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Contents

Alternatives of disjunctions: when a disjunct contains the antecedent of a pronoun

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For disjunctive sentences of the form "$f(X \text{ or } Y)$", classical theories of exhaustification crucially rely on the co-existence of the alternatives "$f(X)$" and "$f(Y)$" (see Fox and Katzir 2011, as well as Bar-Lev and Fox 2017). Abstractly, this co-existence prevents disjunctive sentences from implying that "$f(X)$" and "$f(Y)$" have different truth values (see Klinedinst 2005; Chemla 2009).

Now, consider (1). It contains a disjunction and, accordingly, implies the negation of two propositions that resemble the usual "$f(X)$" and "$f(Y)$" alternatives: "Every dad called his daughter" and "Every dad called his daughter's dog". In the former, we recognize the usual, first-disjunct alternative "$f(X)$" = (2a). But the latter is harder to find. Keeping only the second disjunct creates "$f(Y)$" = (2b), which does not mean "Every dad called his daughter's dog".

(1) Every dad$_i$ called [his$_i$ daughter]$_j$ or her$_j$ dog. $= f(X \text{ or } Y)$

(2) a. Every dad$_i$ called his$_i$ daughter. $= f(X)$

b. Every dad$_i$ called her$_j$ dog. $= f(Y)$

A first option is to take these cases as showing that more involved semantic binding solutions are needed (see Charlow 2019b). In this view, one can argue that a (2b)-like alternative can do the trick: although it does not seem feasible on the surface, at LF "her$_j$ dog" may receive what is called a paycheck interpretation "his daughter's dog" (Geach 1962; Karttunen 1969). We further note that a continuation of (1) with (3) cannot mean that no mother looked for her own dog. This would be the case if the LF were as in (4), with $i = j$. Instead, the continuation means that no mother looked for her daughter's dog. This can be explained if the pronoun x_j in (4) is constrained to receive a paycheck interpretation and refer to x_i's daughter, just like one would say about "her$_j$" in (2b) then.

(3) But no mother did the latter.

(4) But no mother$_i$ did ⟨call x_j's dog⟩.

A second option, however, is to abandon the attractive idea that the disjunct alternatives are obtained by deletion of one disjunct (as formalized and motivated in Katzir 2007; see also the potential importance of replacement alternatives for acquisition facts in Barner et al. 2011, and for processing facts in Chemla and Bott 2014). Instead, Uli Sauerland (2004) proposed early on and provocatively (as "more of a technical trick, than a real solution", he then wrote) that these alternatives could be obtained via the replacement à la Horn (1972) of the disjunction "or" with operators **L** and **R**, which retain both disjuncts structurally, and assert the truth of the **L**eft disjunct

and of the **R**ight disjunct, respectively. This has the potential to make both alternatives structurally acceptable, as we would obtain:

(5) a. Every dad$_i$ called [his$_i$ daughter]$_j$ **L** her$_j$ dog. $= f(X \mathbf{L} Y)$
b. Every dad$_i$ called [his$_i$ daughter]$_j$ **R** her$_j$ dog. $= f(X \mathbf{R} Y)$

The **L/R** operators have the advantage that they retain all the structure of the initial disjunction. Concerning (3) then, it would not be necessary to resort to paycheck pronouns. The continuation could be rendered as in (6), as if "the latter" provided some trace of **R** in the lexicon after all (and likewise for "the former" and **L**).

(6) But no mother$_i$ did $\langle$call [x_i's daughter]$_j$ **R** x_j's dog$\rangle$.

In conclusion, whatever option above is adopted, alternatives are best understood at the level of LF because neither (2b) nor (5b) is a helpful English sentence. This provides a new argument for views expressed clearly by Katzir (2007), for which Charlow (2019a) and Chemla (2007) provide some empirical arguments, and for which Buccola et al. (2018) provide conceptual discussion. More generally, we must derive alternatives for disjunctions, whether these structures are obtained by deletion or **L/R** replacements. Studying the interpretations of these structures can provide information about the derivation of alternatives, as well as about the range of abstract semantic processes available for logical forms.

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