outrank the plurals, but evidence of such ranking varies in Bantu.

Among partial SOM languages, the case of Makhuwa represents a system in which inanimates (unless in the typically human classes 1/2) lack OM. Only objects of higher InTop can be indexed. Polak (1986: 375) lists a scattering of languages of this type across Narrow Bantu, but with the densest distribution in the north-western part and vicinity (zones A-D).

3.4 Grammatical relation

The Bantu OM systems can be viewed as the most complex component of a topicality marking system that also includes the SM, obligatorily indexing the subject of the clause, often the only topic in the clause. A scheme of a Bantu minimal finite clause is as in (5).

- (5) SM-(TM)-(AUX(#INF))-(OM)-V

The relative ConTop of the SM and OM is indicated by their relative positions in the verb complex such that ConTop declines from left to right, i.e. SM > OM. The SM referent is determined by the lexical verb. As typical of typologically nominative/accusative languages, the subject role is usually highly active or sentient, and indexes the initiator of the event represented by the verb. OM indexes additional arguments of transitive verbs.

The number of objects that a verb allows is either lexically determined or associated with one or more valence-raising extensions suffixed to the verb. Extensional objects (EOs) are of two types in terms of GR: (1) causative object (CO); (2) applied object (AO). The CO of V-CAUS is the subject of the root verb, e.g. *they him cook-CAUS* “they made/let/helped him [CO] cook”. The AO does not alter the GRs of the subject and lexically allowed object/s to the root verb, but involves an additional argument in an additional role, e.g. *they him cook-APPL* “they cook for him [AO]”. In most languages, the two valence-raisers can both mark a single verb, increasing the number of objects, e.g. *they him them cook-CAUS-APPL* “they made him cook for them”. These languages vary for whether the CAUS and APPL are meaningfully ordered, or whether the order is fixed/templated regardless of meaning (cf. Hyman 2003b; Good 2005). In all cases the DO maintains its status as the DO of the root verb, e.g. *they him them it cook-CAUS-APPL* “they made him [CO] cook it [DO] for them [AO]”.

3.5 Thematic role

The TR is the semantic interpretation of the GR. Both CO and AO express a range of distinguishable TRs. This allows the same GR to appear more than once with a single verb, indexing objects with different TRs. MOM languages vary in their tolerance for this possibility, particularly in supporting an additional object role with an additional extension. Most widely reported are languages jointly marking both the TRs recipient and beneficiary in examples of double AO (e.g. Tswana, Rwanda), as in: *they it him them send-AO-AO* “they sent it to

him (recipient/dative) for them (beneficiary)". The available data suggest that in such cases the order of two OM_s is templated as recipient-beneficiary.²

TR is especially prominent in passivisation, where the SM maintains its object TR identity in terms of its grammatical interaction with concurrent objects. In some SOM systems which of two concurrent objects can passivise is constrained according to their TRs. Languages of this type are classified as asymmetric. Similarly, many MOM languages fix the double OM order according to TR or GR.

In general, the data suggest that the behaviour of concurrent objects need only be compared for GR, because most available examples are limited to a comparison between the DO and one concurrent object, either IO or EO. The double OM configuration consisting of the DO and a single EO/IO is worthy of special consideration because it is undoubtedly the most frequent multiple OM pattern in the discourse of any MOM language. The high relevance of discourse frequency in OM evolution is discussed in §5.3.

3.6 Time depth of PB

Following Meeussen (1967) and Polak (1986), I limit PB to the assumed period of unity of Narrow Bantu, i.e. those languages conventionally categorised as Bantu in the referential classification of Guthrie (1948; 1971). For my historical reconstruction I refer to the phylogeny of Grollemund et al. (2015), which represents relationships among present-day Bantu languages according to an expansion model of nine successive binary major nodes based on shared innovations in basic vocabulary (their Fig. 1). Their node 1 roughly corresponds to what I consider here to be PB, even though I do not consider Jarawan Bantu languages, which are subsumed with Narrow Bantu under node 1 in the phylogeny of Grollemund et al. (2015). Their node 0 also includes Grassfields Bantu languages, which constitute a branch parallel to all languages incorporated under node 1. The nodes subsequent to node 1, i.e. nodes 2 to 9, are geographically nested, proceeding in a southern direction from the north-west to the south-west with the final major node 9 encompassing the entire eastern Bantu area and part of what they consider to be the south-western Bantu area (i.e. Guthrie's groups L20-40). In addition to indicating nodes in their phylogeny, Grollemund et al. (2015) also subdivide it into five major subgroups which have distinct colours: (1) North-Western Bantu (NWB), subdivided in NWB Cameroon (between nodes 1 and 2)

²Some languages allow nesting of COs, e.g. ... CO_y-CO_z-laugh-CAUS-CAUS "[X] made him [Y] make her [Z] laugh", but many languages resist such complications in favour of a circumlocution.

and NWB Gabon (between nodes 2 and 5); (2) Central-Western Bantu (CWB) (between nodes 5 and 6); (3) West-Western Bantu (WWB) (between nodes 6 and 7) also known as West-Coastal Bantu (Vansina 1995; Bostoen et al. 2015; de Schryver et al. 2015; Pacchiarotti et al. 2019); (4) South-Western Bantu (SWB) (between nodes 6 and 9); (5) Eastern Bantu (EB) (under node 9 minus Guthrie's L20-40). As their correspondence to major nodes suggests, not all of the geographically labelled subgroups are discrete branches within the phylogeny. Only NWB Cameroon, CWB and WWB really are. All the others cover several distinct branches with SWB and EB actually forming one superclade subsumed under node 7 with many subclades successively branching off (cf. Pacchiarotti & Bostoen 2020: 156–157). Some of Guthrie's A80-90 languages subsumed under NWB Gabon are also spoken in southern Cameroon.

For convenience, apart from their Guthrie code (cf. Guthrie 1971; Maho 2009), I will label individual Bantu languages discussed in the remainder of this chapter by referring to both the major subgroup they belong to in the phylogeny of Grollemund et al. (2015), i.e. NWB Cameroon, NWB Gabon, CWB, WWB, SWB, and EB, and the numbered node under which they are directly subsumed, i.e. nodes 1-9. For example, Eton A71 is labelled "NWB Cameroon, node 1", Orungu B11b "NWB Gabon, node 3", Bangi C32 "CWB, node 5", Yaka H31 "WWB, node 6", Luba-Kasai L31a "SWB, node 9" and Rimi F32 "EB, node 9". To avoid clashes with the finer geographical distinctions I use discussing the distribution of certain types of OM systems, which I always designate with unabbreviated cardinal directions, I will systematically refer to the geographically labelled subgroups of Grollemund et al. (2015) with the abbreviations NWB, CWB, WWB, SWB and EB.

4 Types of OM systems according to significant factors constraining them

In this section we consider examples of diversity within the three major types of OM systems. The types are arranged by their grammatical properties. The discussion will arbitrarily start with the MOM end of the continuum, where there is maximum complexity, and proceed through SOM types to NOM types.

4.1 MOM systems

MOM types are distributed across most of the Bantu area, but more densely in some areas than others. They are most common in SWB languages branching off

at node 7 in the phylogeny of Grollemund et al. (2015), i.e. Guthrie's L10-20-H21a-H30-40, and also in interior EB languages, especially from the Great Lakes region (zone J). They occur less frequently in CWB and WWB, and only marginally in NWB. They are highly diversified. The primary distinction is between those systems that have free OM order and those that have fixed OM order, in the latter case determined by relative InTop or GR, or both.

4.1.1 Free MOM systems

Free MOM order is common in three separate areas: (1) the south-eastern Great Lakes area of the north-eastern interior (i.e. EB); (2) some varieties of Tswana in the south-eastern part of the Bantu domain (i.e. EB); (3) SWB including some varieties of Umbundu R11 in the north and Kwanyama R21 further south, as exemplified in (6).

(6) Kwanyama R21 "SWB, node 8" (Zimmermann & Hasheela 1998: 100)

- a. *een-gobe, o-nde-di-a-p-a*
10-cow PST-SM_{1SG}-OM₁₀-OM₆-give-FV
OM: IO-DO
'The cattle, I gave them it [water].'
- b. *om-eva, o-nde-a-di-p-a*
6-water PST-SM_{1SG}-OM₆-OM₁₀-give-FV
OM: IO-DO
'Water, I gave it to them [cattle].'

