

Afranaph Sister Project (in development): Object Marking

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1 Introduction and Progress

1.1 BASIC BACKGROUND

- Object marker (OM) constructions are one of the most well-researched areas of human language syntax.¹
- That said, we still have much to learn, especially from under-researched languages and language families.
- This project investigates object marking in the languages of Afranaph consultants.

- (1) a. Màrìyà á-tá-vón-á mí-n-sínyà. [Changana]
Mary 1SM-FUT-see-FV 4-3-tree.
‘Mary will see trees.’
b. Màrìyà á-tá-yí-vón-à.
Mary 1SM-FUT-3OM-see-FV
‘Mary will see them (trees).’
- (2) *? Màrìyà á-tá-yí-vón-á mí-n-sínyà.
Mary 1SM-FUT-3OM-see-FV 4-3-tree.

Investigations of OM in Bantu languages have usually centered around:

- whether they can co-occur with (i.e. **double**) overt objects (and, if so, under what conditions),
- how they come to occur in the positions that they occur in, and therefore
- whether OM are pronominal forms, or agreement markers, or fall under some more nuanced designation.
- These alternatives center on a core diagnostic of whether or not the OM is in complementary distribution with an overt, *in situ* lexical object.²

1.2 CURRENT PROGRESS

- Questionnaire
 1. Initial questionnaire drafted by Michael Diercks, with input from Rodrigo Ranero, Jenneke van der Wal, Justine Sikuku, and Ken Safir
 2. Pilot questionnaire completed by David Langa (Changana)
 3. Follow-up questionnaire developed by Michael Diercks
 4. Follow-up questionnaire completed by David Langa
 5. Questionnaire currently being revised by Michael Diercks for distribution to Afranaph consultants.
- Luyia OMing
 6. We are also currently investigating OMing in four Luyia languages (Bukusu, Wanga, Tiriki, Logoori).
 7. Included here is long-term ongoing work on Bukusu OMing with Justine Sikuku, who is also the Afranaph consultant for Bukusu (Sikuku et al., 2018; Sikuku & Diercks, 2019).
 8. This is particularly relevant because we are uncovering patterns in Luyia showing that the licensing of clitic doubling is deeply integrated with information structure in the verb phrase.
 9. While these patterns are reminiscent of patterns of object marking intersecting with conjoint/disjoint systems in southern Bantu languages, they are nonetheless non-identical.

¹Often described as object clitics and clitic doubling, we use the analytically-neutral term OM here.

²A host of relevant references lay behind these core syntactic proposals in the Bantu syntax literature. See Marten & Kula (2012), Marten et al. (2007), for broad typological overviews; Bresnan & Mchombo (1987), Jelinek (1984), Baker (2003), Van der Spuy (1993), Zeller (2009), Zerbian (2006), Byarushengo et al. (1976), Marlo (2014), Marlo (2015a,b), Duranti & Byarushengo (1977), Tenenbaum (1977), Riedel (2009), Henderson (2006), Zeller (2012, 2015, 2014), Letsholo (2013), Marten & Ramadhani (2001), Keach (1995), Woolford (2001), Bax & Diercks (2012), Diercks et al. (2014), among others.

2 Questionnaire Topics, in development

Initial Questionnaire Topics³

1. Morphological forms of object marking (variable by grammatical function? Do locatives have distinct forms?)
2. Does the language have a conjoint/disjoint system? If so, does it intersect with OMing?
3. Do OMs co-occur with *in situ* lexical DP objects?
 - Simple monotransitives: any OM-doubling?
 - Ditransitives: which objects can be OM-doubled (if any)
 - Do doubled objects appear to be *in situ*, or dislocated? (potential diagnostics include adverbials, prosodic breaks, tone-marking, raising-to-object verbs, conjoint/disjoint).
4. How many OMs can appear on a single verb form? Does the order of OMs matter? Are there co-occurrence restrictions on OMs with different sets of φ -features?
5. Can object markers appear when their associated object is extracted? (i.e. in object questions, object relative clauses, object clefts)
6. (A)symmetry: in double object constructions, can either object be OMed or can only one be OMed? (also, same question for OM-doubling contexts)
7. Can OMs appear on passive verb forms?

Questionnaire Topics added during development

1. What discourse contexts license OM-doubling?
2. Do the information structural properties of the rest of the verb phrase affect the possibility of OM-doubling? (a detailed range of questions from this perspective)
3. Does OM-doubling create a verum focus reading of the predicate?

Roadmap

- §3 discusses the initial findings of Sikuku et al. (2018), linking OM-doubling to verum focus
- §4 discusses findings on Logoori OMing (circa 2015), that were (at the time) mysterious
- §5 discusses more recent findings about Bukusu OM-doubling that show that the pragmatic properties of ν P license OM-doubling apart from verum.
- §6 shows that Tiriki replicates some of the Bukusu patterns, but shows central contrasts as well.
- §7 describes some initial facts from the Changana questionnaire.

3 Bukusu OMing, per Sikuku et al. (2018)

This section reports some main findings of Sikuku, Diercks, & Marlo (2018).⁴

- (3) a. n-á-βon-a Weekesa. [Bukusu]
1SG.SM-PST-see-FV 1Wekesa
'I saw Wekesa.' (Sikuku et al., 2018, 360)
- b. n-á-(mu-) βon-a (#Weekesa) **No OM-doubling**
1SG.SM-PST-1OM-see-FV (#Wekesa)
'I saw him.' (*licit in a context where Wekesa is salient in the discourse*)
*'I saw Wekesa.' (Sikuku et al., 2018, 360)

OMs in Bukusu monotransitives can co-occur with a postverbal object, but that object:

- occurs after a clearly discernable prosodic break (marked by a comma below), and
- receives an afterthought topic reading.

