



# How basic is the notion of alternative?

## *A diachronic typology of disjunction*

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# Aims and sample



## Synchrony

Examination of the **cross-linguistic coding** of disjunction



## Diachrony

Identification of the recurrent **sources of grammaticalization** that lead to the development of disjunctive constructions



!  
DATA

*Data* has been collected by means of descriptive grammars and questionnaires from a convenience sample of **130 languages**.

# 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

# Background: the debate on disjunction

## **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

**Crain (2008: 151):**

The ability to recognize the inclusive value of *or* is a “linguistic property that (a) emerges in child language without decisive evidence from experience, and (b) is common to all human languages”, and it is therefore “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

## 📄 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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## 📌 TWO ASSUMPTIONS:

- ✓ The *exclusive* vs. *inclusive* distinction is relevant to natural languages
- ✓ The notion of inclusive-or is **innate** and **universal**.

## What may cross-linguistic variation tell us?

**We have some  
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



# A glance at the world's languages

Payne (1985: 40)

“On the whole [...] **it is rare to find anything unusual in disjunction.** The majority of languages appear to possess at least one unequivocal strategy and this is invariably permitted at sentential and at phrasal levels.”

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**Actually,  
the picture seems more complicated than that...**

# 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**’”.

# Some significant quotes

Ohori (2004: 56-59): AND and OR, the two basic logical connectives in formal logic, can sometimes be *underdifferentiated* in natural languages:

3) Upriver Halkomelem (Salish, Ohori 2004: 57, Galloway 1993: 363)

The declarative construction seems to allow a conjunctive reading in a), and the interrogative construction a disjunctive reading in b).

a) *Lá lámálstəx<sup>w</sup>əs tə Bill tə sq'ámál x<sup>w</sup>əlém tə Jim qə Bob.*  
3 throw.3 DEM Bill DEM paddle to DEM Jim and Bob

'Bill threw the paddle to Jim and Bob.'

b) *Lí lélm k'<sup>w</sup>ə Bill qə Bob?*  
Q go DEM Bill or Bob

'Did Bill or Bob go?'



# Languages without OR

“apposition”, “not well coded”

**“no native way to express disjunction”...**

...means languages without OR!



# Languages without OR

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

...means languages without OR!

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



# Plan

1. Languages without OR
2. Languages with different ORs
3. Diachronic sources out of which ORs develop
4. Semantic domains relevant to disjunction

# 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

5) 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')

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  
some irrealis marker

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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

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

- a. *madhū āitSyā śuśruṣesāṭhī suṭṭī gheīl*  
Madhu mother:GEN looking.after.for leave take:FUT:3sg  
*tilā hṥspiṭalmadhe ṭṭhewīl*  
3sg.ACC hospital:in keep:FUT:3sg

*kīwā* /\**kī*  
ALTNs

‘Madhu will leave to take care of his mother or keep her in the hospital.’

- b. *to bādzārāt gelā kī/\*kīwā 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?’

# 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

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).

# Different ORs, different sets

3

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

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

**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).

# Different ORs, different sets

12) Japanese (Barotto 2016)

a. **Exhaustive alternative** (ka)

*Kōho-wa*                      *Ohashi-ka*                      *Taniguchi*                      *to*                      *omotteiru.*  
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

*Papurika-o*    *pīman-ya*                      *asuparagasu nado ni*    *kaeru*    *to,*  
paprika-ACC    bell pepper-YA                      asparagus    NADO DAT    change    if,  
*samazamana*                      *arenji-ga*                      *kanō.*  
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 irrealis markers is obligatory, in order to convey alternative, and this confirms the close connection between disjunction and the non-factuality domain
- III. We find many languages having more than one OR
- IV. The distribution of different ORs is not accounted for by the distinction between inclusive vs. exclusive, but rather by the need for a choice (direct and indirect interrogative) and the (non-)exhaustivity of the set.



# Diachronic analysis

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



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**Where do they come from?**

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**Where do they come from?**

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*.’