Zimmermann & Hasheela (1998: 100) appeal to topicalisation in their examples to distinguish the alternative orders, but state that "the initial nouns are usually omitted in speech, and are here given only for the sake of clarity". Kwanyama exemplifies a system based on ConTop. The multiple OM order of ConTop corresponds to the SM...OM order so that relative ConTop among arguments declines from left to right. A peculiarity of the Kwanyama system, common in SWB but extremely rare elsewhere, is that the OM_{1SG} is not part of the system. Instead, a pronominal form is *encliticised* to the verb stem, i.e. V...-nge. A salient syntactic feature that Kwanyama OM_{1SG} shares with a wide range of other MOM systems is its fixed position. The difference is that the 1SG object reference obligatorily follows rather than immediately precedes the verb, as if to avoid being fixed in the monophonic pattern, as in Tswana "EB, node 9", e.g. *go-i-N-kanya* [INF-OM_{REFL}-OM_{1SG}-trust] "to trust (self) to me" (Cole 1955: 234). In both the Kwanyama and Tswana systems, the fixed OM_{1SG} is a constraint on ConTop.

There is diversity of MOM types within Tswana itself. Cole (1955) and Creissels (2006) describe fixed orders in Tswana varieties such as Hurutshe and Kgatla. I observed free orders apart from the OM_{1SG} constraint in the Tswana variety Rolong S31a, as in (7).

- (7) Rolong S31a variety of Tswana “EB, node 9” (fieldwork B. Wald & Sheila Mmusi 1993)

a. *o-mo-e/e-mo-hir-etse*

SM₁-OM₁-OM₉/OM₉-OM₁-hire-APPL.PFV

OM: DO-AO/AO-DO or INAN-HUM/HUM-INAN

‘She hired him (driver) for it (car).’ or ‘She rented it for him.’

b. *ke-a-ho-ba/ba-ho-tl-el-a*

SM₁-PRS.PROG-OM_{2SG}-OM₂/OM₂-OM_{2SG}-bring-APPL-FV

OM: DO-AO/AO-DO or 2SG-CLASS.2/CLASS.2-2SG

‘I’m bringing them (people) for you.’ or ‘I’m bringing you for them.’

This multiple GR ambiguity would not occur in the varieties described by Cole and Creissels, which would have GR-conditioned order, i.e. DO-EO. Nevertheless, Cole describes an exception to GR order in the context of indexing a CO (object of CAUS). The MOM order involving a CO is not determined by GR but by InTop as NONHUM-HUM. As a result, examples like (8) are ambiguous for GR/TR.

- (8) Hurutshe variety of Tswana “EB, node 9” (adapted from Cole 1955: 431)

ba-e-m-mola-is-itse

SM₂-OM₉-OM₁-kill-CAUS-PFV

OM: DO-CO/CO-DO

‘They let it (the dog) kill him/him kill it.’

The order is fixed as NONHUM-HUM according to InTop ranking, i.e. NON-HUM < HUM. In that regard, Hurutshe is intermediate between free and fixed OM systems.

Free MOM systems also occur in the north-eastern part of the Bantu domain, more specifically in the south-eastern vicinity of the Great Lakes, widely separated from the free systems in southern Bantu discussed above. Ranero et al. (2013) describe a fully free order as in (9) for Kuria JE43.

- (9) Kuria JE43 “EB, node 9” (adapted from Ranero et al. 2013: example (12))

n-a-a-mú-ké/ké-mú-háá-ye

FOC-SM₁-PST-OM₁-OM₇/OM₇-OM₁-give-PFV

‘She gave it (toy) to him.’

Among the varieties of Bubi A31 “NWB Cameroon, node 1”, an insular NWB language, there seem to be some partially free MOM varieties. Bubi is internally diverse. It will be discussed separately in §4.4, in view of some of its apparently unique and instructive features.

4.1.2 Fixed MOM systems

Within fixed MOM languages, the primary distinction is in orientation, i.e. the direction of OM order. By far the most widely distributed orientation is ascending so that a human OM occurs to the right of a concurrent inanimate, i.e. NONHUM-HUM-V. Data for many languages are limited to cases where the IO or EO is human. Where a concurrent human DO is represented, it follows the same pattern as the inanimate DO. The opposite orientation is much rarer, i.e. fixed HUM-NONHUM-V, but occurs in widely separated areas, as discussed below in §4.1.2.2 and §4.4.

4.1.2.1 Ascending fixed MOM

This type is widely distributed outside of the north-western Bantu area. The Great Lakes region of the interior north-eastern part of the Bantu domain has a variety of subtypes. Rwanda represents a type where InTop is the primary ordering principle as in (10). In an appropriate discourse context, (10b) could also mean ‘He bought her for potatoes’.

(10) Rwanda JD61 “EB, node 9” (adapted from Ngoboka 2005: 62; Yokoyama 2016: 5)

- a. *y-a-mu-ku/**ku-mu-eretse*
SM₁-PST-OM₁-OM_{2SG}/**OM_{2SG}-OM₁-show.PFV
OM: 3SG-2SG/**2SG-3SG
‘He showed her to you/you to her.’
- b. *y-aa-bi-mu/**mu-bi-gur-i-ye*
SM₁-PST-OM₈-OM₁/**OM₁-OM₈-buy-APPL-PFV
OM: NONHUM-HUM/**HUM-NONHUM
‘He bought them (potatoes) for her.’

Only in the absence of an InTop differential is a GR order imposed as in (11)

- (11) Rwanda JD61 “EB, node 9” (Yokoyama 2016: 4)

y-a-ba-mw-eretse

SM₁-PST-OM₂-OM₁-show.PFV

OM: DO-IO/**IO-DO (INTOP: 3PL = 3SG)

‘He showed them to her/**her to them.’

The fixed GR order by which the DO is indexed first in (11) parallels the fixed InTop order in (10) by which the object of lower InTop is indexed first. In contrast to the GR ordering principle of double third-person humans, double nonhuman OM_s are freely ordered, as in (12), just like in complete free MOM systems.

- (12) Rwanda JD61 ‘EB, node 9’ (Zeller & Ngoboka 2015: 212)

a::bi-yi/yi-bi-ha-ye

SM₁.PST-OM₈-OM₉/OM₉-OM₈-give-PFV

OM: DO-IO/IO-DO

‘He has given them (yams) to it (pig).’

Rwanda is more tolerant of numerous multiple objects than most reported MOM languages. The widely cited example in (13) shows an extensive InTop order corresponding to the order of extensions. In (13), ‘[there]’ refers to a locative OM preceding the OM representing the DO in the original example.

- (13) Rwanda JD61 “EB, node 9” (adapted from Marlo 2015: 4)

...ki-zi-ba-ku-n-som-eesh-eesh-er-er-...

...OM₇=DO-OM₁₀=CO₁-OM₂=CO₂-OM_{2SG}=AO₁-OM_{1SG}=AO₂-read-CAUS-CAUS-APPL-APPL
 1 2 3 4 5 1 2 3 4 5

‘[She is also] making them (3) read it (1 = book) with them (2 = eyeglasses) to you (4) for me (5) [there].’

The OM order in Rwanda in (13) is obligatorily fixed by ascending InTop order, not GR or extension order, i.e. NONHUM < HUM (3PL) < 2SG < 1SG. Thus, the Rwanda example in (13) is ambiguous in several regards and could mean ‘...to me for you’, ‘...to you for them’, etc.

Haya JE22, like most MOM languages, has the same InTop order as Rwanda, but it also has a reverse strategy determined strictly by GR as in (14).

- (14) Haya JE22 “EB, node 9” (Duranti 1979: 40–41 for Hanja variety, Rubanza 1988: 123–124 for Ziba variety)

a. GR order

a-ka-ba-bi-leet-el-a

SM₁-PST-OM₂-OM₈-bring-APPL-FV

OM: DO_{HUM}-AO_{NONHUM}/**AO_{HUM}-DO_{NONHUM}

‘She brought them (people) to them (yams).’

b. InTop order

a-ka-bi-ba-leet-el-a

SM₁-PST-OM₈-OM₂-bring-APPL-FV

OM: DO_{NONHUM}-AO_{HUM}/AO_{NONHUM}-DO_{HUM}

‘She brought them (yams) to them (people)/them (people) to them (yams).’

Contini-Morava (1983) describes the same OM order options as in Haya (14) in the variety of Rwanda as spoken in Masisi (DRC), illustrated in (15).

- (15) Masisi (DRC) variety of Rwanda JD61 “EB, node 9” (Contini-Morava 1983: 426)

a-za-mu-ki-h-a

SM₁-PST-OM₁-OM₇-give-FV

OM: DO_{HUM}-AO_{NONHUM}/**AO_{HUM}-DO_{NONHUM}

‘She gave him to it [animal]/**it to him.’