³Marten & Kula (2012), Marten et al. (2007), Riedel (2009), and Zeller (2014) are especially helpful in gaining an understanding of the range of diagnostic contexts that are relevant to understand object marking in Bantu languages particularly (though this generalizes to other language families as well).

⁴Bukusu belongs to the Luyia subgroup of Bantu languages, of which it has been estimated that there are at least 23 different dialects spoken in Western Kenya and Eastern Uganda (Marlo, 2009). Lewis et al. (2016) list the population of Bukusu speakers at 1,433,000 based on the 2009 census. Originally classified as E31c, an earlier edition of the Ethnologue reclassified it to J30, and Maho (2008) to JE31c.

- (4) n-á-(ki-) βon-a #(.) (ée-m-bwa)
 1SG.SM-REM-9OM-see-FV 9-dog
 ‘I saw it, the dog.’ (Sikuku et al., 2018, 366)

Prosodic break before OMed object

- This suggests a pronoun analysis of the OM, as the OM and the *in situ* lexical object are in complementary distribution.
- Sikuku et al. (2018) confirm this pattern with various diagnostics.
- There are some systematic exceptions to Bukusu’s restrictions on OM-doubling:

- (5) n-aa-(βu-) l-íilé (βúu-suma) .
 1SG.SM-PST-14OM-eat-PFV 14.14-ugali
 ‘I DID eat the ugali!’ (Sikuku et al., 2018, 360)
(licit if somebody is doubting this is true, e.g. in an argument, among other instances)

- Sikuku et al. (2018) show that co-occurrence of an OM and an object (OM-doubling) is in fact available, but only in pragmatic contexts that license **verum (focus)**, similar to English emphatic *do*.
- Sikuku et al. (2018) propose that the doubling OM and non-doubling OM in Bukusu have distinct syntactic derivations.
 - Non-doubling OMs are incorporated pronouns.
 - Doubling OMs are agreement morphemes arising on an Emphasis head, which introduces a verum focus reading.
- This analysis predicts that **OM-doubling should always require a verum reading**.
- We have recently discovered, however, that the empirical generalizations reported in Sikuku et al. (2018) are incomplete. We take up this newer work on Bukusu in §5.
- First, however, we outline the initial patterns in related Luyia languages that have led us to the current state of the Bukusu research.

4 Logoori OMing, results as of 2016

Logoori is another Luyia language spoken in Western Kenya. The results reported here come from work with Isaac Kilaha Thomas in Claremont, CA.

4.1 BASICS OF LOGOORI OMING

OMing in Logoori takes a now-familiar form, appearing before the verb root in the verbal form:

- (6) Kageha yi-imb-i (ru-imbu) mugolova.
 1Kageha 1SM-sing-PST 11-song yesterday
 ‘Kageha sang a song yesterday.’
- (7) Kageha a-(ru-) imb-i mugolova
 1Kageha 1SM-11OM-sing-PST yesterday
 ‘Kageha sang it yesterday.’

OM-doubling is unacceptable with bare DP objects, and a verum reading does not appear to license exceptional doubling in Logoori the way that it does in Bukusu:

- (8) *Kageha a-(ru-) imb-i (ru-imbu)
 1Kageha 1SM-11OM-sing-PST 11-song
 NOT ‘Kageha sang the song.’
 Also NOT: Kageha DID sing the song

4.2 MODIFYING A VP WITH AN ADVERBIAL IMPROVES OM-DOUBLING

- (9) Adaro a-(ki-) soom-i (ki-tabu) *(vwaangu)
 1Adaro 1SM-7OM-read-PST 7-book *(quickly)
 ‘Adaro read the book quickly.’

- (10) Kageha a-(mu-)saamur-i (Chazima) *(ku mu-koono)
 1Kageha 1SM-1OM-slap-PST 1Chazima *(17 3-hand)
 ‘Kageha slapped Chazima on the hand.’

4.3 MODIFYING A VP WITH AN ADJUNCT ADVERBIAL CLAUSE IMPROVES OM-DOUBLING

- (11) Kageha a-(gi-)ror-i (i-nzoka) ??(n-a-gɛɛnda).
 1Kageha 1SM-9O-see-PST 9-snake ??(while-1SM-walking)
 ‘Kageha saw the snake while walking.’
- (12) Adaro a-(mu-)sek-ɛɛ-ɛɛ (Kageeha) ??(kidzira Kageeha y-a-ri nu-vuvɛɛɛri.)
 1Adaro 1SM-1OM-laugh-APPL-PST 1Kageeha reason 1Kageeha 1SM-PST-be with-sadness
 ‘Adaro laughed for Kageeha because Kageeha had sadness (was sad).’

IKT repeatedly expressed in simple contexts like this that OM-doubling was acceptable as long as you kept talking afterwards—it didn’t matter what particularly you said, as long as you added information to the sentence.

4.4 NON-CLAUSE-FINAL VP MODIFIERS LICENSE OM-DOUBLING

- (13) a. Kageeha ??(mugoroova) a-(vi-)karaap-i (vi-tunguuru)
 1Kageeha ??(yesterday) 1SM-8OM-cut-PST 8-onions
 ‘Kageeha cut the onions yesterday.’
- b. ??(mugoroova) Kageeha a-(vi-)karaap-i (vi-tunguuru)
 ??(yesterday) 1Kageeha 1SM-8OM-cut-PST 8-onions
 ‘Kageeha cut the onions yesterday.’

