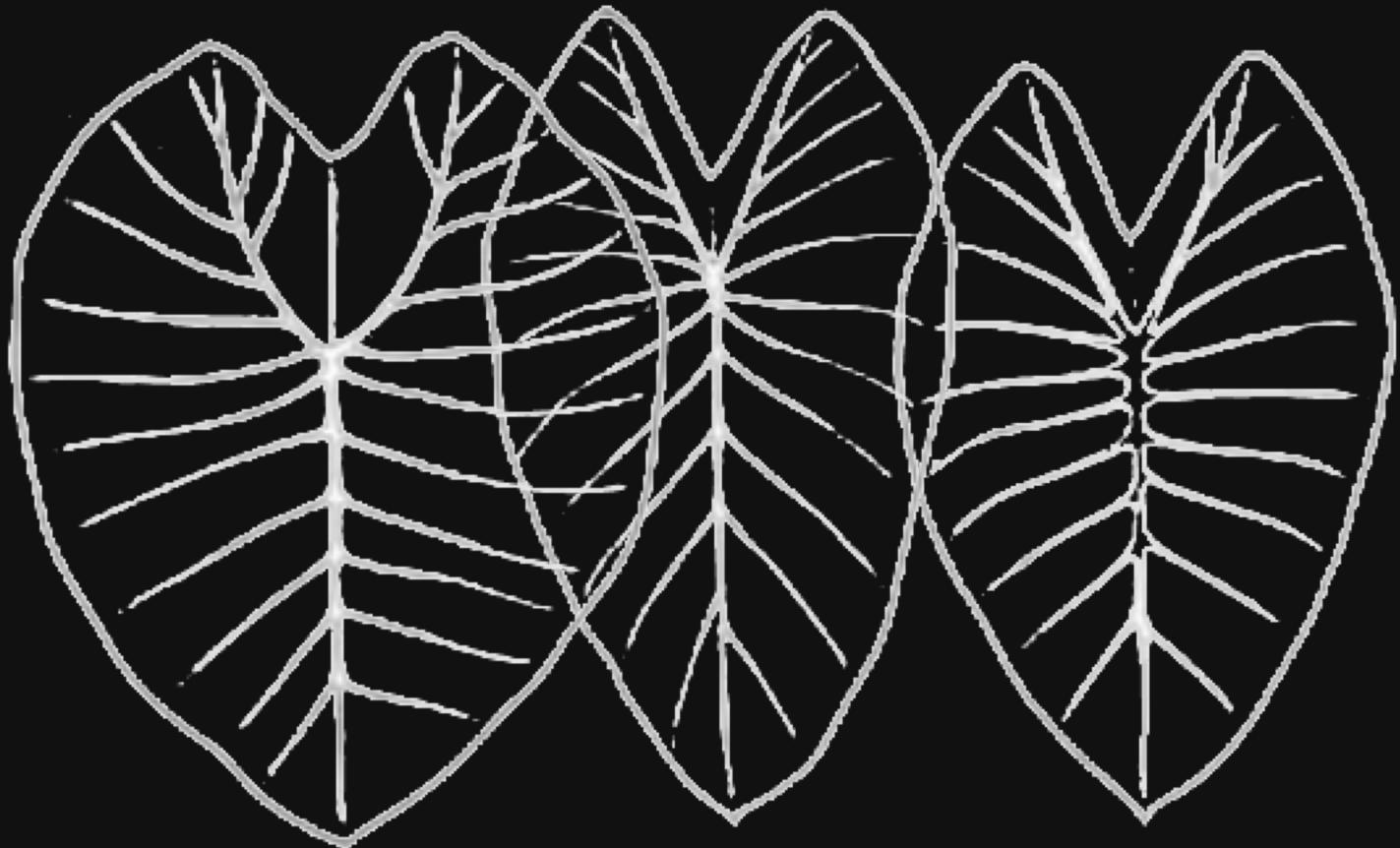


# Proceedings of TripleA 3

Fieldwork Perspectives on the  
Semantics of African, Asian and Austronesian Languages



Ed. by Vera Hohaus & Wanda Rothe

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Fieldwork Perspectives on the Semantics of African, Asian and Austronesian Languages*

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# Table of Contents



## African

|   |    |
|---|----|
| Mira Grubic (Universität Potsdam) &<br>Agata Renans (Ulster University) -<br><i>Definiteness Marking on VPs/TPs in Ga and Ngamo</i>                         | 1  |
| Sampson Korsah & Andrew Murphey (Universität Leipzig) -<br><i>Reduplicated Indefinites in Gã: Concord or Polarity?</i>                                      | 16 |
| Anne Mucha (Institut für Deutsche Sprache, Mannheim) &<br>Henry Zamchang Fominyam (Universität Potsdam) -<br><i>(Un-)Restricting Tense in Awing</i>         | 32 |
| Sumiyo Nishiguchi (Tokyo University of Science) -<br><i>Indexical Shifting in Dhaasanac and Somali</i>  | 47 |
| Deniz Özyıldız & Rodica Ivan<br>(University of Massachusetts, Amherst) -<br><i>The Somali Microscope:<br/>Personal Pronouns, Determiners and Possession</i> | 56 |



## Asian

|  |    |
|--|----|
| Rahul Balusu (EFL University, Hyderabad) -<br><i>Free Choice Relatives in Telugu</i>                 | 70 |
| Veneeta Dayal (Rutgers University)<br><i>Determining (In)definiteness in the Absence of Articles</i> | 85 |

Sarah Duong Phu (Goethe-Universität, Frankfurt am Main) –  
*Syntactic and Semantic Aspects of  
Discontinuous Noun Phrases in Vietnamese* 100

Amanda Swenson (Massachusetts Institute of Technology) –  
*The Incompatibility of Malayalam  
Conjunctive Participle Constructions with  
Multiple Temporal Adverbs and Individual Level Predicates* 111



## Austronesian

Kilu von Prince (Humboldt-Universität zu Berlin) –  
*Indefinites in Daakaka (Vanuatu)* 126

