



Connectives beyond connecting

Converging evidence in the analysis of disjunction

Caterina Mauri – *University of Bologna*

caterina.mauri@unibo.it



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Connectives are mainly defined with respect to the **specific semantic relation** they establish between two or more entities or states of affairs.





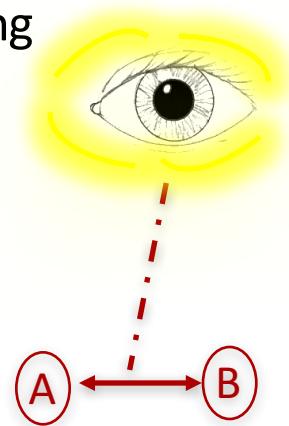
... beyond connecting

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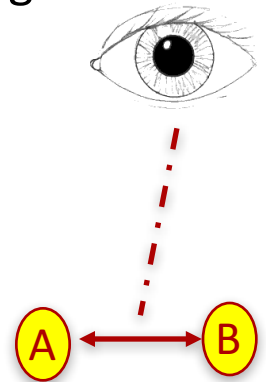


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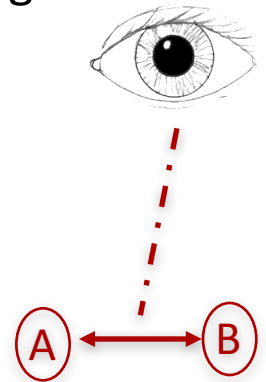


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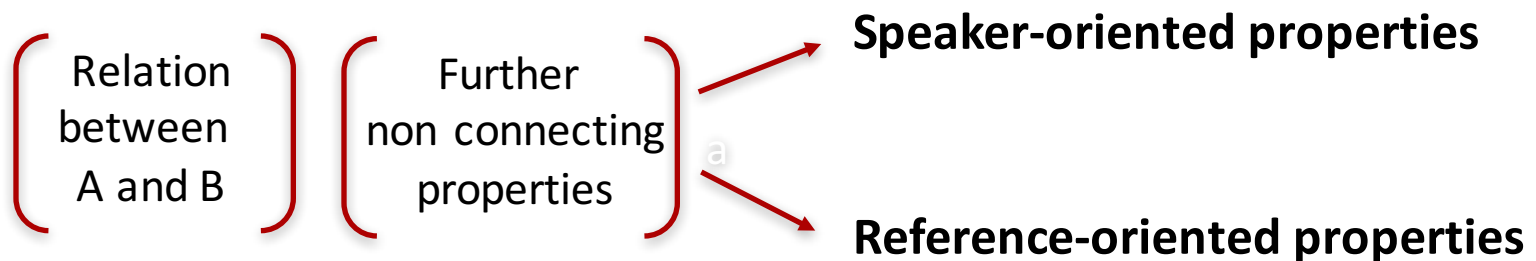
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CONNECTIVE



Non connecting properties

✓ SPEAKER-ORIENTED PROPERTIES

- i) Speaker's **illocutionary aim** (e.g. interrogative vs. declarative)
- ii) Speaker's **commitment towards the relation itself or towards the linked elements** (e.g. the likelihood assigned to the actual occurrence of the relation, commitment towards the actual occurrence of each element)

✓ REFERENCE-ORIENTED PROPERTIES

- i) **Properties of the set** created through the relation (e.g. it can be non-exhaustive or exhaustive))
- ii) **Properties of the elements** of the set (e.g. exemplars of the category, mutual replaceability)



Aims and methods

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Aims and methods

- ✓ We aim to show that the **NON CONNECTING PROPERTIES** of connectives play a central role in explaining synchronic and diachronic patterns of variation
- ✓ We will focus on **DISJUNCTIVE CONNECTIVES**: given their allegedly logical meaning, the literature on OR connectives mainly concerns truth-conditional values...
 - little attention has been paid on the attested variation, both across languages and within languages
 - little empirical evidence
 - the existence of non connecting properties has hardly been recognized

Aims and methods

- ✓ We will adopt **CONVERGING EVIDENCE METHODOLOGY**, integrating theoretical and empirical tools elaborated in:
 - **linguistic typology**: cross-linguistic variation, 130-language sample
 - **diachronic typology**: diachronic variation attested in the typological sample
 - **corpus-based discourse analysis**: intra-linguistic variation, analysis of the Santa Barbara Corpus of Spoken American English



Background: the debate on disjunction

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Chierchia *et al.* 2001:

the interpretation of disjunction is governed by the same rules underlying the distribution of negative polarity items, such as *any* (i.e. *or* is interpreted inclusively in downward entailing contexts)

→ the principles governing the correct interpretation of a disjunctive relation are ***innate*** and are ***part of the UG***.

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→ the principles governing the correct interpretation of a disjunctive relation are *innate* and are *part of the UG*.

Crain (2008: 151):

“children draw upon a **a priori knowledge of the meaning of 'or'**. This conclusion is reinforced by the observation that **all languages adopt the same meaning of 'or'** in certain structures.”

Background: the debate on disjunction

- ✓ Inclusive $P \text{ or } Q \rightarrow P, Q, \text{P\&Q}$
- ✓ Exclusive $P \text{ or } Q \rightarrow P, Q, \text{not P\&Q}$

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Crain (2008: 151):

The ability to recognize inclusive-*or* is a “linguistic property that emerges in child language without decisive evidence from experience, and is common to all human languages”, and it is “a likely candidate for **innate specification**.”

“[...] why do children adopt the logical meaning of disjunction, inclusive-*or*, given that the majority of their experience directs them towards a different meaning of disjunction, namely an exclusive-*or* reading? [...] **children's knowledge that disjunction is inclusive-*or* comes from universal grammar**.”

(Crain 2008: 2-3)

Background: the debate on disjunction

- Discussion on the **truth-conditions for the disjunctive relation**, leading to **two assumptions**:
 - ✓ The *exclusive* vs. *inclusive* distinction is relevant to natural languages
 - ✓ The notion of inclusive-or is **innate** and **universal**.