4.5 STRUCTURALLY HIGH (EVALUATIVE) ADVERBS CANNOT LICENSE OM-DOUBLING

nitfukugenya ‘surprisingly’ can occur sentence-initially or between the subject and the verb, and has a speaker-oriented interpretation. Such adverbs are generally thought to be structurally high, above the VP.

- (14) a. ??nitfukugenya Kageeha a-(ki-)gur-i (ki-tabu)
 surprisingly 1Kageeha 1SM-7OM-buy-PST 7-book
 ‘Surprisingly, Kageeha bought the book.’
- b. ??Kageeha nitfukugenya a-(ki-)gur-i (ki-tabu)
 1Kageeha surprisingly 1SM-7OM-buy-PST 7-book
 ‘Surprisingly, Kageeha bought the book.’

4.6 CONJOINING VPs (BUT NOT CLAUSES) IMPROVES JUDGMENTS FOR OM-DOUBLING

- (15) Kageeha a-(vi-)karaap-i (vi-tunguuru) *(n-a-vi-karaanga)
 1Kageeha 1SM-8OM-cut-PST 8-onions *(and-1SM-8OM-fry)
 ‘Kageeha cut the onions and she fried them.’
- (16) Kageeha a-(*(vi)-)karaap-i (vi-tunguuru) na Adaaro n-a-dɛɛka ma-gaanda
 1Kageeha 1SM-8OM-cut-PST 8-onions and 1Adaro N-1SM-cook 6-beans
 ‘Kageeha cut the onions and Adaro boiled the beans.’

4.7 YET-UNSPECIFIED EMPHATIC/FOCUSED READINGS OCCUR WITH OM-DOUBLING

- (17) Q: Adaro a-dɛɛk-i kindiki?
 1Adaro 1SM-cook-PST 7what
 ‘What did Adaro cook?’
- A1: (Adaro a-dɛɛk-i) ma-gaanda
 1Adaro 1SM-cook-PST 6-beans
 ‘Adaro cooked beans.’
- A2: ??Adaro a-(ga-) dɛɛk-i (ma-gaanda)
 1Adaro 1SM-6OM-cook-PST 6-beans
 ‘Adaro cooked the beans.’
- A3: #Adaro a-(ga-) dɛɛk-i (ma-gaanda) vurahi
 1Adaro 1SM-6OM-cook-PST 6-beans well
 ‘Adaro cooked the beans well.’
 - IKT: “This feels like an answer to the wrong question”
 - IKT: “this emphasizes the style the cooking”
- A4: #Adaro a-(ga-) dɛɛk-i (ma-gaanda) mugoroova
 1Adaro 1SM-6OM-cook-PST 6-beans yesterday
 ‘Adaro cooked the beans yesterday.’
 - IKT: “it doesn’t sound right as an answer to this question”
 - IKT: “are you emphasizing yesterday?”

4.8 INTERMEDIATE SUMMARY: LOGOORI OMING

- At the time, we had no idea how to interpret Isaac’s instincts about the distribution of “emphasis” in (17).
- “That’s an answer to the wrong question.”
- As is usually the case, I have gradually come to realize that my consultant was trying to tell me things that I simply was not prepared to hear, because it was so counter to my own expectations.
- What we have discovered is that it is quite common in Tiriki, Logoori, Bukusu, and Wanga to have OM-doubling appear quite naturally. But the pragmatic conditions have to be precisely controlled, and the pragmatics of object marking are in fact where the explanation of OM-doubling appears to lie.
- An audience member during a talk at UCSD suggested that this could be a topic-comment structure (OMed element is topic, the other material is comment). This appears to be on the right track, as we will see below.⁵

5 Bukusu OMing, the redux (with Justine Sikuku)

5.1 A CORE PREDICTION, FALSIFIED

- The analysis advanced in Sikuku et al. (2018) requires that OM-doubling always have a verum reading. (by design)
- Notably, recent results show that there are additional contexts where OM-doubling is licensed without a verum reading:

- (18) Q: w-a-teekh-a ka-ma-kanda o-ricena ?
 2SG-PST-cook-FV 6-6-beans 2SG-how
 ‘How did you cook the beans?’
- A: N-a-(ka-) teekh-a (ka-ma-kanda) bwaangu
 1SG-PST-6OM-cook-FV 6-6-beans quickly
 ‘I cooked the beans QUICKLY.’ (not: ‘I DID cook the beans quickly.’)

- This shows that the analysis from Sikuku, Diercks, & Marlo (2018) **cannot be correct** as formulated in that work.
- Furthermore, it is directly in line with the patterns that we have seen in Logoori and Wanga above.

⁵It is perhaps worth noting, Wanga shows patterns quite similar to Logoori, but because research is still underway on those patterns and because we are short of space in this presentation, we set them aside for now.

