

# Conjoint/disjoint in western Benue-Kwa\*

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The goals of this study are (i) prosodic (toneme-free), compositional (non-templatic) analyses of some Benue-Kwa inflectional paradigms, east and (mainly) west; (ii) a defined parametric space in which to test these; and (iii) generalizations from conjoint/disjoint effects to verb copying.

## 1. *Prägnanz* or prosody?

In many eastern parts of Benue-Kwa, predicate-type expressions ('verbs', in Africanist usage) can be characterized as either "conjoint" with, or "disjoint" from, a right-adjacent phrasal constituent (Meeussen 1959; Schadeberg 2004). Literal pause is not necessary after a disjoint verb (Chebanne & al. 1997, 56), but disjoint phonetic traits remain prosodic in the broad sense: a language-particular mix of pitch/timing and affixation/auxiliation. On the interpretive side (see §3), correlates range over a set of *prima facie* interrelated properties including the domain of focus, the topichood and logical type (definite, generic...) of the internal argument, and the root versus embedded status of the parent clause.

Some treatments privilege segmental ('morphological') cues over pitch—e.g. Edenmeyr (2001, 30) for Kirundi—but in Setswana at least, Creissels (1996, 110f.) reports systematic tonal minimal pairs in the present perfect (1) and negative nonpast (2). In the superimposed paradigms in (3), a tonal difference appears in tandem with auxiliation, whether the content of the aux position has a default character recalling *do*-support (affirmative nonpast) or whether instead the aux is a positively specified sentence operator (future). If the aux is substantive, the audible conjoint/disjoint distinction reduces, once again, to tone. In contexts with a nonroot character, including those labeled pluperfect or consecutive, the distinction is phonetically neutralized altogether, yielding radical ambiguity, (4).

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|-------|--|-------|---|
| (1)a. | Bá jé-lè lé bònè.<br>3P eat-PERF with 3PL<br>'They <sub>i</sub> have eaten, even they <sub>i</sub> ' [disjoint]                      | (3)a. | Bá {à/tláà} bín-á lé bònè.<br>3P AUX dance-V with 3PL<br>'They <sub>i</sub> {Ø/will} dance, even they <sub>i</sub> ' [disjoint]   |
| b.    | Bá jè-lé lé bònè.<br>3P eat-PERF with 3PL<br>'They <sub>i</sub> have eaten with them <sub>j</sub> ' [conjoint]                       | b.    | Bá {Ø/tláà} bín-à lé bònè.<br>3P AUX dance-V with 3PL<br>'They <sub>i</sub> {Ø/will} dance with them <sub>j</sub> ' [conjoint]  |
| (2)a. | Gà bá bín-è lé bònè.<br>NEG 3P dance-V with 3PL<br>They <sub>i</sub> don't dance/aren't dancing, even they <sub>i</sub> ' [disjoint] | (4)   | Bá nè bá bín-né lé bònè.<br>3P PERF 3P dance-PERF with 3PL<br>a. 'They <sub>i</sub> had danced, even they <sub>i</sub> ' [disjoint]<br>b. 'They <sub>i</sub> had danced with them <sub>j</sub> ' [conjoint] |
| b.    | Gà bá bín-é lé bònè.<br>NEG 3P dance-V with 3PL<br>'They <sub>i</sub> don't dance/aren't dancing with them <sub>j</sub> ' [conjoint] |       |   |

Whether the cue is unary, multiple or silent, conjoint/disjoint phenomena pose the syntactic problem: whether the appearance of construction-specific *Gestalten* (arrays of 'markers' including paradigmatic *signe zéro*) can be reconciled with Fregean compositionality/Chomskyan Merge as a design feature of natural language. The tension is familiar in Benue-Kwa: for example it attends the claim that 'logophoric' effects amount to direct morphosemantic coding (in pronouns and complementizers) of *de se* speaker-indexicality (Hagège 1974; Schlenker 2000, 2003). With respect to analogous claims in aspectology, Verkuyl (2005, 37) questions the advantage of building ontological categories into the lexicon, eg. by writing events and subevents into DRT notations; the alternative is to rely on non-construction specific ingredients. The grammar-internal road is more arduous, but potentially more informative, than resorting to constructions from the outset. For logophoric effects, closer examination commends grammar-internal analyses couched in general concepts such as locality and case (Íkòrò 1996; Adęşolá 2004).

Similarly for negation. In Ìgbo a negative, nongeneric finite predicate bears two obligatory segmental indications, schematically A and B (5a). These have been treated as a template/discontinuous lexical item (Clark 1989, 187), implying that negation has more than one phrasal projection, or none at all.<sup>1</sup> A template treats as mysterious any paradigmatic gap, such as the nonexistence of negative infinitives (5b).<sup>2</sup> Negative gerunds (called "negative infinitives" in the literature, thanks to English translation) require only the A element, thus (5c) has just one interpretation plus or minus B. Negative subjunctives (traditionally called "imperatives" although they permit a third person subject, cf. Welmers 1973) need both A and C (5d), but the A and C formatives also occur in non-negative forms like the present perfect (5e), albeit under different prosody.