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Are these assumptions supported by empirical evidence?

**Assumptions
generate
expectations...**

- ✓ All languages have a disjunctive connective
- ✓ The inclusive vs. exclusive distinction is relevant for speakers and will therefore have linguistic reflections in the world's languages

Some significant quotes

a) **Kibrik (2004: 547-48)** on Kuskokwim Athabaskan (Athabaskan, Alaska):

“there does not seem to exist any native way to express disjunction.[...] one of the UKA consultants said, after my repeated attempts to get him to translate a sentence such as *Do you want tea or coffee?*: **“They did not offer you a choice in the old days”**”

b) **Press (1975: 145, 167)** on Chemehuevi (Uto-Aztecan, USA - California):

“I have been unable to obtain any obvious alternative questions in Chemehuevi (or alternative statements for that matter). In order to ask something like “Is he here or there? ” in Chemehuevi, one simply asks two Yes-No questions in succession” [...] “Disjunctive coordination is even more restricted in Chemehuevi. The following examples illustrate available ways to get around the **lack of any syntactic or morphological “or”** [...]”

Some significant quotes

c) **Kimball (1985: 450)** on Koasati (Muskogean, USA - Georgia):

“Certain conjunctive ideas, such as 'but,' 'because,' and 'if' are handled by means of the verbal suffixes in the Consequence slot [...]. On the other hand the idea of 'or' is most generally indicated by putting the verbs between which there is a choice together in **apposition**.”

d) **Post (2008: 790)** on Galo (Tibeto-Burman, India):

“Disjunctive coordination of declarative clauses is **not well-coded** by Galo grammar, and generally requires a paraphrastic construction involving a linking clause with a sense like ‘**if that is not the case, then**’”.

Unfulfilled expectations

“apposition”, “not well coded”
“no native way to express disjunction”

... it means languages
without OR!

Unfulfilled expectations

“apposition”, “not well coded”
“no native way to express disjunction”

... it means languages without OR!

- ✓ No universality
- ✓ Inclusive vs. exclusive distinction does not account for variation

Need for an empirical analysis

Need to go beyond the logical distinctions

Parameters of analysis

✓ For cross-linguistic variation:

1. PRESENCE VS. ABSENCE of overt markers specifically encoding the relation of alternative (*syndesis* vs. *asyndesis*): **is there a disjunctive connective?**

2. SEMANTIC DOMAIN of the attested markers: **may the connective be used in all the contexts where we would have English *or*?** *More functions? Less functions? What functions (based on grammars...)?*

✓ For diachronic variation:

LEXICAL SOURCE for the disjunctive construction – not enough information in grammars on the contexts of language change

Parameters of analysis

- ✓ For discourse variation, based on English:

READING OF OR, that is, any distinct type of explicature recurrently developed out of an utterance containing *or*: **what is the speaker's intended message in using OR?**

➤ **Identification of an OR reading through**

- ✓ *Explicature test*
 - ✓ *Non-explicature tests* (two-tier test, indirect addition test)
- (Ariel and Mauri 2016)



Plan

1. Cross-linguistic picture
 - 1.1 Languages without OR
 - 1.2 Languages with different ORs
1. Diachronic sources out of which ORs develop
2. Attested readings of English OR in discourse



Languages without OR

**... How can an alternative between
states of affairs, properties or entities
be conveyed
WITHOUT
a disjunctive connective?**

Languages without OR

4) Wari', Chapacura-Wanam (Everett and Kern 1997: 162)

- a. *mo* *ta* *pa' ta'* *hwam ca,* *mo* *ta*
COND realis.future kill 1sg:realis.future fish 3sg.M COND realis.future
pa' ta' *carawa ca*
kill 1sg:realis.future animal 3sg.M
'He will fish or he will hunt.' (lit. 'if he (says) "I will kill fish", if he (says) "I will kill animals".')
- b. *'am* *'e'* *ca* *'am* *mi'* *pin* *ca*
perhaps live 3sg.M perhaps give complete 3sg.M
'Either he will live or he will die.' (lit. 'perhaps he will live, perhaps he will die')

Languages without OR

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6) Hup (Vaupés Japurá, Epps 2005: 683)

wĩh cím'-íy=cud ?ûhniy, ya?ambö? g'áç- 'áy=cud ?ûhniy
 hawk claw-DYNM=INFR maybe dog bite-DYNM=INFR maybe
 'Either the hawk clawed (it), or the dog bit (it), apparently.'

Languages without OR

7) Aranda (Australian, Pama-Nyungan; Wilkins 1989: 385-86)

‘The particle (*a*)*peke* ‘maybe, might; if; or’ has a wide range of related uses. Common to all its uses is the sense that the speaker is saying that some proposition **is possibly the case**. It therefore commonly translates as ‘might’ or ‘maybe’ [...] *peke* ‘maybe’ can also be used to signal disjunction between co-ordinated elements.’

Kere nyente peke-rle kwele re atwe-ke peke are-ke peke
animal one maybe-FOC QUOT 3sgA kill-pc maybe, see-pc maybe
kwele; arrangwe.
QUOT nothing

‘Perhaps there was supposedly one animal that he killed or saw; no, nothing at all.

Languages without OR

8) Galo (Post 2008: 312)

Disjunctive coordination [...] is best-attested in *uncertain* and/or *interrogative* moods. The two NPs *jakàa=go* 'black=IND' 'black one' and *japúu=go* 'white=IND' 'white one' are each marked by **Conjectural** particle *bàree*.

aáa jakâa gò bàrè japúu gó bàrè?

aáa [*jakàa=go*]NP ***bàree*** [*japúu=go*]NP ***bàree***

HDST.SLEV black=IND CJECH white=IND CJECH

'Over there, (is it) a black one or a white one (I can't make it out)?' (MN, 22:155)

The irreality of disjunction

1

Absence of a
disjunctive marker

IMPLIES



Presence of
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- ✓ A proposition is said to be **REALIS** when it asserts that a SoA is an **‘actualized and certain fact of reality’** (Elliot 2000: 66-67).
- ✓ A proposition is said to be **IRREALIS** when **‘it implies that a SoA belongs to the realm of the imagined or hypothetical, and as such it constitutes a potential or possible event but it is not an observable fact of reality’** (Elliot 2000: 66-67).