5.2 FOCUS LICENSES OM-DOUBLING

- (19) When a temporal adjunct is questioned or bears new information focus, OM-doubling is licit without *verum*

Q: Ba-ba-ana ba-a-(ka)- kes-a (ka-ma-indi) **liina?**
 2-2-children 2SM-PST-(6OM)-harvest-FV 6-6-maize when
 ‘When did the children harvest the maize?’ *Doubling OK without verum*

A: Ba-ba-ana ba-(ka)- kes-ile (ka-ma-indi) **likolooba.**
 2-2-children 2SM-6OM-harvest-PFV 6-6-maize yesterday
 ‘The children harvested the maize yesterday.’ *Doubling OK without verum*

- (20) OM-doubling is licensed if you put focus on a constituent in the vP using *-ong’ene* ‘only’

Ba-ba-ana ba-a-(ba)- rer-er-a (ba-b-ebusi) **ka-m-echi k-ong’ene**
 2-2-children 2SM-PST-(2OM)-bring-APPL-FV 2-2-parents 6-6-water 6-only
 ‘The children brought their parents only water.’ *OK without verum*

5.3 FOCUSED PHRASES MUST BE vP-INTERNAL TO LICENSE DOUBLING

5.3.1 Ex situ focus does not license OM-doubling

- (21) Only *in situ* questions license OM-doubling:

Qa: Ba-ba-ana ba-a-(ka)- kes-a (ka-ma-indi) **liina?**
 2-2-children 2SM-PST-6OM-harvest-FV 6-6-maize when
 ‘When did the children harvest the maize?’ *Does not require verum*

Qb: **Liina** ni-lwo ba-ba-ana ba-a-(#ka)- kes-a (ka-ma-indi) ?
 when COMP-11 2-2-children 2SM-PST-6OM-harvest-FV 6-6-maize
 ‘When did the children harvest the maize?’ *Requires verum*

- (22) In response to either question above, only *in situ* focus licenses OM-doubling:

A1: Ba-ba-ana ba-(ka)- kes-ile (ka-ma-indi) **lu-kolooba**
 2-2-children 2SM-6OM-harvest-PRF 6-6-maize 11-yesterday
 ‘The children harvested maize yesterday.’ *Does not require verum*

A2: **lu-kolooba** ni-lwo ba-ba-ana ba-(#ka)- kes-ile (ka-ma-indi)
 11-yesterday COMP-11 2-2-children 2SM-6OM-harvest-PRF 6-6-maize
 ‘It was yesterday that the children harvested maize.’ *Requires verum*

5.3.2 Subject focus does not license OM-doubling without *verum*

- (23) *-ong’ene* ‘only’ on the subject does not license OM-doubling without *verum*:

Ba-ba-ana b-ong’ene ba-a-(#ba)- rer-er-a (ba-b-ebusi) ka-m-echi
 2-2-children 2-only 2SM-PST-(2OM)-bring-APPL-FV 2-2-parents 6-6-water
 ‘Only the children brought their parents water.’ *requires verum for OM-doubling*

5.4 ON INTERPRETATION: OM-DOUBLED OBJECTS ARE ABOUTNESS TOPICS

Familiar properties of clitic-doubling in Bukusu, where OM-doubling is linked with specific readings of doubled objects:

- OM-doubling requires a specific interpretation of a bare NP
- Adding demonstratives to doubled objects improves acceptability of doubling
- Wh-phrases may be doubled only if they are D-linked
- OM-doubled phrases receive an ‘aboutness’ interpretation that can be discerned by explicitly requiring an aboutness interpretation of the relevant object:

(24) Prompt: ‘Tell me something about Wekesa.’

N-a-#?(mu)- w-el-a Wekesa ba-ba-ana bi-anwa
 1SG.SM-PST-1OM-give-APPL-FV 1Wekesa 2-2-children 8-gifts
 ‘I gave the children gifts for Wekesa.’

- We see in (24) that an object that is an aboutness topic is preferably OM-doubled.
- In this sense there is some ‘topicality’ to an OM-doubled phrase, but it’s important to note that this does not exclude focused phrases and discourse-new information being OM-doubled.
- Sikuku et al. (2018) report that focus does not license OM-doubling on an object (in apparent contrast to what we have reported above).⁶

(25) lionéeli k-á-(#ku)- ly-a kúmú-chéele, se-k-á-ly-á búu-sumá tá.
 1Leonnel 1SM-PST-3OM-eat-FV 3-3-rice NEG-1SM-PST-eat-FV 14.14-ugali NEG
 ‘Leonell ate the rice, he didn’t eat the ugali.’ (Sikuku et al., 2018, 376)
 (OM-doubling requires verum)
 (Acceptable without verum if a response to the prompt: “Tell me about what Lionel ate.”)

- Clearly specificity, aboutness, and focus are all important aspects of OM-doubling.
 - An aboutness interpretation appears to be central to licensing OM-doubling.
 - Specificity is also linked with OM-doubling, but appears to be insufficient to license OM-doubling on its own.

5.5 CONJOINT/DISJOINT + OMING IN ZULU (ZELLER, 2015)

It is well known that information structure has central grammatical effects across a range of African languages, to the extent of being a fundamental organizing principle of some grammatical systems.⁷

- Conjoint forms on a verb show a closer connection between a verb and what follows, and disjoint forms are used when there is a looser connection with what follows, or when nothing follows the verb (van der Wal & Hyman, 2017).
- In Zulu, the predominant analysis is that the conjoint/disjoint distinction tracks the presence of overt morphosyntactic content inside vP (see Halpert 2016, Zeller 2015, and references cited therein):
 - conjoint is used when a constituent is inside vP;
 - disjoint is used when vP is empty.

(26) a. U-mama u-phek-a i-n-yama]_{vP} (**conjoint**) [Zulu]
 AUG-1a.mother 1SM-cook-FV AUG-9-meat
 ‘Mother is cooking the meat.’
 b. *U-mama u-phek-a]_{vP} (**conjoint**)
 AUG-1a.mother 1SM-cook-FV
 Intended: ‘Mother is cooking.’
 c. U-mama u-ya-phek-a]_{vP} (**disjoint**)
 AUG-1a.mother 1SM-DJ-cook-FV
 ‘Mother is cooking.’

