Cross-linguistic variation in ordinary vs interrogative disjunctions

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A number of languages of the world use a distinct disjunctor form to express alternative questions (AltQ). For instance, the Finnish AltQ in (1a) must use vai, whereas the disjunctive declarative in (2a) must use tai (Kaiser, 2003). The (b) and (c) examples in (1–2) show the same contrasts in Mandarin Chinese and Vietnamese. Following Haspelmath (2007), I call the vai/háishí/hay type “interrogative disjunction” (IDISJ) and the tai/huòzhe/hoặc type “ordinary disjunction” (ODISJ). (Ordinary disjunctions can also be used to form polar questions and therefore are not specifically limited to declarative environments.)

(1) Interrogative disjunction for AltQ \{p, q\}:

‘Does he/she drink coffee or tea?’ (AltQ)

a. Juo-ko hän kahvia vai/*tai teetä? 3sg drinks-Q coffee IDISJ/*ODISJ tea
b. Tā hē kāfēi háishí/*huòzhe láuchá? 3sg drink coffee IDISJ/*ODISJ tea
c. Nó uǒng cǎ phē hay/*hoặc trà? 3sg drink coffee IDISJ/*ODISJ tea

(2) Ordinary disjunction for \(p \lor q\):

‘He/she drinks coffee or tea.’ (declarative)

a. Hän juo kahvia tai/*vai teetä. 3sg drinks coffee ODISJ/*IDISJ tea
b. Tā hē kāfēi huòzhe/*háishí láuchá. 3sg drink coffee ODISJ/*IDISJ tea
c. Nó uǒng cǎ phē hoǎc/*hay trà. 3sg drink coffee ODISJ/*IDISJ tea

Here, I highlight the fact that languages may vary in the distinction encoded in their ODISJ vs IDISJ pairs. In particular, I show that certain environments “neutralize” the ODISJ/IDISJ distinction in Mandarin and Vietnamese, but not in Finnish or Tiwa (Tibeto-Burman; from Dawson, 2020). To my knowledge, no prior work has made this observation, in both descriptive (e.g., Haspelmath, 2007, Mauri, 2008) and theoretical literature on logical connectives. I offer a proposal for this variation in ODISJ/IDISJ distributions.

Neutralization of the ODISJ/IDISJ distinction in Mandarin and Vietnamese: Building on Huang (2010), Erlewine (2014) shows that the Mandarin IDISJ háishí functions as a regular (non-question-forming) disjunction in certain environments, becoming interchangeable with ODISJ huòzhe. These environments include antecedents of conditionals (3), unconditionals and dōu free choice constructions, and under high, focus-sensitive negation. Erlewine notes that these are all environments where wh-words receive non-interrogative, indefinite interpretations (Lin, 1998; Cheng and Giannakidou, 2013).

(3) [Yàoshì Akiu cǐzhī háishí/huòzhe tuǐxīu dehuà] qǐng gàosù wǒ.

if Akiu resign IDISJ/O DISJ retire cond please tell 1sg

‘If Akiu resigns or retires, please tell me.’ (Mandarin: Huang, 2010: 128)

Here I show that Vietnamese IDISJ hay also exhibits neutralization with ODISJ hoǎc in a similar range of environments, including the conditional in (4).
Non-neutralization in Finnish and Tiwa: In contrast, Finnish idisja vai appears to never neutralize with tai. For example, idisja vai in the conditional clause in (5a) necessarily leads to the entire utterance being an alternative question, and cannot contribute an ordinary disjunction meaning. odisja tai in the same environment (5b) contributes an ordinary disjunctive meaning, which here results in a polar question interpretation due to the presence of the question particle -ko. (Note that wh-words in Finnish do have non-interrogative, indefinite uses in some environments such as in forming unconditionals (Hakulinen et al. 2004: §761) but vai cannot be used in such environments either.)

