

Modal flavor and quantificational force in free relatives with -ever

INTRODUCTION. This paper is about the interaction of modal flavor (ignorance or indifference) and quantificational force (definite or universal) in -ever free relatives (EFRs). The goal is to provide a new empirical observation about EFRs, with an explanation that derives all and only their possible readings.

MODAL FLAVOR. von Stechow (2000) demonstrates that -ever can convey either ignorance or indifference. **1** has an ignorance reading (speaker doesn't know what Arlo is cooking), while **2** has an indifference reading (Zack voted indifferently: if someone else had been at the top of the ballot, he would have voted for that person). I assume von Stechow's analysis, given in **3**, in which -ever introduces a presupposition of variation over the denotation of the free relative (a definite expression) across possible worlds. When the modal base **F** is epistemic, variation results in the ignorance reading; a counterfactual modal base yields indifference. (So a single EFR potentially has two readings. **1-2** are designed to yield one or the other.)

QUANTIFICATIONAL FORCE. Dayal (1997) addresses the question of quantificational force, exemplified in the contrast in **4-5**. It has been variously argued that EFRs are definite descriptions (Jespersen 1927, Jacobson 1988, Grosu & Landman 1998), that they are universals (Bresnan & Grimshaw 1978, Larson 1987, Tredinnick 1994, Iatridou & Varlokosta 1995), and most recently, by Dayal, that they are definites that can acquire the properties of universals in generic contexts. I will argue that a version of this last position is correct. von Stechow's formulation in **3** preserves the analysis of EFRs as definites, but he doesn't address the relationship between modal flavor and quantificational force.

A NEW EMPIRICAL OBSERVATION. I show that while indifference EFRs can behave like definites or like universals, ignorance EFRs cannot behave like universals and always behave like definites even in generic contexts. Like ordinary universals, indifference EFRs allow modification by *almost*, can take scope under negation, and license NPIs. The ignorance EFR in **6** is ungrammatical with *almost*; **6** is acceptable only if interpreted as an indifference EFR, as with B's responses in **7**. EFRs, like universals, can scope under negation: **8** shows readings corresponding to both scope orders; the narrow scope reading in **8b** has the indifference reading only. The EFRs in **9** license NPIs, but on the indifference reading only.

HOW ARE UNIVERSAL EFFECTS GENERATED IN INDIFFERENCE EFRS? Dayal proposes that universal effects arise when the EFR (a definite expression: $\lambda x.P(x,s)$) is in the nuclear scope of the generic operator GEN, which binds the situation variable s , yielding a possibly different referent for the EFR in each s . I argue that, when that happens, the presupposition of indifference is accommodated in the nuclear scope of GEN where its situation variable is also bound by GEN. Consider this scenario for **10**: Zack casts 8 ballots and in all 8 votes for the name on top. He votes indifferently 7 times. The 8th time, he considers the candidates carefully, weighs their relative merits and then casts his vote for the name at the top. In this scenario, **10** is true with -ever but false without it, as shown in **11** where indifference is accommodated in the nuclear scope: "Usually but not always, on election day Zack voted for the person at the top of the ballot and if someone else had been there, he would have voted for that person (he voted indifferently)".

WHY AREN'T UNIVERSAL EFFECTS GENERATED IN IGNORANCE EFRS? If the EFR in **12** is understood under the scope of GEN (possibly different winners for different occasions), then it can convey indifference ("in those days, for each s : a kid gave in s roses to the person who won in s regardless of that person's identity") but not ignorance ("in those days, for each s : a kid gave in s roses to the person who won the race in s and I couldn't tell you who won in any of those situations"). If it has an ignorance reading at all, it is one with ignorance interpreted outside of GEN ("there was someone who used to win the race, I don't know who it was, but in those days a kid gave roses to that person"). Why can't we write a formula for an ignorance reading of **12** that is parallel to the one for the indifference reading of **10**? It has been argued that German *ja* (Kratzer 1999) and other epistemic items (von Stechow & Iatridou 2003) introduce a situation variable that is indexical to the actual situation variable s_0 and hence cannot be bound by intermediate operators, as in **13**, with one exception: attitude verbs can bind that variable, as in **14**. I propose that EFRs, when epistemic, are such items. This means that in **12** a presupposition of ignorance would project to the top, as in **15**. In the assertion, $\lambda y.\text{win}(y,s_0)$ must contribute the same s_0 as the presupposition of ignorance, and so it is not bound by GEN either. Furthermore, note that the attitude verb *suspect* in **16** allows us to obtain a reading under which the attitude subject Pascal serves as the locus of ignorance, where the epistemic presupposition is accommodated and bound under the attitude verb.