*Tuekedia =pa ekana<sub>s</sub> 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)

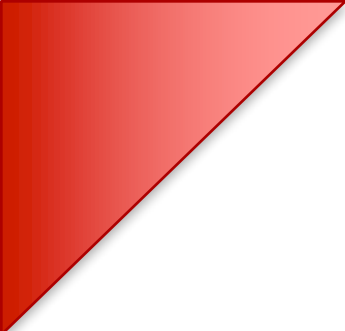
# Other sources

## ✓ **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-, \*aljī- '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,  
irrealis**

**OR**

**X? Y?**

polar questions

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**Maybe X, maybe Y**  
dubitative,  
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**Potentiality,  
irrealis**

**OR**

**Mutual  
replaceability**

**X? Y?**  
polar questions

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

**If not X, Y**  
**X, if not, Y**  
negated  
hypothesis

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**Maybe X, maybe Y**  
dubitative,  
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**Potentiality,  
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**X, no Y**  
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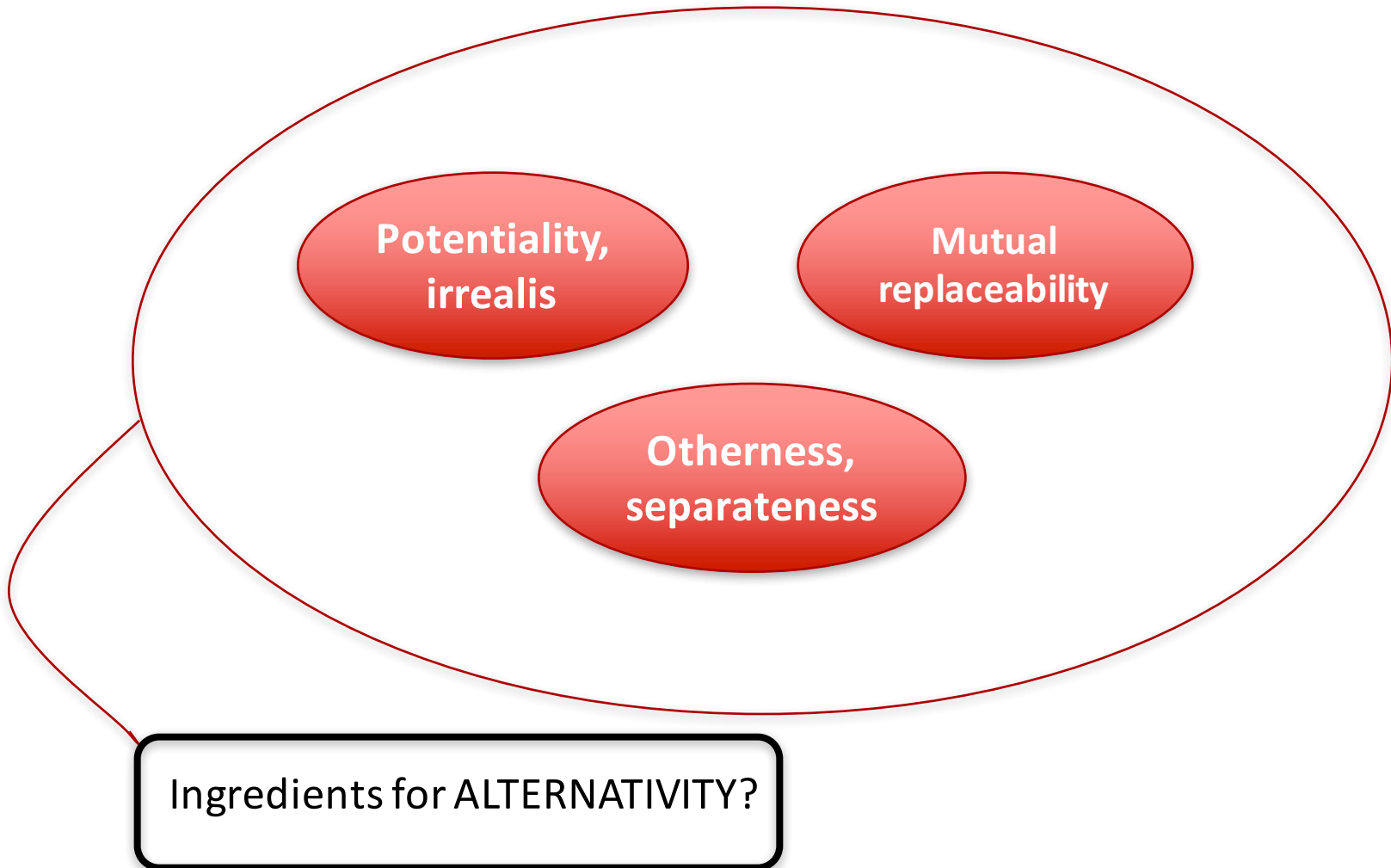
**X? Y?**  
polar questions