Such violations of InTop order are prohibited in metropolitan Rwanda, as shown in (10b) above. Haya and Rwanda spoken in Masisi (DRC) resemble free MOM languages in that either ascending or descending orientation is possible, but differ from the latter in the ordering principles. InTop or GR are the ordering principles in Haya and Masisi Rwanda rather than ConTop.

The GR order corresponding to ascending InTop order also occurs in the MOM systems of north-eastern Bantu languages of the Great Lakes region, such as Ganda in (16), which lack the InTop order option.

- (16) Ganda JE15 “EB, node 9” (van der Wal 2020: 217)

a. *n-a-gi-ba-gul-i-dde*

SM₁-PST-OM₉-OM₂-buy-APPL-PFV

OM: DO_{NONHUM}-AO_{HUM}/**AO-DO

‘I bought it for them [people].’

- b. *n-a-ba-gi-gul-i-dde*
 SM_{1SG}-PST-OM₂-OM₉-buy-APPL-PFV
 OM: DO_{HUM}-AO_{NONHUM}/** AO-DO
 ‘I bought them [people] for it.’

InTop does not play an ordering role in MOM systems of this type. However, as in Tswana, the OM_{1SG} is an exception by its fixed position. In this limited respect, it resembles free OM languages by the absence of GR determination of double OM order.

Then again, Nyambo JE21 (17) and Shambaa (18) represent north-eastern Bantu MOM systems determined simultaneously by both InTop and GR. OM sequences that violate either GR or InTop order are prohibited.

- (17) Nyambo JE21 “EB, node 9” (Rugemalira 1991: 205)

a-ka-kú-m-p-a
 SM₁-PST-OM_{2SG}-OM_{1SG}-give-FV
 OM: DO-IO/** IO-DO
 ‘He gave you to me/** me to you.’

- (18) Shambaa G23 “EB, node 9” (van der Wal 2020: 207, fn. 5)

*wa-za-zi-wa/** wa-zi-ghul-iyá*
 SM₁-PST-OM₁₀-OM₂/** OM₂-OM₁₀-buy-APPL
 OM: DO-AO/** AO-DO
 ‘They bought them (DO farms/** slaves) for them (AO slaves/** farms).’

The examples in (17) and (18) show ascending InTop order, typical of the wider area. However, unlike elsewhere in the wider area, InTop order does not result in role ambiguity, because GR order DO-IO/EO is also imposed.

4.1.2.2 Descending fixed MOM

The descending orientation is relatively rare. It occurs where the EO/IO OM (usually human/animate) is fixed to the left of the DO OM regardless of relative InTop, as in Umbundu from Luanda in (19). There are also free MOM varieties of Umbundu (personal communication from T. Schadeberg for the Bihé variety). Valente (1964: 248) may be describing an intermediate variety in reporting that the most common order is HUM-NONHUM-V. This would be expected pragmatically in a free order language of the Kwanyama type, where the OM_s are ordered by ConTop, because human objects are expected to be more often of higher ConTop than inanimates. The Luanda Umbundu examples in (19) show strictly descending order by GR.

(19) Umbundu R11 “SWB, node 8” (fieldwork B. Wald & Maria Chikweka 1969)

- a. *w-a-tu-va/va-tu-kong-is-a*
 SM_1 -PST- OM_{1PL} - OM_2/OM_2 - OM_{1PL} -choose-CAUS-FV
 OM: CO-DO/**DO-CO
 ‘She had us choose them (people)/them choose us.’
- b. *w-a-tu-va/va-tu-kong-el-a*
 SM_1 -PST- OM_{1PL} - OM_2/OM_2 - OM_{1PL} -choose-APPL-FV
 OM: AO-DO/**DO-AO
 ‘She chose them for us/us for them.’

Luanda Umbundu also has the fixed position of OM_{1SG} as an exception to its GR orientation, e.g. *oku-lu-N-telek-el-a* (pronounced as *okulunelekela*) [INF- $OM_{11.NONHUM}$ - OM_{1SG} -cook-APPL-FV] ‘to cook it [fish] for me’ (DO-AO) as opposed to descending orientation elsewhere, e.g. *oku-ku/tu-lu-telek-el-a* [INF- $OM_{2SG/1PL}$ - $OM_{11.NONHUM}$ -cook-APPL-FV] ‘to cook it for you/us’ (AO-DO).

Mongo-Liinja C61L “CWB, node 5” from Opala may also be of this type, e.g. *t-w-e-kel-ak-é* [NEG- OM_1 - OM_9 -tell-PREF-SBJV] “don’t tell it to him” OM_{IO} - OM_{DO} (Motingea Mangulu 2008: 320). However, the description is not sufficiently detailed to determine whether this order is fixed, as in Umbundu from Luanda, or optional, as in a free MOM system.

4.1.3 Partial MOM systems

Partial MOM systems are also diversified. The monophonic OM principle is widely distributed, largely adjacent to more complete MOM areas, i.e. Guthrie’s zones C-N. This covers all languages descending from node 5, i.e. those which emerged after the NWB branches in the Grollemund et al. (2015) phylogeny (i.e. languages from Guthrie’s zone A and groups B10-30) had split off. Except for Bubi, there are no reports of MOM systems in NWB languages.

There are also no reports of partial MOM systems in SWB, only of full MOM systems, except for the Kwanyama-type exclusion of an OM_{1SG} in favour of a 1SG enclitic. Lulua L31b exemplifies the monophonic OM principle in a minimal MOM system (cf. Rimi in (1) above), where even the monophonic principle is optional, so that a concurrent object to the 1SG object can be indexed by an object enclitic (OE) instead of an OM as in (20).

(20) Lulua L31b “SWB, node 9” (Morrison 1906: 38–39)

- a. *w-aku-ci-m-p-a*
 SM_1 -PST-OM₇-OM_{1SG}-give-FV
 monophonic: NONHUM-OM_{1SG}
 ‘He gave it to me.’
- b. *w-aku-m-p-a-ci*
 SM_1 -PST-OM_{1SG}-give-FV-OE₇
 SOM option: OM_{1SG}-V...NONHUM
 ‘He gave it to me.’
- c. *w-aku-ku-h-eye*
 SM_1 -PST-OM_{2SG}-give-OE₁
 IO-V-DO/DO-V-IO
 ‘He gave him to you/you to him.’

Use of enclitics (optional or obligatory) instead of OMs is more densely distributed in interior western Bantu languages spoken north of Luba-Kasai L31a and Lulua L31b. As noted by Polak (1986: 377), the forms of OEs generally resemble PROs rather than OMs. This is especially clear for the class 1 OE in Lulua in (20c) above. The form of the Luba/Lulua class 1 PRO₁ is *ye-ye*, a reduplicated form based of the morphologically complex **yu-e* (**yu-* > *u-* as in the Luba/Lulua SM_1 form; the OM₁ form is *mu-*). Luba/Lulua is predominantly an asymmetric SOM system where the OM is selected by its high InTop relative to the concurrent object, as in the above example: 2SG > 3 SG (cl. 1).

More elaborate partial MOM systems are scattered across the interior eastern Bantu area, as in Bemba M42 in (21).

(21) Bemba M42 “EB, node 9” (Marten & Kula 2012: 245)

- mù-ká-bá-mú-éb-él-á-kó*
 SM_{2PL} -FUT-OM₂-OM₁-tell-APPL-FV-PRO₁₇
 OM: IO-AO
 ‘You (all) will tell them for him.’

Marten & Kula (2012) explicitly state that unless the monophonic OM_{1SG} occurs, multiple OMs in Bemba are restricted to persons (HUM), thus, to concurrent objects of high InTop. A similar restriction also seems to apply to the Mathira variety of Kuyu E51 “EB, node 9”, according to the examples offered by Englebretson et al. (2015: 109), while only the monophonic partial MOM has been reported

for other Kuyu varieties. In both Bemba and the Mathira variety of Kuyu, the ascending InTop and GR order apply, as among the intervening full MOM systems, such as Shambaa “EB, node 9” in (18) and Vunjo-Chaga E622C “EB, node 9”.

Lungu M14 displays a peculiar and apparently unique partial MOM system. It exhibits the common OM_{1SG} monophonic pattern in (22a), but, additionally, a descending MOM pattern for OM_{1PL} in (22b).

(22) Lungu M14 “EB, node 9” (Bickmore 2007: 26)

- a. *yá-kú-!cúí-n-fúl-il-à*
SM₂-PRS.PROG-OM₇-OM_{1SG}-wash-APPL-FV
OM: DO-AO
‘They are washing it for me.’
- b. *yá-kú-!tú-cí-fúl-il-à*
SM₂-PRS.PROG-OM_{1PL}-OM₇-wash-APPL-FV
OM: AO-DO
‘They are washing it for us.’

