

***Ever*: polysemy and polarity sensitivity**

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0. Overview

Anyone who ever bothers to look can only be amazed by the rich complexity of the English word *ever*. Unfortunately, one rarely bothers to look. As Leuschner (1996) notes, words meaning ‘ever’ do not figure prominently in linguistic research. While *ever* itself has attracted some notice in studies of polarity sensitivity (cf. Ladusaw 1980: 116-120; van der Wouden 1994; Israel 1995), there remains no systematic study of the use and distribution of this small but significant word in contemporary English. The present paper seeks to remedy this situation, offering a preliminary account of *ever*’s many uses and exploring the multiple implications of this multiplicity for a theory of grammar generally.

We begin with a rough classification. Broadly speaking, the lexical uses of *ever* divide into three basic types: Existential, Universal and Emphatic. The three could hardly be more distinct. Instances of Existential *ever*, as in (1) below, have the force of an existential operator, meaning something like ‘even once’ or ‘at any time.’ The Universal *evers* in (2), on the other hand, have the force of a universal operator and mean something like ‘constantly’ or ‘at all times.’ Emphatic *evers* like those in (3) seem to lack any quantificational force at all and serve simply as exclamative intensifiers of some sort.

- (1) a. Glinda hasn’t ever robbed a liquor store.
b. If you ever get to Paris, be sure to look up Lulu.
c. Do you ever wish you were an investment banker?
- (2) a. As the night wore on, her insinuations grew ever more outrageous.
b. Ever prudent, Lulu bought a small arsenal of weapons to protect her family.
c. Monica’s been depressed ever since she lost her dress.
- (3) a. Was I ever shocked!
b. Lulu was ever so upset by the news.
c. What ever did you expect?

Beyond the three lexical types, *ever* enjoys a Derivational use in which it joins with *wh*-indefinites to form a series of free indefinite pronouns. The examples in (4) illustrate some basic uses of these forms.

- (4) a. Whatever happens, I intend to have a good time.
b. Come on over whenever you want.
c. Bill kisses whoever he can.

The many uses of *ever* pose a broad challenge for any theory of grammar and usage. In the rest of this paper I will sharpen this challenge by building on three fundamental observations which are crucial for an adequate understanding of this word.

First, *ever* is polysemous: it is a single word with multiple distinct meanings. As I will demonstrate, the various uses of *ever* are not reducible to a single overarching, abstract form, but rather form an extended family of construction-types related in a complex network. The polysemy of *ever* is neither unusual nor surprising, but it is vital to an understanding of how *ever*’s lexical semantics constrains its syntactic distribution.

Second, the polarity sensitivity of *ever* is linked to its polysemy, and in particular to its quantificational semantics. As is well known, in its Existential use, *ever* is a negative polarity item (NPI): it occurs in negative sentences and in a range of other polarity contexts, but not in simple affirmative sentences. In its Universal use, however, *ever* is a positive polarity item: it occurs freely in simple affirmative sentences but is ungrammatical, at least on its universal reading, in the scope of negation. This fact, which has up to now gone unnoticed or at least unremarked in the literature, has striking implications for a theory of polarity sensitivity. In particular, as I will argue, the link between *ever*'s quantificational semantics and its polarity sensitivities strongly supports the claim that polarity sensitivity is linked to lexical semantics and offers striking confirmation of the scalar model of polarity sensitivity developed in Israel (1996, 1997).

Finally, *ever* exhibits striking and important parallels with the determiner *any*. Both words make similar contributions to sentence meaning, exhibit similar patterns of polysemy, and are subject to almost isomorphic constraints as polarity items. The parallelism is not complete, however, as the universal *ever* seems to lack the "free choice" semantics of *any*. The similarities and differences between these words have significant implications for any account of *any*, and as I will argue, cast doubt on the viability of a unified analysis along the lines pursued in Kadmon and Landman (1993) and in Lee and Horn (1994).

1. The Complex Polysemy of *Ever*

Any adequate account of a lexical item should explain, or at least say something about the ways that item is actually used, the range of meanings it conventionally encodes, and the constraints, syntactic or otherwise, on its distribution. This study begins with the ways *ever* is actually used. Data comes from a corpus of 1,031 instances of lexical *ever* drawn from the Wall Street Journal on line (wsj), supplemented by historical data from the Oxford English Dictionary (OED) and by introspective data and judgements. The use of a large corpus is necessary to ensure a complete and (hopefully) representative picture of the many ways *ever* is used. It also serves as a useful antidote to any optimistic notion that a single lexical entry might suffice to explain them all.