Irrealis propositions belong to the domains of imagination, possibility, wish, interrogation, necessity, obligation and so on, in which a given SoA is presented as not having taken place, or where the speaker is not sure about its occurrence

The irreality of disjunction

- 9) a) *Perhaps the hawk clawed it, maybe the dog bit it (apparently).*
(irrealis coded, alternative inferred)
- b) *The hawk clawed it **or** the dog bit it (apparently).*
(alternative coded, irrealis implied)
- c) *Perhaps the hawk clawed it **or maybe** the dog bit it (apparently).*
(alternative coded, irrealis coded)
- d) *The hawk clawed it, the dog bit it (apparently).*
(irrealis and alternative not coded) → possible interpretations:
sequence of actions, simultaneity, opposition, **??alternative??**
- If neither a disjunctive connective nor some irrealis marking occurs (12d), it is difficult to infer an alternative reading!

The irreality of disjunction

- ✓ **In the absence of an *or* connective, the irrealis, potential status of alternatives must be overtly signalled**

- Two alternatives are conceptualized as **equivalent, mutually replaceable possibilities**
- Until a choice is made or the speaker comes to know which hypothesis is realized, either alternative could be the non-occurring one and therefore both are **conceptualized as irrealis**.
- ✓ **We are in the realm of EPISTEMIC MODALITY** → Zimmermann 2001, Geurts 2005



Languages with OR

...

what happens in languages
WITH
more than one overt disjunctive
connective ?

Different ORs, different aims

2

There are languages showing different strategies depending on the **AIM** of the speaker in establishing the alternative relation (see Mauri 2008b: 155-161)

Simple alternative:

an alternative relation may be established in order to present two states of affairs, properties or entities as equivalent and replaceable possibilities, without the need for any choice

Choice-aimed alternative:

an alternative relation may be established in order to elicit a choice between equivalent and replaceable possibilities, typically in interrogative sentences

Different ORs, different aims

10) Marathi, Indo-Iranian, Indo-European (Pandharipande 1997: 162–163)

- a. *madhū āitSyā śuśruṣesāṭhī suṭṭī gheīl* *kīwā* /**kī*
ALTNs
Madhu mother:GEN looking.after.for leave take:FUT:3sg
tilā hṥspīṭalmadhe ṭṭhewīl
3sg.ACC hospital:in keep:FUT:3sg
'Madhu will leave to take care of his mother or keep her in the hospital.'

SIMPLE ALTERNATIVE

- b. *to bādzārāt gelā* *kī*/**kīwā*
ALTNc *gharī gelā?*
3sg market.LOC go:PST:3sg.M ALTNc home:LOC go:PST:3sg.M
'Did he go to the market or did he go home?'

CHOICE-AIMED ALTERNATIVE

Different ORs, different aims

11) Polish (Agnieszka Latos, p.c.)

a. *Zazwyczaj piszę lub czytam aż do późna*
usually write.PRS.1sg **ALTNs** read.PRS.1sg until to late
'Usually I write or I read until late.'

SIMPLE ALTERNATIVE

b. *Idziemy jutro do szkoły czy zostajemy w domu?*
go.PRS.1pl tomorrow to school **ALTNc** stay.PRS.1pl at home
'Do we go to school tomorrow or do we stay at home?'

CHOICE-AIMED ALTERNATIVE

Different ORs, different aims

Dik (1968: 276)

- similar distinction in terms of **manner**.

He argues that the manner in which the alternative is presented determines a basic distinction that languages seem to encode: namely, the alternative relation can be 'either A or B' or 'either A or B, which one?'.

Haspelmath (2008: 25-27)

- *standard* and *interrogative* disjunction for the simple and the choice-aimed alternative, respectively (see discussion on terminology in Mauri 2008a).

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Speaker's illouctionary **AIM**



Speaker-oriented property

Different ORs, different sets

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Certain languages show specific connectives depending on the **EXHAUSTIVITY** of the set

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- **Non-exhaustive connectives** lead to an exemplification function
- In non-exhaustive sets, the distinction between conjunction and disjunction is in many cases neutralized!

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Haspelmath (2007: 24): ‘representative conjunction’.

According to him, in these cases “the conjuncts are taken as representative examples of a potentially larger class”.

Stassen (2000: 5): ‘enumerative coordinators’. The label ‘non-exhaustive’ is well established in the literature on East Asian languages (Chino 2001, Zhang 2008).

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Reference-oriented property

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Different ORs, different sets

12) Japanese (Barotto 2016)

a. **Exhaustive alternative** (ka)

<i>Kōho-wa</i>	<i>Ohashi-ka</i>	<i>Taniguchi</i>	<i>to</i>	<i>omotteiru.</i>
Candidate-TOP	Ohashi-KA	Taniguchi	QT	think:STA

“(we) are thinking about **Ohashi or Taniguchi** as a candidate.”

b. **Non-exhaustive alternative** (ya + nado) - EXEMPLIFICATION

<i>Papurika-o</i>	<i>pīman-ya</i>	<i>asuparagasu</i>	<i>nado ni</i>	<i>kaeru</i>	<i>to,</i>
paprika-ACC	bell pepper-YA	asparagus	NADO DAT	change	if,
<i>samazamana</i>	<i>arenji-ga</i>	<i>kanō.</i>			
varied	arrangement-NOM	possible			

“if you replace paprika with things like **asparagus or bell pepper**, a variety of arrangements is possible.” → *-ka

