

### ***Even if*, Factivity and Focus**

**The Problem.** Pollock (1976) observes that some concessive conditionals (*even-if*-conditionals), ‘imply’ the truth of their consequent (are ‘factive’), while others do not. Adopting Bennett (1982)’s terminology we call the two types ‘introduced-if’ and ‘standing-if’ conditionals, respectively.

(1) Introduced-if: *Even if the bridge were standing I wouldn’t cross*  $\Rightarrow$  I wouldn’t cross.

(2) Standing-if: *Even if he drank [one ounce]<sub>f</sub> of whiskey he would be fired.*

The problem here is twofold. On the one hand, the difference between (1) and (2) presents a challenge against a unified analysis of concessive conditionals. On the other hand, the apparent factivity in (1), which does not appear to follow from the semantics of conditionals, nor from the contribution of *even*, presents a challenge to compositionality.

**Outline of the Proposal.** This paper argues that a compositional and unified analysis of the two types of *even if* conditionals is feasible once the focus and scope of *even* (in the sense of Rooth 1985-1996’s theory of association) are correctly singled out. Specifically, we show that the implication in (1) can be derived as an entailment of the assertion together with the existential presupposition introduced by *even*.

The analysis assumes that *even* in *even if* means the same as *even* elsewhere; that is, *even* is a focus sensitive operator (Rooth 1985-96) introducing a scalar and an existential presupposition (Horn 1969, Karttunen & Peters 1979, Wilkinson 1996, Lahiri 1998) relative to a set of alternatives (C) which is strictly determined by its scope and focus.

(3)  $\llbracket \textit{even} \rrbracket (C)(p)(w)$  presupposes  $\exists q \neq p \in C$  s.t.  $q(w)=1$  and  $p$  is the least likely/expected in C

While we take the scope of *even* to be the whole conditional in both standing-if and introduced-if conditionals, we propose that the two types of conditionals differ in the type of focused constituents *even* associates with (c.f. Lycan 2001): in standing-if conditionals the focus of *even* is any sub-constituent contained in the *if-clause*, while in introduced-if conditionals it is a head, possibly located in the CP, where emphasis on the polarity (affirmative or negative) of the complement is marked (compare with Laka (1990)’s YES/NO marked complementizers, and with VERUM in Hoehle 1982, and Creswell 2000, but see Romero and Han 2004 for a different view on VERUM). The latter assumption is shown to be sufficient to explain the apparent factivity of introduced-if conditionals, its counterexamples, as well as its absence in standing-if ones.

**Introduced-If.** Although *even* always associates with a focus, the intonational patterns of introduced-if conditionals fail to univocally indicate the position of its focus, unless they contain sentential negation in the antecedent, in which case it is the negation that is stressed:

(4) *Even if the bridge had NOT/HADN’T collapsed, I would not cross.*

We take this as an indication that the focus of *even* in (1) is an unpronounced polarity head hosting the one place identity truth-function AFF ( $\lambda t.t$ ), as shown in (5):

(5) LF: Even [if [AFF]<sub>f</sub> the bridge was standing, I would not cross.]

Since negation is the only plausibly relevant alternative of the same semantic type as AFF, focus on AFF generates the set of alternatives in (6). As a consequence, the focus value of the whole sentence in (1) is the set in (7):

(6)  $\llbracket \textit{AFF} \rrbracket^f = \{\lambda t.t, \lambda t.t=0\}$

(7) {if the b. was standing I wouldn’t cross, if the b. wasn’t standing, I wouldn’t cross}

In (8) we illustrate the assertion (a) and the presuppositions (b, c) the analysis predicts for (1):

- (8)a. **Assertion:** if the bridge was standing I would not cross  
 b. **Scalar Presupposition:** “if the bridge was not standing I would not cross” is more likely to be true than “if the bridge was standing I would not cross”  
 c. **Existential Presupposition:**  $\exists q \in (7) \text{ s.t. } [q \neq (8a) \ \& \ q \text{ is true}]$   
 $\Leftrightarrow$  the proposition “if the bridge was not standing, I would not cross” is true

The truth of *I would not cross* follows logically from the conjunction of the assertion and the existential presupposition, since ((if p then q) & (if not p then q)) entails q.

We analyze apparent counter-examples like (9) in terms of context-shift (c.f. Fintel 1999):

- (9) *I will be polite even if you insult me, but I won't be polite, if you insult my wife.* (Lycan)

The consequent of the first conjunct is implied in a context where you do not insult my wife and what is under discussion is whether you insult me. The context shifts in the second conjunct and insulting my wife becomes a possibility. Context-shift is what prevents a contradiction.

**Standing-if.** In (2) the focus of *even* is *one ounce*, thus *even* quantifies over the set in (10).

- (10)C= {If he drank two ounces of whiskey he would be fired, If he drank three ounces of whiskey he would be fired, ... , If he drank one pint of whiskey he would be fired, ...}

Because the focus here does not generate a two-membered set of the kind we had in (7), no implication regarding the truth of the consequent is expected.

**Comparison with Previous Accounts.** Two previous attempts to provide a compositional account of (1) and (2) in terms of *even* and its focus inspired our proposal: Bennett (1982) and Lycan (2001). Our analysis presents two important advantages over these previous attempts: 1. unlike Bennett, we assume that ordinary mechanisms of focus association for *even* operate not only in standing-if but also in introduced-if conditionals and 2. unlike Lycan, who needs to attribute to *even* universal force, we adopt an independently justified semantics of *even* (c.f. Horn 1969, Karttunen & Peters 1979, Lahiri 1998, Guerzoni 2003 etc.).

**Crosslinguistic Evidence:** *Even-if* Conditionals in Languages other than English typically employ additive particles equivalent to *also* (German *auch wenn*, Italian *anche se*). This offers indirect support to the idea that their factivity is a by-product of an existential presupposition.

**Further Predictions.** Our proposal essentially views introduced-if conditionals as special cases of standing-if, where the focus of *even* happens to generate a two-membered set of polar opposite alternatives. Given this, we make the prediction that also cases where focus is overtly signaled on an element inside the *if* clause, whose only semantically possible alternative is its polar opposite, should be perceived as factive. (11) suggests that the prediction is correct.

- (11) *Even if you placed it INdoors, this plant will die.*  $\Rightarrow$  This plant will die.

**Selected References** BENNETT, J.1982, ‘Even if’, *L&P* 5. CRESWELL, C.2000, ‘The Discourse Function of Verum Focus in Wh-Questions’, *NELS* 30. FINTEL, VON K. 1999. ‘NPI Licensing, Strawson Entailment, and Context Dependency’. *Journal of Semantics*, 16(2). GUERZONI, E. 2003 *Why “Even” Ask*. Ph. D. Dissertation, MIT. LAHIRI, U. 1998 ‘Focus and Negative Polarity in Hindi’, *NALS* 6(1). LAKA, M. I. 1991. *Negation in Syntax*, Ph. D. Dissertation, MIT. LYCAN, W. J.(2001), *Real Conditionals*, Oxford University Press. POLLOCK, J. 1976 *Subjunctive Reasoning*. Dordrecht. ROMERO, M. AND C-H. HAN 2004, On negative *yes/no* questions, *L&P*.