

# MORE ON THE SEMANTICS OF FREE RELATIVES WITH -EVER

Victoria Tredinnick

Department of Linguistics  
University of Pennsylvania, Philadelphia PA, USA

## 1. INTRODUCTION

This paper is about the interaction of two aspects of the semantics of -ever free relatives (EFRs): their modal flavor (ignorance or indifference) and their quantificational force (definite or universal).

Free relatives with -ever have readings that are not available to their plain free relative (PFR) counterparts. The sentence in (1) has an “ignorance” reading: the speaker doesn’t know what Arlo is cooking. The sentence in (2), on the other hand, has an “indifference” reading: I didn’t care what I grabbed.

- (1) There’s a lot of garlic in whatever Arlo is cooking ... \*namely, tomato soup.
- (2) I needed a paperweight, so I grabbed whatever was on the desk ... namely, a stapler.

An EFR can be ambiguous between ignorance and indifference readings. The sentences in (1) and (2) are designed to bring out one or the other reading. The two readings do not cooccur. For instance, under the indifference reading of (2), I may very well have known that what I was grabbing was a stapler. The continuations above show that only the indifference EFR is compatible with speaker providing the identity of the thing in question. Contrast the sentences above with their PFR counterparts in (3) and (4).

- (3) There’s a lot of garlic in what Arlo is cooking.
- (4) I needed a paperweight, so I grabbed what was on the desk.

Neither of these sentences implies ignorance or indifference. Instead, they are straightforwardly paraphrased with definite descriptions: “there’s a lot of garlic in the thing Arlo is cooking” and “I grabbed the thing on the desk.”

Iatridou & Varlokosta (1995:122) propose that -ever is a modal operator:

In the speaker’s ignorance reading, *whatever* quantifies over epistemic worlds. So in a sentence like “whatever I cooked is green” on the reading “whatever it is that I cooked, it is green,” *whatever* quantifies over the worlds that are compatible with the thing that I cooked being green. Such worlds include this thing being green and a tomato, it being green and a potato, etc.

The interpretive effect is straightforward: variation over an agent’s epistemic alternatives is interpreted as agent’s ignorance at the point of variation. It is this basic idea, that the variation imposed by -ever involves quantification over possible worlds, that informs our current understanding of EFRs as modal constructions.

It has long been argued that free relatives have the semantics of definite descriptions, not universals, regardless of whether -ever is present (Jacobson 1988, Grosu & Landman 1998, Dayal 1997). In particular, PFRs pass a range of tests that are widely considered to be diagnostic of definiteness. But with EFRs the case is not so clear. EFRs often appear to be universally quantified expressions. Notice that the EFRs in (1) and (2) have readings that can be (loosely) paraphrased with *every*:

- (5) “There’s a lot of garlic in everything Arlo is cooking.”
- (6) “I needed a paperweight, so I grabbed everything on the desk.”

In addition to these observations about paraphrase, EFRs can also behave like universals according to certain diagnostics such as the licensing of NPIs (data are presented in Section 3.2). These facts require an explanation in light of the claim that free relatives are definite descriptions. Through the course of this discussion, it will become apparent that whether an EFR conveys indifference or ignorance must be seen as a separate question from whether it

behaves as a definite or a universal. Although modal flavor and quantificational force are often conflated, the two phenomena are distinct and require different explanations.

## 2. MODAL FLAVOR: IGNORANCE AND INDIFFERENCE

### 2.1 von Fintel (2000)

Any analysis of the semantics of *-ever* rests on a pretheoretical analysis of its contribution to the meaning of the sentence in which it appears. von Fintel (2000) takes the readings in (1) and (2) as a core phenomenon upon which he bases his analysis of the morpheme *-ever*, given here in (7). This is the analysis that I will adopt.

(7) *whatever* (w)(F)(P)(Q)

presupposes:  $\forall w' \in \min_w [F \cap (\lambda w'. \lambda x. P(w')(x) \neq \lambda x. P(w)(x))]$ :  $Q(w')(\lambda x. P(w')(x)) = Q(w)(\lambda x. P(w)(x))$

asserts:  $Q(w)(\lambda x. P(w)(x))$

In (7), *whatever* is a relation between (i) the world of evaluation *w*, (ii) a modal base *F*, (iii) *P*, the expression formed by abstracting over *whatever* in the free relative, and (iv) *Q*, the expression formed by abstracting over the free relative in the matrix. *Whatever* presupposes that [in all worlds *w'* differing minimally from the world of evaluation *w* in the following respect: *w'* is in the intersection of (i) the set of worlds constituting the modal base and (ii) the set of worlds *w'* in which the identity of *x* in *w'* is different from the identity of *x* in *w*], [the proposition *Q(P(x))* has in *w'* whatever truth value it has in *w*]. The operator *min* is a conditional operator that ensures that the domain is non-empty and that the worlds quantified over are minimally different from one another.