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|-------|--|----|--|
| (5)a. | Úchè á-má-ghị Jizòs.<br>U. A-know-B J.<br>'Úchè is a pagan/freethinker'                        | d. | (Úchè) á-má-na Jizòs!<br>U. A-know-C J.<br>'(Úchè should) be a pagan/freethinker!'                 |
| b.    | Úchè chọ-rọ í-má(*-ghị) Jizòs.<br>U. seek-D INF-know-B J.<br>'Úchè wants (*not) to know Jizòs' | e. | Úchè a-má-a-na Jizòs.<br>U. A-know-ASP-C J.<br>'Úchè has seen the Light'                           |
| c.    | Á-má(-ghị) Jizòs bú orịà.<br>A-know-B J. COP malady<br>'To be a pagan/freethinker is sick'     | f. | Mbà á-má onye ukwu.<br>abroad A-know person big<br>'The world doesn't recognize [local] celebrity' |

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1. Setting aside the option of phonological Fission of syntactic features, as entertained in early Distributed Morphology (Halle & Marantz 1993).

2. The literally blasphemous form, blocked in (5b), is effable via implicature from the output of neg-raising: 'Úchè doesn't want to know Jizòs' (not illustrated).

Considering the above distributions, if Ìgbo negation corresponds to anything audible, it's not to any particular marker but rather to a configuration: specifically, to the presence of a downstep juncture in between two syntactic positions: (i) a proclitic or aux (call it Tense) containing a pitch accent/H tone supported by epenthetic *e-/a-*; and (ii) the CV predicate root itself.<sup>3</sup> Déchaine (1995) identifies the downstep after A with a phrase boundary between Tense and VP across which the verb root doesn't raise—uncannily similar to Modern English *do*-support of stray Tense features in negative sentences (Gleitman 1969). One difference with English though, is that Ìgbo lacks dedicated tense morphology, so Déchaine concludes that V-to-T (or its lowering counterpart) never occurs in Ìgbo, not even in affirmative sentences, positing instead a shorter movement to some aspectual position below T.<sup>4</sup> But that stops short of explaining the absence of (accented) A plus downstep in affirmative contexts.

In fact, affirmative finite verbs display no obligatory segmental affix at all. They do have an obligatory, polarity-related marker, but crucially it's prosodic in nature. (6) repeats Ònwùeméne's (1984, 6) sample of such forms across northwestern dialects.<sup>5</sup> Continuing the schematic labels from the data above, affirmative, aspectually-neutral inflection is glossed D. Ònwùeméne's view is that segmental D (which he calls *-rV<sub>3</sub>* following Winston 1973) underlies even (6b) and (6c), both of which contain eventive predicates; his (1981) paper also considers it to be latent even in examples like (7), where the predicate is superficially stative. (7) comes from a southern dialect within the morphosyntactic ambit of Standard Ìgbo (Nwáchukwu 1984, 86). But despite Ònwùeméne's exertions, suffixation is actually the least dependable fact about these forms, which all share two properties: (i) absence of the accented proclitic *e-/a-* (complications with subject clitic inversion not illustrated); and (ii) suppression of lexical pitch accent ("H tone"), if any, on the predicate root.

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|---|--|
| (6) a. Ó jè-lù áfjá.<br>3S go-D market<br>[Ònìcha]                  | (7) Ó tì tráwuzà.<br>3S put.D long.pants<br>'S/he is wearing trousers/has trousers on' |
| b. Ó jè áshjá.<br>3S go.D market<br>[Ìgboúò]                        |  |
| c. Ó ò je áfjá.<br>3S AL go.D market<br>'S/he went to [the] market' | <i>n.b.</i> [*...jé...] in (6), [*...tí...] in (7)                                     |

Two more dialects further support the claim that pitch, not segmental affixation, is the Ìgbo affirmative 'marker'. Anticipatory lowering—glossed here descriptively as AL—occurs in Ìsele Úku after a clitic subject (6c), and in Òmáahyá (8) and Òweré (9) after a lexical subject (Green & Ígwè 1963, 75, 180; Émènanjò 1985, 120f.). That AL is not an independent prefixal morpheme, but a mere side-effect of suppressing the root's lexical pitch accent, is proved by the minimal contrast in (9). AL fails to occur just in case the pitch accent is not itself deleted, a situation which occurs in Mbàisen as well as Òweré (among other dialects), where a so-called strong H root like *-rí* 'eat' (9a) does not ever surface L but is always H, albeit preceded by a downstep in the bare affirmative form. L does appear in the bare affirmative with another class of inheently nonlow roots including *-kwú* 'speak' (9b); these roots are accordingly labeled "HL" by Swift & al. (1962), "weak H" by Déchaine (1993, 504) and "TCL2" by Nwachukwu (1995b, 16).<sup>6</sup> In those weak roots, mirabile dictu, AL returns right along with pitch accent suppression (9b).

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|---|--|
| (8) a. Óyi ì ji m̄.<br>cold AL hold.D 1s<br>'I have a fever'                            | (9) a. Íkhe rí-ri rin à.<br>I. eat-D food this<br>'Iyke ate this food' |
| b. Éghu ù ga-ra áhya.<br>goat AL go-D market<br>'Goats went to market (i.e. sold well)' | b. Íkhe è kwu-ru úkhà.<br>I. AL speak-D talk<br>'Iyke spoke'           |

Goldsmith (1976, 75f.) cites two examples from Green & Ígwè (1963, 75, 77) where a lexical subject anticipates the tone of a finite root (his "subject tone flop" rule) and the root is not L but downstepped H. But it happens that in both, the downstepped H is the result of footing and not a pitch accent, so is no a counterexample. The Òweré paradigm in (9) can't be reproduced in Ígwè's Òmáahyá dialect (Goldsmith's source): Òmáahyá does not distinguish these roots prosodically. The data in (9) have a crucial typographical correction: the L tone mark at the right edge of the subject of the model for (9a) is missing in example (42c) on p. 121 of Émènanjò (1985), although it is implied by the prose summary on the previous page and shows up in the 1981 manuscript (p. 224), as well as being confirmed by other examples in both editions. Goldsmith's forms actually disprove a "floating L tone" account of AL, since otherwise they should sound like (9a).