As noted above, the uses of *ever* divide into four basic types: Existential, Universal, Emphatic and Derivational. I will consider each of these in turn and in each case offer a broad statement of its meaning and use. My goal here is not to offer a full account of the syntax or semantics of any of these types, but simply to explore how the various usages differ from each other and how they might be related. As will be shown, a full account of the use and distribution of *ever* requires the recognition of numerous, very specific constructional patterns as instantiations of each of the more general types.

1.1. Existential *Ever*

Existential *ever* is by far the most frequent of the three lexical types, accounting for a full 85% of the tokens in the corpus. It is also by far the most widespread and regular in its distribution. Polarity problems aside, Existential *ever* behaves much like any other quantificational sentence adverb (e.g. *always*, *often*, *occasionally*, *seldom*) and is the only type to occur freely as a preverbal modifier.

The examples in (5) below show that Existential *ever* is a negative polarity item, occurring freely in negative sentences, but ungrammatical in simple affirmative sentences.

- (5) a. Glinda hasn't ever robbed a liquor store.
b. *Glinda has ever robbed a liquor store.

As is typical of NPIs Existential *ever* also occurs in a broad range of polarity contexts. As the examples in (6) show, these include questions, conditionals, comparatives, the complements of adversative predicates like *be surprised*, the restriction on a universal quantifier, and the restriction on a superlative.

- (6)
- a. Have you ever robbed a liquor store?
 - b. If you ever rob a liquor store, you might consider wearing a mask.
 - c. These days linguists are robbing liquor stores more than ever before.
 - d. I'm surprised that Glinda would ever consider robbing a liquor store.
 - e. Anyone who's ever robbed a liquor store knows it's hardly worth the bother.
 - f. Glinda may well be the greatest semanticist ever.

I assume that the various uses in these examples represent a single basic construction in which *ever* functions as a sentence adverb and indicates a single, indefinite and temporally unspecified instance of a propositional relation.

One might be tempted to treat *ever* in these examples as a universal quantifier with obligatory wide scope over negation. On this analysis (5a) would mean roughly 'at all times Glinda has not robbed a liquor store.' The examples in (6) show that such an approach will not work. The question in (6a), for example, pertains to the existence of a single event, not to the possibility of a constant state of liquor store banditry. Similarly, in (6d) *ever* must be interpreted within the scope of the matrix clause: the sentence indicates surprise that Glinda would consider this banditry even once; it does not suggest that such contemplations might be a constant obsession. Moreover, the fact that *ever* can modify achievements, as in (6a) and (6e), in itself suggests that *ever* cannot be a universal quantifier: such predicates are necessarily instantaneous and so cannot be qualified by durative adverbs like *always*. These observations demonstrate that Existential *ever* must be clearly distinguished from any Universal usages of the word.

It is worth speculating whether the Existential use itself might be further divided into subtypes. One possibility would be to distinguish distinct, low-level construction types based on the different polarity triggers which *ever* allows. Such an approach might help in explaining the unusual range of triggers which license *ever* (see Section 3.3) and is especially tempting given the unusual frequency with which some of these triggers occur. For example, superlatives as in (6f) are extremely unusual as polarity triggers and rarely occur with other NPIs, yet they account for a full third (291 out of 878) of the instances of Existential *ever*. Of course, positing a specific 'Xest CN *ever*' construction to license these instances would not in any way replace a more general theory that would explain why superlatives are among the set of potential polarity triggers. But it would effectively acknowledge that part of what a speaker knows about the word *ever* is that it can be used to intensify superlatives¹. I will not dwell on this point further here, except to say that any complete account of *ever*'s distribution should offer some insight into such unexpected facts about its usage.

1.2. Universal *Ever*

As Leuschner (1996) points out, from the earliest stages of Old English Existential *ever* has happily coexisted with a robust and widespread Universal usage. Until fairly recently the Universal *ever*, like its Existential counterpart, was regularly used as a preverbal modifier in contexts where Present Day English would require *always*. The examples in (7), drawn from the OED-II, illustrate this formerly common usage and its distinctly archaic sound.

- (7) a.. Let...nappy Ale be ever free To strangers that do come and go. (1686 Loyal Garland (ed. 5))
- b. It is a Maxim in Cock-fighting, That he that is a close sitter, is ever a narrow striker. (1686 R. Blome Gentl. Recr. ii. 278/2)
- c. The Panther's breath was ever famed for sweet. (1687 Dryden Hind & P. ii. 228)
- d. My natural will ever cleaved to evil. (1763 Wesley Wks. (1872) III. 140)

The modern reflexes of this usage survive with varying degrees of productivity and robustness as the scattered relics of a once great construction. The formerly widespread Universal *ever* has by now been reduced to a few islands of idiomatcity, a small archipelago of constructions in a sea of obsolescence. Three significant such islands are readily distinguished based on the type of head with which *ever* combines: the Modificational, or '*everlasting*' type, the Comparative, or '*ever more*' type, and the Continuous, or '*ever since*' type.