# Free Choice Relatives in Telugu<sup>1</sup>

Rahul Balusu — EFLU, Hyderabad

**Abstract.** In English (and Hindi, with *jo-bhii*) an *-ever* free relative (FR) can have one of three interpretations – ignorance, indifference, and quantificational. In Telugu, each of them is expressed through a separate construction, – the ignorance reading via a disjunctive particle and ‘but’ correlative, the indifference reading via a conditional correlative, and the quantificational reading via a concessive conditional free relative. Whereas theoretical analyses have tried to unify the various readings in English, or subsume one under the other, the theoretical challenge in Telugu is to explain how and why each reading is associated with a different structure and derive the semantic mechanism based on the morphosyntax of the structure that it is associated with, besides explaining how the modal implications and quantificational force come about in each of these non-modal, non-quantifier contexts. In this paper we attempt to derive each of the readings building on the morphosyntax of the constructions involved – a Hamblin interrogative composing with a conditional modal semantics for the indifference reading, a trio of possibilities based on the semantics of the morphemes involved in the ignorance construction, and the quantificational reading as dependent definites licensed by a quantificational operator ranging over situation variables.

## 1. Introduction

In English, an *-ever* free relative (FR) can have one of three interpretations (Dayal 1997, von Fintel 2000, Condoravdi 2005) – ignorance, indifference, and quantificational<sup>2</sup>, as given in (1).

- (1) a. Whoever just rang the bell is very angry. IGNORANCE (Dayal 1997)
- b. I threw whatever was next to me at the insect. INDIFFERENCE (von Fintel 2000)
- c. Whatever path I took led me back here. QUANTIFICATIONAL (Condoravdi 2005)

The semantically interesting feature of these sentences is that modal implications show up in non-modal environments – an epistemic implication shows up in the ignorance reading; a counterfactual implication shows up in the indifference reading; and a universal/free choice implication manifests in the quantificational reading. Theoretical analyses have tried to unify the various readings in English (Condoravdi 2015), or subsume one under the other (Dayal 1997, von Fintel 2000, Tredinnick 2005, Lauer 2009).

There is a similar pattern in Hindi with *jo-bhii* (Dayal 1997) giving rise to three interpretations in correlative structures, as shown in (2).

- (2) a. **jo bhii** laRkii mehnat kar rahii hai vo safal hogii.  
wh ever girl effort do ing is she successful will-be  
'The girl who is making an effort will be successful.'
- b. **jo bhii** pustak paas thii maine usko khola.  
wh ever book near was I that opened  
'I opened whichever book was nearby.'

<sup>1</sup>We would like to thank the audience of TripleA 3, Tuebingen, 2016 for comments and discussion.

<sup>2</sup>Rawlins (2008) calls this reading ‘quantificational’, while Condoravdi (2005) calls it ‘universal’.

- c. **jo bhii** laRkii mehnat kartii hai vo safal hotii hai QUANTIFICATIONAL  
 wh ever girl effort does is she successful be  
 ‘Any girl who makes an effort succeeds.’

As Dayal (2013) notes: “One contribution of *ever/bhii* is to indicate uncertainty about identity on the part of the speaker, but there is no uncertainty that there is one and exactly one entity that has the property denoted by the nominal.”

In Telugu, each of the three readings is expressed through a separate construction, as shown in (3) – the ignorance reading via a disjunctive particle and ‘but’ correlative, the indifference reading via a conditional correlative, and the quantificational reading via a concessive conditional free relative.

- (3) a. ravi uma eemi vanDind-oo **kaani**, adi tinnaaDu IGNORANCE  
 Ravi Uma what cooked-DISJ but, that ate  
 ‘Ravi ate whatever Uma cooked.’
- b. ravi uma eemi vanDi-tee adi tinnaaDu INDIFFERENCE  
 Ravi Uma what cooked-IF that ate  
 ‘Ravi ate whatever Uma cooked.’
- c. ravi uma eemi vanDi-naa tinnaaDu QUANTIFICATIONAL  
 Ravi Uma what cooked-CONC ate  
 ‘Ravi ate whatever Uma cooked.’

The theoretical challenge in Telugu is to explain how and why each reading is associated with a different structure and derive the semantic mechanism based on the morphosyntax of the structure that it is associated with. Besides, we need to explain how the modal implications and quantificational force come about in each of these non-modal, non-quantifier contexts.

In this paper we first establish the three readings through various diagnostics in the literature in §2, before attempting an initial attempt at a semantic derivation for each of them, in §3.

## 2. Establishing the Three Readings in Telugu

### 2.1. Testing for the Ignorance Reading

When the *-ever* FR gives rise to an ignorance implication, it is not compatible with a unique, exhaustive specification of the referent. The *namely* test (Dayal 1997) is the key test for ignorance in FRs. The appositive *namely* is incompatible with an ignorance reading, as shown in (4).

- (4) #Whatever Mary is cooking, namely ratatouille, has lots of onions.

A second test is distribution in pseudoclefts – ignorance FRs are good in predicational pseudoclefts but bad in specificational pseudoclefts (Iatridou and Varlakosta 1998), as shown in (5).

- (5) a. #Whatever Mary is cooking is ratatouille.  
 b. Whatever Mary is cooking is healthy.

A third test is disjoint parentheticals – an appositive list has to be non-trivial and disjoint with an ignorance FR (Horn 2000), as shown in (6).

- (6) Whatever Mary is cooking – be it ratatouille, latkes, or goulash – has tons of onions.

Thus, unique or exhaustive reference via apposition, a conjoint list, or specification leads to infelicity with an ignorance FR.

Testing for the ignorance reading with Telugu relatives, the plain correlative with *-oo* has an ignorance reading, but it is cancellable, as shown in (7).

- (7) nuvvu ee-pennu vaaDeev-oo, anTee ii parker, naaku ivvu  
 you which-pen used-OO, namely this parker, to-me give  
 ‘Give me which pen you used, namely this parker.’

The clause final *-oo* is the disjunction operator in the head position of ForceP, seen in both questions and correlatives in Dravidian (Jayaseelan 2001).

Clefting heightens ignorance (von Fintel 2000), but is still cancellable, as shown in (8).

- (8) a. nuvvu vanD-indi eemiT-oo naaku peTTu  
 you cook-CLM what-OO to-me put  
 ‘Serve me what it is that you cooked.’  
 b. nuvvu vanD-indi eemiT-oo, anTee biryani, naaku peTTu  
 you cook-CLM what-OO, namely biryani, to-me put  
 ‘Serve me what it is that you cooked, namely biryani.’