Thus, von Fintel interprets (1) as follows: Assertion: “There’s a lot of garlic in the thing Arlo is cooking.” Presupposition: “In all of the minimally different *F*-worlds [speaker’s epistemically accessible worlds] where Arlo is cooking something different from what he is actually cooking, there’s the same amount [a lot] of garlic in what he is cooking.” Or, in other words, I don’t know what Arlo is cooking. And (2) is interpreted as follows: Assertion: “In *w*, Bill grabs the thing that’s on the desk in *w*.” Presupposition: “In all worlds *w'* minimally different from *w* in which something different is on the table, Bill grabs that thing iff in *w* he grabs the thing on the table in *w*.” Or, in other words, if something else had been on the desk, he would have grabbed that.

Alternatively, the modal base *F* may be construed as the epistemically accessible worlds of an attitude subject. von Fintel points out that while (8) has a speaker’s ignorance reading, it also has a reading under which it is Pascal, the subject of the intervening attitude predicate *suspect*, who didn’t know what he was eating.

(8) Pascal suspected that whatever he was eating was not vegetarian.

*Whatever* presupposes variation in the modal base *F* with respect to the referent of  $\lambda x. P(x)$ . *F* is a function from worlds to propositions (construed as sets of worlds) that yields the set of worlds where all the propositions assigned to *w* by the modal base *F* are true. This approach provides a unified semantics for *-ever*. When the modal base is epistemic, variation results in the ignorance reading. It results in the indifference reading when the modal base is counterfactual. The formulation in (7) uses the independently existing semantics for epistemic and counterfactual modality to provide the type of variation necessary to interpret *-ever* on both its readings.

In (7), *x* is bound under an iota-operator. An EFR makes the same contribution to the assertion as its PFR counterpart, which always has the semantics of a definite expression. The addition of *-ever* signals that a (minimal) variation in the identity of  $\lambda x. P(x)$  does not affect the truth of the matrix sentence in *w*. This account of *-ever* preserves the analysis of free relatives as definite expressions. However, von Fintel does not address the question of exactly what the relationship is between modal flavor and quantificational force.

### 2.2 Counterfactual entailments

Under the indifference reading, the sentences in (9) and (10) have counterfactual entailments. The counterfactual entailment in (9) is that if Mary had bought something other than what she did, John would still be happy with it. (10) says that if Bill had cooked something else, Mary would have eaten it.

- (9) Whatever Mary bought, John was happy with it.  
 (10) In those days, Mary ate whatever Bill cooked.

In this respect, indifference EFRs show the same behavior as relative clauses with *any*. Kratzer (1989), citing Vendler (1962), observes that in (11), *every* is associated with an “accidental” interpretation of the universal whereas *any* in (12) has a generic interpretation. Accordingly, (12) has a counterfactual entailment that (11) lacks. The sentence in (12) entails that if I were a doctor, I would tell you what to do, while (11) with *every* does not. Put another way, in (12) there is an essential connection between being a doctor and telling you what to do. In (11), the connection is an accidental one.

- (11) Every doctor will tell you what to do.  
 (12) Any doctor will tell you what to do.

The analysis of indifference EFRs in (7) is based on the observation that they have a counterfactual semantics. The following examples from von Stechow further illustrate this property of indifference EFRs.

- (13) Zack simply voted for whoever was at the top of the ballot, and if a different person had been at the top of the ballot, Zack would have voted for that person.  
 (14) I had no time to play around, so I grudgingly used whatever email program was installed on the computer, and if a different email program had been installed, I would have used that one.

In Section 5, I argue that it is the counterfactual entailment alone, and not necessarily the presence of an indifferent attitude on the part of some agent, that characterizes indifference EFRs.

### 3. QUANTIFICATIONAL FORCE

In this section, I examine the quantificational force of EFRs in light of the ignorance/indifference dichotomy and focus on separating out the two dimensions. The picture that emerges as a result of this investigation is that only indifference EFRs can behave like universals. Both kinds of EFRs, however, can behave like definites.

Jespersen (1927), among many other authors, consistently uses definites such as *that which*, *the thing*, and *the person* to paraphrase PFRs. Of EFRs he says, “...in the ordinary grammars these pronouns are given as a separate class, termed *indefinite relative pronouns*. There is, however no reason why they should be set up as a class by themselves: they are not more indefinite in their meaning than the simple *who* or *what*” (p.64). But EFRs are so frequently susceptible to paraphrase with *every* that not surprisingly there is a view that takes them to be fundamentally universal expressions. Bresnan & Grimshaw (1978:335) represent the traditional analysis in this respect: “The interpretation of the bound morpheme *-ever* of free relatives seems to involve universal quantification in the domain specified by the *wh*-phrase.”

