

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

Existential particles in non-existential environments

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# Overview

- 1 Distribution of  $\mu$  &  $\kappa$  particles
- 2  $\kappa$  in Sinhala & Dravidian: relative clauses & beyond
- 3 “ever” free relatives crosslinguistically
- 4 Analysis of  $\mu$  relative-correlatives
- 5 Analysis of  $\kappa$  relative-correlatives
- 6 Loose Ends & Historical
- 7 Summary/Conclusion/References

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# “conjunctive”/“universal” and “disjunctive”/“existential” particles in select languages

## Superparticles

- In a number of languages, including Japanese, Sinhala, and Dravidian, we find particles from 2 series playing a wide variety of roles (Szabolcsi 2010, 2015, Slade 2011, Mitrović 2014, amongst others; cf. Reichenbach 1947, Rohrer 1973).
- The  $\mu$ -type (< Japanese *mo*) appears in UNIVERSAL & CONJUNCTIVE environments; the  $\kappa$ -type (< Japanese *ka*) in EXISTENTIAL & DISJUNCTIVE (& INTERROGATIVE) environments.

	Japanese	Dravidian	Sinhala	Nepali	Hindi	Hungarian
$\mu$ -series	mo	um	t	pani	bhī	is, mind
$\kappa$ -series	ka ...	ō	da (də), hō (hari)	—	—	vagy ...

Table:  $\mu$  &  $\kappa$  series in select languages

Examples of  $\mu$  environments

	Japanese	Dravidian	Sinhala	Nepali	Hindi	Hungarian
everyone, anyone	dare- <b>mo</b>	ār- <b>um</b>	kauru- <b>t</b>	—	—	<b>mind</b> -en-ki
both A&B	A- <b>mo</b> B- <b>mo</b>	A- <b>um</b> B- <b>um</b>	— P- <b>t</b> Q- <b>t</b>	A <b>pani</b> B <b>pani</b>	A <b>bhī</b> B <b>bhī</b>	<b>mind</b> A <b>mind</b> B A <b>is</b> (és) B <b>is</b>
A too, even A	A- <b>mo</b>	A- <b>um</b>	A- <b>t</b>	A <b>pani</b>	A <b>bhī</b>	A <b>is</b>

Table:  $\mu$  elements

# Examples of $\kappa$ environments

	Japanese	Dravidian	Sinhala	Nepali	Hindi	Hungarian
someone	dare- <b>ka</b>	ā-r- <b>ō</b>	kau- <b>də</b>	—	—	<b>vala</b> -ki
who Vs?	dare-ga V... <b>ka</b>	—	V-e...kau- <b>də</b>	—	—	—
A or B	A- <b>ka</b> B(- <b>ka</b> )	A- <b>ō</b> B- <b>ō</b>	A- <b>də</b> B- <b>də</b> , A- <b>hari</b> B- <b>hari</b>	—	—	( <b>vagy</b> ) A <b>vagy</b> B

Table:  $\kappa$  elements

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# Sinhala *da* in Classical Sinhala

## Usually appears in yes/no questions

- (1) To me suta Budun desannā āsūhu **da?**  
 2SG-PRN this sermon Buddha preach.PRES.PTCP.NOM hear.PAST.2SG **da**  
 “Did you hear the Buddha preaching this sermon?” [*Amāvatura* 228, Wijemanne 1984: 71]

## Sometimes but not always in *wh*-questions

- (2) Dæn paeviji væ kumaṭa kiyam **da?**  
 now ordained been what.DAT say.PRES.1SG **da**  
 “Now that I am a monk, why would I say it?” [*Amāvatura* 76]

## Appears in alternative questions

- (3) mā ... nuvaṭahu arabhayā kī dæ nipan **da** no nipan **da?**  
 my ... religious mendicant about said things QUOT born **da** NEG born **da?**  
 “Did my predictions regarding the religious mendicant prove correct or did they not?” (12th century, *Amāvatura* 178) (Wijemanne 1984: 75)

## In non-interrogative contexts, *hō* appears rather than *da*

- (4) yuvaraja-væ siṭiyavun **hō** ... rāja-kumāra-varun **hō** ... bisōvarun **hō**  
 heir-apparent **hō** ... princes **hō** ... queen **hō**  
 “Either the heir-apparent ... or the princes ... or the queen” (12th c. inscription; Wickremasinghe et al. 1912–1933: ii.161B<sup>5-7</sup>)

# Relative-Correlatives in Classical Sinhala & Dravidian

## Structure

Relative-correlatives in Classical (& modern literary) Sinhala always involve a “clause-closing” particle. The same is true in (modern) South/South-Central Dravidian (Hock 1988, 1989, 2008). These “clause-closing” particles are *da* in Sinhala and *ō* in Dravidian.

## Early Sinhala & Dravidian relative-correlatives

### Classical Sinhala

- (5) [ *yamak'hu*                      *paḷamu diṭim* ]<sub>RC</sub> **-da** [ *ohu marā*        ... ]<sub>CC</sub>  
 [ **REL-PRON.MSC.SG.ACC** *firstly*    *see.1SG* ]<sub>RC</sub> **-da** [ *him kill.CONV* ... ]<sub>CC</sub>  
 “**Whoever**<sub>*i*</sub> I see first, I shall kill him<sub>*i*</sub> ...”  
 (*Amāvatura* 133, Wijemanne 1984:210)

### Malayalam

- (6) [ *ārə manassə aṭakkunnuv* ]    **-ō** [ *avaṇṇə samādhānam kiṭṭunnu*    ]  
 [ **who** *mind*        *control.PRES* ]<sub>RC</sub> **-ō** [ *he.DAT* *peace*                      *obtain.PRES* ]<sub>CC</sub>  
 “**Whoever**<sub>*i*</sub> controls his mind, he<sub>*i*</sub> obtains peace.”  
 (Asher & Kumari 1997:54)

