

Reference to kinds: the perspective from Bangla

Background. This work deals with kind reference and shows that Bangla adds a new dimension to our understanding of kind-oriented languages and classifiers. Bangla behaves like a canonical classifier language when it comes to numeral constructions (NCs) (Pg. 3, Eg. 10a & 10b)—(i) obligatory presence of classifier(-*ta*) in count NCs, (ii) lack of morphological number marking¹ (iii) same treatment of mass and count nouns, in that neither can be counted directly—as has been shown for prototypical classifier languages, e.g., Mandarin, Japanese, Korean (Jiang 2012, Kim 2009, Cheng & Sybesma 1999). Bare nouns (BNs) in classifier languages are taken to be regular (plural) kind terms and can freely appear in argument positions (Krifka 1995), undergoing DKP for narrow scope existential readings, or *pred* followed by *iota*-shift for definite readings in episodic contexts (Chierchia 1998). Earlier works on Bangla have focused on the classifier *ta* (Bhattacharya 1999, Dasgupta 1983 a.o.), but not as much on another classifier in the language, *ra*, whose investigation, I argue, is crucial for understanding BNs and kind reference in Bangla. Bangla BNs have been analysed as regular (plural) kind terms in Dayal (2012, 2014) and in Jiang (2012). They argue that Bangla BNs are freely argumental, which can receive a narrow scope existential reading via DKP. Biswas (2016), on the other hand, claims that Bangla BNs are property denoting, and their different interpretations are brought about via additional functional projections.

Core argument. In a kind-oriented language like Mandarin, BNs denote (plural) kinds, and in property-oriented languages, like English (Carlson 1977) or Hindi, bare plurals denote (plural) kinds. I show that Bangla BNs do not pattern with any of these languages. I illustrate that Bangla BNs, though kind denoting, are *not* plural kinds but *singular kinds*. The extensive presence of singular kind reference in Bangla is attributed to *ra*, which establishes the relation to its members.

Data. *ra* can optionally be present in generics (1a) and kind predication (1b). Though *ra* has been analyzed as a plural classifier with associative uses (Dayal 2014, Biswas 2013), we only obtain a taxonomic reading, and *not* a regular plural kind reading with *ra*. In kind predication, *ra* marking is infelicitous for nouns that do not have further (known) taxonomic ordering under it (2).

- | | |
|--|--|
| <p>(1) a. kukur-(<i>ra</i>) jore douroy.
 dog-CLF_{<i>ra</i>} fast run
 Bare: ‘Dogs run fast.’
 NP-<i>ra</i>: ‘The various dog sub-kinds
 run fast.’</p> | <p>b. dinosor-(<i>ra</i>) bilupto hoe gyache.
 dinosaur-CLF_{<i>ra</i>} extinct be go.PERF.3.
 Bare: ‘Dinosaurs are extinct.’
 N-<i>ra</i>: ‘The various dinosaur sub-kinds are
 extinct.’</p> |
| <p>(2) Bangladesh-e nilgai-(#<i>ra</i>) bilupto hoe gyache.
 Bangladesh-LOC nilgai-CLF_{<i>ra</i>} extinct be.INF go.PERF.3.
 ‘The nilgai is extinct in Bangladesh.’</p> | |

In generics, we find that BNs are only felicitous with taxonomic adjectives like *wild*, which establishes a sub-type of the noun that it modifies (3a). *ra* is obligatory for adjectives like *wounded*, which just define physical properties of the entities rather than a classificatory property (3b).

- | | |
|---|---|
| <p>(3) a. buno kukur jore douroy.
 wild dog fast run
 ‘Wild dogs run fast.’</p> | <p>b. ahoto kukur-*(<i>ra</i>) jore douroy.
 wounded dog-CLF_{<i>ra</i>} fast run
 ‘Wounded dogs run fast.’</p> |
|---|---|

Additionally, Bangla BNs are infelicitous with reciprocal predicates (4a) (and also with distributive predicates, Pg. 3, Eg. 11), which contrasts sharply with the behavior of BNs in a prototypical kind denoting language like Mandarin (4b—data from a native speaker).

¹Though many classifier languages are reported to possess plural affix-like elements, these markers behave differently from regular plural markers like the English -s, marking more than just plurality.