Topicalization, with *-aitee* (more about this morpheme next), also has the same effect of making ignorance prominent, but is again cancellable, as shown in (9).

- (9) a. nuvvu ee-pennu-aitee vaaDeev-oo (adi) naaku ivvu  
 you which-pen-TOP used-OO that to-me give  
 ‘Give me which pen you used.’  
 b. nuvvu ee-pennu-aitee vaaDeev-oo, anTee aa parker, naaku ivvu  
 you which-pen-TOP used-OO, namely that Parker, to-me give  
 ‘Give me which pen you used, namely that Parker.’

We find that the speaker’s epistemic uncertainty about the identity of the referent of the correlative is signalled in the *ee ...-oo kaani*, ‘disjunctive plus but’ correlative. It fails the namely test of Dayal (1997), as shown in (10).

- (10) #nuvvu eemi vanDutunnaav-oo kaani, anTee caapalu, (adi) caalaa kampu koDutoondi.  
 you what cooking-DISJ but, namely fish, it much smell hitting  
 ‘Whatever you are cooking, namely fish, is smelling a lot.’

An appositive list adjoining this correlative has to be disjoint and non-trivial, as given in (11).

- (11) nuvvu eemi vanDutunnaav-oo kaani, biryani-oo, caapal-oo, sambar-oo (adi) caalaa  
 you what cooking-DISJ but, biryani-DISJ fish-DISJ sambar-DISJ it much  
 manci vaasana vastoondi.  
 good smell coming  
 ‘Whatever you are cooking, whether biryani, fish, or sambar, is smelling delicious.’

We are unable to test with pseudoclefts because they are also verbal suffixes like the *-oo*, and seem to compete for the same spot.

This correlative structure is also used to form extreme ignorance questions, like with English *ever* which intensifies a pre-existing ignorance implication (Rawlins 2008), as shown in (12).

- (12) a. ravi eemi ayyi-pooyeeD-oo kaani?  
          ravi what happened-off-DISJ but  
          ‘Whatever happened to Ravi?’  
       b. ravi ekkaDi-ki vellipooyeeD-oo kaani?  
          ravi where-to go-away-DISJ but  
          ‘Wherever did Ravi go?’

### 2.1.1. Error of *ainaa*: It is not the Ignorance -ever

Uegaki (2013) takes *-ainaa* to be an FC item with an ignorance implication that *agrees* with the EVER operator, as shown in (13): “In the case of ewar-ainaa, the EVER-operator that agrees with it checks the existence of uncertainty in the contextually-given domain of worlds as to which propositions in the Hamblin-alternatives given by its prejacent are true (von Fintel 2000). If the contextual domain variable C is resolved as the speaker-knowledge state, this gives us the speaker ignorance implication of ewaraina that was discussed in the previous section.” He gives the example shown in (14) to establish this claim.

- (13) a. *-ainaa*: EVER, which checks variation in the relevant domain  
       b.  $\llbracket \text{EVER} \rrbracket^C = \lambda P_{\langle st, t \rangle} : \exists w', w'' \in C [\exists p \in P [p(w') \neq p(w'')]]. P$  (cf. von Fintel 2000)
- (14) vanTakam **vanD-in-dewar-ainaa** (gaanii) ?(vaLLu) Raam-ni cuusee-ru  
          dish        cook-ACC-wh-AINAA Ignorance 3PL.PRO Ram-ACC saw-AGR  
          ‘Whoever cooked the dish saw Ram.’

However, there are three issues with the example in (14). For one, the break up of the verbal suffixes is as shown in (15). Second, *gaani* here is not the ignorance marker, but a homophonous morpheme from the paradigm of the verb ‘happen’, *avvu*, again shown in (15). In fact, the example in (15) is pretty close to the Czech concessive conditional with the clause initial particle *at*’ (*uz*) ‘let already it be whatever’, that Simik (2016) notes as having an identity reading.

- (15) vanTakam **vanD-indi ewar-ainaa** (gaanii/avvanii) ...  
          dish        cook-CLM wh-CSAP let-happen  
          ‘Let it be anybody that cooked the dish...’

Finally, *wh-ainaa* (and *wh-aavate* in Tamil) is the counterpart of *any*, an NPI/FCI with a bagel pattern of distribution (Balusu, Gurujegan & Rajamathangi 2016). A minimal pair using *wh-ainaa* ‘any’ and *ee ...-naa* ‘whoever’ (free-choice), is shown in (16).

- (16) a. evar-ainaa vas-tee naaku ceppu  
          wh-CSAP come-if I-DAT tell  
          ‘If anybody comes tell me.’  
       b. evaru vacci-naa naaku ceppu  
          who come-CONC I-DAT tell  
          ‘Whoever comes tell me.’

### 2.1.2. Error of *aitee*: It is not the Correlative Item

For Uegaki (2013), *-aitee* is the correlative term without an ignorance implication. He uses the examples in (17) to make this claim.

- (17) a. vanTakam **vanD-in-dewar-aitee** vaLLu Raam-ni cuusee-ru  
           dish        cook-ACC-wh-AITEE 3PL.PRO Ram-ACC saw-AGR  
           'Whoever cooked the dish saw Ram.'
- b. vanTakam **vanD-in-dewar-aitee** vaLLa-ni neenu cuusee-nu  
           dish        cook-ACC-wh-AITEE 3PL.PRO-ACC I        saw-AGR  
           'I saw whoever cooked the dish.'

But unfortunately, these examples with *-aitee* are ungrammatical. Another generalization that is not correct in this paper is the following: 'as discussed in the data section, *ewaraitee* appears only in correlatives. I capture this fact by assuming that *-aitee* agrees with *Det<sub>FR</sub>*.' (Uegaki 2013)  
 In Telugu, *aitee* is actually a topic marker, as shown in (18).

- (18) a. id-aitee naaku teliy-adu  
           this-TOPIC I-DAT know-not  
           'As for this, I don't know.'
- b. ravi-aitee baagaa paaDataaDu  
           Ravi-TOPIC well   sings  
           'If it's Ravi, he sings well.'