In both respects Lungu resembles the Luanda Umbundu MOM system, except for the apparent fixed GR order even when OM_{1SG} is involved. In this respect, Lungu (22a) conforms to the Nyambo (17) / Shambaa (18) pattern, where both InTop and GR order are obligatory. Lungu (22b) is the most eastern reported example of the descending GR order orientation.

4.2 SOM systems

The primary distinction among SOM languages is between symmetric and asymmetric systems. Most frequently explored is the trans-verbal context of concurrent objects: OM_i-V...NP_j. In symmetric systems the relative InTop of OM_i and NP_j is not constrained. In asymmetric languages OM_i is prohibited from indexing an object of lower InTop than NP_j, e.g. **OM_{NONHUM}-V...NP_{HUM}. van der Wal (2020: 205) observes that MOM systems tend to be symmetric, in contrast to SOM systems. For our purposes, the (verb) internal context SM_i...OM_j-V(...)-PASS provides a more discriminating context for asymmetry. It exposes different degrees of asymmetry between EB languages in the south and EB languages in the north and the centre. Thus, first consider Zulu S42 in (23) as representative of southern EB asymmetric SOM systems. The disjoint marking in (23) is obligatory if the verb is final, i.e. when there is no postverbal constituent. The passivisation

prohibition in (23) also occurs in some MOM languages, for example in some varieties of Tswana (cf. Creissels 2006: 22).

(23) Zulu S42 “EB, node 9” (adapted from Zeller 2012: 229)

*i-ya-**m-phek-el-w-a* (umama)

SM₉-DSJ-**OM₁-cook-APPL-PASS-FV (mother)

SM_{NONHUM}(DO)...**OM_{HUM}(AO)

intended: ‘It (meat) is being cooked for her/(mother).’

It should be emphasised that the InTop Internal Passive Constraint of (23) is precisely due to a conflict between ConTop (SM > OM) and InTop (NONHUM < HUM) within the topicality ranking system, and not due to the option of OM doubling of a postverbal object within the clause. OM doubling of a postverbal object is characteristic of the entire eastern coast and shallow interior. At the same time, the option of lower InTop passivisation in the context of a concurrent postverbal object of higher InTop is strictly a south-eastern Bantu characteristic, in contrast to coastal and shallow interior central and north-eastern Bantu represented in (24) below. The Internal Passive Constraint of south-eastern coastal/shallow interior Bantu is the SOM analogue of fixed MOM order according to InTop (§4.1.2.1), e.g. SM_{HUM}...OM_{NONHUM}/**SM_{NONHUM}...OM_{HUM} corresponds to north-eastern Great Lakes MOM: OM_{NONHUM}-OM_{HUM}/**OM_{HUM}-OM_{NONHUM}.

The SOM systems of coastal and shallow interior EB languages in the centre have additional constraints. The single OM constraint extends to passivised verbs so that the passivised subject, having a TR commonly associated with the object of the active verb, prohibits a concurrent OM reference, i.e. only *a single object role* can be indexed as a topic in *any* context. The InTop constraint seen above in Zulu is also characteristic of central EB languages, but also in the context of a concurrent postverbal object of higher InTop. Both the single object role and the asymmetric InTop trans-verbal constraint on a concurrent object occur as far north as Swahili belonging to the EB subgroup which Nurse (1999: 5) calls ‘North-East Coast Bantu’ (NECB). The Swahili example in (24a) illustrates the single object role constraint, while (24b) shows the InTop prohibition when a postverbal object has higher InTop than the concurrent object. In the absence of a concurrent object, a single object of any InTop can be indexed in Swahili by an OM or a passive SM, as shown in (24c). Finally, (24d) illustrates that InTop is a more powerful feature than TR in Swahili, because the object role indexed by an OM or passive SM is ambiguous between DO and AO.

(24) Swahili G42d “EB, node 9” (fieldwork B. Wald)

- a. Single Object Role Constraint (Passive)
*a-li-(**i)-p-ew-a*
 $SM_1\text{-PST-}(**OM_9)\text{-give-PASS-FV}$
 $SM_{AO/DO}\dots **OM\text{-V-PASS}$
 ‘She [child] was given it [gift].’
- b. InTop Trans-verbal OM Constraint
*wa-li-m/**i-p-a* (zawadi) *m-toto*
 $SM_2\text{-PST-}OM_1\text{-}/**OM_9\text{-give-FV}$ (9.gift) 1-child
 $**OM_{NONHUM}\text{-V}\dots NP_{HUM}$
 ‘They gave it [gift] to the child.’
- c. InTop Trans-verbal Passive Constraint
(zawadi) wa-li-i-p-a / *i-li-p-ew-a* (***m-toto*)
 (9.gift) $SM_2\text{-PST-}OM_9\text{-give-FV}$ / $SM_9\text{-PST-give-PASS-FV}$ (***1-child*)
 $**SM_{NONHUM}\text{-V-PASS}\dots NP_{HUM}$
 ‘(Gift) they gave it/it was given (***[(to) the child]*).’
- d. InTop Trans-verbal OM / Passive Constraint
wa-li-m-tak-i-a / *a-li-tak-i-w-a* *pesa*
 $SM_2\text{-PST-}OM_1\text{-want-APPL-FV}$ / $SM_1\text{-PST-want-APPL-PASS-FV}$ 9.money
 $SM/OM_{HUM=AO/DO}\dots V\dots NP_{NONHUM}$
 ‘They wanted him for (his) money.’ or ‘They wanted money for him.’ /
 ‘He was wanted for (his) money.’ or ‘He was wanted/wished (to have/get) money.’

Among Swahili’s closest relatives, Kauma E72b illustrates that there is variation in the NECB Mijikenda languages concerning the single object role constraint. The example in (25) shows the operation of the InTop internal (passive) constraint: 1SG > 2SG. The passive SM must index the object of higher InTop, a constraint shared with Zulu (23) above. The SOM Single Object Role Constraint is relatively new to NECB. Among Swahili’s closest relatives, the other Sabaki languages (E70-73), OM indexing of a second object with passivisation of the first is attested in Southern Mijikenda (e.g. Digo E73 and Duruma E72d) in the early twentieth century (Wald 1994: 261, examples (26)–(27)), but is no longer accepted by later generations, undoubtedly under Swahili influence. Thus, the direction of this local change is secure.

- (25) Kauma E72b “EB, node 9” (fieldwork B. Wald & Chris M. 1993)

InTop Internal Passive Constraint

ni-dza-ku-ger-w-a

SM_{1SG}-PST-OM_{2SG}-give-PASS-FV

SM_{IO}...OM_{DO}/SM_{DO}...OM_{IO}-V-PASS

‘I was given to you/you were given to me (today).’

Van der Wal (2020) notes Shambaa as the only exception in her sample to a generalisation that only SOM languages are asymmetric with respect to the InTop trans-verbal constraint. There are, however, more widespread asymmetries among MOM languages. Both Tswana in southern EB and Rwanda (Kimenyi 1976: 134) in northern EB share the InTop internal passive constraint corresponding to Zulu (23) above. However, Rwanda does not exhibit the Zulu constraint when the OM indexes a concurrent AO (Ngoboka 2005: 88).

Certain languages have a partial SOM. As an effect of InTop, these systems are mostly restricted to human objects. Polak (1986: 375) shows a diverse pattern in interior CWB languages of Guthrie’s zones C and D, i.e. those branching off from the remainder of Narrow Bantu at node 5 in the phylogeny of Grollemund et al. (2015). The most restricted SOM system is Mbesa C51, allowing only the class 1 OM. Grégoire (2003: 366ff) adds to the variety of micro-trends in the CWB clade. For example, among HUM OMs Leke C14 has only the OM_{1SG}, but it has an inventory of NONHUM OMs, while Boa C44 has only OMs of human classes 1/2. Widespread in this general area is alternation within the same language between an OM, when it is available, and either an enclitic or a postverbal PRO; an additional option consists of combining both strategies by indexing an object by both an OM and a postverbal PRO. To the extent that the enclitic/postverbal option is favoured, these languages resemble exclusively NOM systems to their immediate north (cf. §4.3). However, in contrast to those NOM systems, the data are not sufficient to determine if GR/TR plays a role in any of these partial SOM languages.