There is a long history of research on Zulu object marking.⁸ The data and discussion below are from Zeller (2015).

(27) OM-doubling in a transitive requires the disjoint verb form
 U-mama u-*(ya)-yi- phek-a]_{vP} i-n-yama. [Zulu]
 AUG-1a.mother 1SM-DJ-9OM-cook-FV AUG-9-meat
 ‘Mother is cooking it, the meat.’ (Zeller, 2015, 20)

⁶Minor aspects of the transcriptions in (25) were altered to match our transcription conventions in this paper.

⁷See, for example: Hyman & Watters 1984, Schwarz 2007, Abels & Muriungi 2008, Hyman (2010), Hyman & Polinsky (2010), Landman & Ranero (2018).

⁸Selected references include Adams 2010, Buell 2005, Buell 2006, Cheng & Downing 2009, Halpert 2016, Van der Spuy 1993, Zeller 2012, Zeller 2014, Zeller 2015).

(28) ‘Symmetrical’ OMing in Zulu ditransitives; the doubled object is dislocated:

- a. Ngi-(m-) theng-el-a u-bisi]_{vP} (u-Sipho) . **(conjoint)**
 1SG-1OM-buy-APPL-FV AUG-11.milk AUG-1a.Sipho
 ‘I’m buying him milk, Sipho.’
- b. *?Ngi-(m-) theng-el-a (u-Sipho) u-bisi.]_{vP} **(conjoint)**
 1SG-1OM-buy-APPL-FV AUG-1a.Sipho AUG-11.milk
- c. Ngi-(lu-) theng-el-a u-Sipho]_{vP} (u-bisi) . **(conjoint)**
 1SG-11OM-buy-APPL-FV AUG-1a.Sipho AUG-11.milk
 ‘I’m buying it for Sipho, the milk.’ (Zeller, 2015, 22)

(29) Double Right Dislocation: both objects dislocated:

Ngi-ya-(m-) theng-el-a]_{vP} (u-Sipho) u-bisi. **(disjoint)**
 1SG-DJ-1OM-buy-APPL-FV AUG-1a.Sipho AUG-11.milk
 ‘I AM buying milk for Sipho.’ Zeller (2015, 23)

- (29) uses the disjoint form: both objects have vacated the vP.
- Notice that (29) bears a verum reading, a point which Zeller (2015, fn 8, fn 14) reports but does not analyze.

(30) Cross-linguistic properties of conjoint vs disjoint (and similar constructions) (modified from Güldemann 2003, 328)

	Disjoint Verb Form	Conjoint Verb Form
Postverbal constituent:	optional	obligatory
Verb position:	can be the only constituent and clause-final	not the only constituent, not clause-final
Postverbal material:	discourse-old	discourse-new, asserted
Complement is:	anaphoric, definite, generic	indefinite
Object marking is:	possible	impossible
Emphasis on:	positive truth value (verum)	postverbal constituent
focus pattern:	Predicate within the scope of focus, complement/adjunct extrafocal	Complement/adjunct within the scope of focus, predicate extrafocal

- There are clear Bukusu parallels to the Zulu situation,
 - with verum focus appearing sometimes, and
 - with morphosyntactic mechanisms tracking the content of vP.
- There are also clear differences, however: Zulu conjoint/disjoint is independent of OMing, whereas these patterns only seem to emerge with OM-doubling in Bukusu.
- It is our hope that the eventual formal analysis can not only capture the Bukusu facts, but also give some clarity about the connections and distinctions with languages like Zulu.

5.6 PROPERTIES OF vP AS A WHOLE LICENSE OM-DOUBLING

5.6.1 Term focus is unnecessary if sufficient material is in vP

- In the intuitions of the first author, the more things there are in vP, the more natural OM-doubling sounds, and term focus is unnecessary.

- (31) N-a-(mu-) w-el-a (Wekesa) ba-ba-ana bi-anwa.
 1SG.SM-PST-1OM-give-APPL-FV 1Wekesa 2-2-children 8-gifts
 ‘I gave the children gifts for Wekesa.’ *OK without verum, without additional context*

- In general, adding more vP-level material makes an OM-doubled sentence sound increasingly natural.

5.6.2 NE- focus marking licenses OM-doubling

Wasike (2007, 335) documents a morpheme that appears on the main verb in compound tenses which he analyzes as wh-agreement, a reflex of A'-movement:

- (32) Siina ni-syo mw-a-ba **ne**-mu-khol-a?
7what COMP-7 2PL.SM-PST-be **NE**-2PL.SM-do-FV
‘What was it that you were doing?’

- It is clear that NE cannot itself be wh-agreement, as it readily appears in non-extraction contexts:⁹

- (33) Wekesa a-ba (**n**)-a-a-nyw-a ka-ma-lwa buli nyanga
1Wekesa 1-be **FOC**-1SM-PST-drink-FV 6-6-alcohol every 9day
‘Wekesa (certainly) used to drink alcohol everyday.’

- The interpretive contribution of N(E)- is hard to pin down, but it has some kind of connection to FOCUS or EMPHASIS.
- With N(E)-, the speaker is more committed to the truth of (33). Without N(E)-, (33) is more or less neutral.
- If OM-doubling results in focus on the vP, OM-doubling should be acceptable if the vP is focused independently of its internal content.
- OM-doubling sounds natural with the NE focus morpheme in a compound tense (without verum).