### 2.2. Testing for the Indifference Reading

The indifference reading has a counterfactual implication (von Fintel 2000), as shown in (19).

- (19) I used whatever was next to me  
*Counterfactual Implication:* I could well have used anything else that was next to me, instead.

The actual referent can be identified in the indifference reading, without infelicity (Condoravdi 2015), as shown in (20).

- (20) I used whatever was next to me, this book as it happened, and swatted the fly.

An appositive list in the indifference reading is interpreted conjunctively (Condoravdi 2015), as shown in (21).

- (21) I took whatever was next to me – a pencil, a book, (and)/(\*)or a protractor – and stuffed it into my bag.

And then there are the cancellation tests of Rawlins (2015), as shown in (22).

- (22) #I needed a particular instrument, so after much careful consideration, I used whatever was next to me.

Testing for the indifference reading with Telugu relatives, indifference about the identity of the referent is signalled through the conditional correlative, *ee ...-tee*, in Telugu. It is compatible with the identity of the referent being explicitly mentioned, as shown in (23).

- (23) ravi ee-bussu vas-tee adi ekkeeDu. adi aidoo no. bussu avvaDam jarigindi.  
 Ravi which-bus come-IF that climbed. That five no. bus happening happened  
 ‘Ravi got onto whichever bus came. It happened to be Bus no.5.’

A list in apposition to such a sentence is interpreted conjunctively, as shown in (24).

- (24) ravi Table-miida eedi un-Tee adi tinnaaDu – upma, paccaDi, perugu.  
 Ravi table-on which be-IF that ate – upma, pickle, yoghurt  
 ‘Ravi ate whatever was there on the table – upma, pickle, yoghurt.’

The indifference in these sentences cannot be cancelled, as shown in (25).

- (25) #ravi eedi tin-aal-oo caalaa aaloocinci eedi unTee adi tinnaaDu  
 Ravi what eat-must-OO lot thought what be-IF that ate  
 ‘#After much consideration of what to eat, Ravi ate whatever was there.’

The *ee ...-tee* correlative is also the structure employed to express extreme indifference/indiscrimination, like the English bare *wh-ever* construction (Rawlins 2008), as shown in (26).

- (26) a. ravi eedi paDi-tee adi tinTaaDu  
 Ravi what fall-IF that eats  
 ‘Ravi eats whatever.’
- b. talupu terisi un-Tee evaru an-Tee vaallu vastaaru  
 door open be-IF who say-IF they come-will  
 ‘If the door is open, whoever will come in.’

### 2.3. Testing for the Quantification Reading

The universal / FC reading is signalled by the *ee ...-naa* structure in Telugu, as shown in (27).

- (27) neenu ee-daari tiisukun-naa ikkaDikee tirigi vaccindi  
 I what-path take-CONC here return came  
 ‘Whatever/any path I took came back here.’

The concessive conditional is marked with the specialized morpheme, *-naa*, as shown in (28).

- (28) amma ceppi-naa neenu aa pani ceyy-a-leedu  
 mother tell-CONC I that work did-not-AGR  
 ‘Even if mother told me to I didn’t do that work.’

The concessive conditional relative **lacks an identity reading**, as shown in (29).

- (29) a. #nuvvu oka cuura, eemi vanDi-naa caalaa kampu koTTindi.  
 you one curry what cooked-CONC much smell came  
 ‘Whatever one curry you cooked smelled a lot.’
- b. #ravi mundu eedi kanipinci-naa tiisukuni nannu okeeoka saari koTTeeDu  
 Ravi front what saw-CONC taken me one-only-one time hit  
 ‘Ravi took whatever he found in front of him and hit me once and only once.’

This is similar to Czech *-ever* FRs (Simik 2015), Italian and Romanian *-ever* FRs (Caponigro & Falaus 2016), and also Hungarian (Szabolcsi p.c. in von Fintel 2000).

With an appositive in a concessive conditional, identifying the unique actual referent is bad, unlike an indifference reading, as shown in (30).

- (30) #kukka eedi peTTinaa, anTee annam, tineesindi  
           dog    what put-CONC say-if rice    ate  
           'The dog ate whatever I put, namely the rice.'

A list in apposition is interpreted conjunctively, unlike the ignorance reading, as shown in (31).

- (31) kukka annam, pappu, kuuraa, eedi peTTinaa tineesindi  
 dog, rice, dal, curry, what put-CONC ate  
 'The dog ate whatever I put – rice, dal, curry.'

However, in sentences in the future tense an identity reading is available, as shown in (32).

- (32) ravi uma eemi vanDi-naa tin-TaaDu, adi kaakarakaai kuura ainaa.  
 Ravi Uma what cook-CONC eat-will, that bittergourd curry even-if  
 ‘Ravi will eat whatever Uma will cook, even if it is bittergourd curry.’

With an adverbial quantifier, where there are multiple instances, the *ee ...-naa* conditional is fine in past/present tense, as shown in (33).

- (33) ravi uma prati saari eemi vanDi-naa tinnaaDu.  
Ravi Uma every time what cooked-CONC ate  
'Ravi ate whatever Uma cooked each time.'

Generic/habitual interpretations are also good with the *ee* ...-naa concessive, as shown in (34).

- (34) a. ravi eemi vanDi-naa kampu koTTeedi  
Ravi what cook-CONC smell hit-used-to  
'Whatever Ravi used to cook used to smell.'  
b. ee paamu-ni paTTukun-naa kaaTeestandi  
which snake-ACC catch-CONC bites  
'Whatever snake you catch bites you.'

The concessive conditional morpheme *-naa* also forms unconditionals – alternative unconditionals, constituent unconditionals, and, headed unconditionals, as shown in (35).

- (35) a. uma kuura vanDi-naa caaru vanDi-naa vanTillu manci vaasana vastundi  
          Uma curry cooks-CONC sambar cooks-CONC kitchen good smell come-will  
          ‘Whether Uma cooks curry or sambar, the kitchen will smell good.’

b. uma eemi vanDi-naa vanTillu manci vaasana vastundi                           CONSTITUENT  
          Uma what cooks-CONC kitchen good smell come-will  
          ‘Whatever Uma cooks, the kitchen will smell good.’

c. uma eemi vanDi-naa saree vanTillu manci vaasana vastundi                   HEADED  
          Uma what cooks-CONC ok kitchen good smell come-will  
          ‘No matter what Uma cooks, the kitchen will smell good.’