Conclusion: the obligatory mark of an affirmative—no less than of a negative—finite Ìgbo predicate is pitch-related, more precisely accentual. Where does it come from? Consider that no accent deletion occurs in finite negatives. (10) and (11) give affirmative/negative pairs involving two roots, *-kò* 'cultivate', *-chó* 'seek', lexically unaccented and accented respectively. Sentences containing these come out with identical pitch in the affirmative but not in the negative. With a clitic subject, the vocalic part of the A element of a finite negative is not pronounced—a default character that Déchaine likens to agreement, given its complementary distribution with a subject clitic. But the pitch accent ("H tone") of this A element is conserved, plus its following downstep, even in clitic subject forms, where the epenthetic vowel features are blocked. This accent displaces the root pitch rightward by one syllable: thus *-ghí* is L in (10b) and downstepped H in (11b).

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|---|---|
| (10) a. Ó kò-rò édè.<br>3S plant-D Colocasia esculentum<br>'S/he planted <i>édè</i> [before now]'   | (11)a. Ó chò-rò édè.<br>3S seek-D Colocasia esculentum<br>'S/he wants <i>édè</i> [now]/sought <i>édè</i> [before]'          |
| b. Ó kò-ghì édè.<br>3S plant-B Colocasia esculentum<br>'S/he did not plant <i>édè</i> [before now]' | b. Ó chò-ghí édè.<br>3S seek-B Colocasia esculentum<br>'S/he doesn't want <i>édè</i> [now]/didn't seek <i>édè</i> [before]' |

<sup>3</sup> The downstep juncture is of course inaudible before an unaccented root ("L tone verb"); these comprise less than one third of the lexicon. By itself the A element is insufficient for negation, e.g. *Á tá-ra ákí* 'Someone chewed *ákí*', *Á tá-a-la ákí* 'Somebody or other has chewed *ákí*' are both affirmative.

<sup>4</sup> Ìgbo must have some kind of verb raising into the affirmative inflectional domain, as shown by inversion of CV subject pronouns (Ézè 1995).

<sup>5</sup> This form is also called 'factive' (Welmers & Welmers 1968), "assertive" (Carrell 1970, 29; Ûwalaáka 1981) and "bare" (Déchaine 1991).

<sup>6</sup> Environments where weak H does surface include infinitive *íkúwá*, present perfect *èkwúwéle*, and gerund *òkwúkwu* (Nwachukwu 1983). Readers of Nwachukwu (1995b) will want to correct a typo in the "past" column of ex. (1), p. 16, where the text makes clear that the forms are *riri*, *gbúru*, *gbára* not *riri*, *gburu*, *gbara*. Swift & al. (1962) list 37 "HLTV" versus 40 "HTV and 28 "LTV", i.e. the three sets are roughly equal.

As for the other morphological ‘pieces’ in Ìgbo negative sentences, namely the segmental items B and C, if they’re not inflection they fall into place as polarity items, i.e. VP-internal adverbs quantifying over aspectuo-temporal contexts, like French *pas*. This fits their distribution and their content. Òwaláaka (2003) gives (5c) without the element B, but it’s modeled on an equally generic statement in which B occurs (Green & Ígwè 1963, 169). Émènanjọ (1985, 150, 165) points out that, in the Ñnécwi dialect, the B element in a negative gerund is a “restricted” allomorph *-ghul/-ghu*, distinct from the general item *-hol/-họ* found in a finite context like (5a). In Ìgbojọ examples like (5c) the C element is found instead of B (Émènanjọ 1985, 74). Generic, finite (5f) also lacks B. Nobody is indispensable, so goes the aphorism. As to content, across the negative gerund (5d) and the present perfect (5e) the C element *na* keeps consistently stative character which also persists in its other major use, as a durative aux (not illustrated: habitual in all major dialects, and additionally progressive in Ọnịcha). The element B as in (5a), pronounced *-ghil/-ghì*, is required in referential (nongeneric) contexts, but even so it’s transparent to the inherent aspectuality of the root, so for example it tracks exactly the behavior of affirmative D: both return a terminative/past reading just in case the verb root itself denotes a change of state (10); both allow a nonterminative/nonpast reading if the change-of-state construal is lacking—optionally in (11), regularly with an infinitive complement as in (5b), and always with inherent statives (not illustrated). This pattern is just the temporal interpretation of aspect in tenseless Ìgbo (Welmers & Welmers 1968, 76; Déchaine 1990). All the foregoing inferences can of course be avoided with liberal appeal to homophony, following Williams (1971) and tacitly assumed by ‘melodic’ inflection theories ever since, but if so, the homophonies actually observed are amazingly congruent to syntactic requirements.

Yorùbá also presents diverse negative morphology, though less intricate than Ìgbo because it has no suffixes to worry about, cf. (14c) below. Schematically again there are three phonetically different elements, call them auxes or proclitics: X is specialized for finites (12a), Y for nonfinites (12b-c) and Z indifferent (12d-e), cf. Abraham (1958), Bámgbọ́sẹ (1966); Awoyalé (1974); Oyeláran (1982, 1989).