#### 3.1 The shape of the *wh*-phrase

(15a) is unspecified for number because it lacks an overt sortal. The EFRs in (15b-c) contain the sortal *pastry(ies)*. Taking into account both modal force and number, (15a) thus has four interpretations, shown in (16).

- (15) a. I ate whatever he ordered for dessert.  
 b. I ate whatever pastry he ordered for dessert.  
 c. I ate whatever pastries he ordered for dessert.
- (16) a. “I ate the thing he ordered for dessert, but I don’t know what it was.”  
 b. “I ate the things he ordered for dessert, but I don’t know what they were.”  
 c. “I ate the thing he ordered for dessert, and if he’d ordered a different thing, I would have eaten that.”  
 d. “I ate the things he ordered for dessert, and if he’d ordered different things, I would have eaten those.”

This is nothing more than a straightforward implementation of the view that free relatives are definites. It is important to note that number (singular, including mass, and plural) is irrelevant to the phenomena I discuss here. It affects neither the ignorance/indifference dichotomy nor the ability of the EFR to be universally quantified.

### 3.2 Only indifference EFRs can acquire the properties of universals

The view that free relatives are definites is argued for at length by Jacobson, who reaches this conclusion in part by arguing that free relatives never exhibit the behavior of universals. But this position is too strong. EFRs do sometimes behave like universals, a phenomenon that extends beyond mere paraphrase. In particular, we must look carefully at what interpretation the EFR is receiving when it behaves like a universal. It is perhaps not surprising that Jacobson finds across the board that EFRs do not behave like universals, because she focuses on ignorance as the sole contribution of *-ever*. In this paper, with the benefit of a clear distinction between ignorance and indifference readings, we control for this factor. I will show that only indifference EFRs can acquire the properties of universals; ignorance EFRs do not behave like universals.

Universals ordinarily allow modification by adverbs such as *almost*, *nearly*, and *practically*. Jacobson provides the following judgment (this is her example (79)).

(17) \*For years, I did nearly/almost whatever you told me to do.

The EFR with *nearly/almost* in (17) is greatly improved if it is interpreted as an indifference EFR, like the one in (18). The same effect cannot be achieved with the ignorance reading.

(18) Bill: Thanks for your help. You did whatever I asked you to.  
Susan: Well, I did almost whatever you asked me to. /  
That's because almost whatever chore you asked me to do was easy.

Grosu & Landman (1998:160) observe that EFRs can QR out of partitives. Both definites, as in (19), and EFRs, as in (20), allow for a distributed reading ("take a proposal: three-quarters of it will be vetoed") and a collective partitive reading ("of the proposals, three-quarters won't make it"). The ordinary universal in (21) has only the distributed reading. On the distributed reading, the complement of the partitive phrase must QR. The collective partitive reading obtains when the complement of the partitive phrase remains in situ.

(19) We will veto three-quarters of *the proposals you make*.  
(20) We will veto three-quarters of *whatever proposals you make*.  
(21) We will veto three-quarters of *every proposal you make*.

When the EFR in (20) is construed as an indifference EFR, it cannot have the collective partitive interpretation. That reading is available only with an ignorance EFR as in (22), not with an indifference EFR as in (23) (as informants note, take care not to substitute a reading of (23) under which ignorance is attributed to *they* in the lower clause).

(22) I don't have the list here, but I do recall that they vetoed three-quarters of whatever proposals you made.  
(23) I have your proposals here; I see that they simply vetoed three-quarters of whatever proposals you made.

The same readings obtain with a null sortal as in, e.g., *they vetoed half of whatever you submitted*. (The singular *whatever proposal* effectively rules out a collective reading by making it trivial.)

Ordinary universals can take scope under negation. This narrow scope reading is the one brought out by the continuation in (24b). In the (a) sentence, the universal takes widest scope. As shown in (25), PFRs behave just like ordinary definites. Neither allows the narrow scope reading brought out by the continuation in the (b) sentence.

(24) a. I didn't like every book/all the books Sue ordered; not a single one pleased me. ( $\forall \gg \neg$ )  
b. I didn't like every book/all the books Sue ordered, but I liked most of them. ( $\neg \gg \forall$ )  
(25) a. I didn't like what books/the books Sue ordered; not a single one pleased me.  
b. \*I didn't like what books/the books Sue ordered, but I liked most of them.

