Unconditional-FCIs of Dravidian

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Abstract

We explore a particle combination in Dravidian that occurs across unconditionals and free choice items. We first propose a semantics for the unconditional and then posit an unconditional structure for the polarity items of Dravidian that are formed with this particle combination. This not only unifies the paradigm for the unconditionals and free choice items that is called for by the occurrence of the same morphemes in both cases, but also explains the distribution and licensing of these polarity items.

1 Introduction

Haspelmath (1997) finds that in many languages indefinites are built on *wh*-pronouns with various particles, as shown in (1).

(1) a. *dare* 'who', *dare-ka* 'someone', *dare-mo* 'anyone' JAPANESE
b. *ki* 'who', *vala-ki* 'someone', *sen-ki* 'anyone' HUNGARIAN
c. *kau* 'who', *kauru-hari* 'someone', *kauru-wat* 'anyone' SINHALA

Such *wh*-indefinites have attracted some attention over the years (Shimoyama 2006, Jayaseelan 2011, Szabolcsi 2015, Erlewine 2019), but not as much as *wh*-questions or *wh*-relative clauses.

In this paper we will take up one case-study of *wh*-indefinites in the Dravidian languages. It reveals properties and lines of composition of these items hitherto unnoticed, that have broader cross-linguistic application. These are FCIs built out of unconditionals, non-modal FCIs, seen in Kannada, Malayalam, and Telugu (Tamil shows an opaque pattern different from the others).

We see that Dravidian concessive morphemes (we focus mainly on Kannada *(aad)-ar-uu* and Telugu *(ai)-naa* here[2]) build FCIs, NPIs and unconditionals (UNC), as shown in (Fig.1). We find clear evidence in Dravidian that NPI/FCIs are built of the same elements that form UNCs. We first provide an EVEN based account of Dravidian UNCs, followed by a UNC structure and meaning for NPI/FCIs to explain this. Dravidian universal Free Relatives (FRs) are EVEN-FRs built out of UNCs. One kind of Dravidian FCIs are even-FRs built with the copula –Kannada: *wh-aad-ar-uu* = *wh*-+BE + IF +EVEN (can be ∀-FCI or ∃-FCI). Our analysis unifies the NPI/FCI/UNC domain of Dravidian, tracking the concessive particles that form all three constructions, as EVEN-IF UNCs. We also propose a nuanced account of universal vs. existential FCI interpretations in Dravidian based on the exhaustifying operator(s) involved. The ∀-FCI is a result of the plain EVEN-IF UNC. The ∃-FCI is a result of exhaustification in the EVEN-IF UNC. The copular concessive conditionals (BE+IF+EVEN) also forms Concessive Scalar Additive Particles (CSAPs) when attached to non-*wh*-items. They again can be interpreted 'plain' or exhaustified, giving rise to *'even'* and *'at least'* interpretations, respectively. The concessive sentential connective use of the CSAP is explained by its taking a sentential anaphor as its argument. The NPI use of these items, occurring in weak and medium negative contexts, is also explained by the UNC mechanism, as UNCs are licensed in DE contexts.

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[2]please see Balusu, in prep., for Malayalam and Tamil data and patterns which differ somewhat from Kannada and Telugu

(2) a.

KEY: copula if even

KANNADA	sub-clausal		clause-final		sentential
	non-*wh*	*wh*-	non-*wh*	*wh*-	
-*ar*-*uu*			EVEN IF	UNC	
aad-*ar*-*uu*	AT LEAST/ EVEN IF	∃-FCI/ ∀-FCI			still/but

b.

TELUGU	sub-clausal		clause-final		sentential
	non-*wh*	*wh*-	non-*wh*	*wh*-	
-*naa*			EVEN IF	UNC	
ai-*naa*	AT LEAST/ EVEN IF	∃-FCI/ ∀-FCI			still

Figure 1: Concessive morphemes in Kannada and Telugu

1.1 Our assumptions about *even*, and conditionals

We take the properties of EVEN, as in the standard analysis of Karttunen & Peters (1979) –it is a focus sensitive operator; it takes takes propositional scope; it does not contribute to assertion. It has a Scalar presupposition: Prejacent is least-likely among alternatives. It also has an Existential presupposition: At least one other alternative is true. This is shown in (3).