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|--------|---|--------|---|
| (12)a. | Wọ̀n (k)ò lọ.<br>3P X go<br>‘They didn’t/don’t go’      | (13)a. | Òun a máa lọ.<br>3S HAB DUR go<br>‘S/he typically goes’ |
| b.     | láti (má-à) lọ<br>to DUR-Y go<br>‘in order (not) to go’ | b.     | Ó máa n lọ.<br>3S DUR PROG go<br>‘S/he typically goes’  |
| c.     | Má-à lọ!<br>DUR-Y go<br>‘Don’t go!’                     | c.     | mí-máa-lọ<br>NOM-DUR-go<br>‘habitual/continuous going’  |
| d.     | à-(ì-)lọ<br>NOM-Z-go<br>‘(non-)departure’               |        |   |
| e.     | Wọ̀n kò ì-lọ.<br>3P X Z-go<br>‘They aren’t gone yet’    |        |   |

Y (12b-c) is patently phonetically incorporated into the durative aux *máa-*, which occurs independently (13). If the constituency is [*máa* [ì-lọ]], then by regular vowel assimilation Y = Z. Reduction of Z to X is also within reach, assuming contextual epenthesis of vowel and consonant features to a timing unit bearing L tonality. At that point, by transitivity and given an analysis of tonal feet (Manfredi 1995; Déchaine 2001), morphosyntactic negation may be entirely reducible to phrasing, *ceteris paribus* as in Ìgbo.<sup>7</sup>

The foregoing challenges an assumption, key to Cartography (Rizzi 1997; Cinque 1999), that templatic closed-class morphology translates to syntax by allocating each phonetically distinct marker to one (or more) dedicated phrasal positions, each of which triggers formal licensing via “checking” Criteria (Rizzi 1996, 2004) consistent with the Attract theory of displacement (Chomsky 1995). Alternatively, it seems that constructions can arise indirectly from scopal requirements of licensing features, i.e. assuming a movement theory more like Repel.<sup>8</sup>

## 2. Parameter space

A useful experiment—already invoked in Ìgbo dialect comparison above—is to apply the comparative method in the typological sense, factoring out orthogonal language-particular properties from phenomena of interest. More control is obtained from languages in closer degree of historical relationship. Recognizing that it’s “impossible to draw a clear line between Bantu, however defined, and non-Bantu Niger-Congo” (Nurse & Philippson 2003, 5), the immediate domain of comparison for traditional Bantu is the Benue-Kwa “dialect continuum” (Williamson & Blench 2000, 17f., 27). This circumstance is intriguing, because there’s no tradition of describing disjoint forms as such in western BK—comprising especially Westermann’s (1927) “Kwa” (cf. Stewart 1971)—but there’s no shortage of phenomena that could qualify. I’ll present two such.

BK-internal structure may be reconstructable and relevant. Pending evidence of shared Neogrammarian sound-changes within BK (e.g. following up Stewart’s 1994 Volta-Congo), and lacking even heuristic significance in lexicostatistic calculations at this level of relationship, it can be observed that BK divides with respect to four descriptive parameters of a morphosyntactic nature (Manfredi 2005):

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|---------|---------|---|
|         | BK1 BK2 |   |
| (14) a. | - +     | A finite eventive predicate with minimal inflection allows a present perfect reading in addition to a past one. |
| b.      | - +     | Aspectually unrelated events are excluded from a single clause.   |
| c.      | - +     | Minimal finite inflection is an aux/proclitic particle (as opposed to a suffix or root-borne tone pattern).     |
| d.      | - +     | At least three surface tones contrast on roots of the same category (as opposed to two tones plus downstep).    |

BK1={Àkán, Èdó, Ìgbo, ‘Bantu’...}<sup>9</sup>

BK2={Gbè, Yorùbá, [Nupe], [Ìdomà]...}<sup>10</sup>

<sup>7</sup> As in Ìgbo, Yorùbá finite negation excludes the only obligatory inflection of affirmative clauses, which Yorùbá specialists call the “High Tone Syllable” (Awóbuluyi 1975). This terminology misleads because the item is not intrinsically syllabic; Bámgbọ́sẹ better named it “high tone junction” (1966, 33).

<sup>8</sup> Bošković (2005) rehabilitates the idea that movement is driven by a property of the moved item (“Greed”). My 1997 term “scopophobia” emphasizes that such a property may be configurational rather than intrinsic. Bošković restricts his discussion to so-called uninterpretable features, but nothing compels this so far as I can tell; my version necessarily concerns features with semantic interpretation.

<sup>9</sup> Mambila among other “Bantoid” languages is called “a language with four level tones” (Connell 1996), which would be bad for (14d), except for Connell’s subsequent observation that uninflected roots of predicate type choose from only two distinct pitch values (2000, 167). Similarly, while a few “narrow Bantu” languages (Kamba, Chaga) are described as possessing “four tone levels”, (14d) can still shelter in the fact that include “secondary superhigh and superlow” (Kissebirth & Odden 2003, 59, emphasis added).

If the four features really cluster together, they may reflect a single, more abstract trait. BK2 languages, being geographically contiguous, are likelier to represent the innovation, BK1 the archaic, dispersed remnant. Igbo and Yorubá fall on either side of this line, though both are ‘westies’. As a subgrouping above individual named clusters (the cacophonous “-oids” of the handbooks), and below BK as a whole, the classification in (14) replaces “Kwa” vs. “Benue-Congo” terminology, whether of “old” (Greenberg 1963) or “new” (Williamson 1989) vintage.