## 2.4. Interim Summary

What we know so far is that the semantic constraints imposed must be construction specific in Telugu, contra English/Hindi, where the same morpheme *-ever/bhii* gives rise to all three interpretations. The original proposal of Dayal (1997), built on further, that captures this 3 way variation for *-ever/bhii* is given in (36).

- (36) *Variation requirement:* The denotation of an ever FR varies along a certain dimension.

In Telugu we see that **wh...-naa** has a strict quantificational variation requirement. This prevents it from getting the identity readings. It is a DEPENDENT DEFINITE. **wh...-tee** comes with a variation requirement on the counterfactual dimension, giving rise to indifference. It is a COUNTERFACTUAL DEFINITE. **wh...-oo kaani** has a variation requirement on the epistemic dimension, leading to the ignorance interpretation. It is an EPISTEMIC DEFINITE. A summary of the diagnostics and the behaviour of the various (co)relatives is given in (37).

(37)

| ↓Diagnostic                      | Correlative→ | <i>-oo kaani</i> | <i>-tee</i> | <i>-naa</i> |
|----------------------------------|--------------|------------------|-------------|-------------|
| namely test                      | fail         | pass             | fail        |             |
| appositive list                  | ∨            | ∧                | ∧           |             |
| extreme ignorance questions      | yes          | no               | no          |             |
| extreme indiscriminacy questions | no           | yes              | no          |             |
| unconditionals                   | no           | no               | yes         |             |

The step to be taken up in the next section is grounding these semantic intuitions in the morpho-syntax, and compositionally deriving the readings from each structure.

## 3. Compositional Derivation of the Three Readings in Telugu

### 3.1. The Conditional Correlative *ee ... -tee* and the Indifference Reading

We leverage on the morpho-syntax for the underlying structure – the conditional suffix, and the correlative format, highlighted in (38).

- (38) a. ravi **ee**-bus un-Tee adi ekkeeDu  
Ravi what-bus be-if that climbed  
'Ravi climbed onto whatever bus was there (indiscriminately).'  
b. **If x bus** was there, Ravi climbed onto **it**.

Step 1: the *wh*-XP is a Hamblin question, Rawlins (2013): Its an interrogative CP which denotes a set of propositions of the form  $\lambda w. Bus x was there in w$ , as given in (39).

- (39) a. [[what bus was there]]  
b.  $= \lambda p_{st}. \exists x [p = \lambda w. Bus x was there in w]$   
c.  $\{\lambda w. Bus \#25 was there in w, \lambda w. Bus \#127 was there in w, \dots\}$

Step 2: the conditional: is an indicative conditional, that provides the restrictor for a covert necessity modal (Lewis 1975, Heim 1982). The modal quantifies over worlds accessible from the world of evaluation via an accessibility function  $F_c$ , as given in (40).

- (40) a. If Bus#25 was there, Ravi climbed onto it.  
       b.  $\llbracket \Box \text{ Bus\#25 was there} \rrbracket \text{ Ravi climbed onto it}$   
       c.  $\llbracket \Box \rrbracket^c = \lambda p_{st}. \lambda q_{st}. \lambda w. \forall w' \in F_c(w) [p(w') \rightarrow q(w')]$   
       d.  $\llbracket \Box \rrbracket^c (\lambda w. \text{Bus\#25 was there in } w) (\lambda w. \text{Ravi climbed onto it in } w)$   
       e.  $\lambda w. \forall w' \in F_c(w) [\text{Bus\#25 was there in } w' \rightarrow \text{Ravi climbed onto it in } w']$

Step 3: the *wh*-CP pointwise restricts the modal: The set of propositions compose via PFA (Hamblin 1973, Kratzer & Shimoyama 2002), as given in (41).

- (41) a.  $\llbracket \text{If what bus was there} \rrbracket^c$   
       b.  $= \lambda P_{<st,st>}. \exists x [P = \lambda q_{st}. \lambda w. \forall w' \in F_c(w) [\text{Bus\#}x \text{ was there in } w' \rightarrow q(w')]]$   
       c.  $\{\lambda q_{st}. \lambda w. \forall w' \in F_c(w) [\text{Bus\#25 was there in } w' \rightarrow q(w')],$   
 $\quad \lambda q_{st}. \lambda w. \forall w' \in F_c(w) [\text{Bus\#9 was there in } w' \rightarrow q(w')] \dots\}$

Step 4: the functions pointwise compose with the argument: The proposition provided by *Ravi climbed onto it* is taken pointwise as the argument for each element of (41c), as given in (42).

- (42) a.  $\llbracket \text{If what bus was there, Ravi climbed onto it} \rrbracket^c$   
       b.  $= \lambda p_{<st>}. \exists x [p = \lambda w. \forall w' \in F_c(w) [\text{Bus\#}x \text{ there in } w' \rightarrow \text{Ravi climbed onto it in } w']]$   
       c.  $\{\lambda w. \forall w' \in F_c(w) [\text{Bus\#25 was there in } w' \rightarrow \text{Ravi climbed onto it in } w'],$   
 $\quad \lambda w. \forall w' \in F_c(w) [\text{Bus\#9 was there in } w' \rightarrow \text{Ravi climbed onto it in } w', \dots]\}$

Step 5: Generalized Conjunction: The set of propositions is now converted into a single proposition by an operator that conjoins them, as given in (43).

- (43) a.  $\llbracket \text{Op} \rrbracket = \lambda P_{<st,t>}. \lambda w. \forall p [P(p) \rightarrow p(w)]$   
       b.  $\llbracket \text{Op} [[\text{If what bus was there} \text{ Ravi climbed onto it}]]$   
       c.  $= \{\lambda w. \forall w' \in F_c(w) [\text{Bus\#25 was there in } w' \rightarrow \text{Ravi climbed onto it in } w'] \&$   
 $\quad \forall w' \in F_c(w) [\text{Bus\#9 was there in } w' \rightarrow \text{Ravi climbed onto it in } w'] \& \dots\}$

Step 6: Interpretation of bound pronoun: The interpretation of the pronoun in the argument position co-varies with that of the *wh*-XP. It can't be an individual variable, because the *wh*-XP denotes a set of propositions. It is analyzed as an E-type pronoun (Hirsch 2016), as given in (44).