**Otherness,  
separateness**

**If not X, Y**  
**X, if not, Y**  
negated  
hypothesis

**X, other Y**  
distal/other

# Semantic components of the notion of alternative





# Conclusions: inside, beside, beyond disjunction

**What may cross-linguistic variation tell us?**



# Conclusions: inside, beside, beyond disjunction

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Semantic distinctions encoded  
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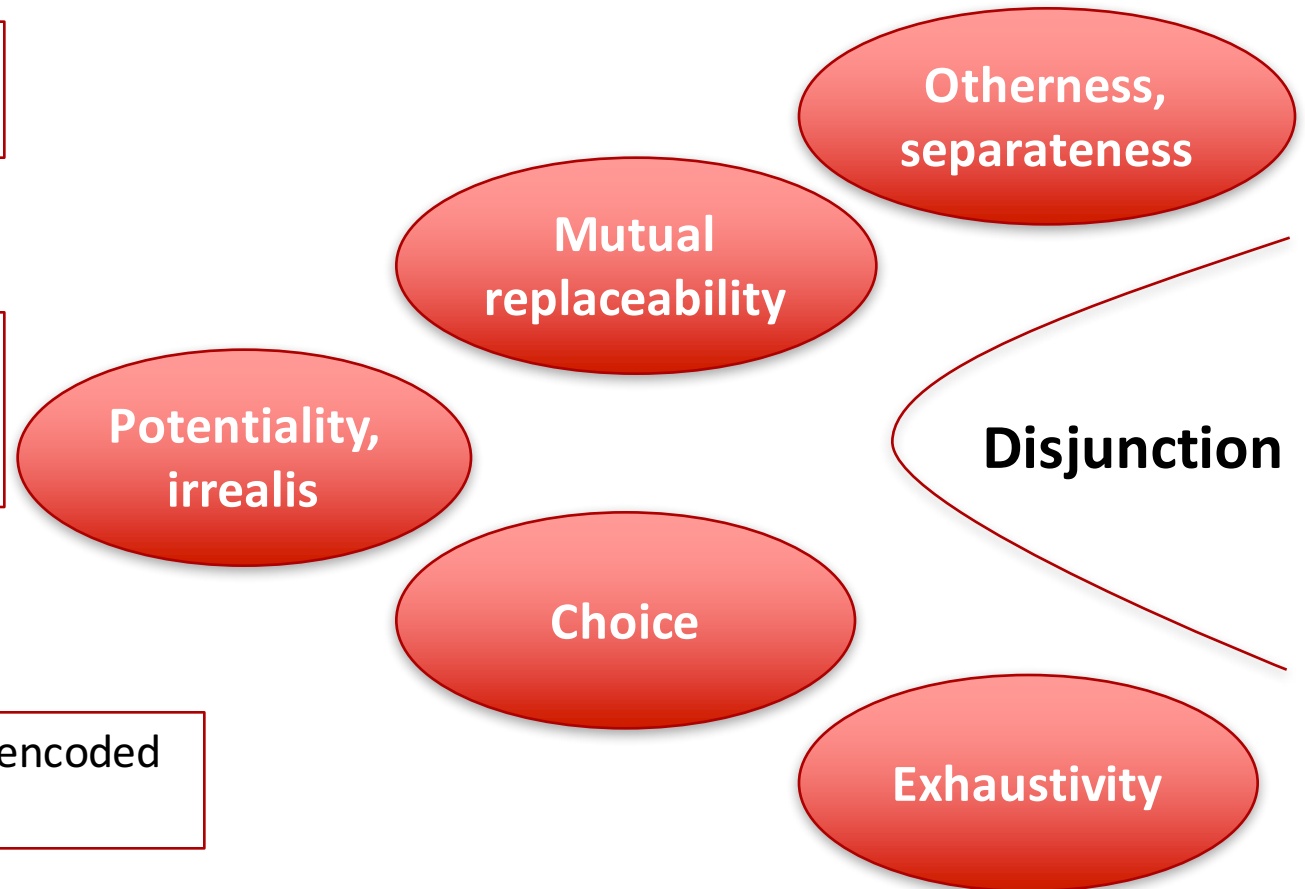
**YES**