Different ORs, different sets

13) Japanese (Chino 2001: 41)

a. **Non-exhaustive conjunction** (ya + nado) - **EXEMPLIFICATION**

Watashi no heya ni wa, [konpyūtā ya sutereo ga] oite arimasu.
I DET room in TOP computer and stereo SBJ place-SUSP be-POL.NPST
'In my room there is a computer, a stereo AND OTHER SIMILAR THINGS.' → * -to

b. **Non-exhaustive alternatives** (-tari) - **EXEMPLIFICATION**

Nichiyōbi wa taitei tomodachi to tenisu [o shi-tari eiga o mi ni it-tari] shimasu
Sunday TOP usually friend with tennis OBJ do-tari film OBJ see to go-tari
do.POL.NPST
'On Sundays I usually play tennis with my friends **or** go to see movies, OR SOMETHING SIMILAR.' → * -ka

Different ORs, different sets

14) Italian (NUNC Corpus)

c'e' il vantaggio che ti puoi customizzare la
there.is DEF advantage that CLIT can.2SG customize DEF

macchina come vuoi, in relazione alle tue esigenze
machine as want.2SG in relation to.DEF your.PL need.PL

*(grafica, **piuttosto che** sviluppo, **piuttosto che** giochi...)*
graphics **piuttosto che** development **piuttosto che** games

‘[talking about desktop] there is the advantage that you may customize the machine (pc) as you prefer, depending on your needs (**graphics, development, videogames** or SIMILAR THINGS...’)

NON-EXHAUSTIVE SET OF ALTERNATIVES

Synchronic analysis

Summing up...

- I. There are languages without an overt OR
- II. In languages lacking an overt OR, the use of markers encoding the irrealis status of the linked elements is obligatory
- III. We find many languages having more than one OR
- IV. The distribution of different ORs is accounted for by **non connecting properties** such as the speaker's illocutionary aim and the (non-)exhaustivity of the set (**not** by truth-conditions...)



Diachronic analysis

Some of the connectives attested are very recent,
or on their way to grammaticalization...

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A set of **recurrent sources for disjunctive markers** can be identified:

- (1) dubitative/hypothetical > alternative
- (2) negated hypothesis > alternative
- (3) negation > alternative
- (4) polar question > choice-aimed alternative
- (5) free choice verbs > alternative
- (6) distal meaning 'that/other' > alternative

Dubitative/hypothetical > disjunctive

15) Kuuk Thaayorre (Pama-Nyungan, Gaby 2006: 323-324)

The dubitative particle is regularly used to convey alternative and is on the way to acquiring the functional properties of connectives.

a) *yup=okun*
soon=DUB
ngay 1sg.NOM *yan* go:NPST
‘maybe later I’ll go out to Waar-Paant’

Waar.Paant-ak
place.name-DAT

b) *ngul=okun*
then=DUB
kunk=okun
alive= DUB
pul 3du.NOM
‘(I don’t know whether) they two are alive or dead.’

watp=okun
dead= DUB
pul 3du.NOM

c) *nhunt* 2sg. NOM *wanthanngun* where.LOC *nhiinan,* sit:GO:NPST
‘where are you going to live, Cairns or Melbourne?’

Cairns=okun,
Cairns= DUB

Melbourne=okun
Melbourne= DUB

Negated hypothesis > disjunction

16) Hakha Lai, Tibeto-Burman (Peterson and VanBik 2004: 339)

-làw-leè < **negation** *-làw* and the ancient **conditional suffix** *-leè*.

At present, Hakha Lai uses a new form for the conditional construction, and this quite complicated way of expressing an alternative relation is on the way to grammaticalization as a disjunctive connective.

<i>làwthlawpaa</i>	<i>falaám</i>	<i>ʔa-kal-làw-leè</i>	<i>haàkhaà-ʔaʔ</i>	<i>ʔa-ʔùm</i>
farmer	Falam	3sg.SBJ-go-NEG-COND	Hakha-LOC	3sg.SBJ-exist

‘The farmer goes to Falam or he stays in Hakha.’ (lit. ‘The farmer, if he doesn’t go to Falam, he stays in Hakha’)

Negated hypothesis > disjunction

17) Cavineña (Tacanan, Guillaume 2004: 114)

‘Disjunction in Cavineña is normally realised by the word **jadyaamajuatsu** ‘or’ which comes from the lexicalisation of the same subject temporal clause **jadya=ama ju-atsu** ‘thus=NEG be-SS’ (lit. being not thus).

It may be shortened to *jadyamajuatsu*, *jadyamaatsu* or even *amaatsu*.’

Tuekedyā =pa ekana_s tere-ya kwejipa=eke jadyaamajuatsu e-tiki=eke
then =REP 3PL finish-IMPFV strong.wind=PERL or NPF-fire=PERL
‘(When the world was new, our ancestors) would die (lit. finish) from the strong winds or from the fire.’

Negation > disjunction

18) Galo (Post 2008: 312-13, 789)

‘*máa* ‘DSJ’ is homophonous with the Copula negator/Negative interjection *máa* ‘NEG’, and probably derives from the latter historically’ (2008: 312).

‘In the main a Negative polarity particle, and basically homophonous with the Negative polarity predicate suffix *-máa* (§4659H12.2) and the Negative interjection *máa* ~ *má?* ‘no’, in disjunctive function *máa* marks a polar (closed) alternation between two coordinated interrogative clauses (2008: 789). The two functions are synchronically distinct (2008: 312).

rækên jáarə d̩má (...) *rənêk jaarə d̩i.*

[*rá-kèn-jàa-rá*

d̩i]=*máa*

[*rá-nèk-jàa-rá*

d̩i]

live/exist-good/east-more-IRR

WOND=DISJ

live/exist-bad-more-IRR

WOND

‘Will (life in the future) be better or (...) will it be worse?’

Negation > disjunction

(19) Nakanai, (Austronesian, Eastern Malayo-Polynesian, Oceanic, Johnston 1980: 239)

‘The disjunct coordinator is *(ou)ka* ‘or’ (literally ‘no’). It indicates the option of a negative conditional presupposition *Possibly X; **NO**, then Y*. In its connective function, it most often appears shortened to *ka* and is developing the functional and distributional character of a conjunction.’

a) *Egite la ilali ouka.*
they NM food
‘They had no food.’

b) *Eme masaga ale nabatu, ka (eme masaga) ale nabauan?*
You.sg like that number.two or you.sg like that number.one
‘Do you like the second or the first one?’

c) *Egite vei-a ge va-ubibi le amutou, ka ouka?*
they say-3ps IRR REC-shoot ABL you.pl or no
‘Did they intend to fight against you, or not?’