Dayal points out that EFRs, like universals, can scope under negation: (26) has readings corresponding to both scope orders. Notice also that the EFR in (26a) has both ignorance and indifference readings, but (26b) has the indifference reading only (as with *every* in (24b), putting stress on *-ever* helps here). That is, the narrow scope reading is available only to indifference EFRs.

- (26) a. I didn't like whatever books Sue ordered; not a single one pleased me.  
 b. I didn't like whatever books Sue ordered, but I liked most of them.

With respect to NPIs, EFRs again appear to pattern with universals. The EFRs in (27) license NPIs.

- (27) a. Whoever is the least bit inclined to care about this problem is going to be disappointed with the outcome.  
 b. In those days, he got into trouble for whatever he ever said.

These EFRs license NPIs, but on the indifference reading only. It is interesting to note that the NPI *the hell* is fully acceptable under both readings, as in, e.g., *I agree with whatever the hell you just said*. Notice that this NPI differs from others in that it occurs inside the *wh*-phrase, that is, in the restriction.

Specificational pseudoclefts allow definites, but not universals, in precopular position. The standard observation is that only plain free relatives can appear in specificational pseudoclefts, whereas predicational pseudoclefts allow both plain and -ever free relatives.

- (28) What(\*ever) John is is proud. SPECIFICATIONAL  
 (29) What(ever) John is is worthwhile/rare. PREDICATIONAL

The free relative in (28) is ungrammatical in the presence of -ever, and this is true whether it is an ignorance or an indifference EFR. If free relatives are definites, the prohibition in (28) is puzzling. Dayal explains the prohibition on -ever in specificational pseudoclefts by pointing out that the requirement that the identity of  $\lambda x.P(x)$  be unknown is incompatible with the semantics of the pseudocleft in (28), because its identity is explicitly given by the postcopular element. von Stechow makes the correct prediction for both readings of the EFR in (28). Under the ignorance reading, the story is the same as the one given by Dayal. Under the indifference reading, a similar problem arises. The semantics we have assigned to (28) makes the impossible prediction that in all counterfactual worlds differing minimally with respect to what property John has, John has the same property.

On the basis of data from specificational pseudoclefts, Iatridou & Varlokosta argue that EFRs are universals. They report the following judgment (this is their (22)):

- (30) \*Whatever I like about John is not his sense of humor.

With respect to (30), they note "specificational pseudoclefts with *whatever* are ungrammatical not only on the conditional reading of *whatever*, but also on its speaker's ignorance reading. ... We argue that this is still the result of the quantificational force of *whatever*. ... In other words, *whatever* retains its quantificational force on the speaker's ignorance reading and therefore on this reading it cannot participate in the formation of specificational pseudoclefts" (p122-3). In a footnote, they observe that some speakers allow (30) on the ignorance reading. This is my judgment as well. In short, (30) does not show that EFRs as a whole are universals. With regard to (30), notice that the postcopular constituent is negative (it characterizes the set whose members are not John's sense of humor). The semantics of specificational pseudoclefts outlined above predicts that (30) is grammatical, because this means of characterizing a property is consistent with ignorance of its identity. The prediction is that (30) is grammatical only on the ignorance reading. I believe this is in fact the case.

We have established that when EFRs behave like universals, it is on the indifference reading only. In the next section, we look at the source of the universal effects.

### 3.3 EFRs, free choice readings, and genericity

Jespersen (1927:62) writes that the semantic contribution of the suffix -ever is to indicate "the generic meaning (i.e. indifference of choice)." Elliott (1971) is apparently the first to describe the ignorance reading and to point out that EFRs can have multiple readings. He gives the following example and paraphrases (p.92):

- (31) He gave a present to whoever came through the door.  
 a. "He gave a present to whoever it was that came through the door."  
 b. "He gave a present to everyone who came through the door."

Elliott describes (31a) as a “lack of knowledge” use and (31b) as a generic use of the EFR (Tredinnick 1994 offers up similar paraphrases). In our terms, (31a) contains an ignorance EFR and (31b) contains an indifference EFR. In addition, notice that the paraphrase in (31b) uses *every*. Elliott considers ignorance to be at the heart of both (31a) and (31b). Subsequent work by Jacobson and by Dayal also treat ignorance as basic to -ever. Specifically, they do not recognize the existence of indifference EFRs as we describe them here. Iatridou & Varlokosta contrast ignorance readings with what they call a “conditional” reading and Dayal contrasts ignorance with a “free choice” reading, but in both cases these are exclusively associated with a universal-like interpretation as in (31b).