(3) $[\![even]\!]$ (C)(p)(w) is defined iff (Guerzoni & Lim 2007)
$\exists q \in C\ [q \neq p\ \&\ q(w) = 1]$ ADDITIVITY
$\forall q \in C\ [q \neq p \rightarrow p \prec_{likely/expected} q]$ SCALARITY
If defined then $[\![even]\!]$ (C)(p)(w) = p(w) ASSERTION

As for conditionals, we take the standard Lewis/Kratzer/Heim Restrictor analysis. The antecedent clause domain restricts a (covert) modal that quantifies over the consequent clause. This is implemented as a correlative structure, binding a variable over possible worlds (Bhatt & Pancheva 2006; Rawlins 2013).

2 Clausal *even if* (concessive conditional & universal concessive conditional)

We start with the meaning of the concessive conditional, as shown in (4) - (5). -*ar* is conditional morphology, and -*uu* is the (scalar) conjunctive particle, in Kannada. The Telugu morphology is not so transparent, -*naa* is IF+EVEN.

(4) a. ravi heeLid-**ar-uu** naanu hoguvud-illa KANNADA
Ravi tell-IF-EVEN I go-not
'Even if Ravi tells, I won't go'

b. ravi ceppi-**naa** neenu vell-anu TELUGU
Ravi tell-IF-EVEN I go-not
'Even if Ravi tells, I won't go.'

(5) a. LF: EVEN [IF [Ravi]$_F$ tells, I won't go]

b. Assertion: $\lambda w.\forall w' \in F_c(w)$ [Ravi tells in w′ → I won't go in w′]

c. Scalar presupposition:
$\lambda w.\forall w' \in F_c(w)$ [Ravi tells in w′ → I won't go in w′] $\prec_\mu$ $\forall x \in$ ALT. x$\neq$ *Ravi* $\lambda w.\forall w' \in F_c(w)$ [x tells in w′ → I won't go in w′]

d. **Implicature:**
$\forall$x$\in$ALT. x$\neq$ Ravi [λw.$\forall$w′ $\in$ $\mathbf{F}_c$(w) [x tells in w′ $\rightarrow$ I won't go in w′]]

The implicature falls out from the universal entailment of conditionals and the monotonic nature of μ (Guerzoni & Lim 2007). The combination of EVEN and IF is necessary. Each alone does not produce this implicature.

2.1 Morphology of Dravidian UNC

The *wh*-UNC is formed by composing a *wh*-item with a clause-final concessive conditional particle in the antecedent clause: *-ar-uu* in Kannada, *-naa* in Telugu, as shown in (6).

(6) a. eSTu heeLid-**ar**-**uu** avaLu keeLal-illa KANNADA
how.much told-IF-EVEN she listen-not
'However much (I) told (her), (she) didn't listen.'

b. evaru vacci-**naa** raaka-pooyi-**naa** neenu vella-taanu TELUGU
who come-IF.EVEN come-not-IF.EVEN I go-will
'Whoever comes or not, I will go.'

Alternative UNCs also show the same morphology: here, we find IF + EVEN on each alternative, as shown in (7).

(7) a. idi kon-**naa** adi kon-**naa** discount vastundi TELUGU
this buy-IF.EVEN that buy-IF.EVEN discount come.will
'Whether you buy this or that you will get a discount'

b. ravi heeLid-**ar**-**uu** uma heeLid-**ar**-**uu** avaLu keeLal-illa KANNADA
Ravi tell-IF-EVEN Uma tell-IF-EVEN she listen-not
'Whether Ravi told or Uma told, she didn't listen.'

Unlike English, there is no evidence of *wh*-morphology or *wh*-syntax in the Dravidian UNCs.