- (44) a.  $\llbracket \text{it} \rrbracket(w) = \iota x [\text{Bus } x \text{ was there in } w]$   
       b.  $\llbracket [\Box \text{ what Bus was there}] \text{ Ravi climbed onto } \iota y [\text{Bus } y \text{ was there in } w] \rrbracket$   
       c.  $= \lambda p. \exists x [p = \forall w' \in F_c(w) [\text{Bus } x \text{ was there in } w' \rightarrow$   
 $\quad \text{Ravi climbed onto } \iota y [\text{Bus } y \text{ was there in } w']]]$

Here the world variable inside the E-type pronoun is bound by the modal, and as the modal takes a different restrictor in each conditional, the referent of the E-type pronoun also varies between the conditionals: If Bus#25 was there in  $w'$ , Ravi climbed onto the bus that was there in  $w'$ , and if Bus#9 was there in  $w'$ , Ravi climbed onto the bus that was there in  $w'$ , etc. So in all accessible worlds at which Bus #25 was there, Ravi climbed onto the bus that was there in that world, and we get the right interpretation that for every Bus  $x$ , in all accessible worlds at which Bus  $x$  was there, John climbed onto  $x$ .

We follow Rawlins (2013) in assuming that the modal is subject to a non-triviality presupposition, as given in (45).

## (45) Non-triviality presupposition

$$F_c(w) \cap p \neq \emptyset$$

This requires that there be some world in the modal base where the restrictor is true. Finally, we assume that for this structure the modal base is always circumstantial (Tredinnick 2005 uses a counterfactual modal base directly to derive indifference. But Rawlins 2015 shows that a circumstantial base is sufficient for this. Also Alonso-Ovalle and Menendez-Benito (2010) argue against counterfactual modal base accounts of indifference readings for indefinites).  $F_c(w)$  is the set of worlds compatible with the circumstances at the evaluation world. The non-triviality presupposition requires that  $p$  be true at some circumstantially accessible world.”

### 3.2. Disjunctive+But *ee . . . -oo kaani* and the Ignorance Reading

We begin first with what the *kaani* could be signalling in this structure. *kaani* is also an exceptive marker, as highlighted in (46).

- (46) ravi velleeDu **kaani** uma vella-leedu  
 ravi went but Uma go-not  
 ‘Ravi went but Uma didn’t go.’

A frequent collocation with *kaani* is *naaku teliyadu kaani* ‘I don’t know but’, as highlighted in (47). So it could also be that the *kaani* here is an elided form of *naaku teliyadu kaani*.

- (47) a. adi evar-oo naaku teliyadu **kaani** idi evar-oo naaku telusu  
 that who-OO I-DAT know-not but this who-OO I-DAT know  
 ‘I don’t know who that is but I know who this is.’
- b. atanu evar-oo naaku teliyadu **kaani** naaku baagaa sahaayam ceeseeDu  
 He who-OO I-DAT know-not but I-DAT lot help did  
 ‘I don’t know who he is but he helped me a lot.’

Next, what could the *-oo* be underlyingly? *-oo* marks embedded constituent questions (and Y/N questions, and alternate questions) in Dravidian (Jayaseelan 2001), as highlighted in (48).

- (48) Uma Ravi ekkaDiki velleeD-**oo** aDigindi  
 Uma Ravi where-to went-OO asked  
 ‘Uma asked where Ravi went.’

It also surfaces in the correlative construction, as highlighted in (49).

- (49) Uma eemi-vanDind-**oo** Ravi adi tinnaaDu  
 Uma what-cooked-OO Ravi that ate  
 ‘Ravi ate what Uma cooked.’

Root *wh*-questions with the disjunctive particle *-oo* have a ‘wonder’ indirect question meaning, which contrasts with a structure without it, as shown in (50)-(51).

- (50) ravi eemi vanDeeD-oo  
 Ravi what cooked-DISJ  
 ‘I wonder what Ravi cooked.’

- (51) ravi eemi vanDeeDu  
 Ravi what cooked  
 ‘What did Ravi cook?’

Another *-oo* is the conditional marker, as highlighted in (52).

- (52) a. Ravi vacceeD-oo Uma-ki koopam vastundi  
 Ravi come-OO Uma-DAT anger come-will  
 ‘If Ravi comes Uma will get angry.’  
 b. Uma navvind-oo Ravi-ki telusutundi  
 Uma laugh-DISJ Ravi-DAT know-be  
 ‘If Uma laughs Ravi will know.’

We therefore have three possibilities here, as given in (53).

- (53) a. *ee ...-oo kaani* = I don’t know what ... but     *-oo* is EMBEDDED Q MARKER  
 b. *ee ...-oo kaani* = Correlative + Ignorance marker     *-oo* is CORRELATIVE MARKER  
 c. *ee ...-oo kaani* = Conditional + Ignorance marker     *-oo* is CONDITIONAL SUFFIX

If it is the Conditional + Ignorance marker, adapt the conditional LF; change the circumstantial modal base to epistemic,  $F_c$  is the epistemic accessibility function, and *kaani* signals this, as given in (54).

- (54) a. ee-bus und-oo kaani ravi adi ekkeeDu  
 what-bus be-IF IGNOR Ravi that climbed  
 ‘Whatever bus was there, Ravi climbed onto it.’  
 b. [Op[[If what bus was there] Ravi climbed onto it]  
 c. =  $\{\lambda w. \forall w' \in F_c(w) [Bus\#25 \text{ was there in } w' \rightarrow \text{Ravi climbed onto it in } w' \& \forall w' \in F_c(w) [Bus\#9 \text{ was there in } w' \rightarrow \text{Ravi climbed onto it in } w' \& \dots]\}$

If it is Correlative marker + Ignorance Marker, then we can use one of the Variation requirement analysis in the literature (Dayal 1997, von Fintel 2000, Tredinnick 2005), with the variation limited to epistemic worlds, signalled by the ignorance marker *kaani*, as given in (55).