**both**  $\kappa$ -series elements: Sinhala *da*, Malayalam *ō*

# “Ever” relative-correlatives in other Indo-Aryan languages

## Hindi

- (7) [ *jab bhī dillī jātā hū* ] [ *tab hindī hī boltā hū* ]  
 [ **REL.when** *bhī* Delhi go.IMPF.MSC.SG be.1SG.PRES ] [ then Hindi EMPH speak.IMPF.MSC.SG be.1SG.PRES ]

“Whenever I go to Delhi, (then) I speak Hindi, of course.” (McGregor 1995. 3rd edn.: 92)

## Nepali

- (8) [ *jahilesukai usko ghar gae pani* ] [ *uslāi kahile pani bhet hūdaina* ]  
 [ **REL.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: 184)

**both  $\mu$ -series elements:** Hindi *bhī*, Nepali *pani*

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# “ever” free relatives crosslinguistically

## *wh*(/rel. pro.)+ $\mu$ form

- **English:** *wh*+“ever”, e.g. *whoever*, *whatever*, *wherever*, *however* (\**whyever*)
- **Italian:** *wh*+“ever”, e.g. *chiunque* “whoever” (Caponigro 2003)
- **Czech:** *wh*+ “ever”, e.g. *cokoli* “whatever” (Šimík 2016)
- **Bulgarian:** *wh*+“also”, e.g. *kakvoto i* “whatever” (Izvorski 2000)
- **Dutch:** *wh*+“then”+“also”, e.g. *wie dan ook* “whoever” (Rullmann 1996)
- **Indo-Aryan** (Hindi, Nepali,...): rel. pron.+“also/ever”, e.g. Hindi *jo bhī* “whoever”
- **Japanese:** *wh*+“even”, e.g. *dare-demo* “whoever” (Nishigauchi 1986)

## *wh*+modal marker

- **Greek**, e.g. *opjos-dhipote* “whoever” (Giannakidou 1998, 2001)
- **Spanish** *qual-quiera* & **Catalan** *qual-sevol* “whoever” (Quer 1998)

## other strategies

- **Modern Hebrew:** *wh* + “neg”, e.g. *ma še-lo* “whatever”, lit. ‘what that-NEG’ (Eilam 2009)
- **Turkish:** *wh* + cond. marker on verb, e.g. *kim kazan-ır-sa*, lit. “who win-AOR-COND” (Iatridou 2013)

# Korean

- Korean is similar in using a “disjunctive” element combined with a *wh*-word with an FC type interpretation, but not as relatives (and also compatible with a general universal reading): (Gill et al. 2006)

(9) Nwukwu-**na** kimchi-lul cohahan-ta  
 who-DISJ kimchi.ACC like.DECL  
 “Everyone/anyone likes kimchi.”

- (Gill et al. suggest that for feature-valuing reasons, *na* is always accompanying by a phonetically-silent *Dist* distributive operator; and in their analysis the  $\mu$ -type interpretation actually is contributed by *Dist*)

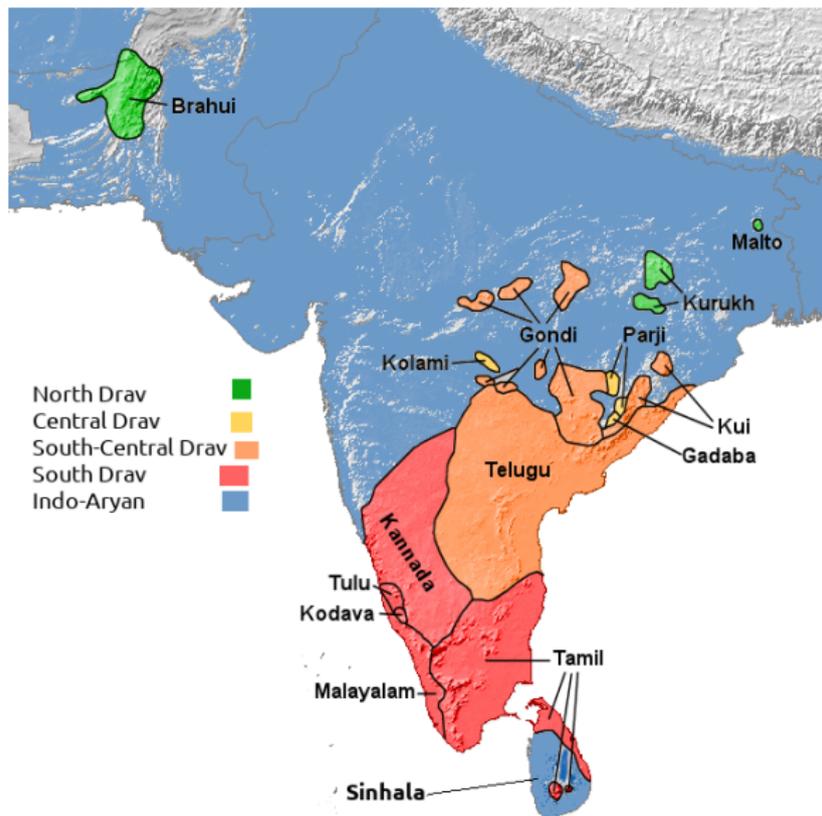
# Hungarian

- (10) [ Akit szeret Mari ], azt meghívta a buliba.  
 [ who(ever) loves Mari ], pro invited to party  
 "Who(ever) Mari loves, she invited to the party."
- (11) János vehet [ amit **csak** akar ]  
 John buy [ what **only** wants ]  
 "John can buy whatever he wants."