2.2 Anatomy of a UNC –à la Rawlins (2013)

Rawlins (2013) proposes that English constituent UNCs look like *ever* free relatives (Dayal 1997, Izvorski 2000), but they are composed from embedded questions, (a structure which has been adopted for Tamil by Iyer 2017) as shown in (8).

(8) $[_{\langle s,t\rangle}$ $\forall$ $[_{\{\langle s,t\rangle\}}$ $[_{\text{FORCEP}}$ Q COND $[_{CP:\{\langle s,t\rangle\}}$ $[_{\{e\}}$whoever] comes to party], $[_{CP:\langle s,t\rangle}$ it'll be fun]]]]

2.3 From concessive conditional to UNC

We propose the LF for the UNC to be (9).

(9) [$\forall$ [EVEN [IF [who]$_F$ comes to the party, it will be fun]]]

Step 1: the *wh*-item is an indeterminate pronoun. It combines point-wise, to generate a set of propositions of the form $\lambda w.$ *x comes to the party in w*:

(10) a. ⟦who comes to the party⟧

b. {λw.j comes to the party in w, λw.k comes to the party in w, ...}

Step 2: the conditional: is an indicative conditional, provides restrictor for covert necessity modal, that quantifies over accessible worlds via accessibility function F_c:

(11) a. [[□ j comes to the party] it will be fun]
b. λw. ∀w′ ∈ F_c(w) [j comes to the party in w′ → it will be fun in w′]

Step 3: the functions pointwise compose with the argument: The proposition provided by *it will be fun* is taken pointwise as the argument for each element:

(12) a. ⟦if who comes to the party, it will be fun⟧^{c}
b. {λw.∀w′ ∈ F_c(w) [j comes to the party in w′ → it will be fun in w′],
λw.∀w′ ∈ F_c(w) [k comes to the party in w′ → it will be fun in w′], ...}

Step 4: When composed with EVEN:

(13) a. ⟦ EVEN [if who comes to the party, it will be fun] ⟧^{c}
b. {λw. ∀w′ ∈ F_c(w) [j comes to the party in w′ → it will be fun in w′,
⇑ least likely in w′
λw. ∀w′ ∈ F_c(w) [k comes to the party in w′ → it will be fun in w′,
⇑ least likely in w′
...}

Step 5: When composed with ∀

(14) a. ⟦ ∀ [EVEN [if who comes to the party, it will be fun]] ⟧^{c}
b. {λw. ∀w′ ∈ F_c(w) [j comes to the party in w′ → it will be fun in w′ ∧
λw. ∀w′ ∈ F_c(w) [k comes to the party in w′ → it will be fun in w′ ∧
...}

(15) $[_{\langle s,t\rangle}$ ∀ $[_{\{\langle s,t\rangle\}}$ EVEN [IF $[_{CP:\{\langle s,t\rangle\}}$ $[_{\{e\}}$who$]_F$ comes to party], $[_{CP:\langle s,t\rangle}$ it'll be fun]]]

This is the meaning of an unconditional. But how do we ensure that each alternative in the restrictor-set is true of some world(s) in the modal base? Rawlins (2013) proposes that each restrictor in the set denoted by the unconditional is true in at least one world of the modal base (dubbed non-triviality by Hirsch 2016) –*distribution* presupposition, as shown in (16).

(16) Non-triviality / distribution presupposition:
F_c(w) ∩ p ≠ ∅
where F_c(w) is the modal base and p is the set of worlds characterized by the restrictor argument.

This is reminiscent of the Viability constraint of Dayal (2013), as shown in (17).

(17) [... FCI ...] is felicitous iff there exists a model M, a world w, and a conversational background g(w) such that each exhaustified alternative is true at w w.r.t some (non-empty) subset of ∩g(w).