### 3. Accentual information structure in the east (toy version)

In Kirundi, auxiliiation has information structure effects (call them focus for short), and in addition, accent correlates with auxiliiation. Of the two generalizations, the latter is clearer in Meeussen’s original study (1959, 119-28): disjoint (15a) includes *ra* and allows pronunciation of the root’s pitch accent (“H tone”) if any, while conjoint (15b) necessarily lacks *ra* and suppresses the accent. This phonetic linkage is consistent with the idea that aux and VP form separate accentual domains, an assumption supported by independent observations (Keach 1986; Myers 1998), “conjunctive” Bantuist orthography notwithstanding (an ironic coincidence of terminology, cf. Baker 1996; Russell 1999). The presence of *ra* also affects focus: it allows either the verb root alone, or the whole VP, to constitute new information (16a), whereas a narrow information focus on the object, as in a content question (16b), entails the absence of *ra* (Ndayiragije 1998). The correlation of the two effects is 100% in these paradigms, because the *ra* auxiliary is apparently pleonastic apart from focus considerations, much like affirmative (i.e. stressed) English *do*, as helpfully hinted by Ndayiragije’s translation of (16a).

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|--|---|
| (15)a. N-ra áam-uur-a intore.<br>1S-ra pick-EXT-V plum<br>'I'm picking plums' [disjoint] | (16)a. Yuvinari a-á-ra someye ibitabo.<br>Y. a-a-ra read books<br>'Y. read/did read books' [disjoint] |
| b. N aam-uur-a intore.<br>1S pick-EXT-V plum<br>'I'm picking the plum' [conjoint]        | b. Yuvinari a-á (*-ra) someye iki?<br>Y. a-a-ra read what<br>'What did Y. read?' [conjoint]           |

Admitting that an accent-focus link exists, and that it is accompanied by the Kirundi counterpart of *do*, the task is then to pick the independent variable out of the three. One way is to see to what extent the phenomena covary crosslinguistically. The analysis is obviously complex because both pitch and auxiliiation differ across the area. Because I’m relying on secondary data and a tiny sample, any result is strictly provisional.

In Kinyarwanda (closely related to Kirundi), the *ra* form excludes an adverbial (17a) or a direct object (18a) from the domain of new information (Givón 1975, 194; tone outside the aux not marked in the source); and the *ra* form is also impossible in a negative or relative predicate (reported but not illustrated in the source). The corresponding non-*ra* form can’t be followed by a discourse-old (pronominalized or scrambled) object (19b), which the *ra* form allows (19a).

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| (17)a. *Yohani y-à-rá koze vuuba/mumusozzi.<br>Y. y-a-ra work fast/in the village [disjoint]                         | (18)a. *Yohani y-à-rá riieye iffi.<br>Y. y-a-ra eat fish [disjoint]                                  |
| b. Yohani y-à koze vuuba/mumusozzi.<br>Y. y-a work fast/in the village<br>'Y. worked fast/in the village' [conjoint] | b. Yohani y-à riieye iffi.<br>Y. y-a eat fish<br>'Y. ate (a) fish' [conjoint]                        |
|  | (19)a. Yohani y-à-rá yi-riieye (iffi).<br>Y. y-a-ra CL-eat fish<br>'Y. ate it (the fish)' [disjoint] |
|  | b. *Yohani y-à yi-riieye.<br>Y. y-a CL-eat [conjoint]  |

The asterisk on disjoint (18a) contradicts the grammaticality reported for disjoint (16a), so that’s a crosslinguistic difference, assuming that the comparison is correctly controlled (e.g. for argument type). But without indication of a phonetic correlate, it’s uninformative for the matter at hand. Givón himself points to a second type of difference, across a more distant relationship: in Zulu, the disjoint aux *ya* is excluded by the presence of any nonpronominal object (19), but the same restriction does not apply either to Bemba *li* (20), or to Kinyarwanda *ra* (15a, 16a), so long as information focus is not narrowly on the object, i.e. so long as the whole VP including the verb root is partitioned in the new information. Setswana is more like Zulu in this respect (Creissels 1996, 113f. – ungrammaticality implied for the counterpart of auxiliated (19)).

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|---|
| (19) U (*ya) dla isiinkwa.<br>3S ya eat bread<br>'S/he eats bread' (answers either 'What does s/he do?' or 'What is she doing' or maybe both – unclear in source) |
| (20) Ba à-lí li-ile umukate.<br>3S a-li eat-ile bread [disjoint]<br>'They ate bread' (answers 'What did they do?' not 'What did they eat')                        |

The Kirundi and Bemba disjoint forms merit the label broad because the domain of focus projects from V to VP (this is not true in Kinyarwanda as reported by Givón); the Zulu and Setswana counterparts are narrow because they cannot. The reverse may hold for the conjoint forms, which can express broad VO focus in addition to narrow focus on the object in both Setswana and Zulu (and perhaps Kinyarwanda, at least with indefinite objects), but not in Kirundi or Bemba. These different information scopes are charted in (21a), which defines only two languages because you can’t pick twice from the same column or row. (21b) is cleaner presentation sorted by languages rather than scopes.