## (True) relative-correlatives in (early) Sinhala & Dravidian

- in Classical & modern literary Sinhala, true relative-correlatives (as opposed to prenominal modifying relative clauses), involve a relative clause formed with a rel. pro. and a “clause-closing” (Hock) particle, of the  $\kappa$ (!)-type: *da*
- similarly in South and South-Central Dravidian languages, true relative-correlatives involve a relative clause formed with a *wh*-word and a “clause-closing” particle of the  $\kappa$ -type:  $\bar{o}$

# South Asia language distribution [Drav. & Sinhala]



## Conforming Dravidian examples

- (12) [ uṅkaḷ-ukku evvaḷavu vēṅṅ-um- ]-ō avvaḷuvu nāṅ taru-kir-ēn  
 [ you.PL.DAT how\_much want.FUT.3NEU.SG ]-ō that\_much I give.PRES.1SG  
 “However much you want, that much I’ll give you.” [Tamil] (Krishnamurti 2003: 448)
- (13) [ ēt-oruvan drōham ceyy-unnuv- ]-ō avan pāpi ākunnu  
 [ which-one.MSC.SG evil.ACC do.PRES ]-ō he sinner become.PRES  
 “Whoever does evil, he becomes a sinner.” [Malayalam] (Krishnamurti 2003: 448)
- (14) [ brāhmanar āga bēk(u) anta yāruyārige āśe ide.y ]-ō  
 [ brahmin.NOM become.INF want say.CNJ who-who.DAT desire.NOM be.PRES.3SG.NEU ]-ō  
 avarella brāhmanaru  
 they.NOM-all brahmin.PL.NOM  
 “Whoever has the desire to become a brahmin, they all are brahmins.” [Kannada] (Steever 1998)
- (15) [ ēdi kāwāl(i)- ]-ō adi paṭṭu-ku-pō  
 [ what be-wanted- ]-ō that take-REFL-go.IMP.2SG  
 “Take away whatever you want.” [Telugu] (Krishnamurti 2003: 448)
- (16) [ mā kiḍu inika manad ]-ō dani pēru veRtu  
 [ our hands what is ]-ō that name tell.IMPV  
 “Tell us the name of whatever is in our hands.” [Konda] (Krishnamurti & Benham 1998)

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## Analysis of *wh*(/rel. pro.)+ $\mu$ forms

- Dayal (1995): Hindi *bhī* (& English *-ever*) are polarity forms that induce widening (and are licensed if result in strengthening)
- Dayal (1997): *bhī/ever* add a modal dimension, introducing i(dentity)-alternatives

## Dayal's (1997) analysis

whatever<sub>j</sub> [IP...t<sub>j</sub>...] denotes at w =

- 1  $\lambda Q \forall i$ -alternatives  $\in f(w)(s)$  [ $Q(i)(\lambda x[P(i)(x)])$ ] where P is the property derived by abstracting over  $x_j$  in the IP denotation.
- 2  $f(w)(s) = w'$ :  $\forall p[s \text{ believes } p(w) \rightarrow p(w')$  for a world of evaluation w and speaker s,  $f(w)(s)$  is the set of worlds in which the speaker's beliefs about w hold.
- 3 a world  $w' \in f(w)(s)$  is an i-alternative iff there exists some  $w'' \in f(w)(s)$ , such that  $\lambda x[P(w')(x)] \neq \lambda x[P(w'')(x)]$

# Interaction with aspect (Dayal 1997)

## Identity

- ① “Mary is cooking something. Whatever she is cooking uses onions.”
- ②  $\forall i\text{-alt} \in f(w)(s)[\text{uses-onions}(i)(\lambda x[\text{cooking}(i)(x)(m)])]$
- ③  $i\text{-alt}_1 : \lambda x[\text{cooking}(i)(x)(m)] = \text{ratatouille}$   
 $i\text{-alt}_2 : \lambda x[\text{cooking}(i)(x)(m)] = \text{daal}$   
 $i\text{-alt}_3 : \lambda x[\text{cooking}(i)(x)(m)] = \text{goulash}$   
 ...

## Plain FR

- ① “What Mary is cooking uses onions.”
- ②  $\text{uses-onions}(w)(\lambda x[\text{cooking}(w)(x)(m)])$

## FC

- ① “Whatever Mary cooks uses onions.”
- ②  $\forall w[C(w)][\forall i\text{-alt} \in f(w)(s)[\text{uses-onions}(i)(\lambda x[\text{cooking}(i)(x)(m)])]]$



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Sinhala *da* in modern Sinhala

In modern literary Sinhala, alongside of disjunctive uses of *hō* as in (19), we also find a special epistemic indefinite use, as in (20)

- (19) rahul **hō** amin **hō** gamaṭa giyāya  
 Rahul **hō** Amin **hō** village.DAT go.PAST.3SG  
 ‘Rahul or Amin went to the village.’ [Modern Literary Sinhala]
- (20) kaluvarē kaurun **hō** mā ælluvēya  
 darkness-in who **hō** I.ACC touch.PAST.MSC.3SG  
 ‘Someone (unknown) touched me in the darkness.’ [Modern Literary Sinhala]

## Extension of *da* to indefinites in modern colloquial Sinhala

In modern colloquial Sinhala, both *hari* (earlier *hō*) and *də* (earlier *da*) can form epistemic indefinites

- (21) a. Kau **də** mese uda natanava.  
Who **də** table on dance.PRES.
- b. Kauru **hari** mese uda natanava.  
Who **hari** table on dance.PRES.  
“Someone is dancing on the table.”

- The difference between (21-a) and (21-b): either intensional vs extensional (Slade 2011) or difference in identification method [name/def. descript. vs deictic/visual] (Slade 2015)
- Perhaps developed epistemic presuppositional component earlier on, and it shows up in the relative-correlative formation, utilising the anti-singleton presupposition similar to Alonso-Ovalle & Menéndez-Benito (2010) and the choice-function variable analysis of Q-particles from Slade (2011).

