# How basic is the notion of alternative? A diachronic typology of disjunction

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## 1. Aim, sample and definitions.

➤ *Aims*: ✓ to examine the cross-linguistic coding of disjunction → *synchronic perspective*
✓ to identify the recurrent sources of grammaticalization that lead to the development of disjunctive constructions → *diachronic perspective*

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

➤ *Relevant definitions:*
- ✓ By ALTERNATIVE is meant here a coordination relation established between two non-cooccurring, mutually replaceable possibilities ((1), for a detailed discussion of a functional definition of coordination, see Mauri 2008b).
- ✓ By DISJUNCTIVE CONSTRUCTION is meant any dedicated morphosyntactic strategy encoding an alternative relation between two states of affairs.

(1) *Do you come with us or do you stay here?*
*Usually, I watch TV or I read until late at night.*

➤ *Parameters of analysis:*
- PRESENCE vs. ABSENCE of overt markers specifically encoding the relation of alternative between two states of affairs (*syndesis* vs. *asyndesis*);
- SEMANTIC DOMAIN of the attested markers (i.e. the set of functions that every attested marker may be used for, see Mauri 2008b: 70-76 → *dedicated* vs. *general markers*).

## 2. Background: the debate on disjunction

### 2.1 *Inclusive vs. exclusive disjunction and innateness*

Disjunction has traditionally been studied in the literature with respect to the inclusive vs. exclusive distinction, inherited from the Boolean logic (see Allwood, Andersson, and Dahl 1977).

- An **exclusive** disjunction is true iff *only one* of the alternatives can be true;

(2) *John, please bring pizza or pasta to the party.* (Chierchia *et al*. 2001: 158)

- An **inclusive** disjunction is true iff *at least one* of the alternatives is true (possibly both).

(3) *I bet you 5$ that John will bring pizza or pasta to the party.* (Chierchia *et al*. 2001: 158)

The inclusive vs. exclusive interpretation is explained with reference to scalar implicatures: *and* and inclusive-*or* are taken to constitute a scale, along which *and* is more informative than inclusive-*or*. The exclusive interpretation then arises because speakers assume that a cooperative interlocutor would use A *and* B, in case both A and B were true (see e.g. Grice 1975, Horn 1996).

* UNIVERSALITY AND INNATENESS *

➤ 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*.

➤ Crain (2008: 151) → "children draw upon **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."

> 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 therefore "a likely candidate for **innate specification**." (Crain 2008: 151)
>
> "[…] 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)

➪ UNCHALLENGED ASSUMPTIONS:

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

## 2.2 *A glance at the variation attested in 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."

!! Yet, the picture seems more complicated !! → 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, Numic, 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 thee **lack of any syntactic or morphological "or"** […]"

**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' (not shown)."

➢ There are languages *without any overt disjunctive marker*;
➢ there are languages in which the *elicitation* of disjunctive constructions is highly *problematic* (cf. a. and b.)

} the assumption of universality and innateness is challenged

➢ there does not seem to be languages showing distinct strategies for inclusive vs. exclusive disjunction (cf. also Dik 1968: 274-276, Haspelmath 2008: 25-27) ⇨ to what extent is this distinction relevant to natural languages?

Ohori (2004: 56-59) argues that there is no direct correspondence between the connectives in formal logic and the connectives attested in natural languages → AND and OR, the two basic logical connectives in formal logic, can sometimes be *underdifferentiated* in natural languages (ex.(4))

(4) Upriver Halkomelem (Salish, Ohori 2004: 57, quoted from Galloway 1993: 363)
The declarative construction seems to allow a conjunctive reading in a), and the interrogative construction a disjunctive reading in b).

a) *Lə́ ləmə́lstəxʷəs tə Bill tə sqʼə́mə́l xʷəlém 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 lém kʼʷə Bill qə Bob?*
Q go DEM Bill or Bob
'Did Bill or Bob go?'

**QUESTIONS AT ISSUE:**

1. Given that the exclusive vs. inclusive dichotomy does not seem to be crucial to natural languages, are there other semantic distinctions to which languages are sensitive?
2. Is alternative itself a basic notion that languages always express overtly?
3. What are the diachronic sources of disjunctive markers?