Polar question > disjunction

(20) Polish

the interrogative marker *czy* was originally the instrumental form of Common Slavic

**ch'to* 'what' > Cz. Pol. *czy*, Bel. *ci*

a. **Czy** *pan* *dużo* *podróżuje?*
Q you much travel
'Do you travel a lot?'

b. *Idziemy* *jutro* *do szkoły* **czy** *zostajemy* *w* *domu?*
go.PRS.1pl tomorrow to school **ALTNC** stay.PRS.1pl at home
'Do we go to school tomorrow or do we stay at home?'

Polar question > disjunction

21) Golin (Trans-New Guinea, Chimbu, Evans 2005: 127, 48)

In single-clause polar questions such as (c), a second clause is absent, though probably implied.

a. *Dibe kare-ne-ra-bin mo bisnis ere ne-ra-bin mo gaan*
boat see-eat-IRR-1PL DISJ business (TP) do eat-IRR-1PL DISJ child
sule di-ra-n-g-w-a

school (TP) be-IRR-3-AS-3-DIST

‘(We) are wasting our time buying cars or making business or (sending) our kids to school...’

b. *u-ra-n-mo u-k-ra-n?*
come-IRR-2-PQ come-NEG-IRR-2

‘Are you going to come or not?’

c. *i nibil pa-n-mo?*
2SG sickness be-2-PQ

‘Do you have a disease?’

**choice-aimed alternative >
polar question marker**
(Heine & Kuteva 2002: 226-227)

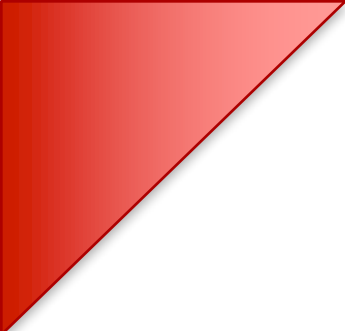
Other sources

✓ Free choice verbs

Lat. vel 'want' > 'simple or', Fr. soit...soit 'be it' > 'either ...or'

✓ Distal 'that/other'

Dan. Nor. Swe. eller 'or' < Proto-Germanic *alja-, *aljis- 'other' (Falk and Torp 1910: 187); I.E. *au- 'other, that' > Lat. aut (*auti)'or', autem 'but' > It. Sp. Cat. o, Fr. Port. ou;



Semantic domains of the diachronic sources

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**Maybe X,
maybe Y**
dubitative,
hypotheticals

Potentiality

OR

Semantic domains of the diachronic sources

**Maybe X,
maybe Y**
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Potentiality

OR

**Negation,
replaceability**

**X, no Y
X no, Y
negation**

**If not X, Y
X, if not, Y
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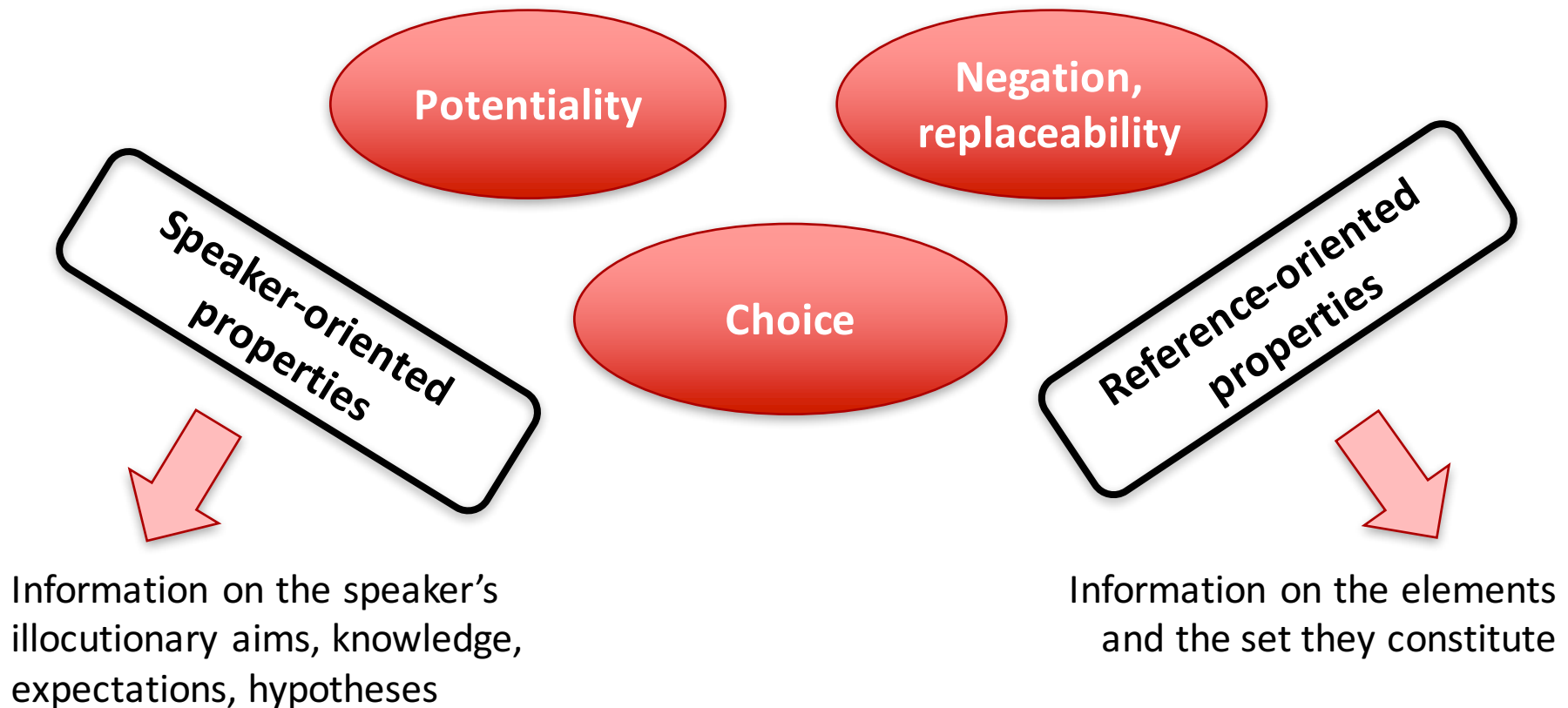
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Choice