## Semantics of $da/\bar{o}$ : maximality

- Treat relative pronouns (& *wh*-words appear in that function) as following Jacobson (1995), Rullmann (1995) as involving a maximality operator *max* (Link 1983)

### Relative pronoun interpretation

- (22) a. [ who Sita sees ]  
 b.  $max(\lambda x[see(s, x)])$   
 c.  $\iota[see(s, x) \wedge \forall x'[see(s, x') \rightarrow x' \leq x]]$

- satisfied where the set denoted by the relative pronoun includes sum, and crucially a least upper bound, OR (trivially) where the set is a singleton set

# Semantics of $da/\bar{o}$ : choice-functions & anti-singleton presupposition

$da/\bar{o}$

treat  $da/\bar{o}$  as denoting a variable over choice-functions

anti-singleton constraint

Assuming that  $da$  bears the anti-singleton presupposition found in epistemic indefinites, the Q-particle component is satisfied when it applies to a non-singleton set [refined below]

anti-singleton constraint refined

$$|\{x : x = y(w) : y \in P(w) : w \in W_{sb}\}| > 1$$

The set of extensions in worlds consistent with speaker's beliefs of the members of  $P$  is greater than one.

## Satisfying both anti-singleton presupposition & *max*: FC

- assume *max* applies first
- If anti-singleton presupposition is to be satisfied, must be multiple individual(/individual concepts) for which the proposition is satisfied (w.r.t. speaker's knowledge)
- If *max* is satisfied, there must be a maximal sum, or else a single atom
- Thus, one way both can be satisfied is where there is a maximal sum (“plural” interpretation of relative pronoun), assuming that maximal sums count as non-singletons. Thus derives the FC “universal” reading

## Satisfying both anti-singleton presupposition & *max*: identity

- assume *max* applies first
- assume the case in which the relative pronoun points to a single individual; this trivially satisfies *max*
- but this will not satisfy the anti-singleton presupposition of the Q-particle, UNLESS cardinality of possible extensions in worlds consistent with speaker beliefs  $> 1$

## FC/Universal reading

## Sinhala FC

- (23) [ Yam kenek tā kīvā kered ] **da** ovun hæma denā  
 [ REL.PRO person.INDEF.NOM your bidding do.CAUS.3PL.PRES ] **da** they.OBL all people  
 genæ ...rājya simāyen piṭat væ yā  
 take.CONV ...kingdom border outside ? go.IMPV  
 “Go out of the kingdom after taking all of those who obey you.” (*Amāvatura* 64, Wijemanne 1984: 210)

$$IP_1: \exists f \in CH : \lambda t \lambda P. P(t)(take')(f(\{g + c + j\}))$$

$$CP: f(\max(\{g + c + j, g + c, g + j, j + c \dots\})) \quad IP_2: \lambda P. P(t)(take')$$

## Identity reading

## Sinhala FC

- (24) [ yamak'hu                      paḷamu diṭim ]<sub>RC</sub> da [ ohu marā      gaṇan    sapurami  
 [ REL-PRON.MSC.SG.ACC firstly    see.1SG ]<sub>RC</sub> da [ him kill.CONV number complete.PRES.1SG  
 ]<sub>cc</sub>  
 ]<sub>cc</sub>

“**Whichever person** I see first, I shall kill him and complete the number.” (*Amāvatura* 133,  
 cited from Wijemanne 1984: 210) [Classical Sinhala]

IP<sub>1</sub>:  $\exists f \in CH : \lambda t \lambda P. P(t)(take')(f(\{x : I \text{ see } x \text{ first}\}))$

CP:  $f(max(\{x : I \text{ see } x \text{ first}\}))$       IP<sub>2</sub>:  $\lambda P. P(t)(take')$

presupposes:  $|\{x : x = y(w) : y \in P(w) : w \in W_{sb}\}| > 1$ , for  $P = x : I \text{ see } x \text{ first}$   
 (i.e. implicates that speaker doesn't know/care about the extension “the person I see first”)

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## (Apparently) Non-conforming Dravidian examples

- (25) [ yāva huḍuga nimm-a kai-kuluk-id-an- ]-ō ā huḍuga nann-a geḷeya  
 [ **which boy** you.GEN hand-shake.PAST.3M.SG ]-ō that boy I.GEN friend  
 “The boy who you shook hands with is my friend.” [Kannada] (Krishnamurti 2003: 448)
- (26) [ [ yāvud-annu huḍukalu ] nīvu iṣṭu kaṣṭa paṭṭir ]-ō ā pustaka  
 [ [ **which-one.ACC** seek.INF ] you.NOM such difficulty befall.PAST.2PL ]-ō that book  
 ill-ē ide  
 here-just be.PRES.3SG.NEU  
 “The book, looking for which gave you such trouble, is right here.” [Kannada] (Steever 1998: 152)

### resolution?

But perhaps (26) reflects speaker’s indifference about identity of book, and perhaps (25) is referencing addressee’s ignorance (id of boy) rather than speaker’s.

