

## Interpretive contrasts in the Kifuliiru copular system

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From a typological perspective, it is not uncommon to find languages that grammatically distinguish temporary vs. permanent predication (Milsark, 1974; Carlson, 1977; Kratzer, 1995; Diesing, 1998; a.o.). In many languages, this contrast corresponds to the use of distinct copular verbs, e.g., Spanish *estar/ser* (see Deo et al., 2017). Using novel fieldwork data, I show that a similar copular contrast is expressed in Kifuliiru (Bantu, JD63; Maho, 2009), albeit with an added layer of complexity; while Kifuliiru encodes a temporary/permanent contrast in its two copular verbs *-li* (temporary state) and *-tula* (permanent state), it exceptionally exhibits a third copular form, *-muba*, whose distribution and interpretation is distinct from *-li/ -tula*. The observed three-way copular contrast in Kifuliiru provides novel evidence against a strictly binary distinction between stage/individual-level predication, instead favoring the three-way interpretive distinction advocated for in Roy (2013). More broadly, the Kifuliiru data serves as a novel addition to the typology of non-verbal predication, and further underscores the extent of cross-linguistic variation within this domain.

**Copular BE.** Much like the distinction between *ser* and *estar* in Spanish (Deo et al., 2017), we find that the two Kifuliiru copulas, *-li/-tula*, encode a general distinction between temporary and permanent predication, with *-li* yielding a time-bounded, stage-like interpretation of the locative description “in Kinshasa” (1), and *-tula* yielding a ‘permanent’ interpretation (2).

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| <p>(1) <i>Maneno ali Kinshasa</i><br/>         1.Maneno 1SM.PRES.be-<sub>LI</sub> Kinshasa<br/>         ‘Maneno is in Kinshasa’ (right now; he’s visiting)</p> | <p>(2) <i>Maneno atula Kinshasa</i><br/>         1.Maneno 1SM.PRES.be-<sub>TULA</sub> Kinshasa<br/>         ‘Maneno is in Kinshasa’ (he lives there)</p> |
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While reminiscent of the stage/individual distinction reported in the copular systems of languages like Spanish (Carlson, 1977; Kratzer, 1995; Arche, 2006; a.o.), the distribution of *-li/-tula* does not align with previous descriptions of this contrast. We find that the ‘temporary’ state copula *-li* is sometimes available with canonically individual-level predicates; though unavailable in contexts where a property holds indefinitely (3), *-li* may be use with an individual-level predicate, e.g., ‘short’, to yield a contextually bound interpretation (4).

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| <p>(3) <i>Context: Safari is shorter than everyone in town, and everyone knows this fact about him.</i><br/> <i>Safari #ali/√atula mu:fi</i><br/>         1.Safari 1SM.PRES.be-<sub>LI</sub>/be-<sub>TULA</sub> 1.short<br/>         ‘Safari is short’</p> | <p>(4) <i>Context: Safari is considered tall, but now he’s standing next to someone much taller than him.</i><br/> <i>Safari √ali/#atula mu:fi</i><br/>         1.Safari 1SM.PRES.be-<sub>LI</sub>/be-<sub>TULA</sub> 1.short<br/>         ‘Safari is short’</p> |
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In addition to *-li/-tula*, Kifuliiru also exhibits a third copula in non-verbal predication, *-muba*. Like the ‘permanent’ state copula *-tula*, *-muba* may be used to yield a ‘permanent’ interpretation of locative descriptions (5) and so-called characterizing predicates (6).

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| <p>(5) <i>Maneno √amuba/√atula Kinshasa</i><br/>         1.Maneno 1SM.PRES.be-<sub>MUBA</sub>/be-<sub>TULA</sub> Kinshasa<br/>         ‘Maneno is in Kinshasa’ (he lives there)</p> | <p>(6) <i>Safari √amuba/√atula munganga</i><br/>         1.Safari 1SM.PRES.be-<sub>MUBA</sub>/be-<sub>TULA</sub> 1.doctor<br/>         ‘Safari is a doctor’ (his lifelong career)</p> |
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Despite the fact that *-muba* yields ‘permanent’ interpretations elsewhere (5)-(6), it cannot ascribe canonically individual-level properties like ‘tall’ to definite subjects; unlike *-li* and *-tula*, *-muba* is unavailable regardless of context in (7)-(8).