2.4 From UNC to Universal FR

Šimík (2018) notes that "Hirsch (2016) proposed that ignorance eFRs have a double syntactic and semantic life: on the one hand, they function as unconditionals, on the other, they function as donkey-anaphoric definite descriptions, picking up the referent introduced in the unconditional." He proposes that "all ever free relatives, are instances of (un)conditionals + donkey-anaphoric definite descriptions." and that the "the motivation for treating eFRs as a subspecies of unconditionals is not just their morphosyntactic similarity, but also their interpretation" and proposes a structure in which "they are spelt out in their "in situ" position ... And exhibit many formal and semantic properties that clearly reflect their "raised" syntactic position, where they denote propositions (rather than entities) and where they play the role of (un)conditionals." Hirsch (2016) proposes the structure as shown in (18), and Šimík (2018) proposes the structure as shown in (19)

(18) a. Whatever Mary cooked, John ate it
b. It = E-type pronoun: it(w) = ιx [Mary cooked x in w]
c. LF: [[□ whatever Mary cooked] John ate ιy [Mary cooked y in w']]
d. λp. $\exists$x [p = $\forall$w'$\in$Fc(w) [Mary cooked x in w' $\rightarrow$ John ate ιy [Mary cooked y in w']]]

(19) a. John ate whatever Mary cooked.
b. [$_{OP}$ [$_{UNC}$ whatever Mary cooked]] John ate [$_{FR}$ whatever Mary cooked]

We propose the following structure(s) for the Dravidian universal-FRs, (20), as shown in (21).

(20) a. uma eenu beeyisid-**ar**-**uu** ravi (adannu) tinnutteene KANNADA
Uma what cook-IF-EVEN Ravi that eat-will
'Whatever Uma will cook, Ravi will eat it.'
b. uma eemi vanDi-**naa** ravi (?adi) tinTaaDu TELUGU
Uma what cooked-IF.EVEN Ravi that eat-will
'Whatever Uma will cook, Ravi will eat it.'

(21) a. [EVEN [IF [$_{CP}$ what Uma will cook]] Ravi will eat [$_{FR}$ what Uma will cook]]
b. [EVEN [IF [$_{CP}$ what Uma will cook]] Ravi will eat [it]]

3 From Universal-FR to Universal-FCI

Consider the parallelism between the universal-FRs and FCIs as shown in (22).

(22) a. i. **eedi un-naa** tin-Taanu TELUGU
what EX-IF.EVEN eat-will
'I'll eat whatever there is.'
ii. **eed-ai-naa** tin-Taanu
what-EQ-IF.EVEN eat-will
'I will eat anything.'
b. i. **eenu idd-ar-uu** tinnutteene KANNADA
what EX-IF-EVEN eat.will
'I'll eat whatever there is.'

ii. **een-aad-ar-uu** tinnutteene
what-EQ-IF-EVEN eat.will
'I will eat anything.'

For these we propose the LFs as shown in (23)[3].

(23) a. [EVEN [IF [$_{CP}$ there is what] I will eat [it]]]
b. [EVEN [IF [$_{CP}$ it is what] I will eat [it]]]

3.1 The Universal-FCI

We propose that in the Universal-FCI structure, the UNC antecedent clause is a specificational copular clause with a pronominal subject, as shown in (24)

(24) a. idi evariki-**ai-naa** paDutundi TELUGU
this who-EQ-IF.EVEN fit.will
'This will fit anybody.'

b. idu yaarigi-**aad-ar-uu** sarihogutte KANNADA
this who-EQ-IF-EVEN fit.will
'This will fit anybody.'

c. ⟦ [EVEN [if [it is who]], this will fit [them]] ⟧^{c}

Gonzales & Lohiniva (2019) also posit a truncated cleft specificational copular clause in the French unconditional, as shown in (25).

(25) [**Quoi que ce soit** que Zoé cuisine], Lou sera contente.
what REL it is.SBJ REL Zoé cooks.SBJ Lou is.FUT happy
'Whatever Zoe cooks, Lou will be happy.'