The examples in (8) illustrate the Modificational type. Here *ever* indicates the constant applicability of an adjectival or adverbial modifier. This usage appears to be most common in appositional constructions as in (9). The Modificational usage is quite productive but also quite rare, accounting for just 1% (12 tokens) of the total corpus.

- (8) a. Waste management will be another big area as small, densely populated countries like Taiwan cope with ever increasing amounts of garbage. (wsj)
- b. COLAs ... are positive feedback loops that drive inflation ever upward. (wsj)
- (9) a. But tax-shelter promoters, ever ingenious, have concocted a few new products that are proving successful. (wsj)
- b. Mr. Amerman, ever the marketeer, says Mattel is 'very excited' by retailer reception to some of this year's new toys... (wsj)
- c. Our skipper, ever the optimist, finally acknowledged that our three week trip was becoming a four-week trip. (wsj)

The examples in (10) show that Modificational *ever* is a positive polarity item (PPI). When *ever* appears in the scope of negative trigger like *hardly* it cannot receive a universal reading: (10b) can only mean that Hives is almost never a connoisseur; it cannot mean that he is merely not always one.

- (10) a. Mr. Higgins, ever the connoisseur, was eager to try the wine.
- b. Even Mr. Hives, hardly (**ever*) the connoisseur, was eager to try the wine.

The examples in (11) illustrate the Comparative or '*ever more*' construction. In this usage *ever* supplies a dynamic and reflexive standard of comparison for a comparative adjective or adverb.

- (11) a. The White House is inching ever closer to the line-item veto. (wsj)
- b. Advanced technology saves ever smaller and sicker infants, but sometimes at a terrible physical cost. (wsj)
- c. The greatest of Petipa's gifts, that of inventing dances that move inevitably toward a state of ever greater clarification, is here nullified. (wsj - 092)

Note that *ever* in these examples cannot be replaced by *always* without a marked loss of naturalness, thus suggesting that the construction must be stipulated in the grammar as an encoding idiom. This usage is relatively frequent, accounting for almost 5% of the corpus (50 tokens).

Like its modificational cousin, Comparative *ever* is a PPI, in fact a very strict one. The examples in (12) show that on this usage *ever* is blocked by questions, conditionals and negations of all sorts.²

- (12) a. They are not moving (**ever*) closer to a compromise.
 b. Are they moving (**ever*) closer to a compromise?
 c. If they are moving (**ever*) closer to a compromise, maybe it will all work out.
 d. Few of them are moving (**ever*) closer to a compromise.

The last significant Universal *ever* construction is the Continuous or ‘*ever since*’ type. On this usage *ever* combines with a temporal adverbial clause or phrase to emphasize the enduring nature of a state or activity.

- (13) a. “Through the process known as folk etymology,” Mr. Lederer writes, “the partridge has remained proudly perched in a pear tree *ever since*.” (wsj)
 b. ...*ever since* Rupert Murdoch purchased it, the Sun has risen with a minimally clad Linda or Cindy or Debbie on Page Three. (wsj)
 c. And they lived happily *ever after*.

This usage is relatively common, making up 8% (83 tokens) of the total corpus, but it is also sharply constrained in its distribution: 76 tokens occur with the word *since* and the other 7 all occur in the fixed fairy tale formula *happily ever after*. At least in American English, *ever* cannot be used to modify other temporal adverbials (e.g. **He loved her ever from the day he met her*; **He was bitter ever after she stole his car*.)

1.3. Emphatic *Ever*

The Existential and Universal *evers* have two things in common. In both *ever* functions as a quantificational adverb and in both *ever* serves a strengthening or emphatic function when added to a sentence. As an NPI, Existential *ever* is limited to just those contexts where the predication of a single instance (‘even once’) can form a strong, ‘end of scale’ claim (cf. Fauconnier 1975, Israel 1996). As a PPI, Universal *ever* is limited to just those contexts where the assertion of constancy will make an utterance stronger and more newsworthy. In fact, in many instances of both uses the most important contribution *ever* makes seems to be precisely its sharp, emphatic energy.