Makhuwa represents a distinct area where only the OMs of the typically human classes 1/2 occur. Makhuwa is adjacent to a central Eastern Bantu area of HUM-NONHUM polarisation, where human objects favour or obligate OM indexing while the available inanimate OMs are rarely used. In contrast, the partial SOM systems in interior CWB are adjacent to the NOM systems of interior NWB further north.

4.3 NOM systems

In NOM systems, only PROs perform the anaphoric function. InTop does not play a discernible role in NOM systems. Instead, the major factors determining OM order are GR/TR and information status. This latter factor distinguishes PROs from lexical nominals. Lexical nominals contain more information than PROs. NOM languages vary in how GR and information status interact in determining the order of PRO objects with respect to concurrent nominal objects and with respect to each other. The information status constraint, where it occurs, compels PRO-NP/**NP-PRO order as in (26).

- (26) Orungu B11b “NWB Gabon, node 3” (Van de Velde & Ambouroue 2017: 619)
- à-gòl-ín yé á-bà / **á-bà yé*
 SM₁-PST-buy-APPL PRO₁ 6-mango / **6-mango PRO₁
 ‘She bought mangoes for him.’

The information status constraint on concurrent objects, V PRO_i-NP_j/**NP_i-PRO_j, parallels trans-verbal OM_i...NP_j in OM languages. The competing factor is GR order EO/IO-DO (cf. Type 2 = NOM, in Beaudoin-Lietz et al. 2004: 186). Further north in NOM systems of NWB Cameroon languages (node 1), postverbal information status order is optionally violated in favour of GR order EO/IO-DO, as in Basaa A43a (27). There is no parallel in OM systems to the NOM postverbal double-object order NP-PRO.

- (27) Basaa A43a “NWB Cameroon, node 1” (Hyman 2003a: 284)
- mɛ n-lémb-él gwó ɓɔŋgé / ɓɔŋgé gwó*
 1SG PST-cook-APPL it 2.child / 2.child it
 V...PRO_{DO}-NP_{AO} / NP_{AO}-PRO_{DO}
 ‘I cooked it [food] for the children.’

A second variable among NWB NOM systems is the position of PRO objects in relation to the verb. One position is postverbal, i.e. after the main verb, just as in non-NWB languages, i.e. SM-(TM)-AUX#(INF)-V...PRO_{OBJ}. The alternative is post-AUX: SM-(TM)-AUX#PRO_{OBJ} (#INF)-V...Within Narrow Bantu, the post-AUX type is unique to NWB. Intermediate types, as in Eton A71 (28), occur in which the post-AUX type is limited to certain AUXs and/or allows either the postverbal or post-AUX option. As in Basaa (27), Eton postverbal order allows NP-PRO to accommodate GR order IO-DO. The only differences with Basaa are the post-AUX options in (28a–28b).

(28) Eton A71 “NWB Cameroon, node 1” (Van de Velde 2008: 302)

- a. post-AUX (preferred order)
mèèy nyí dō vé
 $1_{\text{SG}}\text{-FUT PRO}_{1[\text{IO}]} \text{ PRO}_{5[\text{DO}]} (\text{INF})\text{give}$
- b. trans-verbal
mèèy nyí ↓vé dō
- c. postverbal
mèèy vé nyí dō
 ‘I will give it to him.’

In closely related Atsi A75D post-AUX position is obligatory for some AUX, e.g. the future marker *kà*, as in *mà-kà dō à-dzí* [$1_{\text{SG}}\text{-AUX}=\text{FUT PRO}_5 \text{ INF-eat}$] “I will eat it [mango]”, but the postverbal option occurs for others, e.g. the remote past marker *ngá*, as in *mà-ngá à-dzí dō* [$1_{\text{SG}}\text{-AUX}=\text{PST2 INF-eat PRO}_5$] “I ate it [mango] (a long time ago)” (Nzang-Bie 2014: 78ff). As in Eton, the post-AUX PRO order is strictly IO-DO, e.g. *mà-ngá nyá zó à-kólà* [$1_{\text{SG}}\text{-AUX}=\text{PST2 PRO}_1 \text{ PRO}_9 \text{ INF-lend}$] “I lent him it [book]” (Nzang-Bie 2014: 81).

Among the post-AUX systems, there are a few NWB NOM systems, for example Nen A44, see (29), where full nominals as well as PROs are allowed in post-AUX position.

(29) Nen A44 “NWB Cameroon, node 1” (Mous 2005: 419)

- mé-ŋò àŋó mímé fálàbì*
 $\text{SM}_{1\text{SG}}\text{-FUT PRO}_{2\text{SG}} \text{ house build.CAUS}$
 $\text{AUX PRO}_{\text{IO}}\text{-NP}_{\text{DO}} \text{ V...}$
 ‘I will build a house for you.’

Mous (2005) argues that Nen represents an innovative system such that its line of development is not relevant to the PB OM hypothesis. Nen represents an extremely localised Narrow Bantu type that will not be pursued further here. A few scattered Bantoid languages also have some version of this feature, for example Vute (North Bantoid) near Nen in Cameroon.

4.4 The Bubi OM systems

A peculiarity of Bubi A31, apparently unique in Bantu, is its split orientation of double OMs. According to Abad (1928), all varieties display split double OM order according to the person of the IO, e.g. most northern and southern varieties agree on the fixed order DO-IO₁ for class 1 (3SG), but the reverse fixed order IO₂-DO

for class 2 (3PL). The south-western Batete variety allows both options for class 1, as in (30a), resembling a free MOM system in this respect. However, in all other instances, Bubi OM order is fixed by GR and person. Some persons are ordered in opposite ways in different varieties. Examples (30b–30c) illustrate that IO_{2SG}-DO order in southern varieties (including Batete) corresponds to DO-IO_{2SG} in northern varieties.

(30) Bubi A31 “NWB Cameroon, node 1” (Abad 1928: 45)

- a. Batete variety
o mo ma / ma mo mbi
 SM_{2SG} OM₁ OM₆ / OM₆ OM₁ give.PST
 OM: IO-DO/DO-IO
 ‘You gave them (the palms) to him.’
- b. Southern varieties
a o ma mbi
 SM₁ OM_{2SG} OM₆ give.PST
 OM: IO-DO
 ‘He gave them (the palms) to you.’
- c. Northern varieties³
a b’ o pei
 SM₁ OM₆ OM_{2SG} give.PST
 OM: DO-IO
 ‘He gave them (the palms) to you.’

In the imperative (non-negative), enclitics of the same form as the OMs occur. In that case, all varieties agree on the IO-DO order, like double object PROs in the NWB mainland NOM systems. However, even in this position the peculiar order DO-IO₁ persists across varieties (Abad 1928: 88). The obligatory postverbal position in the imperative is noteworthy. The same position is obligatory for PRO objects in Nen “NWB Cameroon, node 1”, and may be more widespread among post-AUX NOM systems. Data are lacking for the Bantu A70 languages. However, it seems likely that the imperative is generally restricted to postverbal PRO objects, because the imperative provides no post-AUX context among NOM systems. Bubi (30) resembles a MOM rather than a post-AUX NOM system in the apparent absence of an obligatory AUX preceding the OMs. Nevertheless, in contrast to the affirmative imperative, the negative imperative has a negative AUX to trigger post-AUX position for the OMs, cf. *bëëla-lö* [sing-OE₅] ‘sing it!’

³Note the characteristic Northern Bubi denasalisation inducing cl. 6 **ma* > *ba*.

vs. *wě-lö-béél-è* [2sg.NEG-OM₅-sing-SBJV] ‘don’t sing it!’ (Bolekia Boleká 1991: 151).

The forms of the Bubi OMs are problematic for historical analysis. They are all monosyllabic but vary within varieties with respect to the vowel used, e.g. class 2 *ba/bo/be* ‘them’. The *-e/o* forms are suggestive of the PB deictic suffixes appended to PRO, but alternative explanations are conceivable. The vowels could also reflect one or more former AUXs or TMs with which the preceding SM fused, and then were transferred to the OM forms, just like the more limited central Bantu reanalysis of the SM/OM_{1SG} *ndi-* < **N-di* [SM_{1SG}-COP/AUX] (cf. Polak 1986: 379).⁴ There is nothing in the current Bubi varieties to suggest that the OMs are perceived as polymorphemic. A point in favour of a MOM (OM) rather than NOM (PRO) analysis is that the 1sg SM/OM is apical as in OM systems rather than bilabial as in the NWB NOM systems, i.e. PB **ni/(N)-* SM/OM_{1SG} vs. PB **mí-* PRO_{1SG}.⁵

In sum, Bubi fits the major criteria for a (M)OM system with respect to the monosyllabicity and morphological simplicity of its OMs. However, it resembles the NOM systems in the obligatory postverbal position of its OMs in the imperative context.