Following Mikkelsen (2007) they treat it as a property anaphor: $\lambda x.D_w(x)$. The subject sets up a variable, which is valued by the post-copular expression, of type *e*. Heller (2005) proposes that specificational clauses show rising discriminability: proper names $\succ$ definite descriptions w contentful nouns $\succ$ definite descriptions w bleached nouns (*thing, place, person*) $\succ$ free relatives. The specification subject is the predicative anaphor *it* –a non-referential predicative topic. Romero (2005) proposes that the subject is intensional, an individual concept, ⟨s,e⟩. Comorovski (2007) proposes that the individual concept is non-rigid and indirectly contextually anchored.

So the Dravidian FCI LF, when composed with EVEN, is as shown in (26):

(26) a. ⟦ EVEN if it is who, this will fit them⟧^{c}
b. {λw. ∀w′ ∈ F$_c$(w) [the person is j in w′ → this will fit j in w′,
---→ least likely in w$_1$
λw. ∀w′ ∈ F$_c$(w) [the person is k in w′ → this will fit k in w′,
---→ least likely in w$_2$
...}

When composed with ∀

[3]Erlewine (2019) uses the anaphora approach to head-internal relatives in Japanese developed by Shimoyama (1999) for a similar pattern that he discovers in Dharamsala Tibetan.

(27) a. ⟦ ∀ EVEN if it is who, this will fit them⟧^{c}

b. {λw. ∀w′ ∈ F_c(w) [the person is j in w′ → this will fit j in w′ ∧
λw. ∀w′ ∈ F_c(w) [the person is k in w′ → this will fit k in w′ ∧
...}

This is the meaning of a ∀-FCI. But the prototypical ∀-FCI *any* is bad in episodic contexts, whereas UNCs / Universal-FRs are fine in episodic contexts, as shown in (28), from Telugu.

(28) **eedi icci-naa** tinn-aanu
what give-IF.EVEN eat-PST
'I ate whatever (you) gave.'

(29) */??/? **eed-ai-naa** tinn-aanu
what-EQ-IF.EVEN eat-PST
'Intended: I ate anything.'

The Unconditional-FCI is degraded but not totally out, as shown in (29) from Telugu. How do we explain this difference? It is because of the nature of the verb that forms the ever-FR: main verb vs. specificational copular clause. Also, when the domain IS restricted, by sub-trigging, or by building a context (i.e. covertly sub-trigging), the episodic use becomes acceptable. Besides, the unacceptability is not so sharp in Dravidian as it is in English.

Another context where ∀-FCI *any* is bad is with necessity modals, as shown in (30a). But the Dravidian UNCs / Universal-FRs are fine in necessity modal contexts, as shown in (30c). The Unconditional-FCI is also fine with necessity modals, as shown in (30c).

(30) a. * You must eat anything.

b. **eedi icci-naa** tin-aali TELUGU
what give-IF.EVEN eat-MUST
'*pro* must eat whatever is given.'

c. **eem-ai-naa** tin-aali
what-EQ-IF.EVEN eat-MUST
'*pro* must eat whatever.'

4 From Universal-FCI to CSAP and Existential-FCI

When we replace the *wh*-item in the Universal-FCI with a non-*wh*-item, we obtain the Concessive Scalar Additive Particle (CSAP), as shown in (31).

(31) a. **id-ai-naa** tin-Taanu TELUGU
this-EQ-IF.EVEN eat-will
'I will eat even/at least this.'

b. **idann-aad-ar-uu** tinnutteene KANNADA
this-EQ-IF-EVEN eat.will
'I will eat even/at least this.'

The meaning of the EVEN CSAP is obtained as shown in (32).

(32) a. LF: **[even [if it is [this]$_F$] [I will eat it]]**

b. Assertion: λw.∀w′ ∈ F_c(w) [The thing is this in w′ → I will eat this in w′]

c. Scalar presupposition:
λw.∀w′ ∈ F_c(w) [The thing is this in w′ → I will eat this in w′] $\prec_\mu$ ∀x∈ ALT. x ≠ *this*
λw.∀w′ ∈ F_c(w) [The thing is x in w′ → I will eat x in w′]

d. **Implicature:**
∀x∈ **ALT. x** ≠ *this* **λw.∀w′ ∈ F_c(w) [The thing is x in w′ → I will eat x in w′]**

4.1 The *at least* version of the CSAP

Consider these contexts of the CSAP, in Telugu, as shown in (33):

(33) a. *Context*: You are boasting about your eating ability:
id-ai-naa tin-Taanu
this-BE-IF.EVEN eat-will
'I will eat even this.'

b. *Context*: You are being made to fast, and you are very hungry:
id-ai-naa tin-Taanu
this-BE-IF.EVEN eat-will
'I will eat at least this.'