As Labov (1984) notes, quantifiers like *ever* are often used with little regard for their strict propositional meaning as a way of adding “intensity” to an utterance. Labov calls such uses of quantifiers “cognitive zeros” and notes that for some speakers “about half of all intensive features in colloquial speech are accounted for by the universal quantifiers: *any*, *all*, *every*, and *ever*” (1984: 48)³. The intensive use of *ever* as a quantifier presumably forms the basis for its extension to non-quantificational emphatic uses.

Instances of Emphatic *ever* divide into three fairly well-defined constructional types: collocation with the degree modifier *so*, (5 tokens in the corpus, < .5%); occurrence with inversion exclamatives (3 tokens in the corpus); and use in rhetorical *wh*-questions (unattested in the corpus). These uses are illustrated in turn in (14-16).

- (14) a. When after weeks in a coma Uncle Charlie wiggles his little finger *ever so* slightly a great cheer goes up. (wsj)
 b. IBM is like a battleship *ever so* slowly turning in the wind. (wsj)
 (15) a. In town, the houses tend to date from the late 19th century--and are they *ever* sprucely kept. (wsj)

- b. But did they ever sing well. (wsj)
- (16) a. What ever can be the meaning of this?
- b. Who ever would have imagined such a thing possible?

While the Emphatic uses of *ever* are clearly extensions from the more basic quantificational uses, they are not all purely non-quantificational. As an intensifier with *so*, for example, *ever* serves to emphasize the scalar extent of a modified predicate, indicating that it applies to a maximal or absolute degree. With inversion exclamatives as in (15), discussed in Michaelis and Lambrecht (1995), *ever* serves a similar function, though here it also plays a more subjective role, indicating the speaker's affective stance toward an expressed proposition and emphasizing the extent to which that proposition exceeds normal expectations. Only in examples like those in (16) does this subjective expression fully eclipse any simple sense of quantification, scalar or otherwise: in these instances *ever* really is a "cognitive zero" serving purely as an expression of the speaker's extreme dismay. The various uses of Emphatic *ever* thus seem to illustrate a cline in which the quantificational force of the adverb gradually slips from the purely objective content of an expressed proposition (as in the Existential and Universal uses) to the purely subjective expression of a speaker's attitude toward the proposition.

1.4. Derivational Uses: *Whatever*

No description of *ever* could be complete without noting its role in the derivation of pronouns like *whatever*. It is tempting in fact to exclude this derivational use on the grounds that it is only historically related to *ever*'s lexical uses, but this is at best a dodge. Speakers do not normally perceive the lexical and derivational *evers* as distinct and unrelated forms, but rather seem comfortable with the assumption that all these uses form a natural and coherent category. And even if the connection were only historical, we would still need to explain how that connection arises. I will not attempt to solve this problem here, but I will not ignore its importance either.

As a derivational suffix, *-ever* attaches to *wh*-words to form a series of free indefinite proforms, commonly used in free-relative constructions as in (17).

- (17) a. Monica will kiss whoever has the biggest motorcycle.
- b. Bill gets excited whenever he watches a movie.

These forms are also used in parametric concessive conditionals, as in (18), where a consequent is asserted to hold regardless of the value of some focused parameter in an antecedent concessive clause.

- (18) a. Whenever he kisses her, he thinks of Vienna.
- b. Whatever happens, she intends to have a good time.

Haspelmath (1992: 135-139) argues that these constructions form an important source for the historical development of free choice indefinites as in the examples below.

- (19) a. You can say whatever (you want).
- b. You can dance with whomever (you want).
- c. You can leave whenever (you want).

I will not speculate on the proper treatment of the free choice meaning in these forms nor on the contribution that *ever* makes to this meaning, but will content myself with the

observation that there must be some link between *ever*'s lexical meanings and its role in the derivation of these peculiar pronouns.

1.5. The Complex Category *Ever*

The various uses of *ever* and their relations to one another are illustrated in Figure 1. The diagram expresses a number of the basic assumptions of Cognitive Grammar (Langacker 1987, 1991). *Ever* is represented here as a complex category of closely related constructions. All of these constructions share a common phonological pole, but differ in the details of their syntax and semantics. The different constructions are related by two basic types of links: instantiation links (solid lines) indicate full inheritance, where one construction is just a special case of another more schematic construction; extension links (dashed lines) indicate inheritance with overrides, where two related constructions conflict in some of their details. (The question mark over the Derivational node is offered as an admission of my complete uncertainty as to how, precisely, it should be related to the rest of the network.) Different nodes in the network vary in the degree to which they are entrenched as established, conventional units: these differences (alluded to by the varying thicknesses of the node boxes) are best thought of as a function of the frequency with which a given node is activated to categorize usage events. Constructions in general are held to be the basic units of a language, and as such they are used by speakers to categorize, sanction and interpret actual instances of experienced usage.