5 Historical object marking hypotheses

This section examines a number of hypotheses about the nature of the PB OM system in light of the types we have examined in §4 above. In the background of this discussion is the understanding that the PB period is a lower limit to the age of the PB OM system that can be reconstructed by comparing the diverse current Narrow Bantu languages. The system may be much older, because the current situation may preserve defining features that have been lost elsewhere in Bantoid or even Benue-Congo. Alternatively, any form of the OM system may be a post-PB development so that some type of NOM directly reflects earlier

⁴Similarly, in the “NWB Cameroon, node 1” SOM languages Mbonge A121 and Kpe A22, the SM_{1SG} has the form *na-* suggesting **n-a-* [SM_{1SG}-TAM], also one of the forms of the Bubi SM_{1SG}.

⁵With regard to the nature of the boundary between the OM and the following verb, Bubi standard orthography follows Spanish convention in representing the preverbal OMs as separate words like Spanish preverbal clitics, e.g. preverbal: Bubi <*a ñe ri bbi*> [he me it gave] = Spanish <*me lo dió*> [me it gave.he] ‘he gave it to me’; but as enclitics suffixed to the verb when they are postverbal, e.g. postverbal: Bubi <*mbañelo*> = *mba-ñe-lo* = Spanish <*démelo*> = *dé-me-lo* [give-me-it] ‘give it to me’ (Abad 1928: 88). The issue of whether the Bubi OMs are indeed separate words, as they would be as object PROs in a NOM system, cannot be pursued further here.

PB object indexing systems. This is a primary issue to be discussed. It is one of numerous questions of direction of change. The NOM issue is: Did current OM systems evolve from NOM systems, or vice-versa? The discussion will begin with the PB OM hypothesis, because Meeussen (1967) and Polak (1986) agreed on some version of this hypothesis. They disagreed on whether the particular PB OM system was MOM or SOM (cf. §2 above).

5.1 The PB OM hypothesis

As stated immediately above, there are two fundamental types of OM hypotheses: SOM and MOM. Polak (1986) favoured a SOM hypothesis for reasons discussed in the present section. In doing so, she preferred an OM hypothesis over a NOM hypothesis, the latter discussed in §5.2. The relative merits of Polak's SOM hypothesis and some form of MOM hypothesis are then discussed in §5.3.

Polak (1986: 374) generally appeals to the geographical distribution of current OM languages to posit the OM as a feature of PB. Some form of OM system, full or partial, occurs in all zones. Polak acknowledged that it was troubling that NWB (zone A and vicinity) is almost devoid of OM systems, but she mentioned Jö as having an almost full OM system, specifying its proximity to Duala A24, a NOM language of the type exemplified by Basaa A43a in (27) above. Representative of the Jö area are the full SOM systems of Mbonge A121 (Friesen 2002) and Kpe A22 (Hawkinson 1986). Polak's suggestion implies that they represent a *relic area*. According to the Grollemund et al. (2015) phylogeny, these languages show their closest lexical affinities to the NOM languages of zone A surrounding them.

A contrary hypothesis would be that the area reflects post-PB OM systems that originated further south, subsequently transported to their current area and consequently undergoing relexification through contact with the surrounding area. In the absence of any supporting evidence for the relexification hypothesis, the relative simplicity of the relic hypothesis is preferable.⁶ For further reference, this area is called the "NWB Cameroon, node 1, full SOM" area.⁷

⁶Another archaic feature of this area, shared with Bubi, is the initial apical nasal for SM/OM_{1SG} reflecting PB **n(i)*-. In the surrounding NOM area, the SM_{1SG} has an initial bilabial nasal reflecting the PB PRO_{1SG} **mi*- as does wider Benue-Congo for the most part. In the NOM area of Narrow Bantu and adjacent Bantoid languages, even the SM, where it survives, has the initial bilabial nasal of PRO.

⁷Polak's (1986) Map 2 represents this full OM within "NWB Cameroon, node 1" as a small north-western portion of zone A surrounded by systems left blank on the map as NOMs. The map in Beaudoin-Lietz et al. (2004: 180) shades the surrounding NOM systems ("Type 2" in their terminology).

Partial SOM systems are explicitly considered to be due to loss by Polak (1986), thus positing a specific historical direction: full > partial SOM systems. According to this hypothesis, the change at issue is the loss of OMs from the full PB set, so that some objects cannot be indexed by OMs. In this context it is instructive to consider the partial OM systems of Makhuwa and NWB as independent innovations in widely separated areas. They have in common that InTop plays a major role in favouring loss of some or all of the inanimate OMs in both areas. They differ in the predominant nature of adjacent systems.

As discussed in §4.2, Makhuwa and NWB represent distinct cases of inanimate OM loss in terms of the nature of adjacent systems. Makhuwa has lost the OMs of all classes except classes 1/2 (typically human). It is surrounded by languages that maintain full SOM systems, but with prohibitions against inanimate OM indexing in preference to a concurrent human object, as exemplified in Swahili (24) above.

In contrast to the Makhuwa area, Polak's (1986) Map 2 shows that the north-western Bantu partial OM area is much larger and adjacent to numerous distinct types of systems along its southern and eastern borders, including other partial OMs and NOMs. The area is attested in zones A-D with some further southern extension into zone H. In other words, it occurs in several early branches: "NWB Cameroon, node 1", "NWB Gabon, nodes 2-4", "CWB, node 5" and "WWB, node 6". Among other partial OM systems there are some that have also lost human objects, including the interpersonal OMs (cf. §4.2). The logical conclusion to this trend is the loss of all OMs, resulting in NOM systems.

The preceding account follows from a direction of increasingly constraining the OM system, until it is completely lost. This is not a likely outcome for the Makhuwa area. Preferential OM indexing of human objects is characteristic of the entire area surrounding it; no further movement towards loss is indicated. In contrast, the north-western Bantu NOM adjacency to partial OMs offers a model for further evolution towards losing the remaining OMs. The particular paths taken by the zone C languages from only HUM OMs to NOMs remain unclear and problematic at present. Some partial OM systems suggest phonological influence, e.g. the monophonic principle, but also the loss of the initial consonant from the surviving human OMs in parts of zone C.

5.2 The PB NOM hypothesis

The opposite direction from NOM to OM is a currently disputed position advanced by Güldemann (2011; Güldemann (2022 [this volume])). It implies that PB had a NOM system of the form AUX# PRO_{OBJ} V, where multiple pronominal

objects were allowed. For the most part, Güldemann appeals to typology rather than current Narrow Bantu for support. He proposes that starting from a hypothetical pre-PB VO system, e.g. systems like Orungu (26) or Basaa (27) above, only the PROs among postverbal NPs came to be preposed to the verb, as in Eton (28), representative of the A70 group and various other groups in the vicinity, e.g. Maande A46 (cf. Mous 2005). Romance is a well-documented case to serve as a typological model for the posited direction of change, $VO_{PRO} > O_{PRO}-V$ (cf. Wald 1994: 250). Romance also serves as a typological model for the phonological condensation of the preverbal PROs to monosyllables, i.e. $PRO-(\#)V > OM-V$. In the Bantu analogue, there are grammatical consequences to the reduction, such that the loss of the deictic markers suffixed to PRO, leaves only the class and interpersonal markers as the forms of the OM. This model is plausible but problematic for direct evidence. So, in relating this proposal to current Bantu, Güldemann (2011) offers Ewondo A72a in (31) as partially preserving this system from its PB origin.

- (31) Ewondo A72a “NWB Cameroon, node 1” (Redden 1979: 167)

a-kad mə dzɔ vɔ
 SM₁-TM/AUX PRO_{1SG=IO} PRO_{9=DO} give
 ‘He usually gives it to me.’⁸

Here I have substituted a double object example for Güldemann’s single object example, as a reminder that number of objects is not an issue in this change. The account does not rule out reduction of each preverbal pronominal object to a single syllable (or less), resulting in a MOM system, as suggested by the variation in the formal ambiguity between OM and PRO forms discussed for Bubi (cf. §4.4).

