

Why are there disjunctive particles in Sinhala & Dravidian relative-correlatives?

existential particles in non-existential environments

Brief: Relative-correlative constructions in Dravidian and literary varieties of Sinhala use a quantifier particle as a “closing particle” in the relative clause; such constructions often involve free choice interpretations. Unexpectedly, the quantifier particle involved is part of the disjunctive/existential group (used in forming disjunctions, indefinites, questions) rather than the additive/universal group, as opposed to the case in Hindi and other languages. I provide an analysis which treats these particles as variables over choice-functions carrying an anti-singleton presupposition, which accounts for their use in the formation of epistemic indefinites in Sinhala & Malayalam. In the case where such particles are internal to a relative clause, the quantificational force contributed by the relative pronoun produces a universally quantified environment out-scoping the existentially-bound choice function variables. This forms part of a larger effort to understand the nature of particles expressing what seem to be elementary logical operations (Szabolcsi 2010,2015, Slade 2011, Mitrović 2014 &c.)

Overview: In many Dravidian languages and in certain varieties of Sinhala we find relative-correlative constructions [henceforth RCCs; see Lipták 2009 for general discussion of RCCs] which include a particle which elsewhere appears in the formation of disjunctions (and, in many of these languages, as in the formation of questions). In many cases, the relatives have the force of free relatives like English *-ever* forms, as in the Sinhala & Malayalam¹ examples below, using the particles *da* and *o*, respectively:

- (1) [*yamak’hu* *paḷamu diṭim*]_{RC} *-da* [*ohu marā* ...]_{CC}
 [**REL-PRON.MSC.SG.ACC** *firstly* *see.1SG*]_{RC} *-da* [*him kill.CONV* ...]_{CC}
 “Whoever_i I see first, I shall kill him_i ...” (*Amāvatura* 133, Wijemanne 1984:210) [Class. Sinh.]
- (2) [*ārə* *manassə aṭakkunnuv*] *-ō* [*avaṇṇə samādhānam kiṭṭunnu*]
 [**REL-PRON** *mind* *control.PRES.*]_{RC} *-ō* [*he.DAT* *peace* *obtain.PRES.*]_{CC}
 “Whoever_i controls his mind, he_i obtains peace.” (Asher & Kumari 1997:54) [Malayalam]

Sinhala *da/da* and Malayalam *ō* belong to the class of “quantifier particles” [henceforth Q-particles] which appear in a wide range of syntactically-heterogeneous contexts which can be semantically unified in that they all involve alternatives, and these particles serve to quantify over these alternatives (cf. Slade 2011, amongst others). What is striking about Sinhala and Dravidian RCCs is not even so much that they use a Q-particle (though the use of particle in such syntactic constructions is indeed unusual) but that they apparently use the “wrong” Q-particle.

Crosslinguistically many language use morphemes from two series in a wide range of “quantificational” contexts, split roughly into additive/conjunctive/universal morphemes like Japanese *mo* and interrogative/disjunctive/existential morphemes like Japanese *ka* (cf. Kratzer & Shimoyama 2002, Szabolcsi 2010, Slade 2011, Mitrović 2014 &c.)— following the terminology of Mitrović (2014), the μ -series and κ -series of Q-particles, respectively. Sinhala *da*, Malayalam *ō* belong to the disjunctive/existential κ -series, with the μ -series additive/universal counterparts being *t* and *um*, respectively.

Examples of these particles *da* and *ō* appearing in interrogative and disjunctive contexts include Classical Sinhala *To me suta Budun desannā āsūhu da?* “Did you hear the Buddha preaching this sermon?” (*Amāvatura* 228, Wijemanne 1984:71), *...kī dē nīpan da no nīpan da?* “Did what I said come true or did it not?” (*Amāvatura* 178, Wijemanne 1984:75); and Malayalam *John wannu-ō?* “Did John come?” (Jayaseelan 2001:67), *Mary John-ine-ō Bill-ine-ō cumbiccu* “Mary kissed John or Bill” (Jayaseelan 2008:3).²

Given that the Sinhala & Dravidian RCCs frequently have a free choice *-ever* flavour, we might expect them to employ a Q-particle from the μ -series which orients them with universal-quantification as do free choice items [FCIs] in other languages like English *what-ever* (cp. universal *ever-y*) or Hindi relative *jo bhī* [relative “who”+“also,even” = “whatever”.³ Even more striking are Nepali relative pronoun+*pani* constructions, in which the additive/scalar particle *pani* occupies the position immediately following the right-edge of the relative clause — very like the Sinhala and Malayalam RCCs and unlike the Hindi or English constructions where the μ -series element attaches directly to the wh-/relative-pronoun:

- (3) [*jahilesukai usko ghar gae*] *pani* [*uslāi kahile* *pani bheṭ hūdaina*]
 [*whenever his house go.2PERF-PTCP.3SG*] *pani* [*him sometime* *pani meet be.NEG.PRES.3SG*]
 “Whenever you go to his house, you can never meet him.” (Matthews 1998:194) [Nepali]

¹I use representative examples from Malayalam; other southern and south-central Dravidian languages including Tamil, Kannada, and Telugu show similar patterns. Cf. Krishnamurti 2003.

²Modern Sinhala shows a similar, if somewhat wider, distribution of *da*, see Slade 2011 for more details on these particles in various stages of Sinhala and Malayalam.

³For further discussion on free relatives, see Chierchia 2013, Dayal 1996,1997,2013 (including discussion of Hindi), Menéndez-Benito 2010.