(5) Olisit-ko onnellise-mpi, [jos Pekka { a. vai / b. tai } Liina tulee ]? be.COND.2sg-Q happy-comp if Pekka idisja / odisja Liina comes
   a. vai: ‘Would you be happier if Pekka comes or if Liisa comes?’ (AltQ / *PolarQ)
   b. tai: ‘Would you be happier if one of Pekka or Liisa comes?’ (PolarQ / *AltQ) (Finnish)

Similarly, idisja na in Tiwa does not have an ordinary disjunction function, instead resulting in a matrix alternative question interpretation in (6):

(6) [Mukton na Saldi phi-gai-do]. Tonbor khâduw?
   Mukton idisja Saldi come-COND-TOP Tonbor happy
   ‘Will Tonbor be happy if Mukton comes or if Saldi comes?’ (AltQ) (Tiwa: Dawson 2020: 79)

Note that this cross-linguistic difference cannot be deduced from the presence or absence of wh-movement: Finnish is a wh-fronting language, but Mandarin, Vietnamese, and Tiwa are all wh-in-situ languages.

Analysis: My core claim is that the odisja/idisja distinction involves an additional, syntactic distinction in Finnish and Tiwa but is an entirely semantic distinction in Mandarin and Vietnamese.

For the basic contrast between odisja andidisja, I build on the analysis of Erlewine 2014 for the odisja/idisja distinction in Mandarin Chinese, which assumes the two-dimensional Alternative Semantics of Rooth 1985, 1992 as extended to the semantics of interrogatives as in Beck 2006, Beck and Kim 2006, and Kotek 2019. A disjunction phrase headed by odisja has an ordinary semantic value as a boolean disjunction of its disjuncts (with appropriate type-lifting for non-propositional types, following e.g. Alonso-Ovalle 2006 appendix C), but a disjunction phrase headed byidisja has no defined ordinary semantic value (8a). Both return the set of their disjuncts’ ordinary values as their alternative set values: see (7b), (8b).

(7) a. $[A \text{ odisja } B]^{o} = [A]^{o} \lor [B]^{o}$ b. $[A \text{ odisja } B]^{alt} = \{[A]^{o}, [B]^{o}\}$
(8) a. $[A \text{ idisja } B]^{o}$ undefined b. $[A \text{ idisja } B]^{alt} = \{[A]^{o}, [B]^{o}\}$
The result of an IDISJ phrase as per (8) has a non-singleton alternative set and an undefined ordinary value, which is the signature of wh-words in the Rooth-Hamblin semantics of Beck 2006 and subsequent work. A simple clause that includes ODISJ will have a disjunctive ordinary semantic value, resulting in a valid disjunctive propositional expression. In contrast, a simple clause built from IDISJ will not have an ordinary semantic value and therefore requires an operator to construct a question denotation from its alternative set (interrogative C in Beck 2006 and Beck and Kim 2006, AltShift in Kotek 2019), leading to an interrogative interpretation just as simple wh-containing clauses do. (Following discussion in Kotek 2019, AltShift cannot apply to structures with an ordinary semantic value, thereby explaining the inability for ODISJ to form alternative questions in (1).)

In Finnish-type languages, IDISJ additionally encodes a syntactic dependency (e.g. via Agree) on an interrogative clause-type complementizer, ensuring that it contributes to an alternative question. Note that this dependency need not involve covert movement. Adjunct clauses such as conditionals constitute islands for overt movement in both Finnish (Huhmarniemi, 2012: 101) and Tiwa (Dawson, 2020: 68), but IDISJ inside conditionals result in grammatical matrix alternative questions in (5–6).

In Mandarin-type languages, IDISJ does not impose an additional syntactic requirement that it form an interrogative. Following Erlewine 2014, neutralizing contexts are precisely those which can derive an interpretation by considering alternative set denotations alone; for instance, it has been independently argued by Alonso-Ovalle (2006) and Rawlins (2008, 2013) that the interpretation of conditionals builds on the alternative set denotation of the conditional clause. I discuss the semantics of other neutralizing contexts at the talk.
References