The problem with Ewondo (31) as a direct reflection of a hypothetical PB NOM system is that among its closest relatives, an INF intervenes between the last object PRO and the verb root, i.e. $PRO(\#)/OM\ INF-V$. In Atsi A75D INF is explicit, as discussed under Eton (28) above. In Eton, the INF often manifests as a floating tone downstepping a high tone verb immediately following the object PRO, as in (28b) above (e.g. Van de Velde 2008: 272). Such a floating tone is a commonly attested feature of north-western Bantu in the wake of the loss of various syllabic grammatical morphemes retained in other Bantu areas. Most likely the Ewondo system evolved from the system still reflected in Atsi and Eton, but at some point lost all trace of the INF. The $PRO_{OBJ}\ INF-V$ order of A70 contrasts with the $INF-OM-V$ order of OM systems throughout Bantu, including the “NWB Cameroon,

⁸Ewondo AUX *kad* < PB **jikad* ‘dwell; be; sit; stay’ (BLR 3441) (Bastin et al. 2002).

node 1, full SOM” area. Thus, it is doubtful that Ewondo (31) directly reflects the PB situation.

Along with the criticisms formulated by Hyman (2011), a major problem of Güldemann’s dependence on typology is the timing of the $V-O_{PRO} > O_{PRO}-V$ change relative to PB. It conflicts with the relic hypothesis for the “NWB Cameroon, node 1, full SOM” area, discussed in §5.1 above. Among possible resolutions to this conflict is one in which Güldemann’s typologically inferred reconstruction projects back to an earlier stage than PB, and that MOMs had already arisen by the PB period, and were subsequently widely restricted to SOM systems, by processes comparable to the reduction of SOMs from full to partial advocated by Polak (1986).

5.3 The PB MOM hypothesis

Polak (1986) rejects the MOM hypothesis for PB. Her main argument is that SOMs are more common across the entire Bantu area. Clear-cut MOMs currently have a more limited distribution, all south of the greater NWB area (nodes 1–4). She suggests that the monophonic partial MOM type was a transition to the greater elaboration of SOMs to MOMs. This contrasts with her positing of partial SOMs as a transition between full SOMs and NOMs. At first glance, the “NWB Cameroon, node 1, full SOM” systems seem to support the chronological priority of SOM to MOM. If the direction of change was $MOM > SOM$, then the reduction to SOM in the isolated “NWB Cameroon, node 1, full SOM” area and the reduction to SOM in a large part of EB (especially coastal but expanding deep into the central EB interior) seem to be independent innovations. Zone C is a transitional area for either direction of change. It is unusually diverse in containing full and partial SOMs and MOMs in proximity to NOMs. MOM systems are attested as far into the north-western interior as Bangi C32 “CWB, node 5” (Whitehead 1899). Particularly in the proximity of partial SOMs and MOMs, zone C suggests that the same process of reduction that Polak (1986) posits for SOMs also applies to MOMs. By this account, there is a single direction of change towards reduction of OM complexity for both SOMs and MOMs, so that SOMs represent an intermediate stage in the change of MOM to NOM systems. The “NWB Cameroon, node 1, full SOM” area independently follows the same line of development of reduction under the same conditions but stops at the full SOM stage.

An internal motivation can be offered for the above hypothesised persistent direction of change to reduced OM systems. It follows the principle of discourse utility, measured by the higher frequency of use of single than multiple OMs in MOM systems. Uses of single OMs are far more frequent than multiple OMs

in discourse. By the discourse utility principle, the complexity of the system is reduced by restricting the system to SOM. From this point of view, it is appropriately termed the principle of discourse economy, referring to a less complex, thus more economical system with fewer grammatical options.

There are many historical junctures suggested by the data where the discourse economy principle may account for a reduction in the number of OM indexing options allowed by a hypothetical PB MOM system. They arise in reconsidering Meeussen's original suggestion that PB had a MOM system. The foremost problem is the issue of the hypothetical type of PB MOM system, given that current Bantu has numerous distinct MOM systems, as discussed in §4.1 above.

The primary alternatives are free vs. fixed MOMs. The fixed ascending MOM seems to be the most widely distributed type, dominating the EB MOM area and extending far westward into zones C and H, i.e. the CWB and WWB clades. At the same time, free MOMs are concentrated, apart from Tswana in the south of the EB domain, in two widely separated areas: (a) SWB as far north as Umbundu and (b) the south-eastern area of Great Lakes Bantu in the north of the EB domain, as in Kuria (9). Is the agreement between these two areas a case of independent development, or relics of an older previously more widespread system, possibly the PB system?

Taking a PB version of the free MOM as the starting point offers some advantages over alternatively hypothesising a PB fixed MOM alternative. An immediate advantage is that the free MOM system can be seen as a pivot between the two subsequent fixed orientations, ascending and descending, as suggested by the variation in Bubi (30a). It is also a first step in accounting for the use of both orientations in the type represented by Haya (14a–14b). The direction of change MOM > SOM simplifies the account of subsequent developments. For example, taking a version of the Kwanyama (6) free MOM type as the PB point of departure, one of the most widespread subsequent changes is fixing the order of OMs according to InTop instead of ConTop.

The principle of discourse economy comes into play in this change. The change from ConTop to InTop reduces the complexity of the free MOM by eliminating less frequently used discourse options, particularly with respect to distinguishing humans from other objects. Most often in discourse human objects are indexed regardless of the type of system. Therefore, in the free MOM system, human objects will be indexed more often than inanimates whether or not there is a concurrent inanimate object. HUM objects will be indexed leftmost in sequence in a descending system: HUM-NONHUM, and rightmost in an ascending system NONHUM-HUM. These orders are both options in the free MOM system but become obligatory and decontextualised in the fixed MOM systems.

Meanwhile, in contradiction to the PB MOM hypothesis above, Polak (1986: 404) conjectures that the earliest version of the MOM system arose outside of NWB in an assumed more innovative Narrow Bantu area in which the languages have a “general tendency [...] to lengthen words”. She seems to be referring to agglutination here, as opposed to the more isolating tendencies of NWB, as seen in NOM systems. The problem with this assumption is that there is little doubt that PB already had an agglutinative system including the transitivity-raising suffixes CAUS and APPL. The extension sequence CAUS-APPL occurs throughout Bantu, including in the SOM languages of the “NWB Cameroon, node 1” clades, such as Mbonge *di-kab-is-él-é* [INF-share-CAUS-APPL-FV] “to sell (lit. let share) [something DO] [to someone AO]” (Friesen 2002: 97). By the same criterion of distribution across Bantu that Polak (1986) invokes to justify positing the PB OM, the sequence CAUS-APPL can be posited for PB, where each extension is associated with an object, expressed or implied. This, then, seems like sufficient motivation for developing a MOM system at the PB stage – had it not already existed. Certain “NWB Cameroon, node 1” languages allow the double OM sequence OM-REFL. Such is the case, for instance in Kpe, where the OM_{REFL} *a-* then replaces the vowel of the preceding OM, thus maintaining the monosyllabic OM slot, e.g. *na-ma-l-a-ké-én-é* [SM_{1SG}-PST-OM₁₁-OM_{REFL}-cut-INSTR-PFV] “I cut myself with it [knife]” (Hawkinson 1986: 152).⁹

A final point in favour of the notion that MOM systems were formerly more common in the “NWB Cameroon, node 1, full SOM” area is the nature of the full SOM system in those languages. It is a symmetric system both with respect to the trans-verbal multiple object context: OM_i-V...NP_j.OBJ and the internal passive subject context SM_i.OBJ...OM_j-V...PASS. There is no constraint on which of two objects can be assigned higher ConTop, just as in the free MOM system. As van der Wal (2020: 206) observes (especially in her Table 3), MOM languages tend to be symmetric with respect to the trans-verbal multiple object context: OM_i-V...NP_j.OBJ and the internal passive subject context SM_i.OBJ...OM_j-V...PASS. There is no constraint on which of two objects can be assigned higher ConTop. SOMs of this type tend to be closer to MOM areas than asymmetric SOMs. In van der Wal’s sample, symmetric SOM systems are widely dispersed across EB but also include Mongo C61 from the “CWB, node 5” clade, which she classifies as partial MOM (termed 1+). In contrast, her asymmetric SOMs are largely coastal EB, along with some partial MOM systems as far west as Ruund L53 “SWB, node

⁹Kpe represents a wider NWB area in which the APPL extension was replaced by a reflex of the PB **-an* to incorporate an instrument as an object argument of the verb (cf. Wald 1997). A reflex of the PB APPL **-id* continues in this area in other uses.

8” and Yaka “WWB, node 6”. Her solitary example of an asymmetric MOM is Shambaa “EB, node 9”.