# Conclusions: inside, beside, beyond disjunction

Diachronic sources  
for OR connectives

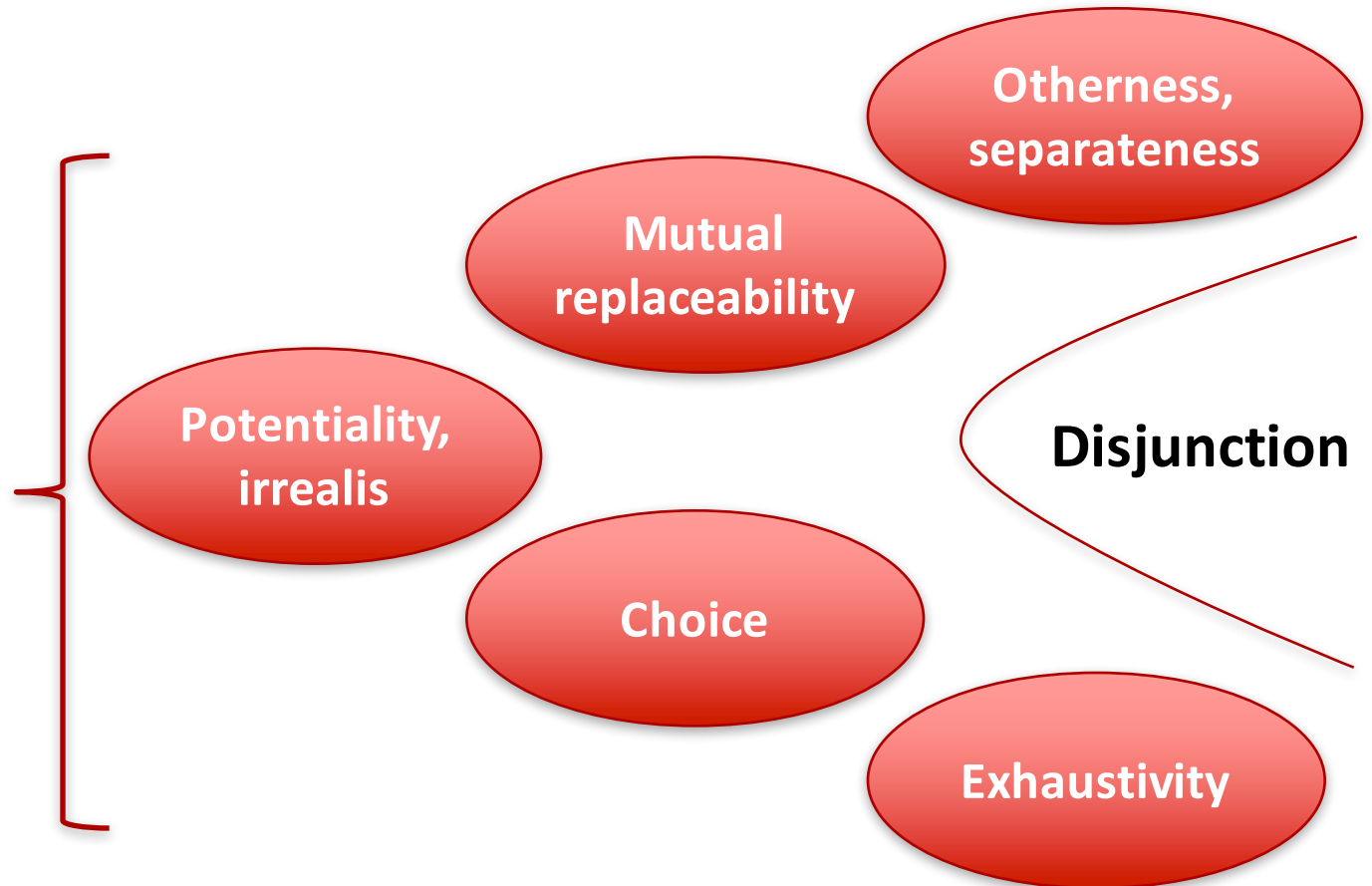
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# Conclusions: inside, beside, beyond disjunction

Functional  
dimensions  
to which  
speakers are  
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# Prospects for future research

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### ✓ **Corpus-based evidence**

Do the functional domains identified play a role in constraining the use of disjunction in discourse?

### ✓ **Psycholinguistic evidence**

Do the functional domains identified 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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