- 1 From that smell, I can tell there's a lot of garlic in whatever Arlo is cooking over there... *namely, soup.
- 2 Since he was in a rush, Zack simply voted for whoever was at the top of the ballot...namely, Rita.
- 3 The expression *whatever*(w)(F)(P)(Q) presupposes $\forall w' \in \min_w [F \cap (\lambda w'. \text{tx.P}(w')(x) \neq \text{tx.P}(w)(x))]$: $Q(w')(\text{tx.P}(w')(x)) = Q(w)(\text{tx.P}(w)(x))$ and asserts $Q(w)(\text{tx.P}(w)(x))$.
- 4 Everyone who went to whatever movie the Avon is now showing said it was boring. (= the movie...)
- 5 John will read whatever Bill assigns. (= everything/anything Bill assigns)
- 6 (*)There's a lot of garlic in almost whatever dish Arlo is cooking. ***ignorance, $\sqrt{\text{indifference}}$**
- 7 A: Thanks for your help. You did whatever I asked you to.
B: Well, I did almost whatever you asked me to/That's because almost whatever task you gave was easy
- 8 a. I didn't like whatever books Sue ordered; not a single one pleased me. **$\forall \gg \neg$: ign/ind**
b. I didn't like whatever books Sue ordered, but I liked most of them. **$\neg \gg \forall$: indifference only**
- 9 a. Kay sent a letter to whoever was the least bit inclined to care about the problem. **ind. only**
b. John read whatever story his father ever sent him. **indifference only**
- 10 Usually but not always, Zack voted for who(ever) was at the top of the ballot.
- 11 $\lambda s_0 \text{ MOSTs} \leq s_0$ [election-day(s)] [$x=\text{Zack} \wedge \text{vote}(x, \text{ty.top-of-ballot}(y, s_0), s_0) \wedge \forall s' \in \min_s [F \cap \lambda s' [\text{ty.top-of-ballot}(y, s') \neq \text{ty.t-o-b}(y, s)]] \rightarrow \text{vote}(x, \text{ty.t-o-b}(y, s'), s') = \text{vote}(x, \text{ty.t-o-b}(y, s_0), s_0)]$]
- 12 In those days, a kid gave roses to whoever won the Tour de France. **$\sqrt{\text{ind}}/(*\text{ignorance}$**
- 13 Jeder von diesen Arbeitern hat seinen Job verloren, weil er (*ja) in der Gewerkschaft war.
each of those workers has his job lost because he JA in the union was
- 14 Jederder Zeugen behauptete, er habe ja mit eigenen Augen gesehen, dass...
each of the witnesses claimed he had JA with own eyes seen that
- 15 $\forall s' \in \min_s [F \cap \lambda s' [\text{ty.win}(y, s') \neq \text{ty.win}(y, s)]] \rightarrow [\exists x [\text{kid}(x, s) \wedge \text{give-roses}(x, \text{ty.win}(y, s'), s') = \text{give-roses}(x, \text{ty.win}(y, s_0), s_0)]] \wedge \lambda s_0 \text{GENs} \leq s_0$ [day-at-TDF(s)] [$\text{give-roses}(x, \text{ty.win}(y, s_0), s_0)$]
- 16 Pascal correctly suspected that whatever he was eating was not vegetarian.

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