- (34) a. Wekesa a-ba a-a-(#ka)- nyw-a (ka-ma-lwa) buli nyanga.
1Wekesa 1SM-be 1SM-PST-drink-FV 6-6-alcohol every 9day
‘Wekesa used to drink alcohol everyday.’ (*requires verum for OM-doubling to be acceptable*)
- b. Wekesa a-ba **n**-a-a-(ka)- nyw-a (ka-ma-lwa) buli nyanga
1Wekesa 1-be **FOC**-1SM-PST-6OM-drink-FV 6-6-alcohol every 9day
‘Wekesa (certainly) used to drink alcohol everyday.’ (*Doubling OK without verum*)

5.7 BUKUSU CONCLUSIONS AS OF NOW

5.7.1 Empirical Generalizations

Selected Empirical Generalizations from Sikuku et al. (2018)

- Doubling in simple monotransitives is unacceptable in neutral discourse contexts
- Doubling in simple monotransitives requires a verum-licensing context to be acceptable

New Generalizations: Bukusu OM-doubling

- Lexical DP objects that are doubled by OMs are interpreted as **specific**.
- Lexical DP objects that are doubled by OMs are interpreted as **aboutness topics**.
- OM-doubling is a generally available operation in the language, but requires a focused interpretation of the vP: the overall pragmatic interpretation of the sentence is highly dependent on the content of vP.

⁹There certainly are interactions with extraction: even for the first author on this paper, certain extraction environments make NE obligatory.

(35) Pragmatics of Bukusu Doubling Configurations

focus on/in vP?	vP Configuration	verum-like focus?
yes	[Doubled Object XP YP] _{vP}	no verum
yes	[Doubled Object XP _{FOC}] _{vP}	no verum
yes	[Doubled Object _{FOC}] _{vP}	no verum
no	[Doubled Object XP] _{vP}	verum
no	[Doubled Object] _{vP}	verum
yes	NE-[Doubled Object] _{vP}	no verum

6 Tiriki OMing: same but different (Liu, 2019)

- The results reported in this section come mainly from Liu (2019), but are part of Franco Liu’s ongoing research on Tiriki OMing as part of his thesis work at Pomona College.

6.1 VERUM FOCUS LICENSES OM-DOUBLING

Tiriki OM-doubling generates a verum focus interpretation, just like Bukusu, and is used to take the issue at hand and put it to rest, effectively:

- (36) Q1: shina shi-kholekh-ang-a?
 what 7SM-happen-PROG-FV
 ‘What’s happening?’

A1: a-(??mu)-lol-i (Ø-raisi)
 1SM-1OM-see-FV.PST 1-president
 ‘He saw the president.’

without verum focus

- Q2: toto?
 really
 ‘Really?’

A2: a-(mu)-lol-i (Ø-raisi)
 1SM-1OM-see-FV.PST 1-president
 ‘He DID see the president!’

with verum focus

6.2 ABOUTNESS TOPIC DOESN’T LICENSE OM-DOUBLING

- In Bukusu, OM-doubled phrases receive an ‘aboutness’ interpretation
- In Tiriki, when the object is the aboutness topic (i.e. the entity that the utterance/discourse is about), OM-doubling is **not** licit:

- (37) Q: m-bol-el-a shi-ndu khu Vusu
 1SG-say-APPL-FV 7-thing about Vusu
 ‘Tell me something about Vusu.’

A1: ??(mu)-kul-il-e (Vusu) ma-embe lw-a nz-il-e mu-sokoni
 1SG.1OM-buy-APPL-FV.PST Vusu 6-mango 11-REL 1SG-go-FV.PST LOC-market

OM-doubling IO

A2: *(ka)-kul-il-e Vusu (ma-embe) lw-a nz-il-e mu-sokoni
 1SG.6OM-buy-APPL-FV.PST Vusu 6-mango 11-REL 1SG-go-FV.PST LOC-market
 ‘I bought mangoes for Vusu when I went to the market.’

OM-doubling DO

- Topicality alone is **not sufficient** to license OM-doubling.
- The examples below, however, show how topical elements **can be OM-doubled**, under specific discourse conditions:

(38) Scenario: *Many people contributed chapatis to the big dinner. I have been talking about how great some particular chapatis are, and my interlocutor responded:*

- a. Ebby a-(vi)-tekh-i **vy-apati vy-atsana**
 Ebby 1SG-8OM-cook-FV.PST 8-chapati 8-certain
 ‘Ebby cooked the chapatis that we have been talking about.’
- b. Ebby a-(vi)-tekh-i **vy-o vy-apati**
 Ebby 1SG-8OM-cook-FV.PST 8-LP 8-chapati
 ‘Ebby cooked the chapatis that we both have in mind.’

Here, not only does *vi*- refer to the discourse-familiar topic ‘chapatis’, it also conveys a specificity reading that distinguishes said chapatis from other chapatis in our common ground, as indicated by the topic-marking adjective *vyatsana* and ‘little pronoun’ *vyo*.

Intermediate summary:

- Tiriki OM-doubling is not licensed by aboutness topic.
- An OM-doubled phrase may be topical, but it also requires a contrastive interpretation, as provided by the context in (38). (more on contrast below)

6.3 CONTRASTIVE TOPIC LICENSES OM-DOUBLING

A contrastive topic is an aboutness topic interpreted contrastively.

