

## Don't panic: the inverse reading of "most" conditionals

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Kratzer (2013) points out a surprising 'reversed' reading for some quantified indicative conditionals (QICs) in contexts where their antecedents are focused and their consequents are backgrounded.

- (1) a. *You*: Did you see kids using calculators in your son's class yesterday? What did they use them for?

*Me*: **Most kids used calculators<sub>top</sub> if they had to do long divisions<sub>foc</sub>**.

- b.  $\sim$  *The majority of kids who used calculators were ones who had to do long divisions.*

Kratzer uses (1) to support a startling conclusion about the structure of QICs in general (see 3): their logical form contains a (material) conditional operator which scopes under the quantifier. The perceived interpretation, on which (2a) and (2b) are paraphrases, then arises non-compositionally via pragmatic restriction of the wide-scope quantifier, plus an embedded application of *conditional perfection*. (1) can be analyzed similarly: crucially, the 'reverse' reading arises from the fact that it is the consequent, rather than the antecedent, of the embedded conditional, that provides the pragmatic domain-restriction.

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| <p>(2) a. Every one will fail if they goof off.</p> <p>b. No one will pass if they goof off.</p> | <p>(3) a. All <math>x</math>[person(<math>x</math>)] [goof-off(<math>x</math>) <math>\rightarrow</math> fail(<math>x</math>)]</p> <p>b. No <math>x</math>[person(<math>x</math>)] [goof-off(<math>x</math>) <math>\rightarrow</math> fail(<math>x</math>)]</p> |
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This analysis predicts that 'reverse' readings should be available for all QICs, not just those involving *most*, but the examples in (2), for instance, do not appear to permit these readings.

We propose that (1b) is just an instance of the 'relative' reading of *most*. We analyze *most* using the approach of Hackl 2009; *most* decomposes into the cardinal quantifier MANY (4a) and the focus-sensitive superlative morpheme *-est*, which can scope independently of its host (Heim 1999; 4b).

- (4) a.  $\llbracket \text{MANY}_{\text{card}} \rrbracket = \lambda d_n \lambda P_{et} \lambda Q_{et} . \exists x : P(x)[Q(x) \ \& \ |x| \geq d]$ , where  $n$  is the degree type
- b.  $\llbracket \text{-est} \rrbracket = \lambda C_{dt,t} \lambda P_{dt} . \exists d [P(d) \ \& \ \forall C \in \mathbf{C} [C \neq P \rightarrow \neg Q(d)]]$  where  $\mathbf{C}$  is a comparison class

On the assumption that *if*-clauses can restrict the domains of individual quantifiers semantically (just as they restrict the domains of modal quantifiers in Kratzer's influential 1986 analysis), (1) is assigned the logical form sketched in (5a). This produces the interpretation (5c), as desired.

- (5) a.  $\llbracket \text{-est } C \rrbracket [1[t_1\text{-many kids [used calcs if they had long-div}_F]]] \sim C]$
- b. *Alts*:  $\llbracket C \rrbracket \subseteq \{ \lambda d' . d'\text{-many kids used calcs if they had long-div,} \\ \lambda d' . d'\text{-many kids used calcs if they had decimals, } \dots \}$
- c.  $\exists d [\exists x : (\text{kid}(x) \ \& \ \text{long-div}(x)) [\text{calc}(x) \ \& \ |x| \geq d] \ \& \\ \forall C \in \llbracket \mathbf{C} \rrbracket [C \neq \lambda d' . \exists x : (\text{kid}(x) \ \& \ \text{long-div}(x)) [\text{calc}(x) \ \& \ |x| \geq d'] \rightarrow \neg C(d)]] \\ \sim \# \text{ of calculator-using long-div kids} > \# \text{ of calculator-using kids doing other problem types}$

This analysis allows us to avoid postulating a lexical ambiguity between a restrictor *if* (for modally-quantified conditionals), and the material implication in (3), by building on independent evidence for LF (5a), focus-sensitive comparison class construction (5b), and the lexical entries in (4) (see also Romero 2015).

The additional assumption required for (5c), that *if*-clauses can restrict individual quantifiers, is motivated in large part by the fact that it provides a unified semantic interpretation rule for QICs and explicitly (or covertly) modally-quantified conditionals. More broadly, this extended restrictor analysis (cf. Leslie 2009) promises to address a well-known problem in which the conditionals (3a) and (3b) have resisted a compositional analysis that reflects their intuitive equivalence (Higginbotham 1986).