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| <p>(7) <i>Context: Safari is taller than everyone in town, and everyone knows this fact about him.</i><br/> <i>Safari #amuba/#ali/√atula mula</i><br/>         1.Safari 1SM.PRES.be-<sub>MUBA</sub>/be-<sub>LI</sub>/be-<sub>TULA</sub> 1.tall<br/>         ‘Safari is tall’</p> | <p>(8) <i>Context: Safari is considered short, but now he’s standing next to someone much shorter than him.</i><br/> <i>Safari #amuba/√ali/#atula mula</i><br/>         1.Safari 1SM.PRES.be-<sub>MUBA</sub>/be-<sub>LI</sub>/be-<sub>TULA</sub> 1.tall<br/>         ‘Safari is tall’</p> |
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However, *-muba* may co-occur with an individual-level predicate in the presence of a generic subject. In this environment the use of *-muba* yields a kind-reading; the properties in (9)-(10) characterize kinds of trees.

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| <p>(9) <i>Kino kiti kimuba kirefu</i><br/>         7.DEM 7.tree 7SM.PRES.be-<sub>MUBA</sub> 7.tall<br/>         ‘This (kind of) tree is tall’</p> | <p>(10) <i>Kino kiti kimuba kiofi</i><br/>         7.DEM 7.tree 7SM.PRES.be-<sub>MUBA</sub> 7.short<br/>         ‘This (kind of) tree is short’</p> |
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**Interpretation of BE.** In an attempt to capture the observation that languages sometimes distinguish between properties that hold temporarily of an individual and properties that hold indefinitely, accounts like Milsark (1974), Carlson (1977), Diesing (1992), and Kratzer (1995), a.o., posit a binary distinction between stage-level and individual-level predicates. For some of these accounts, the stage/individual contrast is purely lexical; only stage-level predicates have an eventuality argument (see Kratzer, 1995). For others, the source of the stage/individual contrast is syntactic; assuming all predicates are predicates of eventualities, interpretive contrasts must arise due to differences in their structure (Roy, 2013). Based on predicational contrasts in French, Spanish, and Russian, Roy (2013) posits three syntactically and interpretively distinct types of non-verbal predicate (11). So-called *dense* (situation-descriptive) predicates range over mass (non-atomic) eventualities, yield ‘temporary’ state interpretations, and are syntactically associated with a bare predicate XP. In contrast, *non-dense* (characterizing) predicates range over atomic eventualities, allow for interpretive ‘gaps’, and are associated with an additional projection above XP, the classifier phrase (CIP). Finally, *maximal* (defining) predicates range over maximal eventualities, yield ‘permanent’ state interpretations, and are uniquely associated with the presence of a number phrase (NumP) above CIP and XP.

(11) *Predicate types in Roy (2013)*

a.	[XP]	dense	(situation-descriptive)
b.	[CIP[ ... ]]	non-dense	(characterizing)
c.	[NumP[ ... ]]	maximal	(defining)

Given that the Kifuliiru copular system similarly distinguishes between ‘temporary’, generic, and ‘permanent’ properties, I argue that the contrast between *-li/-muba/-tula* directly corresponds to the dense/non-dense/maximal distinction presented in Roy (2013), at least with respect to interpretation. Specifically, the ‘permanent’ copula *-tula* corresponds with defining interpretations; it describes a property that is true of a maximal eventuality. In contrast, *-muba* corresponds with non-dense, characterizing interpretations; it describes a property that need not be true of every subpart of an eventuality *e*. Finally, the ‘temporary’ copula *-li* corresponds with situation-descriptive interpretations; it describes a property that is non-atomic (contra *-muba*) and does not hold of a maximal eventuality (contra *-tula*).