## Examples with clear plurals

### Dravidian

- (27) [ brāhmanar āga bēk(u) anta yāruyārige āše ide.y ]-ō  
 [ brahmin.NOM become.INF want say.CNJ who-who.DAT desire.NOM be.PRES.3SG.NEU ]-ō  
 avarella brāhmanaru  
 they.NOM-all brahmin.PL.NOM

“Whoever has the desire to become a brahmin, they all are brahmins.” [Kannada] (Steever 1998)  
 [repeated from (14) above]

### (Classical) Sinhala

- (28) [ Yam kenaknaṭa dun danæ phala mahata ve ] **da** ovunaṭa dan devā  
 [ REL.PRO person.DAT.PL.INDEF gift given fruit great is ] **da** them.DAT gift give.CAUSE  
 ava mænævæ  
 come proper

“I must come after making him give gifts to those, to whomever when some gift is given, the result (of that giving) is great.” (*Amāvatura* 79, Wijemanne 1984: 210)

- (29) [ Yam kenek tā kīvā kered ] **da** ovun hæma denā  
 [ REL.PRO person.INDEF.NOM your bidding do.CAUS.3PL.PRES ] **da** they.OBL all people  
 genæ ...rājya sīmāyen piṭat væ yā  
 take.CONV ...kingdom border outside ? go.IMPV

“Go out of the kingdom after taking all of those who obey you.” (*Amāvatura* 64, *Ibid.*)



## Classical Sinhala - multiple clauses in relative

With neither *da* nor *nam* in the case of multiple clauses in relative (apparently optional with multiple clauses)

- (32) **yam se** suḷaṅga hamana, kalæ atu sæleyi, diya sæleyi,  
**REL.PRO** the wind blows, the branches shake, the water shakes,  
 ehi sit næti, **e seyin** mæ kāya daṇḍa du acittaka veyi  
 they are mindless, **in that way** physical action is mindless  
 “When the wind blows, the branches shake, the water shakes; they  
 are mindless; in the same manner, physical action too is mindless.”  
 (*Amāvatura* 51)



## Old Sinhala examples (cont.)

The other 3 examples use *yam* but no ‘closing’ particle, e.g.:

- (34) Sihigirī      aṅṅnak      baṅavat      me    yannā    var      sera  
 Sihigiri.LOC woman.INDEF speak.COND.CAUS this going occasion thief  
 se    ho                    yam      desekæ                    mā                    bæli  
 like 3SG.FEM-PRN REL-PRON direction.LOC.INDEF 1SG-PRN.GEN look.PAST  
 tomo.                    agan    me    niyā.  
 REFLX-PRN.FEM. women this manner

“When I, while passing by, speak to a lady of Sihigiri, she herself, roguishly, looked in the direction (where) I (was). Women are like this.” [*Sigiri Graffiti* 305] [Old Sinhala]

## Early Dravidian relative-correlatives

In early South Dravidian, the particle *ō* is not always in evidence in relative-correlatives

- (35) [ e-vaṛi nall-avar āṭavar ]<sub>RC</sub> [ a-vaṛi nall-ai ]<sub>CC</sub>  
 [ which-place good.MASC.3PL men.MASC.3PL ]<sub>RC</sub> [ that-place good.2SG ]<sub>CC</sub>  
 “At whichever place men are good, at that place you are good.” (cited from Lehmann 1998: 94) [Old Tamil]

- (36) [ yātonṭu mahārājanīyōgam ]<sub>RC</sub> [ atu a-vaṇṇam ]<sub>CC</sub>  
 [ what.NEUT maharaja-order ]<sub>RC</sub> [ that.NEUT in-that-manner ]<sub>CC</sub>  
 “Whatever is the king’s order, (let) that (be done) in that manner.” (cited from Pillai 1973: 165) [Old Malayalam]

BUT

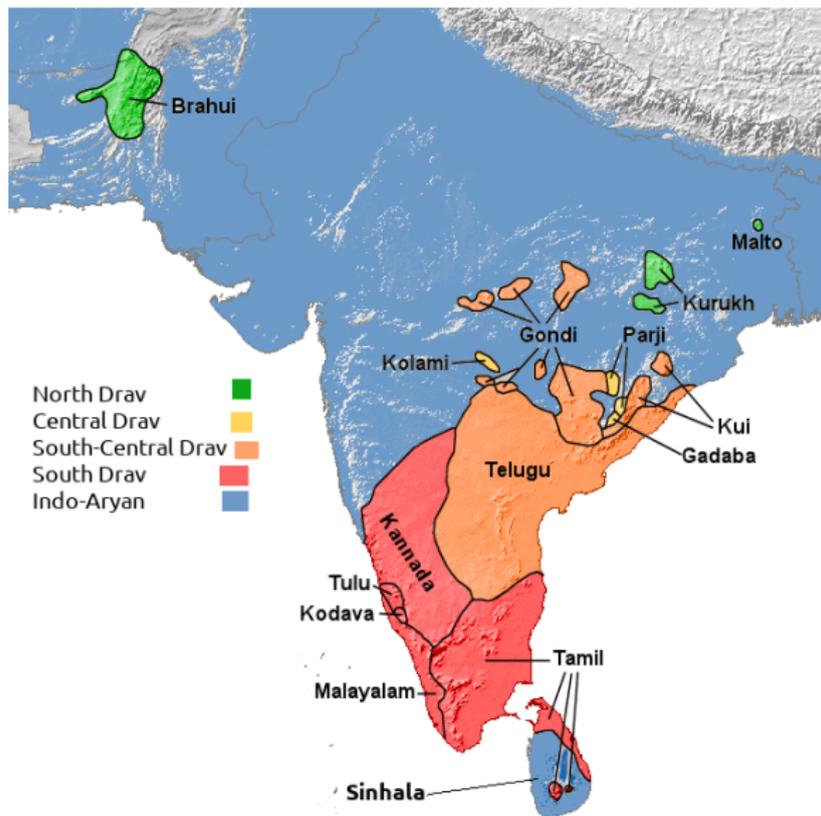
- (37) e-nāl-ō . . . nī celvatu a-nāl koṇṭū iṛakkum  
 which-day-ō . . . you go.NONPAST.NOM that-day from die.NONPAST.3SG.NOM  
 ivaḷ . . . uyir-ē  
 she . . . life  
 “On whichever day you will go, from that day (onwards) her life will die.” [OR?  
 developed from indefinite(?): “On some day you will go, from that day ..”](*Kalittokai*  
 5.18-19, cited from Thomas Lehmann, p.c.) [late Old Tamil (500-700 A.D.)]