Epistemic indefinites[EIs]: In modern Sinhala and Malayalam, these particles also serve in the formation of epistemic indefinites (signalling some sort of ignorance regarding identity of entity in question):

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| <p>(4) mokak <i>də</i> wætuna
 what <i>də</i> fell-A
 “Something (unidentified) fell.” (Gair & Sumangala 1991) [Modern colloq Sinhala]</p> | <p>(5) <i>nāṇ</i> iruṭṭ-il <i>ār-e-ō</i> toṭṭu
 I darkness-in who-ACC-<i>ō</i> touched
 ‘I touched somebody in the dark.’ (Jayaseelan 2001:66) [Malayalam]</p> |
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However, Nepali *pani* like English *-ever* and Hindi *bhī* is also a member of the additive/universal μ -series. Sinhala *da* and Malayalam *ō* are both members of the disjunctive/existential κ -series and thus are quite unexpected in a FC construction.

Analysis of epistemic indefinites[EIs]: I suggest that *da/ō* can be treated as variables over choice-functions (cp. Hagstrom 1998, Cable 2007, Slade 2011 &c.); this, combined with existential closure, accounts for their functions in disjunctions and questions. The WH+*da*/WH+*ō* indefinites of Sinhala & Malayalam carry an additional pragmatic load beyond that of a plain indefinite, overtly signalling a lack of some sort of knowledge regarding the entity in question. These EIs are compatible with environments in which there is a individual which is not uniquely identifiable by either name or definite description. I posit that this correlates with reference to intensional entities (individual concepts in the simplest cases) and that “the lack of knowledge” represents an additional anti-singleton presupposition (later cashed out as a conversational implicature, cp. Alonso-Ovalle & Menéndez-Benito 2010) which requires that the cardinality of the set of choice functions which select an individual satisfying the requirements of its context (e.g. for which the proposition is true) not equal 1.⁴

- (6) a. $\llbracket da/o \rrbracket = f \in D_{\langle\langle s,e \rangle / t \rangle, \langle s,e \rangle}$.CH(f) [choice function applying to sets of individual concepts]
 b. presuppose: $\left| \{f : f \text{ is relevant} \} \right| \neq 1$

Relative-Correlatives appear in Classical and modern literary Sinhala, where the clause containing the relative pronoun must be followed by either the Q-particle *də* or the conditional particle *nam*. E.g. [*yam kumariyak_i ohu_j duṭuvā*] *də/nam* [*ō_i ohu_j kerehi piliṇḍa sit ætikara gattāya*] “Whichever princess_i saw him_j fell in love with him_j”, which has two readings, a quantificational reading (“every princess who saw him fell in love with him”) and a referential reading (“the specific princess who saw him—whoever she may be—fell in love with him”) (for general discussion, see Bittner 2001, Brasoveanu 2012). The analysis of *da/ō* given above for EIs carries over here, except that the *yam* relative pronoun creates an environment with universal quantification over worlds or situations/perspectives out-scoping the existentially-bound choice function variables. (7) gives the denotation for the sentence under discussion for the referential “epistemic” reading; the quantificational reading would be similar, substituting situations/perspectives for worlds.

- (7) a. $\forall w \in F. \exists f. \text{CH}(f) \left[\text{FallLove}' \left(f(\{y \in D_{\langle s,e \rangle} \mid \text{Princess}'(y(w)) \ \& \ \text{Saw}'(y(w),x) \text{ in } w\}), x \right) \text{ in } w \right]$
 b. presupposes: $\left\{ f : [\text{FallLove}'(f(\{y \in D_{\langle s,e \rangle} \mid \text{Saw}'(y(w),x) \text{ in } w=1\},x) \text{ in } w)] \right\} \neq 1$

References: ALONSO-OVALLE, L. & MENÉNDEZ-BENITO, P. (2010) Modal indefinites, *NLS* 18(1), 1–31; ASHER, R.E. & KUMARI, T.C. (1997) *Malayalam*. Routledge; BITTNER, M. (2001) Topical referents for individuals & possibilities, *SALT XI*, 36–5; BRASOVEANU, A. (2012) Correlatives, *Lang. & Ling. Compass* 6/1:1–20; CABLE, S. (2007) *The grammar of Q...*, MIT PhD; DAYAL, V. (1996) *Locality in WH quantification: questions & relative clauses in Hindi*, Kluwer; CHIERCHIA, G. (2013) *Logic in grammar*, OUP; DAYAL, V. (1997) Free relatives and *ever...*, *SALT VII*; DAYAL, V. (2013) A viability constraint on alts. for free choice, *Alternatives in Semantics*, Fălăuș, A., ed. Palgrave; HAGSTROM, P. (1998), *Decomposing questions*, MIT PhD; KRATZER, A. & SHIMOYAMA, J. (2002) Indeterminate pronouns: The view from Japanese. *Proc. 3rd Tokyo conf. in psycholing.*, 1–25; KRISHNAMURTI, BH. (2003) *The Dravidian languages*, CUP; LIPTÁK, A. (2009) The landscape of correlatives..., *Correlatives cross-linguistically*, John Benjamins; MENÉNDEZ-BENITO, P. (2010) On universal free choice items, *NLS* 18:33–64; MITROVIĆ, M. 2014. *Morphosyntactic atoms...*, Cambridge PhD; SLADE, B. (2011), *Formal & philological inquiries...*, Illinois PhD; SZABOLCSI, A. (2010) *Quantification*, CUP; SZABOLCSI, A. (2015) What do quantifier particles do?, *L&P* 38:159–204; WIJEMANNE, P. (1984) *Amāvatura, a syntactic study*, Colombo: Mini. High. Ed.

⁴Sinhala also possesses WH+*hari* EIs which are similar to WH+*da* EIs except that they refer to extensional entities. See Slade 2011, 2013 for further details.