- |       |  |          |          |          |  |      |         |          |        |  |      |      |   |
|-------|--|----------|----------|----------|--|------|---------|----------|--------|--|------|------|---|
| (21)a | <table border="1" style="display: inline-table; text-align: center;"> <tr> <td></td> <td style="border: none;">disjoint</td> <td style="border: none;">conjoint</td> <td></td> </tr> <tr> <td style="border: none;">V(O)</td> <td style="border: none;">KB (V)O</td> <td style="border: none;">ZS broad</td> <td rowspan="2" style="border: none; padding-left: 10px;">narrow</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;">V ZS</td> <td style="border: none;">O KB</td> </tr> </table>   |          | disjoint | conjoint |  | V(O) | KB (V)O | ZS broad | narrow |  | V ZS | O KB |   |
|       | disjoint   | conjoint |          |          |  |      |         |          |        |  |      |      |   |
| V(O)  | KB (V)O  | ZS broad | narrow   |          |  |      |         |          |        |  |      |      |   |
|       | V ZS   | O KB     |          |          |  |      |         |          |        |  |      |      |   |
| b.    | <table border="1" style="display: inline-table; text-align: center;"> <tr> <td></td> <td style="border: none;">disjoint</td> <td style="border: none;">conjoint</td> <td></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;">V</td> <td style="border: none;">VO</td> <td style="border: none;">O</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;">V</td> <td style="border: none;">VO</td> <td style="border: none;">O</td> </tr> </table> <span style="display: inline-block; vertical-align: middle; margin-left: 10px;">KB<br/>ZS</span> |          | disjoint | conjoint |  |      | V       | VO       | O      |  | V    | VO   | O |
|       | disjoint   | conjoint |          |          |  |      |         |          |        |  |      |      |   |
|       | V  | VO       | O        |          |  |      |         |          |        |  |      |      |   |
|       | V  | VO       | O        |          |  |      |         |          |        |  |      |      |   |

10. The Nupe and Ìdomà clusters are both provisionally BK2, but available sources don’t determine the status of Nupe with respect to (14a), or of the Ìdomà cluster with respect to (14b), hence the square brackets.

Taking this hypersimplified picture at face value, and pending collation of relevant prosodic facts in Zulu and Bemba, it's possible to make an initial guess about the distribution of the broad and narrow forms based on rudimentary pitch data from one language of each type.

A relevant observation is that auxiliation is neither necessary nor sufficient for a Setswana disjoint form, which is narrow: (1a) is disjoint with no aux, whereas the nonfuture variant of (3a) is indeed auxiliated, but could also be conjoint depending on the tone (3b). In Kirundi by contrast, all disjoint forms described by Meeussen are auxiliated, with the further prosodic correlate noted above, and they are all broad. Crucially, in the Kirundi conjoint, the verb root is deaccented—a robust correlate of old information (Williams 1997, 2003)—so the fact that it's narrow is no surprise. Now, why is the Setswana conjoint broad? Prosody distinguishes two subcases: after a 'middle field' aux—one which follows the subject clitic, as in (3b)—an accented verb (assuming that accent appears as a HL pitch contour) is broad conjoint, but otherwise—if nothing separates the subject clitic and the verb root, as in (1) and (2) and (4)—it's narrow disjoint. In other words, focus projects from an accented verb iff an aux directly precedes. This is also true in Kirundi, in fact trivially so because verb root accent (defined in this language as the audibility of lexical H) is limited to auxiliated forms. Turning to Setswana sentences which lack a middlefield aux, an accented verb is narrow/does not project, but this is not a comparative problem because Kirundi has no counterpart, for the independent reason already stated. The remaining case is an unstressed (and therefore nonauxiliated) verb in Kirundi, which is narrow conjoint; the corresponding form in Setswana is broad.

To summarise: given a host of assumptions, many speculative, the two eastern 'languages' share a uniform principle of stress-to focus mapping: focus projects from a stressed verb to VP (is broad) only after a Mittelfeld aux. In the absence of either VP-internal stress or an aux (call this neutral phrasing, equivalent to Nuclear Stress in Germanic languages, cf. Wagner 2005), focus includes the object (is conjoint) in both languages, with the thusfar unexplained difference that neutral phrasing is broad in Setswana but narrow in Kirundi. The missing story might come from independent stress-assertion effects in argument-type expressions, observable in nearby languages (Byarushengo & al. 1976; Odden 1991). Meanwhile, the foregoing 'toy' grammar demonstrates stress to focus mapping in the east: although the two properties are mediated by auxiliation, they're not independent, in either idealized language of the area. Better descriptions of more varieties may complicate the picture (or simplify it!), but the chances are low that stress-to-focus principles play no role in the disjoint/conjoint paradigms.

#### 4. Western disjoint: how to send verbs to edges

In Ìgbo (BK1), the internal argument is excluded from new information focus if a copy of the predicate root is realized within a bound nominal at the right edge of the sentence (22a). If the copy directly follows inflection (22b-c), the form is trivially disjoint (Émènanjò 1984) with narrow scope on the verb unless the object is tacit, in which case there is no marked focus, as with a Kinyarwanda intransitive (23a), (Givón 1975, 193).

- |  |  |
|--|--|
| <p>(22)a. Ézè ri-ri ọtara e-rí.<br/>E. eat-D food NOM-eat<br/>'E. did indeed eat (the) food, as expected' [disjoint]</p> <p>b. Ézè ri-ri e-rí.<br/>E. eat-D NOM-eat<br/>'E. ate something, as expected' [disjoint]</p> <p>c. Ézè ri-ri íhe.<br/>E. eat-D thing<br/>'E. ate something' [conjoint]</p> <p>d. *Ézè ri-ri.<br/>E. eat-D [conjoint, no assertion]</p> <p>e. Ézè bya-ra.<br/>E. come-D<br/>'E. arrived/came' [conjoint: implicit location<sup>11</sup>]</p> <p>f. Ézè bya-ra a-byá.<br/>E. come-D NOM-come<br/>'E. arrived/came, as expected' [disjoint]</p> | <p>(23)a. Yohani y-à-rá koze.<br/>Y. y-a-ra work<br/>'Y. worked' [disjoint]</p> <p>b. *Yohani y-à koze.<br/>Y. y-a work [conjoint, no assertion]</p> |
|--|--|

That the Ìgbo disjoint is narrow, is confirmed by the ungrammaticality of (24a) with the parenthesized material omitted (tricky notation alert), where the context makes 'food' non-topical. (24a) can however be saved by the presence of *íhe* 'thing', which is coerced to be topical, rather than a simple indefinite, as shown by the gloss.