- Neeleman et al. (2009) summarizes that a constituent is interpreted as contrastive topic when “the hearer answers a question that differs in that constituent from the one being asked.”

(39) Q: wina a-lil-e vy-apati vu-tukhu?
 who 1SM-eat-FV.PST 8-chapati 14-night
 ‘Who ate the chapatis tonight?’

A: Ø-many-i a-lil-e vy-apati mba navutswa Alulu a-(vu)-lil-e **vu-shuma**
 1SG-know-FV 1SM-eat-FV.PST 8-chapati NEG but Alulu 1SM-14OM-eat-FV.PST 14-ugali
 ‘I don’t know who ate chapatis, but Alulu ate the ugali.’

- Contrastive topic also licenses OM-doubling in ditransitive constructions, as shown by the benefactive applicative ditransitive ‘cook for’ below:

(40) Indirect object as contrastive topic, also doubled

Q: wina a-tekh-el-e va-ana vy-apati vu-tukhu?
 who 1SM-cook-APPL-FV.PST 2-child 8-chapati 14-night
 ‘Who cooked the chapatis for the children tonight?’

A: Ø-many-i ka va-ana mba navutsa Ebby a-(va)-tekh-el-e **va-cheni** vy-apati vu-tukhu
 1SG-know-FV about 2-child NEG but Ebby 1SM-2OM-cook-APPL-FV.PST 2-guest 8-chapati 14-night

Intermediate summary:

- Tiriki OM-doubling **can** be licensed by contrastive topic, exhibiting the opposite pattern as Bukusu (Sikuku et al., 2018).

6.4 NEW INFORMATION FOCUS LICENSES OM-DOUBLING (KIND OF)

In Tiriki, new information focus does not license OM-doubling, whether on the *in situ* object or on another vP-internal constituent:

(41) *in situ* direct object as new information focus

- Q: Ebby a-tekh-i **shina?**
 Ebby 1SM-cook-FV.PST what
 ‘What did Ebby cook?’
- A: Ebby a-(#vi)-tekh-i **vy-apati**
 Ebby 1SM-8OM-cook-FV.PST 8-chapati
 ‘Ebby cooked chapatis.’

(42) temporal adjunct as new information focus

- Q: Ebby a-tekh-i vy-apati **liina?**
 Ebby 1SM-cook-FV.PST 8-chapati when
 ‘When did Ebby cook chapatis?’
- A: Ebby a-(#vi)-tekh-i **vy-apati mu-kolova**
 Ebby 1SM-8OM-cook-FV.PST 8-chapati 3-yesterday
 ‘Ebby cooked chapatis yesterday.’

- This is a direct contrast with the Bukusu patterns.
- However, when the new-information-focus-bearing object is the direct answer to a D-linked *wh*-question (modified by a demonstrative), OM-doubling is judged natural:

- (43) Q: Ebby a-tekh-i **vy-apati vi-lena?**
 Ebby 1SM-cook-FV.PST 8-chapati 8-which
 ‘Which chapatis did Ebby cook?’
- A: Ebby a-(vi)-tekh-i **vy-apati yi-vi**
 Ebby 1SM-8OM-cook-FV.PST 8-chapati DEM-8
 ‘Ebby cooked these chapatis.’

- D-linked *wh*-questions convey a contrastive reading on the constituent in question, e.g. *these* chapatis and not any other chapatis, which hints at the aforementioned generalization that Tiriki OMs yield a contrastive interpretive effect.
- Answers to *wh*-questions with bare *wh*-phrases can in fact occur with OM-doubling, but only in contexts where the *in situ* object can be interpreted contrastively

(44) *in situ* direct object as new information focus

- Q: Vusu a-lil-e **shina?**
 Vusu 1SM-eat-FV.PST what
 ‘What did Vusu eat?’
- A: %Vusu a-(vu)-lil-e **vu-shuma**
 Vusu 1SM-14OM-eat-FV.PST 14-ugali
 ‘Vusu ate ugali.’
 (only works if Vusu ate **only** ugali, not anything else)

- Similar patterns are observed with ditransitives, as well.

(45) vP-internal temporal adjunct as new information focus (ditransitive)

- Q: Ebby a-manyiny-e shi-paka ma-vele **liina**?
 Ebby 1SM-show-FV.PST 7-cat 6-milk when
 ‘When did Ebby show the cat milk?’
- A: %Ebby a-(shi)-manyiny-e (shi-paka) ma-vele **mu-kolova**
 Ebby 1SM-7OM-show-FV.PST 7-cat 6-milk 3-yesterday
 ‘Ebby showed the cat milk yesterday.’
 (only works if Ebby showed milk **only** to the cat)

Intermediate summary:

- Tiriki OM-doubling **cannot** be licensed by new information focus, distinct from Bukusu (Sikuku & Diercks, 2019).
- Tiriki OM-doubling is not incompatible with focus in the verb phrase, however.
- The OM-doubled phrase requires a contrastive interpretation to be licit, no matter which constituent in the utterance receives new information focus.

6.5 CONTRASTIVE FOCUS LICENSES OM-DOUBLING

- Contrastive focus on the *in situ* object licenses OM-doubling:

- (46) Ebby a-(vi)-tekh-i (vy-apati vy-onyene) (vu-shuma taawe)
 Ebby 1SM-8OM-cook-FV.PST 8-chapati 8-only 14-ugali NEG
 ‘Ebby cooked only chapatis (not ugali).’