X? Y?
Polar questions

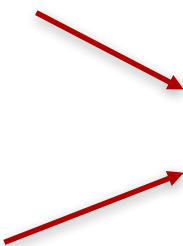
Non connecting properties of alternative



Inside, beside, beyond disjunction

Cross-linguistic evidence

Diachronic evidence



In order to understand the linguistic behavior of disjunction, we have to look beside and go beyond disjunction itself

- ✓ We have to take into account the mutual relations between alternativity and other semantic dimensions having to do with
 - the speaker establishing the alternativity and
 - the set of alternatives



Inside, beside, beyond disjunction

Inside, beside, beyond disjunction

Strategies employed
when an OR
connective is lacking

Potentiality

Disjunction

Inside, beside, beyond disjunction

Strategies employed
when an OR
connective is lacking

Potentiality

Choice

Disjunction

Semantic distinctions encoded
by OR connectives

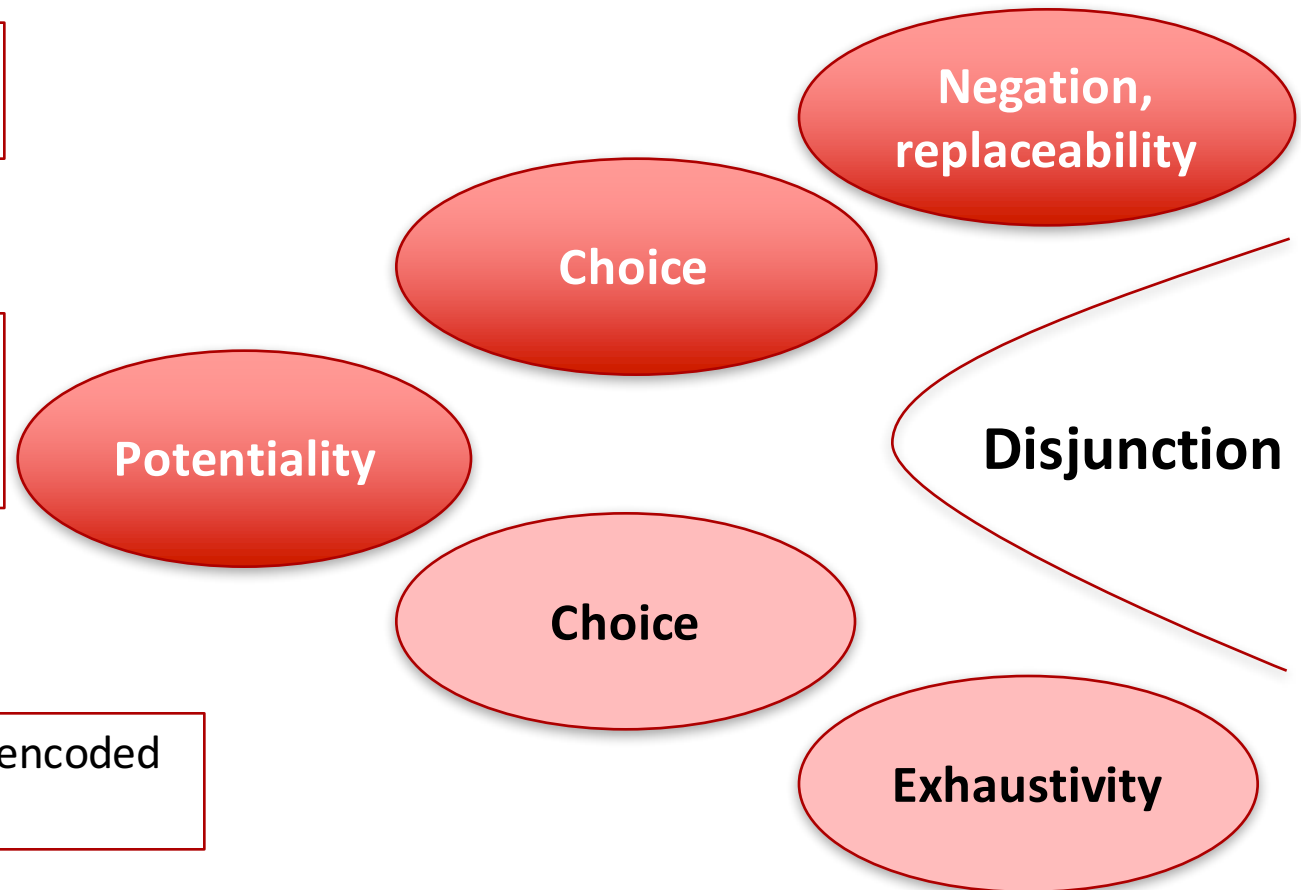
Exhaustivity

Inside, beside, beyond disjunction

Diachronic sources
for OR connectives

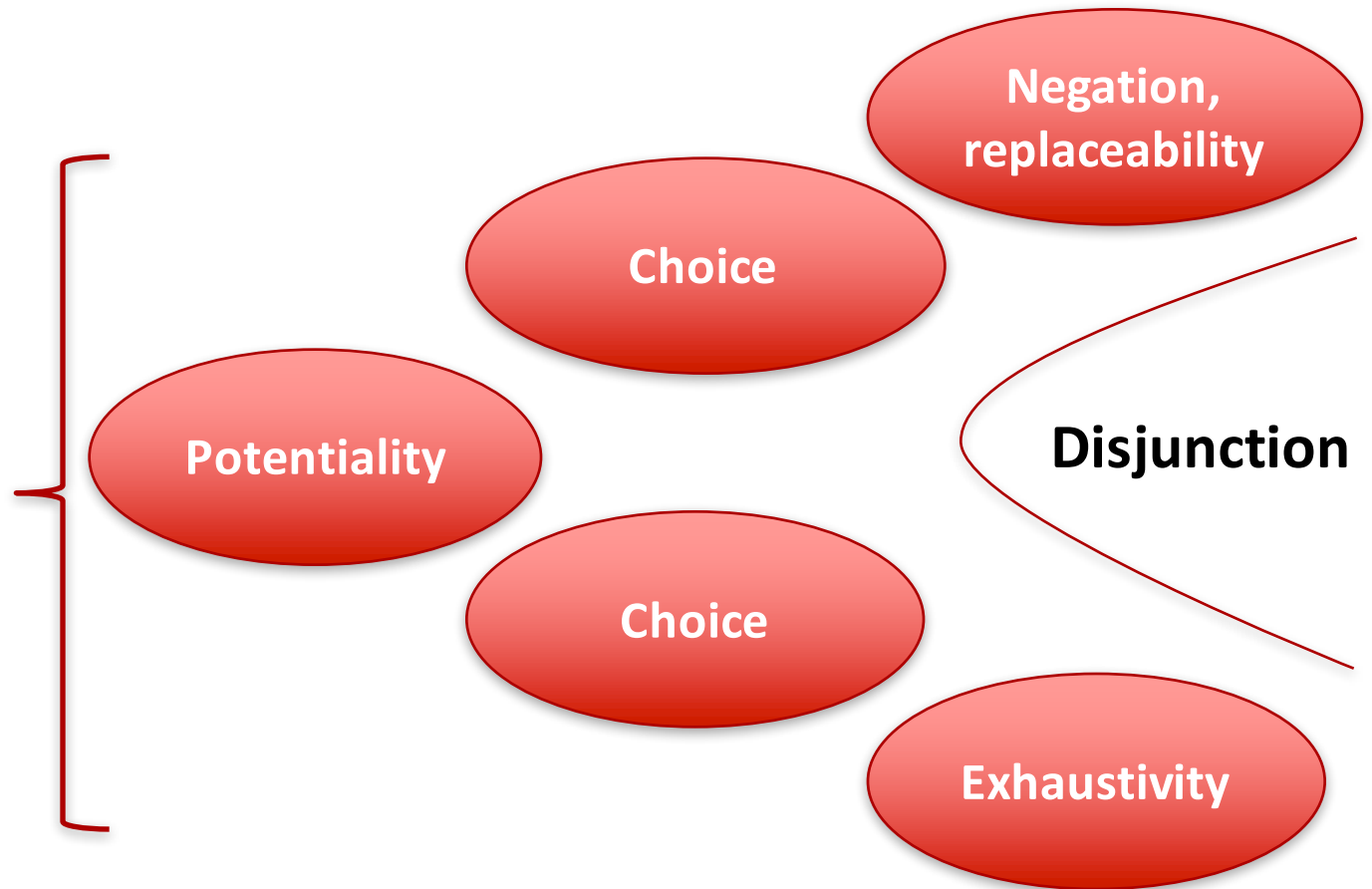
Strategies employed
when an OR
connective is lacking

Semantic distinctions encoded
by OR connectives



Inside, beside, beyond disjunction

Functional
dimensions
to which
speakers are
sensitive in
verbalizing
the notion of
alternative





The use of disjunction in discourse

- Do the functional domains identified, and in general speaker-oriented and reference-oriented properties, play a role in explaining the use of disjunction in discourse?
- Why do speakers choose to use the connective OR in discourse?

The use of disjunction in discourse

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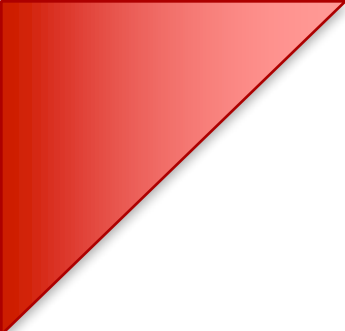
✓ **Corpus-based evidence from English**

- **discourse-relevant readings** of English *or* (Ariel and Mauri 2016)
- Santa Barbara Corpus of Spoken american English (SBC) ([Du Bois et al., 2000-2005](#)).

Six main readings of OR

Ariel and Mauri 2016: each reading is characterized in terms of the explicature it expresses and in terms of the number of alternatives the speaker commits to

READING	MEANING	COMMITTED ALTERNATIVES