- (24)a. Ézè la-ra ọlọ. M̀gbe chí jì-ri, ó rì-ri \*(íhe) è-rí.  
E. return-D house time daylight black-D 3S eat-D thing NOM-eat.  
'E. went home. When night fell he ate \*(a meal, at long last)' [e.g. after skipping lunch or hungerstriking]
- b. Ézè la-ra ọlọ. M̀gbe chí jì-ri, ó rì-ri íhe.  
E. return-D house time daylight black-D 3S eat-D thing.  
'E. went home. When night fell he had dinner'

To date, Ìgbo linguists handle forms like (22a,b) templatically, in which case the only relationship to eastern BK disjoints is on the pragmatic or discourse side of focus. But that would be wrong (as Nixon once said): a formal similarity also exists. (22a-b) aren't auxiliated, but there's still hope if §3 was correct to argue that the primary cue of the disjoint/conjoint alternation is the linearization of pitch accent. Recall from §1 that Ìgbo affirmative inflection deaccents the verb root, like the (narrow) conjoint form in Kirundi. When Kirundi creates a (broad) disjoint form by auxiliation, the lexical accent if any of the verb root is restored. Ìgbo achieves the same prosodic effect by introducing a nonfinite copy of the verb root: the lexical H of the root *-rí* is duly obligatory on the right hand copy in the above exx.

I'm trying to think of the copy as lexical epenthesis in a prosodic domain, not unlike emphatic do in standard English. This could make sense of various restrictions on the nonfinite, accentable copy. (i) it can't head a phrase (hence its traditional label, Bound Verb Complement); (ii) It must occupy absolute sentence-final position, following all internal arguments (22a, 25a) and adjuncts (25b), cf. Íhìónú (1989). (iii) Despite (ii), it can't be separated from the finite copy by an argument PP: (25c) is "strained" (C. Úchèchúkwu p.c.) in minimal contrast to (25a,b).

<sup>11</sup> Gruber (1965, 298); Fillmore (1971, 61); Ûwalaáka (1981, 1983); Kuno (1987, 225).

- (25)a. Ó mà-ra m ɹá (à-má). [VP idiom, i.e. subcategorized NP]  
 3S flat.contact-D 1S painful.thing NOM-slap  
 ‘S/he slapped me (indeed/as expected)’
- b. Ó tè-re égwu n’áhja (è-té). [nonsubcategorized PP]  
 3S mix-D dance in-market ING-mix  
 ‘S/he danced in the market (indeed/as expected)’
- b. Ó gbà-ra m áka n’ányà (\*à-gbá). [PP idiom, i.e. subcategorized PP]  
 3S move-D 1S hand in-eye NOM-move  
 ‘S/he slapped me (\*indeed/as expected)’

Assuming that the locality of adjuncts is computed in a different way from that of arguments, the degraded status of (25c) is evidence that the pitch accent is effectively shared between the copies under a single phrasal domain (excluding ternary branching).

Striking further evidence that the sentence-final position of the nonfinite copy is prosodically determined comes from the behavior of lexically unaccented verb roots (so-called L tone verbs). For intransitive LTV, not one but *two* pronunciations are possible:

- (26)a. Ó fù-ru a-fù. [...LL]  
 3S out-D NOM-out  
 ‘S/he exited’
- b. Ó dà-ra a-da. [...LL]  
 3S down-D NOM-down  
 ‘S/he fell down/S/he failed an exam’
- c. Ó zù-ru e-zu. [...LL]  
 3S complete-D NOM-complete  
 ‘It’s complete’
- (27)a. Ó fù-ru á-fù. [...HL]  
 3S out-D NOM-out  
 ‘S/he actually *did* exit, don’t deny it’
- b. Ó dà-ra á-dà. [...HL]  
 3S down-D NOM-down  
 ‘S/he actually *did* fall/fail, don’t deny it’
- c. Ó zù-ru é-zù. [...HL]  
 3S out-D NOM-out  
 ‘It actually *is* complete, don’t deny it’

The narrow disjoint reading, represented in (27) but not (26), is possible only with a lexically spurious high pitch, which has no other conceivable source than phrasal syntax. This is masked just in case the root is lexically accented, as in (22). The alignment of the accent, on the nominalizing prefix rather than the copy, is not universal: in certain Mbàisen dialects (P. Nwáchukwu, p.c.) the forms in (27) are pronounced [...LH] instead of [...HL], however I’m not aware of any dialect which has both LH and HL in bound/epenthetic forms of this kind.