## More on Dravidian relative-correlatives

### Absence of $\bar{o}$ in relative-correlatives

Also lacking in post-relative clause particles are Old Kannada (Hock 2008), and (all?) modern “northern” Dravidian languages (Pengo, Kuvi, Kolami, Parji, Kurukh) (Hock 1988, 1989, 2008).

# South Asia language distribution [Drav. & Sinhala]



## Non-varying relative-correlatives?

### Question:

Why would relative-correlatives would always involve variation in the first place?

### Competing constructions

For “regular” relative clauses, Sinhala (& Dravidian) possess a prenominal modifying participial construction, very usual as far back as the 8th-c. A.D.:

- (38) [ [ guruwəɾəyək      wenə                      ] mahattəya ] huŋgak dannəwa.  
 [ [ teacher.INDEF.NOM become.PRES.ADJ ] man.DEF    ] much    know.PRES  
 “The man who is becoming a teacher knows a lot.”  
 (cited from Gair 1995[1998]: 245) [Colloquial Sinhala]

- (39) Nægæ    mehi    [ [ ma                      senehī                      ] himabiyanaæt̪a ]  
 rise.CONV this.LOC [ [ 1SG-PRN.GEN love.PAST.PTCP ] lady.DAT.PL    ]  
 tupa              no    daha  
 2PL-PRN.GEN NEG show anger.IMPV  
 “Having ascended here, do not show anger towards the ladies who have been loved  
 by me.” (Lit., “. . . towards the loved-by-me ladies”)  
 (*Sigiri Graffiti* no. 308; Paranavitana 1956) [Old Sinhala]

# Prenominal modifying participial relatives in Dravidian

- (40) [PP [NP [IP [AdjP nēru iṅkē va-nt-a ] [NP anta paiyan ] ] ]-ai ] nān  
 [PP [NP [IP [AdjP yesterday here come-PAST-ADJ ] [NP that boy ] ] ]-ACC ] I.NOM  
inru pār-tt-ēn  
 today see-PAST-1SG  
 “today I saw the boy who came here yesterday” (Krishnamurti 2003: 444) [Tamil]
- (41) pūcca kiṭakunna cākə  
 cat lie.PRES.ADJ sack  
 “the sack on which the cat lies ...” (Krishnamurti 2003: 445) [Malayalam]
- (42) hinde gōḍaun iruva aṅgaḍi  
 behind warehouse be.NONPAST.ADJ shop  
 “the shop which has a warehouse at the back ...” (*Ibid.*) [Kannada]
- (43) puli camp-in-a maṇiṣi  
 tiger.NOM kill-PAST-ADJ man  
 “the person whom the tiger killed ...” (*Ibid.*) [Telugu]

## Comparison with Nepali

### Also the case in Nepali

Especially in the spoken language, Nepali prefers the prenominal modifying participial type of relative:

- (44) a.   hijo       āeko                   mānche ...  
           yesterday come.PERF.PTCP man     ...  
           “The man who came yesterday...”
- b.   bholī       āune                   mānche ...  
           tomorrow come.INFN.PTCP man    ...  
           “The man who’s coming tomorrow ...”

- The ‘true’ relative-correlatives in Nepali are used mostly in formal writing. And in speech the relative pronouns most frequently appear as ‘ever’ FRs (even when they don’t include the ‘ever’-element, i.e. the additive *pani*)
- (this is not true, however, of the corresponding Hindi relative-correlatives, which are frequent in speech as well)

## Underspecification of regular relatives

### Hungarian

- (45) János vehet [ amit akar ]  
 J buy.POT.3SG.INDEF [ what.ACC wants ]  
 “János can buy what(ever) he wants.” (Lipták 2012: 6n5)

### Underspecification of “plain” relatives in English

- (46) I’m free, to choose whom I please, any old time.  
 I’m free, to please who I choose, any old time.  
 (“I’m free”, M. Jagger & K. Richards 1965, from Horn 2000)

- 1 Distribution of  $\mu$  &  $\kappa$  particles
- 2  $\kappa$  in Sinhala & Dravidian: relative clauses & beyond
- 3 “ever” free relatives crosslinguistically
- 4 Analysis of  $\mu$  relative-correlatives
- 5 Analysis of  $\kappa$  relative-correlatives
- 6 Loose Ends & Historical
- 7 **Summary/Conclusion/References**

# Summary

- $\mu$ -type “ever” relatives involve the  $\mu$ -element introducing i-alternatives and providing universal quantificational force over these (as per Dayal 1997)
- $\kappa$ -type “ever” relatives involve the  $\kappa$ -element contributing an anti-singleton presupposition, which can be satisfied either by a plural individual (FC-like) or the situation where the speaker has uncertainty/indifference regarding the extensions of the relevant individual concept

## Remaining issues

- Provide a more compositional account for *wh*- $\mu$ -type relatives
  - reformulation which captures the fact that these elements are  $\mu$  elements, something more generalised
- further probe into differences between Hindi & Nepali (same  $\mu$ -type element, but different syntax)
- further investigation into whether there always a variation/alternative component in Classical/literary Sinhala and South Dravidian relative-correlative