In Tredinnick (1994), I list a number of environments in which EFRs are interpreted as universally quantified, including habitual present tense, future *will*, modal contexts, and with adverbs of quantification. Here, I will follow Elliott and Dayal, and to some extent Jespersen, in attributing the universal effects to a generic context. However, we have seen that this is not the only factor influencing the interpretation of EFRs as universals. We must also take into account modal flavor. In the end, it turns out that while indifference EFRs can be bound under the generic quantifier, ignorance EFRs cannot. Ignorance EFRs thus surface in episodic contexts only, whereas indifference EFRs can appear in both episodic and generic contexts.

The pretheoretical characterization of the data that Dayal seeks to explain is embodied in the distinction between what she calls “identity” and “free choice” (FC) readings. She gives (32) and (33) as paradigm examples of the relevant contrast (p.99).

- (32) Everyone who went to whatever movie the Avon is now showing said it was boring. (= the movie...)  
 (33) John will read whatever Bill assigns. (= everything/anything Bill assigns)

In (32)-(33), there is an explicit association of the identity free relative (our “ignorance” EFR) with a definite expression. The FC free relative is associated with a reading that is paraphrased with *every* or *any*. While this use of “free choice” is probably very close to our notion of indifference (cf. also Jespersen’s characterization “indifference of choice”), the two are different at least in that for Dayal the FC free relative is always universal-like in interpretation. Central to Dayal’s analysis is the observation that (33) differs from (32) in that it is a generic. She attributes the FC reading solely to the universal contributed by the generic context. Under Dayal’s analysis, the FC free relative is derived from the identity free relative. In short, she argues that the basic meaning of -ever (i.e., ignorance) combines with genericity to yield the FC free relative in (33).

Her analysis is similar to Elliott’s in a number of ways. Both recognize the dual character of EFRs along the definite/universal dimension. The paraphrases given in (32)-(33) describe a contrast similar to the one in (31). And both attribute the universal effect to the effect of a generic context (Elliott describes such free relatives both as “generic” and as “nonspecific”). Both analyses seek to present a unified analysis of -ever, and this is done by providing a constant semantics for -ever that centers on ignorance. Such a view incorrectly treats quantificational force as the sole phenomenon driving the multiple interpretations available to EFRs.

Dayal’s position is thus that “there is no formal dichotomy between the two [readings]” (p.13). In support of this she remarks that in cases such as (34) “it is hard to unequivocally classify the reading as identity or FC.”

- (34) Mary cooked several dishes yesterday. Whatever she cooked had onions.

But, in fact, it is clear that the EFR in (34) is simply ambiguous between ignorance and indifference readings. This is expected under the view espoused here, where the fundamental ambiguity of -ever derives from the modal base.

### 3.4 Predictions

Taking into account the two dimensions of modal flavor and quantificational force, a sentence containing an EFR potentially has four interpretations. In (35), -ever can indicate either ignorance or indifference. In addition, the sentence can be interpreted as episodic (yesterday’s election) or generic (John’s voting over multiple elections). Episodic interpretations for (35) are given in (36), and generic interpretations are in (37). The presupposition of ignorance/indifference is represented in italics. Three of these interpretations are readily available. However, the reading that corresponds to an ignorance EFR in a generic context, (37a), gives us some trouble. If a reading is available, it is one in which the presupposition is interpreted outside of the generic quantifier (“generally”).

- (35) Zack voted for whoever was at the top of the ballot.
- (36) a. Ignorance: *I don't know who was at the top of the ballot*, but Z. voted for the person at the top of the ballot.  
 b. Indifference: Z. voted for the person at the top of the ballot, *and if someone different had been at the top of the ballot, he would have voted for that person.*
- (37) a. Ignorance: \*Generally, if Z. voted for someone, he voted for the person at the top of the ballot, *but I don't know who it was in any of those cases. / ??There was one person who Z. would always vote for, I don't know who it was, but generally, each time that he voted, he voted for the person at the top of the ballot.*  
 b. Indifference: Generally, if Z. voted for someone he voted for the person at the top of the ballot, *and, in each case, if someone different had been at the top of the ballot, he would have voted for that person.*

The difficulty with (37a) is consistent with our observations about the relationship between the indifference reading and the universal-like behavior of EFRs. At the same time this is somewhat surprising, as the intended reading is otherwise easy to describe. (37) demonstrates informally that the presupposition of indifference can be bound under the generic quantifier, while the presupposition of ignorance cannot. We must explain this gap.

We also correctly predict that the available readings of (34) are as given in (38). (38a) and (38b) describe ignorance and indifference readings, respectively, interpreted in reference to yesterday's episode in which Mary cooked several dishes. A generic reading, given in (38c), is also available.