With transitive unaccented roots, by contrast, the nonfinite copy cannot be accented. This is certainly the case if the object is present (28), but may also be the case if the object is dropped (29):

- (28)a. Ó zà-ra ébe ahù (a-za/\*á-zà). [...LL/\*HL]  
 3S sweep-D place that NOM-sweep  
 ‘S/he (really, don’t deny it) swept that place’
- b. Ó bọ-rọ nkítá ahù (a-bọ/\*á-bọ). [...LL/\*HL]  
 3S butcher-D dog that NOM-butcher  
 ‘S/he (really, don’t deny it) turned that dog into cutlets’
- (29)a. \*Ó zà-ra (ébe ahù) á-zà. [...HL]  
 3S sweep-D place that NOM-sweep  
 [to reconfirm]
- b. \*Ó bọ-rọ (nkítá ahù) á-bọ. [...HL]  
 3S butcher-D dog that NOM-butcher  
 [to reconfirm]

The nonfinite copy of a lexically unaccented root, whether transitive or intransitive cannot be accented (cannot bear HL, or in Mbàisen LH) in yet a further context: a content question, whether transitive or intransitive, (30) - (31). (30) also shows in passing that both major types of content questions, described by Goldsmith (1981), are alike in this respect. Under any tonality, the copy is bad in a question formed from an intransitive which is inherently stative, (31b). By contrast, the unaccented copy is perfect in a yes/no question, for both intransitives and transitives (not illustrated—just change the tone of the subject clitic to L in (26) and (28) respectively).

- (30)a. Kè-dú ebe ɹnù-ɹ zà-ra (a-za/\*á-zà)? [...LL/\*HL]?  
 COMP ɹ place 2P-REL sweep-D NOM-sweep  
 ‘What place did you (really) sweep?’
- b. Gíní kà ɹnù bọ-rọ (a-bọ/\*á-bọ)? [...LL/\*HL]?  
 Q.thing COMP 2P butcher-D NOM-butcher  
 ‘What did you (really) butcher?’
- (31)a. Gíní fù-ru e-fu/\*é-fù? [...LL/\*HL]  
 Q.thing lost-D NOM-lost  
 ‘What got lost?’
- b. \*Gíní zù-ru e-zu/é-fù? [...LL/HL]  
 Q.thing lost-D NOM-lost

Taken collectively, the restrictions in (28) - (30), in themselves and compared to the less restricted paradigms with lexically accented roots as in (25), support a prosodic theory of disjoint focus, because they attest that the accent on the nonfinite copy, by definition assigned syntactically, depends on the locality of the finite inflected copy of the root, as opposed to being somehow generated as an independent, edge-based pragmatic marker—a construction-based alternative hypothesis which would break the east/west comparison undertaken here.

A final datum along the same lines is the fact that subjunctive inflection, which is intrinsically accented (Williams 1971), can appear in both copies (Abraham 1967, 110; C. Úchèchúkwu, p.c.). Here it’s clear that the accent (H tone) on the bound copy is inflectional, both because of its position—not on the prefix of the bound form as in (26)-(27)—and because the root is transitive, which factor normally suffices to block accentuation of an uninflected copy, cf. (29).

- (32)a. Mù-ó à-mù-ó!  
 learn SJV NOM-learn-SJV  
 ‘Learn something!’
- b. Mù-ó yá (à-mù-ó)!  
 learn SJV 3S.GEN NOM-learn-SJV  
 ‘Learn it (thoroughly)!’

Our westerly journey comes to rest in Yorùbá (BK2), where an ‘extra’ copy of the predicate root can be realized only on the left edge of the sentence. (33a) is a narrow disjoint form in good standing: it has a spurious pitch accent, absent in the neutral (33b), and everything except for the verb is topical. Paradigms like (33) have been analyzed by verb movement to a Comp-related dedicated focus position (Koopman 1984, 2000; Aboh 2004), but it has ever been mysterious why the ‘lower’ copy must be pronounced, and worse, the ‘higher’ copy nominalized (Manfredi 1993; Gouguet 2004). Moreover, the nonfinite copy is not intrinsically contrastive, even though its merged

position is high, casting doubt on a popular checking criterial explanation for movement. Although a contrastive interpretation is often salient in examples of this type, it's not necessary, so Àjàyí (1996, 48f.) translates (33a) idiomatically as a passive. Similar examples abound. If (33a) is treated as a disjoint form, both puzzles can be understood as the prosody of assertion. BK2 languages being parametrically restricted to aux-like finite inflection (14c), the Yorùbá pitch accent of assertion is VP-external and can't skip over a direct object as in (22a). Either (i) assertion is re-merged in the derivation, appearing in unadorned form as a copula (cf. Moro 1997), glossed  $\Sigma$  below, leaving behind an assertion scope island as the remnant of the resulting cleft (= the bracketed domain in (33a)); or else (ii) the object is suppressed in an otherwise impossible null object construction (34), (Bámgbóṣé 2000). The movement concept relevant to (33a) is thus not checking but scrambling (Erteschik-Shir & Strahov 2004) or rather anti-scrambling (Drubig 2003). Unlike Ìgbo's bound right-edge verb copy, the leftist gerund *gbí-gbá* in (33a) is necessarily free—draw your own conclusions.

- (33)a. Gbí-gbá ni [Omí gbá a lọ]. (34) Ó jẹ ẹja. Èmi nàà-á jẹ (\*ẹ).  
 H-sweep  $\Sigma$  water.  $\Sigma$  sweep 3S go 3S eat fish 1S that- $\Sigma$  eat 3S  
 'It was actually/amazingly eroded by Water' [disjoint] 'S/he ate fish [versus meat]. So did I.' [disjoint]
- b. Omí gbá a lọ.  
 water.  $\Sigma$  sweep 3S go  
 'Water eroded it' [conjunct]

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