(12) <b>-li</b> (SITUATION-DESC.):	(13) <b>-muba</b> (CHARACTERIZING):	(14) <b>-tula</b> (DEFINING):
$\exists e[P(e) \ \& \ \text{Subj}(e,x)]$	$\exists e[P(e) \ \& \ \text{Subj}(e,x) \ \& \ P \ \text{is nondivisible}]$	$\exists e[\text{MAX}(e) \ \& \ P(e) \ \& \ \text{Subj}(e,x)]$
There is an event of x being P	There is an event of x being P where P is nondivisible (P need not hold of all subparts of e).	There is an event of x being P, and for all e P(e), there is no e' such that e is a proper part of e' and P(e').

This three-way, competition-based system directly accounts for the fact that *-li* yields contextually bounded interpretations of locative (3) and individual-level descriptions (4), whereas *-muba/-tula* yield ‘permanent’ interpretations (5)-(6); the use of *-li* results in the implicature that the property described is both dense/divisible (unlike *-muba*), and does not hold of a maximal eventuality (unlike *-tula*). This analysis also explains why *-muba* cannot attribute individual-level properties to definite subjects, despite generally yielding ‘permanent’ readings; if *-muba* corresponds with characterizing interpretations, it describes properties that need not be true of all subparts of an eventuality, whereas individual-level descriptions, e.g., ‘tall’ (7)-(8), hold of maximal eventualities, and are therefore true of all subparts of an eventuality. However, since *-muba* describes nondivisible properties (i.e., it allows ‘gaps’), it can attribute an individual level property to a generic subject to yield a kind-reading; there is a (general) eventuality of x being P, e.g., *this kind of tree is (usually) tall*, but not all subeventualities of e must be P eventualities, e.g., *this kind of tree is (usually) tall, but the one in front of me is not*.

Though I argue that the interpretive contrasts in the Kifuliiru copular system mirror those associated with the three predicate types presented in Roy (2013), I do not suggest that the three-way copular contrast in Kifuliiru is syntactically derived. As illustrated below, the Kifuliiru copulas do not exhibit the selectional/distributional distinctions that would be expected under a structural analysis like that of Roy (2013). For example, though the NumP projection is predicted to be restricted to defining sentences under a structural analysis, a quantified NP predicate may appear with all three of the Kifuliiru copulas (15).

- (15) *Johana na Maria* <sup>✓</sup>*bali*/<sup>✓</sup>*batula*/<sup>✓</sup>*bamuba* *baalimu babiri*  
 1.John and 1.Mary 2SM.PRES.be-*li*/be-*tula*/be-*muba* 2.teacher 2AGR.two  
 ‘John and Mary are two teachers’

A similar issue arises with mass term predicates, which are predicted to be incompatible with the CIP projection (associated with characterizing sentences), since they “lack count structure” (Roy, 2013). Instead we find that all three copulas may be used with mass predicates in some cases, including the ‘characterizing’ copula *-muba* (16).

- (16) *Gano* <sup>✓</sup>*gali*/<sup>✓</sup>*gatula*/<sup>✓</sup>*gamuba* *maaji*  
 6.DEM 6SM.PRES.be-*li*/be-*tula*/be-*muba* 6.water  
 ‘This is water’ (pointing at water in a cup)

Given these observations, I opt to situate the three-way contrast on a relational Pred head (Bowers, 1993; 2001) rather than attribute it to structural differences associated with the predicate. Broadly, what I propose here is that the Kifuliiru copular system has lexicalized the interpretive contrasts that distinguish the three predicate types presented by Roy (2013).

Bigger picture, the Kifuliiru data suggest that a binary contrast between stage/individual-level predication may not be fine-grained enough to capture the range of interpretive contrasts we observe in copular systems, and further highlight cross-linguistic variation in the expression of non-verbal predication.

**Selected References.** Arche, M. J. (2006). *Individuals in time: Tense, aspect and the individual/stage distinction*. John Benjamins Publishing. | Carlson, G. (1977). *Reference to kinds in English*. PhD thesis. | Kratzer, A. (1995). Individual-level predicates. In Carlson, G. and Pelletier, F. J., editors, *The generic book*, pages 125–175. CSLI Publications. | Milsark, G. (1974). *Existential Sentences in English*. PhD thesis, MIT. Roy, I. (2013). *Nonverbal predication: Copular sentences at the syntax-semantics interface*. Oxford Studies in Theoretical Linguistics. Oxford University Press, Oxford.