- (55) a.  $\Box_{\text{Speaker's belief worlds}} [[\text{which bus was there}]_{[+D]} \text{Ravi climbed onto it}]$   
 b. *Assertion:*  $\Box_S \exists x \in \{9, 25, 127..\} [\text{bus-was-there}(x) \wedge \text{climbed}(r, x)]$   
 c. *Presupposition:*  $\Box_S \exists x \in \{9, 25, 127..\} [x = \iota y [\text{bus-was-there}(y)]]$   
 d. *D-alternatives:*  $\Box_S \exists x \in \{9\} [\text{bus-was-there}(x) \wedge \text{climbed}(r, x)]$   
 $\quad \Box_S \exists x \in \{25\} [\text{bus-was-there}(x) \wedge \text{climbed}(r, x)] \dots$   
 e. *Implicature:*  $\Box_S \exists x \in \{9, 25, 127..\} [\text{bus-was-there}(x) \wedge \text{climbed}(r, x)]$   
 $\quad \wedge \neg \Box_S \exists x \in \{9\} [\text{bus-was-there}(x) \wedge \text{climbed}(r, x)]$   
 $\quad \wedge \neg \Box_S \exists x \in \{25\} [\text{bus-was-there}(x) \wedge \text{climbed}(r, x)] \dots$

If it is the *I wonder/don’t know what/who... but it/he...* embedded question, the composition is pretty straightforward.

How do we decide among these 3 alternatives? By examining the nuances of the ignorance readings, and *ee ...-oo kaani* Root Questions, with extreme ignorance inference (Rawlins 2008).

A closer look at the Ignorance family of readings reveals that the ignorance reading belongs to a family of readings that have the i-variation requirement, and in these other readings the speaker's epistemic state cannot be assumed to be varying – von Fintel (2000), Condoravdi (2015). One such reading is the Guessing Game or Hint type reading (von Fintel 2000), as shown in (56).

- (56) I will tell you one thing: Whatever I'm cooking has a lot of onions in it.

The other is a Unresolved Disagreement (Condoravdi 2015), as shown in (57).

- (57) A: John rang the bell  
B: NO, Mary rang the bell  
A: Well, whoever rang the bell is very angry.

The *wh...-oo kaani* structure is bad in hint/guessing contexts, and in disagreement contexts, as shown in (58).

- (58) a. \*Neenu eemi vanDutunnaan-oo kaani daaniloo caalaa ullipaayalu unnaayi  
 I what cooking-DISJ but that-in lots onions are  
 Intended: ‘Whatever I’m cooking has lots of onions in it.’

b. Ravi: sita bell kottindi & Uma: ramu bell koTTeDu  
 Sita bell hit Ramu bell hit  
 ‘Sita rang the bell.’ ‘Ramu rang the bell.’

c. Ravi: \*bell evaru koTTeer-oo kaanii ...  
 Bell who hit-DISJ but...  
 Intended: ‘Whoever rang the ball...’

So we can conclude that *kaani* is strictly tied to speaker epistemic variation.

### **3.3. The Concessive Conditional *ee* ... -*naa* and the Quantificational Reading**

Dayal (1997) analyzes the quantificational reading as a dependent definite in a quantificational structure – generic or habitual. Lauer (2009) and Simik (2015) propose a dependent definite analysis for the quantificational readings in English and Czech, respectively.

We saw in the data section that the *wh...-naa* structures always get a quantificational reading, and only a quantificational reading. Following the lead of the earlier authors, we analyze these items as dependent definites. But what kind of quantifiers license them and how do the quantificational readings come about? Do these involve modal or non-modal LFs? Do they always have a scalar implication?

When we examine the quantificational variability of the referent, we find that the referent of *ee* ...-*naa* covaries with a variable bound by a quantificational operator – the variation is across the domain of this quantificational operator, as given in (59).

- (59) Qx ... σy [ [ ee ... -naa ] (y) (x) ]

What can the quantified variable be – worlds, situations, individuals? We start with adverbial quantifiers, as shown in (60).

- (60) a. Ravi prati saarii Uma eemi yanDi-naa tinnaaDu

- b.  $\llbracket(63a)\rrbracket^g = \sigma x [Uma \text{ cooked } x \text{ in } g(1)]$  (here 1 is index of variable bound by EVERY)
- c. EVERY s [s is a situation where Uma cooked something]  $\rightarrow$  Ravi ate  $\sigma x [Uma \text{ cooked } x \text{ in } s]$
- d.  $\exists s, s' \in D (\text{EVERY } ) [\sigma x [Uma \text{ cooked } x \text{ in } s] \neq \sigma x [Uma \text{ cooked } x \text{ is } s']}$

Self-licensing by a universal quantifier over situations (Tredinnick 2005, Simik 2015) is also fine, as shown in (61).

- (61) a. Ravi ninna Uma eemi vanDi-naa tinnaaDu  
      b.  $\forall s [s \text{ is a situation where Uma cooked something}] \rightarrow$  Ravi ate  $\sigma x [Uma \text{ cooked } x \text{ in } s]$

Habitual/Generic licensors are also good, as shown in (62).

- (62) a. Ravi Uma eemi vanDi-naa tineevaaDu  
      b. GENS [s is a situation where Uma cooked something]  $\rightarrow$  Ravi ate  $\sigma x [Uma \text{ cooked } x \text{ in } s]$

Future tense – Universal quantifier over possible continuations of the reference situation is also a licensing environment, as given in (63).

- (63) a. Ravi Uma eemi vanDi-naa tinTaaDu  
      b.  $\forall s [s \text{ is a possible continuation of the present situation where Uma cooked something}] \rightarrow$  Ravi ate  $\sigma x [Uma \text{ cooked } x \text{ in } s]$

Interestingly, the *-naa* correlative licenses ‘nearly/almost’, whereas the other two correlatives don’t, as shown in (64).

- (64) a. Ravi Uma deggira-deggira eemi vanDi-naa tinTaaDu  
          Ravi Uma nearly which cooked-NAA ate  
          ‘Ravi ate nearly whatever Uma cooked.’  
      b. #Ravi Uma deggira-deggira eemi vanDi-tee adi tinTaaDu  
          Ravi Uma nearly which cooked-TEE that ate  
          ‘Intended: Ravi ate nearly whatever Uma cooked.’  
      c. #Ravi Uma deggira-deggira eemi vanDind-oo adi tinTaaDu  
          Ravi Uma nearly which cooked-OO that ate  
          ‘Intended: Ravi ate nearly whatever Uma cooked.’