# References I

- Alonso-Ovalle, Luis. 2006. *Disjunction in alternative semantics*. Amherst, MA: University of Massachusetts, Amherst dissertation.
- Alonso-Ovalle, Luis & Paula Menéndez-Benito. 2003. Some epistemic indefinites. In M. Kadowaki & S. Kawahara (eds.), *Proceedings of the North East Linguistic Society*, 33, 1–21. Amherst, MA: GLSA.
- Alonso-Ovalle, Luis & Paula Menéndez-Benito. 2010. Modal indefinites. *Natural Language Semantics* 18. 1–31.
- Alonso-Ovalle, Luis & Junko Shimoyama. 2013. Expressing ignorance in the nominal domain: Japanese *Wh-ka*. WCCFL 31, Arizona State University.
- Asher, Ronald E. & T.C. Kumari. 1997. *Malayalam*. London: Routledge.
- Bhatt, Rajesh & Anikó Lipták. 2009. Matching effects in the temporal and locative domains. In Anikó Lipták (ed.), *Correlatives cross-linguistically*, 343–372. Amsterdam: John Benjamin.
- Bittner, Maria. 2001. Topical referents for individuals and possibilities. In R. Hastings, B. Jackson & Z. Zvolensky (eds.), *Proceedings of SALT XI*, 36–55. Ithaca, NY: CLC, Cornell University.
- Böhtlingk, Otto & Rudolph Roth (eds.). 1855–1875. *Sanskrit-Wörterbuch*. St. Petersburg: Kaiserlichen Akademie der Wissenschaften.
- Brasoveanu, Adrian. 2012. Correlatives. *Language and Linguistics Compass* 6(1). 1–20.
- Caponigro, Ivano. 2003. *Free not to ask: On the semantics of free relatives and wh-words cross-linguistically*. Los Angeles, CA: University of California Los Angeles dissertation.
- Dayal, Veneeta. 1995. Quantification in correlatives. In Elke Bach, Eloise Jelinek, Angelika Kratzer & Barbara H. Partee (eds.), *Quantification in natural languages*, 179–205. Dordrecht: Kluwer.
- Dayal, Veneeta. 1996. *Locality in wh quantification: Questions and relative clauses in Hindi*. Dordrecht: Kluwer.
- Dayal, Veneeta. 1997. Free relatives and *ever*. In A. Lawson (ed.), *Proceedings from Semantics and Linguistic Theory (SALT) 7*, 99–116. Ithaca, NY: CLC Publications, Cornell University.
- Eilam, Aviad. 2009. The crosslinguistic realization of *-ever*: Evidence from modern Hebrew. Ms., University of Pennsylvania.  
<http://semanticsarchive.net/Archive/mQ5ZjY3N>.
- Fairbanks, Gordon H., James W. Gair & M.W.S. De Silva. 1968. *Colloquial Sinhalese (Sinhala)*. Ithaca, NY: South Asia Program and Department of Modern Languages and Linguistics, Cornell University.

## References II

- Gair, James W. 1986[1998]. Sinhala focused sentences: Naturalization of a calque. In Bhadriraju Krishnamurti, Colin P. Masica & Anjani Kumar Sinha (eds.), *South Asian languages: Structure, convergence and diglossia*, 147–164. Delhi: Motilal Banarsidass. [Reprinted with additional notes in Gair 1998:155–169].
- Gair, James W. 1992. AGR, INFL, Case and Sinhala diglossia, or Can linguistic theory find a home in variety. In Braj Kachru, Edward C. Dimock & Bhadriraju Krishnamurti (eds.), *Dimensions of South Asia as a sociolinguistic area: Papers in memory of Gerald B. Kelley*, 179–197. Delhi: Oxford India Book House.
- Gair, James W. 1995[1998]. Syntactic theory, AGR, and Sinhala diglossia. Published in Gair 1998:237–267.
- Gair, James W. 1998. *Studies in South Asian linguistics: Sinhala and other South Asian languages*. New York: Oxford University Press.
- Gair, James W. & W.S. Karunatilaka. 1974. *Literary Sinhala*. Ithaca, NY: South Asia Program and Department of Modern Languages and Linguistics, Cornell University.
- Giannakidou, Anastasia. 1998. *Polarity sensitivity as (non)veridical dependency*. Amsterdam: John Benjamins.
- Giannakidou, Anastasia. 2001. The meaning of FC. *Linguistics and Philosophy* 24. 659–735.
- Gill, Kook-Hee, Steve Harlow & George Tsolas. 2006. Disjunction and indeterminate-based quantification in Korean. Ms., University of York.
- Hamblin, Charles Leonard. 1973. Questions in Montague English. *Foundations of Language* 10(1). 41–53.
- Hock, Hans Henrich. 1988. Review article: Finiteness in Dravidian. *Studies in the Linguistic Sciences* 18(2). 211–231.
- Hock, Hans Henrich. 1989. Review of Steever (1988): *The serial verb formation in the Dravidian languages*. *Language* 65. 398–405.
- Hock, Hans Henrich. 2008. Dravidian syntactic typology: A reply to Steever. In Rajendra Singh (ed.), *Annual Review of South Asian Languages and Linguistics*, 164–198. Berlin: Mouton de Gruyter.
- Horn, Laurence R. 2000. Any and (-)ever: free choice and free relatives. In *Proceedings of the 15th Annual Conference of the Israeli Association for Theoretical Linguistics*, 71–111.
- Iatridou, Sabine. 2013. Looking for free relatives in Turkish (and the unexpected places this leads to). In Umut Özge (ed.), *Proceedings of WAFL 8*, Cambridge, MA: MITWPL.
- Izvorski, Roumyana. 2000. Free adjunct free relatives. In Billerey & Lillehaugen (ed.), *WCCFL 19 proceedings*, 232–245. Somerville, MA: Cascadia Press.