## 3. Synchronic analysis: the cross-linguistic coding of alternative

### 3.1 *Choice-aimed and simple alternative*

Languages frequently use different strategies depending on the ***aim*** with which the alternative relation between two states of affairs is established (see Mauri 2008b: 155-161 for a detailed discussion on the semantic parameter of 'aim'):

* an alternative relation may be established in order to present two states of affairs as equivalent possibilities, without the need for any choice *(Tonight I will read a book or watch a movie, I don't know yet*) → ***simple*** alternative, typically occurring in declarative sentences ((5a), (6a));
* an alternative relation may be established in order to elicit a choice (*Are we going to the cinema or are we staying at home?*) → ***choice-aimed*** alternative, typically occurring in interrogative sentences ((5b), (6b)).

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

a) *madhū āītSyā śuśruṣesāṭhī suṭṭī gheīl* ***kĩmwā*** */*kī tilā*
Madhu mother:GEN looking.after.for leave take:FUT:3sg **ALTNs** 3sg.ACC
*hɔspiṭalmadhe ṭthewīl*
hospital:in keep:FUT:3sg
'Madhu will leave to take care of his mother or keep her in the hospital.'

b) *to bādzārāt gelā* ***kī/*kĩmwā*** *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?'

(6) 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.'

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?'

➤ Dik (1968: 276) establishes a 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), instead, talks about *standard* and *interrogative* disjunction for the simple and the choice-aimed alternative, respectively (see also Mauri 2008a).

The exam of the cross-linguistic variation attested in the coding of these two types of alternative reveals some implicational patterns.

### 3.2 *Implicational patterns of variation: disjunctive and irrealis markers*

**(A)** <u>The alternative coding implication</u>**:**

**Asyndesis for simple alternative → asyndesis for choice-aimed alternative.**

| | **Choice-aimed** | **Simple** |
|---|---|---|
| Mangarayi | – | – |
| Warì | – | – |
| Malayalam | – | + |
| Korean | – | + |
| Latvian | + | + |
| Hausa | + | + |

**Table 1**: Overt markers for alternative relations: cut-off point in the alternative coding implication. + = presence of an overt marker; – =absence of an overt marker.

⇨ *In a given language, if a simple alternative relation is normally expressed with an asyndetic construction, also the choice-aimed alternative relation is expressed with an asyndetic construction.*

(7) Somali, Cushitic, Afro-Asiatic (Saeed 1993: 275): SYNDETIC strategy for both types of alternative

a) *Amá wuu kéeni doonaa* ***amá*** *wuu sóo.díri doonaa*
ALTNs 3sg bring that ALTNs 3sg send that
'Either he will bring it **or** he will send it.'

b) *Ma tégaysaa* ***misé*** *waad jóogaysaa?*
INT go:2sg ALTNc here stay:2sg
'Are you going **or** are you staying?'

(8) Malayalam, Tamil-Kannada, Dravidian (Asher and Kumari 1997: 140): SYNDETIC strategy for simple alternative and ASYNDETIC strategy for interrogative alternative

a) *niŋŋaíkkə kiɻakkayil kiɻakkaam* ***alleŋkil*** *paayayil kiɻakkaam*
2sg:DAT bed:LOC lie:PERMIS ALTNs mat:LOC lie:PERMIS
'You can lie here **or** you can lie on the mat.'

b) *innale raaman vann-oo vannill-ee?*
yesterday Raman come:PST-INT come:PST:NEG-INT
'Did Raman come yesterday **or** he did not come?'

(9) Korean (Sohn 1994: 122):
a) *wuli-ka ka-l-**kka**-yo? salam-ul ponay-l-**kka**-yo*?
1pl-NOM go-PRS-**Q**-POL person-ACC send-PRS-**Q**-POL
'Shall we go, or shall we send someone?'
b) *Minswu-nun onul o-**ni** **(animyen)** nayil o-**ni***?
Minsu-TOP today come-**INT** **ALTN** tomorrow come-**INT**
'Does Minsu come today or tomorrow?' (Yusi Minsu Sin, p.c.)

► The overt coding of an interclausal relation is connected to the degree to which the relation can be inferred from the context. Specifically, the more a relation is easy to infer, the less it needs to be overtly marked (see Mauri 2008b for the case of coordination relations).

Principle at work: **syntagmatic economy**. The presence of overt disjunctive markers (implication **A**) is constrained by the economic principle of *information recoverability,* according to which information that is already recoverable from the context needs no further specification (cf. Haiman 1985: 159).

➲ *Choice-aimed alternative relations are more easily inferable from juxtaposition than simple alternative relation* and are thus more likely to be expressed without any overt marker.