- When the contrastive focus is on the entire vP, OM-doubling is also licensed:

- (47) Ebby a-(vi)-tekh-i (vy-apati) vutsa a-rikh-its-e tsi-ngookho taawe
 Ebby 1SM-8OM-cook-FV.PST 8-chapati only 1SM-eat-CAUS-FV.PST 10-chicken NEG
 ‘Ebby only cooked chapatis; she didn’t feed the chickens.’

- When the contrastive focus is vP-external, e.g. on the subject, OM-doubling is only licensed when the *in situ* object also conveys a contrastive reading. For example:

- (48) %va-cheni v-onyene va-(vi)-lil-e (vy-apati) (va-ana taawe)
 2-guest 2-only 2SM-8OM-eat-PST.FV 8-chapati 2-child NEG
 ‘Only the guests ate the chapatis (not the children).’
 (only works if the guests ate **only** chapatis, nothing else)

Intermediate summary:

- Tiriki OM-doubling **can** be licensed by contrastive focus, distinct from the Bukusu pattern (Sikuku et al., 2018; Sikuku & Diercks, 2019), §5.
- Similar to OM-doubling with contrastive topic, the OM-doubled phrase does **not** need to receive focus specifically, but requires a contrastive interpretation to be licit.

6.6 SUMMARY OF TIRIKI FINDINGS

- Tiriki is similar to Bukusu in licensing OM-doubling depending on the information structure content of the verb phrase.
- Tiriki OM-doubling can be licensed under a range of discourse conditions, e.g. verum focus, contrastive topic, and contrastive focus.
- In Bukusu it appears that *focus* is the licensing pragmatic context; in Tiriki it is *contrast*.
- To the extent of our current knowledge, the OM-doubled object DP has to bear a **contrastive interpretation**, regardless of the information-structural status of other constituents.

7 Returning to Changana, per Afranaph questionnaire-in-progress

7.1 VERUM LICENSES OTHERWISE-ILLICIT DOUBLING

- (49) Ø-B'ávà á-tá-yí- yák-á yí-ndlò mündzùkù. [Changana]
 1-father 1SM-FUT-9OM-build-FV 9-house tomorrow.
 *‘Father will build it tomorrow.’
 OK: Father WILL built it tomorrow! (e.g. in a disagreement/argument)
- (50) N-tsòngwà à-rí- tlúl-é Ø-gódà háhómbè. [Changana]
 1-child 1SM-5OM-jump-PST.CJ 5-rope slowly
 *‘A child jumped a rope slowly.’
 OK: A child DID jump a rope slowly! (e.g. in a disagreement/argument)

7.2 DOUBLED OBJECTS APPEAR TO MOVE TO THE RIGHT

- (51) a. Mù-jòndzisi á-nyík-é vá-jòndzi n-tírhò.
 1-teacher 1SM-give-PST.CJ 2-student 3-task
 ‘A teacher gave (the) students a task.’
- b. Mù-jòndzisi á-vá- nyík-é n-tírhò, vá-jòndzi. OM-doubled phrase moves right
 1-teacher 1SM-2OM-give-PST.CJ 3-task 2-student
 ‘A teacher gave them a task, the students.’
- c. Mù-jòndzisi á-vá- nyík-é vá-jòndzi ntírhò. perhaps Double Right Dislocation, like Zulu?
 1-teacher 1SM-2OM-give-PST.CJ 2-student 3-task
 *A teacher gave the students a task.
 OK: A teacher DID give them a task. (e.g. in a disagreement/argument)

7.3 OMs IN RELATIVE CLAUSES

Zeller (2014, 2015) argues that Zulu-like Oming is typified by the ability to co-occur with a relativized (coreferent) object. Changana shares that ability:

- (52) N-wà à-jòndz-é Ø-búkù nì-ngà-rí- xàv-à.
 1-child 1-read-PST 5-book 1SG.SM-REL-buy-FV
 ‘A child read a book which I bought it.’

7.4 THE PRESENCE/ABSENCE OF TERM FOCUS MAKES NO DIFFERENCE

As (53) shows (in contrast to Bukusu above), focusing an object makes no difference in acceptability:

- (53) a. ?Mu-jondzisi a-va- nyik-e va-jondzi ntsena n-tirho tolo.
 1-teacher 1SM-2OM-give-PST.CJ 2-student only 3-task yesterday
 ‘The teacher OM-gave the students [only a task] yesterday.’
- b. Mu-jondzisi a-va- nyik-e ntsena n-tirho va-jondzi tolo.
 1-teacher 1SM-2OM-give-PST.CJ only 3-task 2-student yesterday
 ‘The teacher OM-gave [only a task] the students yesterday.’

8 Conclusions

8.1 FUTURE LUYIA WORK

Empirical and Analytical Work:

- Formalize the analysis, and formulate additional predictions to be tested.
- Hopefully find better diagnostics to demarcate the vP edge, to be able to better understand the structural positions of OM-doubled objects.
- Bring Tiriki to the same level of documentation and analysis as Bukusu

Logistically:

- With Justine Sikuku, continue to work on Bukusu OMing (Spring 2020)
- with Franco, Liu, continue to work on Tiriki OMing (Spring 2020)
- leverage the conclusions from these projects to return to Wanga and Logoori to further document their OMing patterns, which clearly have similar properties. (Summer 2020)

8.2 AFRANAPH QUESTIONNAIRE PLANS

- Finish the revision of the questionnaire based on the Changana pilot study.
- Distribute questionnaire to Afranaph consultants to begin the process of growing the database with respect to OMing
- Write up an Afranaph technical report on Changana OMing

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