Raised Options	Possibly X, possibly Y	0
Higher-Level Category	Higher-level Category Z (comprising members such as X and Y)	0
Conjunctive	Both/any of X and Y	2
Narrowed	One of X and Y	1
Choice	Unresolved choice between X and Y	1
Exhaustive	Only X and Y (other options ruled out)	1/2



Raised options OR 'possibly X, possibly Y'

22) He's like twenty five **or** twenty six, **maybe** twenty seven but married to this lady who could be his mother.(LSAC)

Raised options OR 'possibly X, possibly Y'

22) He's like twenty five **or** twenty six, **maybe** twenty seven but married to this lady who could be his mother.(LSAC)

- ✓ Speaker undertakes **no commitment** to the set of alternatives
- ✓ Speaker's **epistemic attitude**: ignorance
- ✓ Speaker's **aim**: making hypotheses
- ✓ **Non exhaustive set** of alternatives

Higher-level category OR

‘Category abstracted from X and Y’

23) ROY: saving the whale,
or saving uh ... the .. polar bear[r,
PETE: [Right.
.. **Pandas**],
ROY: or making sure there's enough] grizzly bears,
that's fine. (SBC: 003)

Higher-level category
[saving endangered animals]

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Higher-level category
[saving endangered animals]

- ✓ Speaker undertakes **no commitment** to the set of alternatives
- ✓ Speaker's **aim**: representing a higher-level category, not the specific alternatives
- ✓ **Non-exhaustive set** of alternatives



Separative conjunction OR 'Both X and Y'

24) JIM: But for mathematics **or** for science, ((1 LINE OMITTED))
it's an opportunity for them ((3 LINES OMITTED))
to get closer to,
(H) to the chaos, (SBC: 017)

Separative conjunction OR

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- ✓ Speaker **commits to both** alternatives being the case
- ✓ **Speaker's aim**: to represent a set of occurring alternatives
- ✓ Alternatives **occur independently** of each other
- ✓ **Exhaustive set** of alternatives



Free alternative OR 'Anyone of X and Y'

25) ALICE: You know if you ... put a situation like that to ~Tim **or** ~Mandy,
((4 LINES OMITTED))
... They ... hem and haw around, (SBC: 007).