• *Choice-aimed alternative* is easier to infer from juxtaposition because it is easier to infer an alternative relation from the juxtaposition of two interrogative clauses, than from the juxtaposition of two declarative clauses.

→ When two SoAs that stand in a semantic contrast are juxtaposed in a declarative sentence this may easily be for reasons other than the existence of an alternative relation between the two (temporal/causal sequentiality, simultaneity or some contrast)

→ If the two SoAs are encoded by two juxtaposed interrogative clauses, this means that they are questioned and that the speaker does not know if they actually occur. Therefore the reason for presenting the two SoAs together will hardly be that they are linked by a relation of sequentiality or simultaneity. Consequently, if two SoAs standing in a semantic contrast are juxtaposed in an interrogative form, they will be most easily interpreted as alternatives.

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In asyndetic constructions, *alternative is systematically conveyed through the juxtaposition of possibilities* (10):

(10) 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
'Either 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')

**(B)** <u>The alternative irreality implication</u>:

**Absence of a disjunctive marker → Presence of some irrealis marker**

⇨ If no overt disjunctive marker is present, each state of affairs must display an irrealis marker and is therefore presented as possible, rather than occurring or realized.

✓A proposition is said to be REALIS when it asserts that a SoA is an 'actualized and certain fact of reality' and it 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

✓An IRREALIS MARKER is any morphosyntactic means (adverbs, sentence particles, verb forms) which specifically encodes the irrealis value of a given SoA or which encodes notions that imply the irreality of the relevant SoA within a given clause. (such as interrogative, dubitative, etc. cf. Mauri 2008b: 171-172)

⇨ *In order for an alternative relation to be conveyed, either a disjunctive marker* (11b) *or some overt irrealis marker is necessary* (11a). They may also occur together (as (11c)). If neither of the two occurs (11d), however, it is difficult to infer an alternative reading (*You come, you go*) and the construction fails to fulfill an alternative function.

(11) 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)
b) *Perhaps the hawk clawed it or maybe the dog bit it (apparently).* (alternative coded, irrealis coded)
c) *The hawk clawed it, the dog bit it (apparently).* (irrealis and alternative not coded) → possible interpretations: sequence of actions, simultaneous actions, opposition, ??alternative??

(12) Hup (Vaupés Japurá, Epps 2005: 683)
*wĭh cím'-íy=cud* ***ɔ̂hníy***, *yaɔambŏɔ g'əʹ́ç-ʹ́əʹ́y=cud* ***ɔ̂hníy***
hawk claw-DYNM=INFR maybe dog bite-DYNM=INFR maybe
'Either the hawk clawed (it), or the dog bit (it), apparently.'

(13) Aranda (Australian, Pama-Nyungan; Wilkins 1989: 385-86)
'The particle *(a)peke* 'maybe, might; if; or' (maybe) has a wide range of related used. 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*** *kwele; arrangkwe.*
Game one maybe-FOC QUOT 3sgA kill-pc maybe, see-pc maybe QUOT nothing
'Perhaps there was supposedly one game animal that he killed or even saw; no, nothing at all.

(14) Koasati (Muskogean, Kimball 1985: 450)
*ná:s-ok óV ʔV-**mmi** if-ók óV ʔV-**mmi** kat-ók óV ʔV-**mmi***
what-SBJ:FOC be-Q dog-SBJ:FOC be-Q cat-SBJ:FOC be-Q
/ ná:s-ok óʔmi. ifók óʔmi katók óʔmi /
'What is it? Is it a dog or is it a cat?'

(15) 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 *bəree.*

*aəʹ́ə jakâa gò bərè japúu gó bərè?*
*aəʹ́ə [jakàa=go]NP* ***bəree*** *[japúu=go]NP* ***bəree***
HDST.SLEV black=IND CJEC white=IND CJEC
'Over there, (is it) a black one or a white one (I can't make it out)?' (MN, 22:155)

➲ The implicational pattern in (B) shows that the **irrealis value is a crucial aspect of the alternative relation.**

Given a slot 'X' in a possible world, it can be occupied by only one of the two alternative SoAs *at a time* → two alternative SoAs are conceptualized as equivalent possibilities, only one of which will or did actually take place at the specific moment which constitutes the free slot 'X'. Until a choice is made or the speaker comes to know which hypothesis is realized at that given time, either SoA could be the non-occurring one and therefore both are conceptualized as irrealis.