- (38) a. The things she cooked – *I don't know what they were* – had onions.  
 b. The things she cooked had onions, *and if she had cooked different things they would have had onions.*  
 c. Every situation  $s$  s.t. [Mary cooks a thing in  $s$ ] is a situation in which [the thing that Mary cooks in  $s$  has onions] *and, for each situation  $s$ , if Mary had cooked something different in  $s$ , it would have had onions.*

Following Carlson et al. (1995) and Fox & Sauerland (1996), I interpret the generic quantifier as a universal over situations. In the free relative, the sortal defines the size of the situation quantified over. In (42), *whatever* is unspecified for number. It can be interpreted with singular reference, so that the situation it defines is a subpart of the established episode in which Mary cooked several dishes. That “episode” is taken as the period of time over which the generalization is stated. The plural counterpart of (29c), in which *whatever* is taken to mean “whatever dishes,” is incoherent as a generalization. Such a reading would correspond to the case in which the situation quantified over is coextensive with the domain over which the generalization is stated. Instead, we have the episodic reading in (38b). Again, we must explain why there is no ignorance counterpart of (38c).

The bulk of this paper has been devoted to laying out a new picture of the EFR data. We have examined modal flavor, quantificational force, the interaction with generic contexts, and the contribution of the sortal. At this point, a number of questions are raised. Why don't PFRs acquire the behavior of universals in generic contexts? Clearly, the presence of the suffix *-ever* is necessary. Given that the presence of *-ever* allows a free relative to acquire universal behavior in generic contexts, how are the universal effects generated? Finally, we must explain why it is that, contrary to Dayal and Elliott, ignorance EFRs in fact cannot have universal-like interpretations.

#### 4. PRESUPPOSITION AND ACCOMMODATION

Dayal argues that EFRs can acquire the properties of universals in generic contexts, while PFRs cannot, because the modality introduced by *-ever* requires that they be interpreted as generalized quantifiers. Something along these lines is clearly required. Recall that Iatridou & Varlokosta suggested that EFRs always have the force of universals, even on ignorance readings. Under the analysis adopted here, however, the universal quantification associated with *-ever* is *presuppositional* in nature. Even if EFRs are sometimes of a different type than PFRs, the source of this difference is a presupposition. In this section, I argue that in the case of universally quantified indifference EFRs, the presupposition is accommodated locally.

What causes EFRs to behave like universals? In particular, why are both *-ever* and the generic operator necessary? Fox & Sauerland (1996) present the following interesting phenomenon regarding the scope of universal quantifiers in episodic and generic sentences. In the (a) sentences, the universals are in episodic contexts and have only narrow scope. In the (b) sentences, where the universals are in generic contexts, they can have wide scope.

- (39) a. When we entered the conference, a grad student was checking that everybody had a badge.  $(\exists \gg \forall, * \forall \gg \exists)$   
 b. At linguistics conferences, a grad student checks that everybody has a badge.  $(\exists \gg \forall, \forall \gg \exists)$

- (40) a. Yesterday, I gave a tourist every leaflet.  $(\exists \gg \forall, * \forall \gg \exists)$   
 b. In general, I give a tourist every leaflet.  $(\exists \gg \forall, \forall \gg \exists)$

It is surprising that quantifier scope should be dependent on episodicity. Their solution to this conundrum requires that generics quantify over situations. (39b) describes the set of situations in which a grad student checks everyone in that situation for a badge. Each situation in which a grad student checks for badges is in the set of situations described by (39b) just in case everyone in the situation is checked for a badge. In the above cases, then, wide scope of the universal is only apparent. Instead, wide scope of the generic causes the apparent wide scope of the universal, as in each situation there is a universal at work. Such a mechanism, namely, generic quantification over situations, would also explain the source of the universal effects acquired by the indifference EFRs in generic contexts, provided the presupposition is accommodated under the generic quantifier.

The problem in (37a) is related to another set of facts, namely, presupposition projection out of *unless*-clauses. von Stechow points out that in (41) speaker ignorance projects globally. But in (42), the presupposition is interpreted inside the *unless*-clause: Zack's indifference enters the truth conditions at the embedded level.

- (41) Unless there's a lot of garlic in whatever Arlo is cooking, I'll eat out tonight.  
 a.  $\neq$  "Unless there's a lot of garlic in the thing Arlo is cooking and I don't know what it is, I'll eat out tonight"  
 b. = "I don't know what Arlo is cooking, but unless there's a lot of garlic in it, I'll eat out tonight"
- (42) Unless Zack simply voted for whoever was at the top of the ballot, he must have spent at least 5 minutes in the voting booth.  
 a. = "Unless Z. indifferently voted for the person at the top of the ballot, he must have..."  
 b.  $\neq$  "It doesn't matter who was at the top of the ballot, but unless Z. voted for that person, he must have..."