# References III

- Jacobson, Pauline. 1995. On the quantificational force of english free relatives. In Emmon Bach, Eloise Jelinek, Angelika Kratzer & Barbara H. Partee (eds.), *Quantification in natural language*, 451–486. Dordrecht: Springer.
- Jayaseelan, Karattuparambil A. 2008. Question particles and disjunction. Ms., Hyderabad, English and Foreign Languages University.  
<http://ling.auf.net/lingbuzz/000644>.
- Jayaseelan, Karattuparambil A. 2016. Decomposing coordination: The two operators of coordination. *Linguistic Analysis* 40(3–4). 237–253.
- Kratzer, Angelika & Junko Shimoyama. 2002. Indeterminate phrases: the view from Japanese. In Y. Otsu (ed.), *The Proceedings of the Third Tokyo Conference on Psycholinguistics*, 1–25. Tokyo: Hituzi Syobo.
- Krishnamurti, Bhadriraju. 2003. *The Dravidian languages*. Cambridge: Cambridge University Press.
- Krishnamurti, Bhadriraju & Brett A. Benham. 1998. Koṇḍa. In Sanford B. Steever (ed.), *The Dravidian languages*, 241–269. London: Routledge.
- Lehmann, Thomas. 1994. *Grammatik des Alttamil unter besonder Berücksichtigung der Caṅkam-texte des Dichters Kapilar*. Stuttgart: Steiner Verlag.
- Lehmann, Thomas. 1998. Old Tamil. In Sanford B. Steever (ed.), *The Dravidian languages*, 75–99. London: Routledge.
- Link, Godehard. 1983. The logical analysis of plurals and mass terms. In Rainer Bäuerle, Christoph Schwarze & Arnim von Stechow (eds.), *Meaning, use and interpretation of language*, Berlin: Walter de Gruyter.
- Lipták, Anikó. 2009. The landscape of correlatives: An empirical and analytic survey. In Anikó Lipták (ed.), *Correlatives cross-linguistically*, 1–46. Amsterdam: John Benjamins.
- Lipták, Anikó. 2012. Correlative topicalization. *Acta Linguistica Hungarica* 59(3). 245–302.
- Matthews, David. 1998. *A course in Nepali*. London: Curzon.
- McGregor, R.S. 1995. 3rd edn. *Outline of Hindi grammar*. New Delhi: Oxford University Press.
- Menéndez-Benito, Paula. 2010. On universal free choice items. *Natural Language Semantics* 18(1). 33–64.
- Mitrović, Moreno. 2014. *Morphosyntactic atoms of propositional logic: a philo-logical programme*. Cambridge: University of Cambridge dissertation.
- Nishigauchi, Taisuke. 1986. *Quantification in syntax*. Amherst, MA: University of Massachusetts, Amherst dissertation.

# References IV

- Paranavitana, Senarat. 1956. *Sigiri graffiti, Sinhalese verses of the eighth, ninth and tenth centuries*. London: Oxford University Press.
- Pillai, P.V. 1973. *Early Malayalam prose: A study*. Trivandrum, Kerala: University of Kerala.
- Quer, Josep. 1998. *Mood at the interface*. Utrecht: University of Utrecht dissertation.
- Reichenbach, Hans. 1947. *Elements of symbolic logic*. New York: Macmillan.
- Rohrer, Christian. 1973. On the relation between disjunction and existential quantification. In Maurice Gross, Morris Halle & Marcel-Paul Schützenberger (eds.), *The formal analysis of natural languages: Proceedings of the First International Conference*, 224–232. The Hague: Mouton.
- Rullmann, Hotze. 1995. *Maximality in the semantics of wh-constructions*. Amherst, MA: University of Massachusetts at Amherst dissertation.
- Rullmann, Hotze. 1996. Two types of negative polarity items. In *Proceedings of NELS 26*, 335–350.
- Šimík, Radek. 2016. On the semantics of Czech free relatives. In Markéta Ziková & Pavel Caha (eds.), *Linguistica brunensia 64/1: Festschrift for Petr Karlík*, 109–129. Brno: Masaryk University. <http://hdl.handle.net/11222.digilib/135453>.
- Slade, Benjamin. 2011. *Formal and philological inquiries into the nature of interrogatives, indefinites, disjunction, and focus in Sinhala and other languages*. Urbana: University of Illinois dissertation.
- Slade, Benjamin. 2013. Question particles and relative clauses in the history of Sinhala, with comparison to early and modern Dravidian. In Shu-Fen Chen & Benjamin Slade (eds.), *Grammatica et verba/Glamor and verve: Studies in South Asian, historical, and Indo-European linguistics in honor of Hans Henrich Hock on the occasion of his seventy-fifth birthday*, 245–268. Ann Arbor, MI: Beech Stave Press.
- Slade, Benjamin. 2015. Sinhala epistemic indefinites with a certain *je ne sais quoi*. In Luis Alonso-Ovalle & Paula Menéndez-Benito (eds.), *Epistemic indefinites: Exploring modality beyond the verbal domain*, 82–99. Oxford: Oxford University Press.
- Srivastav, Veneeta. 1991. The syntax and semantics of correlatives. *Natural Language and Linguistic Theory* 9. 637–686.
- Steever, Sanford B. 1998. Kannada. In Sanford B. Steever (ed.), *The Dravidian languages*, 129–157. London: Routledge.
- Szabolcsi, Anna. 2010. *Quantification*. Cambridge: Cambridge University Press.
- Szabolcsi, Anna. 2015. What do quantifier particles do? *Linguistics and Philosophy* 38. 159–204.

# References V

- Turner, Ralph Lilley. 1931. *A comparative and etymological dictionary of the Nepali language*. London: Routledge and Kegan Paul, Ltd. (Reprinted 1980, New Delhi: Allied Publishers, Ltd.).
- Turner, Ralph Lilley. 1962–1966. *A comparative dictionary of Indo-Aryan languages*. London: Oxford University Press. [Reprinted, Delhi: Motilal Banarsidass, 1999].
- Wickremasinghe, Don Martino De Silva, H.W. Codrington & Senarat Paranavitana (eds.). 1912–1933. *Epigraphia Zeylanica: being lithic and other inscriptions of Ceylon*. London: H. Frowde for the Govt. of Ceylon.
- Wijemanne, Piyaseeli. 1984. *Amāvatura, a syntactic study*. Colombo: Ministry of Higher Education.