This adds further support to the ‘self-licensing’ of *-naa* correlative by a universal quantifier over situations.

So far, *-naa* is good in various quantificational situations – with quantificational adverbs, generics & habituals, future tense, etc. What about with quantification over individuals? An example of such a quantification is shown in (65) (Lauer 2009). But the equivalent sentence in Telugu is bad as shown in (66).

- (65) Every student read whatever book he was given.  
      (66) #prati studentu tanaki ee-pustakam icci-naa cadiveeDu  
          every student to-him which-book give-NAA read  
          ‘Every student read any book that was given to him.’

We therefore conclude that quantification over individuals is not possible in Telugu with these dependent definites.

Condoravdi (2015) finds modal implications can disappear with plural *wh-ever*, as in (67).

- (67) I returned whatever books you gave me. There was SS, LGB, and Barriers, and I returned them all.

A non-modal plural reading is available with *ee ...-naa*, as shown in (68).

- (68) ee exit tiisukun-naa ikkaDikee vaccindi  
what exit take-CONC here-to came  
'Whatever exit I took came here.'

*Context:* There are only 3 exits one can take - #12, #13, #14

Condoravdi (2015) notes that even with plurals indifference readings arise when the individuation scheme consists of more atomic properties than the actual world instantiates.

With *ee ...-naa* setting up the right individuation scheme beforehand is important, else a modal interpretation easily comes in. But does this mean that 'widening' is absent? It could perhaps be a case of intensional 'widening' when the domain is fixed (Rawlins 2008).

## 4. Conclusion

In this paper we saw clear evidence for three distinct readings of *-ever* relatives in Telugu, and three different structures instantiating them. We have also cleared up some misunderstandings in the literature about Telugu *-ever* relatives. Finally, we made an initial attempt at grounding the readings in the morpho-syntax of each construction.

## References

- Alonso-Ovalle, Luis, & Menéndez-Benito, Paula. 2010. Modal indefinites. *Natural Language Semantics*, 18(1), 1–31.
- Balusu, Rahul, Gurujegan Murugesan, & Rajamathangi. 2016. *Bagel Problem Items in Telugu and Tamil*. handout, 39th GLOW. University of Goettingen, 6 April 2016.
- Caponigro, Ivano, & Fălăuș, Anamaria. 2016. *Free Choice Free Relative Clauses in Italian and Romanian*. Manuscript, MIT.
- Condoravdi, Cleo. 2005. *Not knowing or caring who*. Manuscript, PARC and Stanford University.
- Condoravdi, Cleo. 2015. Ignorance, indifference, and individuation with *wh-ever*. In: Alonso-Ovalle, Luis, & Menéndez-Benito, Paula (eds), *Epistemic Indefinites: Exploring Modality Beyond the Verbal Domain*. Oxford: Oxford University Press.
- Dayal, Veneeta. 1997. Free Relatives and *Ever*: Identity and Free Choice Readings. In: Lawson, Aaron (ed), *Proceedings of the 7th Semantics and Linguistics Conference*. Ithaca, NY: Cornell University, 99–116.

- Dayal, Veneeta. 2013. A Viability Constraint on Alternatives for Free Choice. In: Fălăuș, Ana-maria (ed), *Alternatives in Semantics*. London: Palgrave Macmillan, 88–122.
- Hamblin, Charles L. 1973. Questions in Montague English. *Foundations of Language*, **10**, 41–53.
- Heim, Irene. 1982. *The Semantics of Definite and Indefinite Noun Phrases*. Ph.D. thesis, University of Massachusetts at Amherst.
- Hirsch, Aron. 2015. A compositional semantics for *wh-ever* free relatives. *Proceedings of Sinn und Bedeutung*, **20**.
- Horn, Laurence. 2000. Any and (-)Ever: Free choice and Free Relatives. In: Wyner, Adam (ed), *IATL 7: Proceedings of the Fifteenth Annual Conference*, 71–111.
- Iatridou, Sabine, & Varlokosta, Spyridola. 1998. Pseudoclefts Crosslinguistically. *Natural Language Semantics*, **6**, 3–28.
- Jayaseelan, Karattuparambil A. 2001. Questions and question-word incorporating quantifiers in Malayalam. *Syntax*, **4**(2), 63–93.
- Kratzer, Angelika, & Shimoyama, Junko. 2002. Indeterminate Pronouns: The View from Japanese. In: Otsu, Yukio (ed), *The Proceedings of the Third Tokyo Conference on Psycholinguistics*. Tokyo: Hituzi Syobo, 1–25.
- Lauer, Sven. 2009. *Free Relatives with -Ever: Meaning and Use*. Manuscript, Stanford University.
- Lewis, David. 1975. Adverbs of quantification. In: Keenan, Ed (ed), *Formal Semantics of Natural Language*. Cambridge: Cambridge University Press, 3–15.
- Rawlins, Kyle. 2008. Unifying “if”-conditionals and unconditionals. *Proceedings of Semantics and Linguistic Theory*, **18**(0), 583–600.
- Rawlins, Kyle. 2013. (Un)conditionals. *Natural Language Semantics*, **21**(2), 111–178.
- Rawlins, Kyle. 2015. Indifference and scalar inferences in free relatives. In: Alonso-Ovalle, Luis, & Menéndez-Benito, Paula (eds), *Epistemic Indefinites: Exploring Modality Beyond the Verbal Domain*. Oxford: Oxford University Press.
- Šimík, Radek. 2016. On the semantics of Czech free relatives. *Linguistica Brunensis*, **64**(1), 109–129.
- Tredinnick, Victoria Ann. 2005. *On the Semantics of Free Relatives with -Ever*. Ph.D. thesis, University of Pennsylvania.
- Uegaki, Wataru. 2013. *Hamblin semantics for Telugu wh-indeterminates and correlatives*. Manuscript, MIT.
- Von Fintel, Kai. 2000. Whatever. *Proceedings of Semantics and Linguistic Theory*, **10**, 27–39.