Free alternative OR 'Anyone of X and Y'

25) ALICE: You know if you ... put a situation like that to ~Tim **or** ~Mandy,
((4 LINES OMITTED))
... They ... hem and haw around, (SBC: 007).

- ✓ Speaker **commits to the possibility of each of the alternatives to be realized**
- ✓ **Speaker's aim:** to represent a set of equivalent possibilities
- ✓ Speaker **expects only one** alternative to actually be realized, but she **is impartial** as which one
- ✓ **Exhaustive set** of alternatives



Narrowed OR 'One of X and Y'

26) When people come to SAC, Jan **or** another P A will be there to explain the system (LSAC).

Narrowed OR

‘One of X and Y’

26) When people come to SAC, Jan **or** another P A will be there to explain the system (LSAC).

- ✓ Speaker **commits to one** of the alternatives being the case
- ✓ **Speaker's aim** is to narrow down the set of alternatives
- ✓ **Exhaustive set** of alternatives

Choice OR

‘Unresolved choice between X and Y’

27) ROY: Shall I do something civilized, ((1 LINE OMITTED))
like clear the table, ((1 LINE OMITTED))
or are we just gonna barbarian it out. (SBC: 003)

Choice OR

‘Unresolved choice between X and Y’

27) ROY: Shall I do something civilized, ((1 LINE OMITTED))
like clear the table, ((1 LINE OMITTED))
or are we just gonna barbarian it out. (SBC: 003)

- ✓ Speaker **commits to one** of the alternatives being the case
- ✓ **Speaker’s aim** is to elicit a **choice**, or assert the need for a choice (interrogative contexts)
- ✓ **Exhaustive set** of alternatives



Exhaustive OR 'Only X and Y'

- 28) a. JULIE: .. It's a it's sport for either the brave **or** the stupid. (SBC: 056).
- b. FRANK: But apparently it was either a heart attack **or** an aneurysm
(SBC: 019)

Exhaustive OR 'Only X and Y'

- 28) a. JULIE: .. It's a it's sport for either the brave **or** the stupid. (SBC: 056).
- b. FRANK: But apparently it was either a heart attack **or** an aneurysm (SBC: 019)

- ✓ Speaker **commits to** the set of alternatives
- ✓ Speaker's **aim** is to exclude any other options
- ✓ **Exhaustive set** of alternatives



Non connecting properties and the readings of OR

Do non connecting properties play a role in explaining the use of
disjunction in discourse?

Non connecting properties and the readings of OR

Do non connecting properties play a role in explaining the use of
disjunction in discourse?

YES

- The readings we discussed can be fruitfully described in terms of **explicated information** concerning:
 - ✓ the speaker
 - ✓ the set of linked elements

Non connecting properties and the readings of OR

- Speaker's commitment to:**
- Speaker's expectations concerning:**
- ✓ the existence of the elements
 - ✓ the existence of the set itself
 - ✓ the delimitation of the set

Non connecting properties and the readings of OR

- Speaker's commitment to:**
- Speaker's expectations concerning:**
- Speaker's illocutionary aim:**
- ✓ the existence of the elements
 - ✓ the existence of the set itself
 - ✓ the delimitation of the set
-
- ✓ eliciting a choice
 - ✓ raising hypotheses
 - ✓ representing a set

Non connecting properties and the readings of OR

Speaker-oriented

Speaker's commitment to:

Speaker's expectations concerning:

- ✓ the existence of the elements
- ✓ the existence of the set itself
- ✓ the delimitation of the set

Speaker's illocutionary aim:

- ✓ eliciting a choice
- ✓ raising hypotheses
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Non connecting properties and the readings of OR

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Reference to:

- ✓ exhaustive vs. non exhaustive set
- ✓ elements vs. higher-level category
- ✓ Independent occurrence of the elements

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Conclusions

By integrating different methods and data, we showed that **NON CONNECTING PROPERTIES** play a central role in explaining synchronic and diachronic patterns of variation for disjunctive connectives

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➤ **Modal and referential functions of disjunctive connectives!**

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➤ **Modal and referential functions of disjunctive connectives!**

NEXT STEP: Psycholinguistic evidence

Do these semantic properties play a role in the processing and acquisition of disjunction?



Thank you!

Abbreviations

A=agent;	FUT=future;	PERMISS=permissive;
ABL=ablative;	GEN=genitive;	PL=plural;
ACC=accusative;	HDST= hyperdistal;	POL=polite;
ALTNC=choice-aimed disjunction;	IND=individuator;	PRS= present;
ALTNS=simple alternative;	INT= interrogative;	PST=past;
AS=assertion;	INFR=inferential evidential;	TOP=topic;
CJEC=conjunctural;	IRR=irrealis;	Q=question;
COND=conditional;	LOC=locative;	QUOT=quotative;
DAT=dative;	M=masculine;	REC=reciprocal;
DEM=demonstrative;	NEG= negative;	REP=reportative;
DISJ=disjunctive marker;	NM=noun marker;	SBJ=subject;
du=dual;	NOM=nominative;	SG=singular;
DIST=distal;	NPF=(dummy) noun prefix;	SLEV= same topographic level;
DUB=dubitative;	NPST=nonpast;	WOND=wonder;
DYNM=dynamic;	pc=past complete;	
FOC=focus;	PERL=perlative;	

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