Treating presupposition projection as a scopal phenomenon, von Stechow presents (41) as a problem for the presuppositional account: the presupposition of ignorance projects out of a strong island.

Let us assume instead that presuppositions are constraints on the input context in a dynamic semantics. This has the consequence that presuppositions are accommodated as a matter of course. Global accommodation is preferred, but it is prevented where it would create inconsistency or implausibility (Beaver 2001). In such cases, the presupposition is instead accommodated locally. The fact that the presupposition of indifference is accommodated locally in certain environments is then expected. Recall that (7) says that in all counterfactual worlds  $w'$  minimally different from the world of evaluation  $w$ ,  $Q(P(x))$  has the same truth value in  $w'$  that it has in  $w$ . This requirement creates an intuitive inconsistency when combined with the less restrictive demands of generic quantification, which ordinarily allows for exceptions. In *unless*-clauses, a similar problem of interpretation arises. The presupposition of indifference says that in all counterfactual worlds differing minimally with respect to who Zack voted for, he voted for the person at the top of the ballot. But the *unless*-clause requires us to consider cases in which Zack did not do so, cases that according to our presupposition cannot obtain. The resulting inconsistency/implausibility prevents global accommodation of the presupposition. Instead, it is accommodated locally within the embedded clause.

Now, what about the "ignorance" exception in (37a)? Why are ignorance EFRs never interpreted as universals? One explanation that we might pursue is that ignorance is accommodated globally because it is a presupposition and that is what presuppositions do. On the other hand, we might take a position that again has to do with the interpretive requirements imposed by the presupposition. Epistemic items have an argument position for an attitude-holder. For instance, the presupposition of ignorance in (7) must be calculated with respect to someone's epistemic worlds. Every ignorance EFR requires as part of its interpretation a *locus of ignorance*, that is, some agent who is ignorant of the identity of  $ix.P(x)$ . In the case of speaker ignorance in (37a), epistemic modality is indexical to the utterance situation. It may be that the inability of epistemic items to be bound under a generic stems from the impossibility of having a unique attitude-holder in each of those situations, as the speaker belongs exclusively to the utterance situation.

What happens when the locus of ignorance is not the speaker? Consider the reading of (43) under which



the attitude subject *Pascal* serves as the locus of ignorance. Again, the presupposition is accommodated globally (i.e., it projects out of the *unless*-clause).

- (43) Unless Pascal correctly suspected that whatever he was eating was not vegetarian, we've gotten away with serving him meat.  
 = "Pascal didn't know what he was eating, and unless he correctly suspected that it was not vegetarian..."  
 ≠ "Unless Pascal didn't know what he was eating and he correctly suspected that it was not vegetarian..."

In fact, it is only presuppositions of speaker ignorance that are incompatible with genericity. Attitude verbs are analyzed as quantifiers over situations. The presupposition of attitude-subject ignorance is easily interpreted under the generic quantifier. Compare (44) with (37a).

- (44) In those days, Pascal suspected that whatever he was eating was not vegetarian.  
 = Generally, if P. ate something, he suspected that the thing he was eating was not vegetarian, *and in none of those cases did he know what he was eating.*

A similar interpretation is available for (37a), where Zack is the locus of ignorance rather than the speaker. I conclude that the presupposition of ignorance does not behave in a peculiar manner, once the requirements of its interpretation are taken into account. It can be interpreted under a generic when the requirements of epistemic modality can be met. In the absence of interpretational inconsistency/implausibility, it is accommodated globally.

## 5. ARE IGNORANCE AND INDIFFERENCE ENOUGH?

I end with a note regarding the empirical coverage of the analysis in (7). von Stechow proposes that (45) is "largely synonymous" with (46) (p.37). One is tempted to say, as he does, that the counterfactual presupposition is too strong in such a case and so cannot be the correct analysis.

- (45) There's a lot of violence in whatever Parker writes.  
 (46) There's a lot of violence in everything Parker writes.

The striking feature of (45) is that there is no one to attribute indifference to. In particular, there is no agent other than the one in the free relative. Perhaps it is this lack of an apparent "locus of indifference" that has led researchers to put such sentences in a class of their own and to analyze them as ordinary universals.