- (4) a. kukur-*(ra) eke-opor-er sathe b. gōu huì hùxiàng gōngjī.
 dog-CLF_{ra} each-other-GEN with Dog MOD.GEN each-other attack
 maramari kore. ‘Dogs attack each other.’
 fight do.PRS.3
 ‘Dogs fight with each other.’

BNs in episodic predication are very restricted: BNs occur in non-case marked object-positions and, once again, can be modified only by taxonomic modifiers (12). Modification restrictions disappear when the noun isn’t bare (13). (Examples on Pg. 3)

Proposal. I argue that the distribution of Bangla BNs (Fig 1) is best accounted for if they are taken to be *singular kind* terms (rather than plural kinds). While both singular and plural terms can be used for kind reference cross-linguistically, they have some well-attested differences (14). Dayal (2004) takes singular kinds to be grammatically impure atomic terms that do not allow transparent access to the parts that make it up, i.e., while plural kind terms hold a part-of relation (\leq) to the individuals instantiating the kind (as in *pred*, Chierchia 1998), the relation between singular kinds and its members (represented by \downarrow in Landman 1989) is claimed to remain at the conceptual level.

- (5) Plural kind $\rightarrow \lambda w. \iota x [P(x)(w)]$ [extension in w is the maximal plural individual]
 (6) Singular kind $\rightarrow \lambda w. \uparrow \iota x [P(x)(w)]$ [extension in w is a group]

Bangla BNs exhibit evidence for similar impure atomicity [(4a) & (11)]. The singular kind term *kukur* (DOG) is an impure atomic term and hence cannot be shifted via a covert type-shifter, *pred*, into sets of object-level entities, thus not allowing reciprocal or distributive predicates to access different parts of these entities. This explains the restriction on object level modifiers as well: whereas a taxonomic modifier can modify the whole kind, an object-level modifier requires access to object-level instantiations of the kind for composition, which cannot be transparently accessed (via *pred*) for a singular kind term. However, languages exhibit other mechanisms to allow access to members of singular kinds (such as in Turkish, via certain grammatical constructions, Sag (2022)). For Bangla, I argue that the relation between a singular kind and its members is established by the lexical item *ra* (7), and it’s because of the presence of this overt lexical form that we find a more extensive use of singular kind reference in the language. When context-shift establishes the members of a group at the taxonomic level (following Dayal 2004) instead of the object level (1b), *ra* predicativizes at the taxonomic level, yielding a property of taxonomic kinds (8).

- (7) $\llbracket ra_{obj} \rrbracket = \lambda x^K. \lambda w. \lambda y [y \leq \downarrow x^K(w)]$ (8) $\llbracket ra_{subkind} \rrbracket = \lambda x^K. \lambda w. \lambda y^K. [y^K \leq \downarrow x^K(w)]$

At the property level, *nom* (Chierchia 1998) applies to argumentize. But in (2), a regular kind reading of *-ra* is blocked by the semantically equivalent primitive form—the BN (less complex/costly). Modification restrictions follow from the argument that object-level modifiers (*wounded*) requires an object-level property to compose with, which needs to be furnished by *ra* (9a) before such composition can proceed (9b). This explains the infelicity of BNs with object-level modifiers.

- (9) a. $\llbracket kukur - ra \rrbracket^w = \lambda y. [y \leq \downarrow DOG(w)]$ b. $\llbracket ahoto kukur - ra \rrbracket^w = \lambda y. [y \leq \downarrow DOG(w) \wedge wounded(y)]$

I assume taxonomic adjectives to be kind modifiers, i.e., they denote functions from kinds to kinds, returning a new modified (sub)kind out of their input kind. Adopting a Cinque (2010) style modification hierarchy (Fig 2), I argue that they combine with a kind-denoting bare noun directly without requiring an object level denotation to be furnished by *ra*: $Mod_{kind} : A_{kind} \rightarrow B_{kind}$.²

²I don’t address the pseudo-incorporation of BNs in episodic predication (evidence from ban on adverbial intervention (not shown here), modification facts, etc.). Taxonomic-kind PI approach (Sag 2022) can be extended to these cases.