How do we derive the 'at least' reading? We propose that exhaustification of the CSAP (with a covert scalar EXH/ONLY) below EVEN and IF delivers the *at least* reading, as shown in (34).

(34) a. LF: [EVEN [IF it is [this]$_F$] [I will eat it]] *'even'*
b. LF: **[even [if it is exh$_s$ [this]$_F$] [I will eat it]]** *'at least'*

This covert operator EXH$_s$ has the denotation as shown in (35), and the compositional interpretation of the proposition is obtained as shown in (36)

(35) $[\![\text{EXH}_s]\!]^{g,w}(\phi) = \phi_w \wedge \forall p \in \text{ALT}(\phi)[p_w \rightarrow \phi \subseteq p]$
Scalar Presupposition: $\forall p \in \text{ALT}(\phi)[p \prec_{likely/insignificant} \phi]$

(36) a. LF: **[C$_1$ even [if it is C$_0$ exh$_s$ [this]$_F$] [I will eat it]]**
b. At C$_0$ Assertion: The thing is this ∧ ¬ others
c. At C$_0$ Presupposition: ϕ is most-likely / least noteworthy or significant
d. At C$_1$ Assertion:
λw.∀w′ ∈ F_c(w) [The thing is this ∧ ¬ others in w′ → I will eat this in w′]
e. At C$_1$ Scalar presupposition:
λw.∀w′ ∈ F_c(w) [The thing is this ∧ ¬ others in w′ → I will eat this in w′] is least likely / most noteworthy

This *at least* can also be epistemic:

(37) ravi **oka pustakam-ai-naa** cadiveeDu TELUGU
Ravi one book-EQ-IF.EVEN read.may
'Ravi read at least one book.' (given the evidence: epistemic)
'Ravi read at least one book.' (concessive)

How do we account for the epistemic reading? We leave this outside the scope of this paper but note that various attempts in the literature to unify the concessive and epistemic readings –Biezma (2013), Alrenga (2019), and Chen (2018). Barouni (2019) notes that while the *at least* of Nakanishi & Rullmann (2009) should neither be the lowest nor the highest element in a scale, the *at least* of Crnič (*even* based) (Crnič 2011, 2019) is the lowest element in a scale.

4.2 The Existential-FCI

If we insert this EXH$_s$ operator in the *wh*-version of the copular-unconditional/FR, we obtain the existential-FCI, as shown in (38b), with the interpretation as in (39) - (42).

(38) a. Looking at a free-size item:
idi **evariki-ai-naa** paDu-tundi
this who-BE-IF.EVEN fit-will
'This will fit anybody.'

b. Looking at an odd-size item:
idi **evariki-ai-naa** paDu-tundi
this who-BE-IF.EVEN fit-will
'This will fit somebody or other.'

(39) a. $[\![$ It is EXH$_s$ who $]\!]^c$

b. { $\lambda w'$.[the person is j $\wedge$ $\neg$ others in w$'$] ---→ least significant/noteworthy in w$'$
$\lambda w'$.[the person is k $\wedge$ $\neg$ others in w$'$] ---→ least significant/noteworthy in w$'$ ...}

When composed with IF:

(40) a. $[\![$ IF it is EXH$_s$ who, it will fit him$]\!]^c$

b. {λw. $\forall w' \in F_c(w)$ [[the person is j $\wedge$ $\neg$ others in w$'$] $\rightarrow$ it will fit j in w$'$],
λw. $\forall w' \in F_c(w)$ [[the person is k $\wedge$ $\neg$ others in w$'$] $\rightarrow$ it will fit k in w$'$], ...}