My claim is that counterfactual indifference is in fact present in (45). (46) fails to capture the sense in (45) that no matter what Parker writes, it has a lot of violence in it. Consider also the sentences in (47)-(48). In the (a) sentences, by using an indifference EFR instead of *every*, I imply that John has some magical powers or is blessed with extraordinary luck. In the (b) sentences, I'm reporting some facts, or a chance occurrence. For instance, in (47b) we say that there is some set of people who won, and they just happen to be the ones John voted for. In (47a) we more strongly imply that there is a crucial connection between John's having voted for that person and that person winning. The difference is analogous to the one discussed in relation to (11) and (12).

- (47) a. In those days, whoever John voted for won.  
       b. In those days, everyone John voted for won.  
 (48) a. Whatever lottery number John picks wins.  
       b. Every lottery number John picks wins.

In (47)-(48), the free relative itself is in subject position but the agent inside the free relative, *John*, cannot be construed as acting indifferently. Just as in (45), these sentences do not make an agent available to serve as the locus of indifference. They are nonetheless indifference EFRs and are susceptible to the analysis in (7).

So-called "universal" EFRs are indifference EFRs that simply lack a locus of indifference. When an agent subject is present, we are invited to make the inference that an indifferent attitude influences the actions of that agent, in effect making the subject an attitude-holder. This outcome is in fact predicted by the way the modal base is determined. While ignorance is always relative to someone's epistemic worlds, the claim here is that "indifference"

need not be considered in relation to an agent. This is not surprising given that counterfactual worlds are determined impersonally, unlike epistemic worlds which are calculated with respect to the knowledge state of some person.

When an agent subject is available, the locus of indifference is preferentially that agent. Or there can be no ascription of indifference whatsoever. For example, I might utter "Bill's married to Susan; he married whoever he met first" if I have a crystal ball that allows me to examine counterfactual possibilities and thus draw this conclusion, although I may not be indifferent to who Bill marries and Bill's decision to marry Susan may have been anything but indifferent. In other words, the descriptive label "indifference free relative" is more accurate in some cases than in others. Indifference, when it is present, is epiphenomenal. As we have already seen, it is not directly represented in or required by the semantics in (7). Indifference is a side effect of the construal of the counterfactual modal base for -ever. What is constant across indifference EFRs is the counterfactual entailment. Whether this can also be construed as someone's indifference is dependent on the content of the sentence, e.g., the availability of an agent subject in whose scope the free relative occurs, as in (2).

## 6. CONCLUSION

Jacobson (1988) argued that free relatives are definites, Iatridou & Varlokosta (1995) suggested the analysis of -ever as a modal operator, Dayal (1997) pointed out a connection between generic contexts and the universal-like behavior of EFRs, and von Stechow (2000) clarified for us the interpretational distinction between ignorance and indifference and said that they were presuppositions. This paper has drawn crucially on their work. Taken together, their observations allow us to see the EFR data in a new light. I have tried to make clear the relationship between modal flavor and quantificational force, along the way showing that it is only indifference EFRs that can be universally quantified. I proposed an explanation for this and related phenomena that is consistent with an analysis of -ever as presuppositional.

## REFERENCES

- Beaver, D. (2001) *Presupposition and Assertion in Dynamic Semantics*. Stanford: CSLI Publications.
- Carlson, G. et al. (1995) "Introduction." In G. Carlson et al., eds., *The Generic Book*. University of Chicago Press.
- Dayal, V. (1997) "Free relatives and ever: Identity and free choice readings." *SALT VII*, pp.99-116.
- Elliott, D. (1971) *The Grammar of Emotive & Exclamatory Sentences in English*. Doctoral dissertation, Ohio State University.
- von Stechow, K. (2000) "Whatever." *SALT X*, pp.27-39.
- Fox, D. and U. Sauerland (1996) "Illusive scope of universal quantifiers." *NELS 26*, pp.71-85.
- Grosu, A. and F. Landman (1998) "Strange relatives of the third kind." *Natural Language Semantics* 6:125-170.
- Iatridou, S. and S. Varlokosta (1995) "A crosslinguistic perspective on pseudoclefts." *WCCFL 14*, pp.117-131.
- Jacobson, P. (1988) "On the quantificational force of English free relatives." Ms., Brown University. (Published 1995 in E. Bach et al., eds., *Quantification in Natural Languages*, v. II, pp.451-486. Dordrecht: Kluwer.)
- Jespersen, O. (1927) *A Modern English Grammar on Historical Principles*, v.3, pp.32-77. Heidelberg: Carl Winters.
- Kratzer, A. (1989) "An investigation of the lumps of thought." *Linguistics and Philosophy* 12:608-653.
- Tredinnick, V. (1994) "On the distribution and interpretation of the suffix -ever in English free relatives." In *Proceedings of CONSOLE II*, 1993.
- Vendler, Z. (1962) "Each and every, any and all." *Mind* 71:145-160.