Shambaa asymmetries involve both InTop and GR, cf. (18), where MOM order is fixed according to both InTop and GR. The same factors play a role in restricting the use of NONHUM OM indexing in Shambaa single-OM trans-verbal contexts. When there is an unindexed concurrent HUM object, a NONHUM DO cannot be OM indexed (but a NONHUM AO can), i.e. IO/EO/**DO=OM_{NONHUM}-V...DO/**IO/EO=NP_{HUM}. This limitation is one step less severe than the asymmetric trans-verbal constraint of SOM systems in Shambaa’s vicinity, as exemplified for Swahili (24b–24d). In those systems there is no GR condition on OM indexing of NONHUM objects, only the InTop condition, i.e. **OM_{NONHUM}-V...NP_{HUM}. In contrast to this situation in northern and central EB, the symmetry of the “NWB Cameroon, node 1, full SOMs” suggests that they, like other symmetric SOMs, were formerly in the proximity of MOM systems (later replaced by the current NOM systems), and/or that they formerly had MOM systems themselves, subsequently replaced by SOM systems according to the discourse economy principle while retaining the symmetry of their previous MOM state.

6 Conclusions

This section summarises the PB MOM hypothesis preferred above and indicates problems requiring further investigation for support or refutation of the hypothesis.

The hypothesis proposed in this chapter is that PB hosted a free MOM topic marking system consisting of an obligatory SM and one or more OMs in sequence. Subsequent local innovations altered the use of this system of ranking objects by changing the OM ordering principle from ConTop > InTop. This is the earliest indication of the post-PB discourse economy principle applied to indexing objects. Ultimately the line of evolution driven by this principle reduced OM indexing to partial HUM SOM systems, as in Mbesa “CWB, node 5” (cf. §4.2), and then the complete loss of the system. As early as the partial MOM systems, PRO had been compensating for restrictions on OM indexing, as in Luba/Lulua “SWB, node 9” (20). This was a change from the PB uses of PRO, e.g. focus uses iconic to their overt morphological complexity.

It remains unclear that the final NOM state still involves topicality, either ConTop or InTop, other than the minimal topicality bestowed by PRO as an anaphor. In any case, the predominant NOM state is ordering of multiple objects as IO/EO-DO. This order applies to both postverbal and post-AUX types of NOMs (see

(26)–(29)). Thus, GR seems to be the dominant principle determining order. An intermediate stage is suggested by Orungu “NWB Gabon, node 3” in (26), where the invariant postverbal order V...PROi-NPj corresponds to the symmetric order OMi-V...NPj as reflected in the “NWB Cameroon, node 1, full SOM” systems. GR order IO/EO-DO moves the PRO further from its OM analogue, as in Basaa “NWB Cameroon, node 1” in (27), and persists in the subsequent change to post-AUX position, as in Eton “NWB Cameroon, node 1” in (28).

More generally, the origin of GR in OM ranking according to the PB MOM hypothesis remains unresolved. In a free MOM system like the one in Kwanyama in (6), GR plays no role. How and at what stage did GR become a factor in OM indexing according to the hypothesis? So far the data are insufficient to answer this question decisively. As a rare “SWB, node 8” example of fixed descending OM, the Luanda variety of Umbundu (19) displays only GR ordering, not InTop. Decisive evidence of a previous InTop stage is yet to be uncovered.

A similar problem occurs in the northern EB languages from the Great Lakes area with fixed MOM systems, such as Ganda in (16). Only GR seems to play a role. In the northern EB case there are distinct adjacent MOM types that reveal further details of an interplay between InTop and GR order. Haya in (14) accepts free OM order, but it imposes constraints on its interpretation. Descending and ascending orders are both fixed but distinct. Descending order is determined strictly by GR/TR, and ascending order by InTop. How this state arose is unclear. One possibility is that GR preceded InTop, so that InTop introduced GR ambiguity with the understanding that the discourse context would easily resolve most such ambiguity. Ganda supports this possibility by showing no influence of InTop on its GR OM order. On the other hand, Rwanda represents a system in which InTop operates in spite of GR. It presents a model for the contrary hypothesis that InTop preceded GR/TR historically. Chronological ordering of these systems and its implications for the PB MOM hypothesis remains unresolved.¹⁰

A more general problem of data affecting the PB MOM hypothesis is the rarity of descriptions of the less favoured discourse cases, e.g. *double-human* and *cross-animate* object examples. Double-human objects are more often attended to, e.g. “he showed her to them”. In most reported systems, the human DO is treated in the same way as an inanimate DO whether by InTop or GR. Rwanda in (11) shows that GR only plays a role in its system when human objects of equal InTop are OM indexed. The Rolong variety in Tswana (7b) shows no grammatical effect of GR at

¹⁰Ganda is among languages that have been tested for the cross-animate context. It maintains GR ordering, often producing anti-pragmatic interpretations in cases where the human is pragmatically expected to be the IO/EO; e.g. “she mailed him (the man) to it (the letter)”.

all in a free MOM system.¹¹ Data are lacking for the SWB systems. Cross-animate examples are more often neglected, corresponding to their rarity as discourse contexts, i.e. where the IO/EO is NONHUM and the DO is HUM, e.g. “she hired him (the driver DO) for it (the car AO)”. The cross-animate context is often crucial in deciding whether an OM sequence is ordered by InTop or GR.¹²

A final problem challenging all PB object-marking hypotheses is evidence from other East Benue-Congo languages, if not beyond. Preverbal object indexing systems restricted to anaphors, most often monosyllabic, occur in other branches of East Benue-Congo. In close proximity to the “NWB Cameroon, node 1, full SOM” systems are the OM systems of the Ogonoid and upriver Cross languages, e.g. Ibibio across the eastern Nigerian border. The surrounding postverbal NOM systems, even within the Cross branch, are similar to the postverbal NOM systems predominant in NWB. The coastal Cross area looks like a continuation of the “NWB Cameroon, node 1, full SOM” area as a relic area, similarly adjacent to NOMs. A comparable situation occurs in the widely separated north-west Nigerian area of the Jos Plateau, where some languages of the Kainji branch of East Benue-Congo also display similar systems, e.g. Kaje, Izere (cf. Blench & Kaze 2019: 12ff). As a much more distant branch of East Benue-Congo than Cross, Kainji suggests the possibility of a much more archaic status to some version of the PB OM system.¹³ The general issue of the historical relationship between SM-AUX-(OM)-OM-V...and current NWB SM-/#AUX (PRO) PRO V remains unresolved and continues to challenge any version of the PB OM hypothesis.

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¹¹However, in some instances, the Rolong speaker expressed a decontextualised preference for an order corresponding to the obligatory order of prestigious fixed MOM varieties like Hurutshe.

¹²Willems (1970: 116) presents a fortuitous cross-animate example for Luba-Kasai *bà-bù-n-ship-él-è* [SM₂-OM₁₄-OM_{1SG}-kill-APPL-SBJV] “they would kill me for it [reason]”, revealing the InTop order AO_{NONHUM}-DO_{HUM} contrasting with the GR order DO-EO.

¹³However, Izere suggests a system in which the OM became suffixed to certain AUXs rather than prefixed to the following verb root. Thus, following AUX use of the COP *sen*, the Izere 1SG OM form is *ní*, transparently cognate with the PB 1SG SM/OM **ni*, but in past contexts the Izere 1SG OM has the form *tí*, as if suffixed to an older AUX **tV*. The other persons are similarly formed with an initial *t-* in past contexts.

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Abbreviations

AO	applied object	NOM	no OM system
APPL	applicative	NONHUM	non-human referent
ASP	aspect	NP	noun phrase
AUX	auxiliary	NWB	North-Western Bantu
CAUS	causative	OBJ	object
cl.	class	OE	object enclitic
CO	causative object	OM	object marker
ConTop	contextual topicality	PASS	passive
COP	copula	PB	Proto-Bantu
CWB	Central-Western Bantu	PFV	perfective
DO	direct object	PL	plural
DSJ	disjoint	PREF	pre-final
EB	Eastern Bantu	PRO	free pronoun
EO	extensional object	PROG	progressive
FOC	focus marker	PRS	present
FUT	future	PST	past
FV	final vowel	REFL	reflexive
GR	grammatical relation	RM	relative marker
HUM	human referent	SBJV	subjunctive
INAN	inanimate referent	SG	singular
INF	infinitive marker	SM	subject marker
INSTR	instrument	SOM	single-OM system
InTop	inherent topicality	SWB	South-Western Bantu
IO	indirect object	TAM	tense/aspect/mood
MOM	multi-OM system	TM	tense marker
NECB	North-East Coast Bantu (subgroup of EB)	TOP	topic
NEG	negative	TR	thematic role
		V	verb
		WWB	West-Western Bantu

*X historical reconstruction of X **X rejection of intended synchronic
X by L1 speakers

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