When composed with EVEN:

(41) a. $[\![$ EVEN if it is EXH$_s$ who, it will fit him$]\!]^c$

b. {λw. $\forall w' \in F_c(w)$ [[the person is j] $\rightarrow$ it will fit j in w$'$ $\wedge$ [the person is others] $\rightarrow$ [It won't fit them in w$'$],
---→ least likely in w$'$
λw.$\forall w' \in F_c(w)$ [[the person is k] $\rightarrow$ it will fit k in w$'$ $\wedge$ [the person is others] $\rightarrow$ [It won't fit them in w$'$],
---→ least likely in w$'$
...}

When composed with $\forall$

(42) a. $[\![$ EVEN if it is EXH$_s$ who, it will fit him$]\!]^c$

b. {λw. $\forall w' \in F_c(w)$ [[the person is j] $\rightarrow$ it will fit j in w$'$ $\wedge$ [the person is others] $\rightarrow$ [It won't fit them in w$'$]
$\wedge$ λw.$\forall w' \in F_c(w)$ [[the person is k] $\rightarrow$ it will fit k in w$'$ $\wedge$ [the person is others] $\rightarrow$ [It won't fit them in w$'$]
$\wedge$ ...}

Thus in each world $w \in$ W, accessible from w_0, only for one of the alternatives that the *wh*-item denotes, is the consequent clause true. The alternatives are fully instantiated across the worlds. **This is the meaning of a $\exists$-FCI**.

5 NPI uses

These Unconditional-FCIs of Dravidian also occur in weak or medium negative contexts, but not in strong negative contexts, (which is called the 'bagel' distribution (Pereltsvaig 1998), due to its donut shape when represented as a venn diagram), as shown in (43) from Telugu.[4]

(43) a. evar-**ai-naa** vacceer-aa?
who-EQ-IF.EVEN came-Q_{prt}
'Did anyone come?'

b. evar-**ai-naa** vast-tee pilustaanu
who-EQ-IF.EVEN came-Q_{prt}
'If anyone comes, I'll call you.'

The unconditional mechanism of interpretation explains these uses, as unconditional interpretations are licensed in DE contexts, as shown in (44) from Telugu.

(44) a. evaru pilisi-**naa** vacceera?
who call-IF.EVEN came.Q_{prt}
Did they come if anyone called?'

b. evaru pilisi-**naa** vast-tee kaSTam
who call-IF.EVEN come-IF difficult
'If you come if anyone calls, it's difficult.'

Also, there is no negative bias in questions, even though EVEN based. The unconditional composition explains this. The hole in the bagel is filled by another item *wh-uu*, which has a [+neg] feature checked by negation.

6 A final piece: concessive sentential connective

There is also a concessive connective version of the Dravidian EVEN IF BE, as shown in (45).

(45) a. kashtapaDDaanu. **Ai-naa** pass avvaleedu TELUGU
hard.work.did BE-IF.EVEN pass become.not
'I worked hard. Still, I didn't pass.'

b. avanu tumbaa praytnisidaru. **Aad-ar-uu** avanu gella-l-illa KANNADA
He a.lot tried BE-IF-EVEN he win-not
'He tried a lot. Still, he didn't win.'

What is this CSAP combining with? Here we go with the Ippolito (2007) analysis of concessive *still*, as shown in (46)

(46) a. 'John studied all night. Still, he failed the test.'

b. "The first argument of *still* is a covert propositional variable of type ⟨st⟩ whose value is a contextually salient proposition. The second argument is the overt complement of *still*." (Ippolito 2007:25)

c. "covert variable *pro* bears focus & its antecedent is the sentence *John studied all night*."

d. Structure for the discourse, Ippolito (2007:26):
[John studied all night]$_i$. [$_{\langle\langle st\rangle t\rangle}$[$_{\langle\langle st\rangle\langle\langle st\rangle t\rangle\rangle}$ Still [$_{\langle st\rangle}$pro$_i$]] [$_{\langle st\rangle}$he failed the test]]

[4]See Balusu, Gurujegan & Rajamathangi (2016).