► The irreality of the SoAs is implied by markers coding the alternative meaning, which in this respect may be considered irrealis markers just like the interrogative ones. Hence, when no disjunctive marker is present, the irrealis, potential status of the linked SoAs needs to be explicitly signalled (see Mauri 2008a for a detailed discussion).[1]

## 4. A diachronic perspective on disjunction: *irrealis* diachronic sources

A set of recurrent sources for disjunctive markers can be identified (*work in progress*!!):

(I) dubitative/hypothetical > alternative
(II) negated hypothetical > alternative
(III) negation > alternative
(IV) polar question > choice-aimed alternative

### (I) dubitative/hypothetical > alternative

(16) 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 conjunctions.

a) *yup=**okun*** *ngay* *yan* *Waar.Paant-ak*
soon=DUB 1sg.NOM go:NPST place.name-DAT
'maybe later I'll go out to Waar-Paant'

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

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

→ see also examples (10) and (13).

### (II) negated hypothetical > alternative

(17) Hakha Lai, Tibeto-Burman (Peterson and VanBik 2004: 339)
*-làw-leè* is the combination of the 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.

*làwthlawpaa* *falaám* ***ʾa-kal-làw-leè*** *haàkhaà-ʾaʾ* *ʾa-ʾùm*
farmer Falam 3sg.SBJ-go-NEG-COND Hakha-LOC 3sg.SBJ-exist

[1] A number of studies based on individual languages have highlighted the interactions between the interpretation of disjunction and modality, especially in free-choice contexts (see Zimmermann 2000, Geurts 2004, Ohori 2004).

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

(18) 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 is often shortened to *jadyamajuatsu*, *jadyamaatsu* or even *amaatsu*.'

| *Tuekedya =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.'

## (III) negation > alternative

(19) 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 ~ máɔ* '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).

*rəkên jâarə dɨ̄má (…) rənêk jaarə̀ dɨ̄.*

| *[rə́-kèn-jàa-rə́* | *dɨ̄]=**máa*** | *[rə́-nèk-jàa-rə́* | *dɨ̄]* |
|---|---|---|---|
| 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?'

(20) 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 presuposition *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 no
'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?'

## (IV) polar question > choice-aimed alternative

(21) Polish
the interrogative marker *czy* was originally the instrumental form of Common Slavic **ch'to*

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?'

→ The opposite pattern is even more frequently attested:
**choice-aimed alternative > polar question marker** (Heine & Kuteva 2002: 226-227):

(22) 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-IPL 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?'

► The close link between **irrealis** constructions and the semantics of the alternative relation is confirmed in diachrony:

The **alternative relation** is established between two situations characterized by
**1.** *potential status* (they are possibilities)
**2.** *mutual replaceability and mutual exclusivity* (they are equivalent, but do not co-occur at the same time)

The diachronic sources identified are
directly connected to these two components

⇩

**1.** *dubitative*/*hypotheticals* and *interrogatives* are characterized by the ***potential occurrence*** of the state of affair, which is proper of alternatives;
**2.** *negation* characterizes any relation of ***exclusive replaceability*** (in order to assert one of the two situation, the other has necessarily to be negated);
**3.** *negated hypothetical* are characterized by **both** components ('if it is not so') and are logically equivalent to an alternative relation.

There are other paths that need further research:
e.g. **distal marker/ 'other' > disjunctive marker**
- IE **au*- 'other, that' (+-*tì*) > Lat. *aut* (**auti*), *autem*
- Old English *ōþer* 'other' > Modern English 'or' (cf. Germ. oder)

## 5. Conclusion: the basic irreality of alternatives

Both synchronic and diachronic data point to three main results:

→ (*i*) what seems to be relevant in the cross-linguistic coding of alternative is not a truth-conditional semantics (inclusive vs. exclusive), but rather the notion of *possibility* and *potentiality* that is implied by the alternative relation, together with the communicative intention underlying the alternative itself (choice-aimed vs. simple alternative, cf. implicational patterns in section 3);

→ (*ii*) the notion of alternative can be further analyzed in two basic semantic components: *potentiality* and mutual *exclusive replaceability*. These two aspects can be clearly identified in the

diachronic sources of the disjunctive markers analyzed (dubitative, hypothetical, interrogative and negation)

→ The cross-linguistic regular variation attested in the coding and in the development of disjunction strongly challanges its presumed basic and possibly innate status, and rather points to a close connection with the more general (and more basic?) domain of irreality.

## Abbreviations

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

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