We posit a propositional anaphor along the same lines, as shown in (47).

(47) a. [I read]$_i$. [EVEN [IF [it is *pro*$_i$], I failed]]
b. [He is short]$_i$. [EVEN [IF [it is *pro*$_i$], he is good]]

7 Cross-linguistic parallels

7.1 In Japanese

Nakanishi & Hiraiwa (2019) and Hiraiwa & Nakanishi (2020) propose the following composition for the Japanese concessive sentences shown in (48), (49), (50), containing the Japanese concessive particle, *de-mo*.

(48) [$_{CP}$ [Dare / Nan(i) de ~~ar-te~~ mo] Q] ...
who / what Cop exist-Cond MO
'Whoever/Whatever it may be, ...'

(49) a. [Dare de ar-te mo] mo] soo omou daroo
who Cop exist-Cond MO so think will
"Whoever it may be will think so.'
b. [Dare de ~~ar-te~~ mo]] soo omou daroo
who Cop exist-Cond MO so think will
"Anyone will think so.'

(50) a. [Ken de ar-te mo]] soo omou daroo
Ken Cop exist-Cond MO so think will
'Even if it is Ken, he will think so.'
b. [Ken de ~~ar-te~~ mo]] soo omou daroo.
Ken Cop exist-Cond MO so think will
'Even if it is Ken, he will think so.'

7.2 In Tibetan

Erlewine (2019, 2020) has documented the concessive particle in Tibetan, (54), *yin.n'ang*, which he finds has three distinct uses (but no existential-FCI interpretation) as shown in (51), (52), (53).

Counterexpectational discourse particle *however*:

(51) bKra.shis dge-rgan red. **Yin.n'ang** spyang.po mi-'dug.
Tashi teacher COP YIN.N'ANG clever NEG-AUX
'Tashi is a teacher. **However**, he isn't smart.'

Concessive scalar focus particle:

(52) [Dep [gcig]$_F$ **yin.n'ang** klog-na] yig.tshad mthar.'khyol-gi-red.
book one YIN.N'ANG read-COND exam succeed-IMPF-AUX
'[If [you] read **even just** one book], [you] will pass the exam.'

Wh universal free choice item:

(53) Khong [kha.lag ga.re **yin.n'ang**] za-gi-red.
he food what YIN.N'ANG eat-IMPF-AUX
'He eats (habitual) **any** food.'

(54) **yin.n'ang** = yin + na + yang
. COPULA COND EVEN

His analysis follows the non-interrogative *wh* interpretation developed in Erlewine (2019), where these items have no ordinary value but only an alternative set ranging over the domain.

8 Conclusion

Haspelmath (1997, 135) notes "many indefiniteness markers contain an element that goes back to a form of the verb 'be"' and concessive conditionals are the source. We have explored one such particle combination in Dravidian in this compositional sketch. We have shown that Dravidian UNCs are EVEN-conditionals, universal concessive conditionals, and Dravidian Universal-FRs are built out of these unconditionals. One kind of Dravidian FCIs are unconditionals built with the copular verb: *wh-ai-naa*/*wh-aad-ar-uu* = *wh-*+COPULA + IF +EVEN. They can be ∀-FCI or ∃-FCI. The ∀-FCI is a result of the plain EVEN IF unconditional. The ∃-FCI is a result of exhaustification in the EVEN IF-unconditional. The copular-concessive (BE+IF+EVEN) also forms CSAPs when attached to non-*wh* items: They again can be interpreted 'plain' or exhaustified, giving rise to *'even'* and *'at least'* interpretations respectively. It also forms a free-standing concessive connective by itself. This takes a propositional anaphor as its argument.

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Note from the Editors

Rahul Balusu sent us his paper on July 12, 2020, a few days before he passed away. We have kept his submission mostly intact, and have made only a few minor formatting changes for this publication.

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