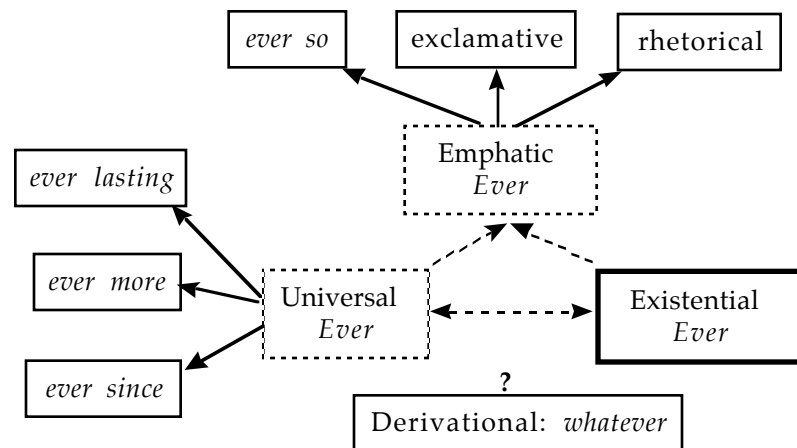


Figure 1

Figure 1 suggests a modest lower bound on the complexity of *ever* as a grammatical category: at least these distinct constructions must be recognized and related in the grammar.

Some may consider this analysis inelegant or even unconstrained. The question is, can one reasonably account for the use and distribution of *ever* without such a proliferation of entities? I think it doubtful. An alternative account might propose a single highly abstract entry for *ever*, a sort of Archi-*Ever* which schematizes over and unites the various Existential, Universal and Emphatic *evers*. Such a form would encode an extremely vague notion of scalar emphasis which would be variously realized as an existential or a universal operator over events, or as an expression of extreme speaker affect. Even assuming that this is a plausible way of explaining the ways *ever* is used, it makes it difficult to explain the many ways *ever* is not used. As noted at some length above, Universal and Emphatic *evers* are limited to an eclectic and highly idiosyncratic set of usages. Ultimately, these idiosyncrasies (or at least most of them) will have to be

stipulated one way or another, and so ultimately the abstract Archi-*Ever* will necessarily be redundant. Or worse. For if there is such a super vague Emphatic *ever*, one may reasonably wonder why it cannot sanction *ever*'s use as, for instance, a verbal intensifier like *totally* (e.g. *The Artist totally / *ever jammed*) or as an adjectival intensifier like *very* (e.g. *The piano dance was very / *ever sexy*). Considerations of this sort suggest that the modest proliferation of entities in Figure 1 is in fact rather conservative and is the least required to explain the observable facts about *ever*.

2. Polarity Sensitivity

One of the more striking facts about *ever* is the link between its polarity sensitivity and its quantificational value. In its Existential usage *ever* is a negative polarity item. In its Universal usage *ever* is a positive polarity item. The fact that *ever*'s sensitivities vary with its various senses is not in itself remarkable. In general, polarity sensitivity involves the distribution of lexical senses rather than lexical items per se: the vast majority of polarity items have at least some uses in which they are not polarity sensitive. What is remarkable is *ever*'s systematic correlation of sensitivity with quantificational force. This correlation provides important support for the claim that polarity sensitivity in general is linked to lexical semantics.

One of the fundamental mysteries about polarity items is why they should exist in the first place. The question is whether there might be some reasonably natural feature these forms share which might account for their peculiarly defective distributions. In recent work (Israel 1996, 1997) I have proposed that precisely such a feature is available in the scalar semantics common to polarity items. Building on a semantic tradition which views polarity sensitivity as a sensitivity to the inferential properties of grammatical contexts (e.g. Fauconnier 1975, Ladusaw 1980, Hoeksema 1983, van der Wouden 1994, inter alia) I have argued that polarity sensitivity arises when a single form encodes two types of scalar semantic features: quantitative value, having to do with a literal amount, degree or quantity, and an informative value, reflecting the rhetorical strength of an expressed proposition. The basic claim is captured in the Informativity Hypothesis below:

(20) The Informativity Hypothesis:

- a) Polarity items are forms which are conventionally specified for each of two scalar semantic features: quantitative (q-)value and informative (i-)value.
- b) The interaction of these two features in a single form is responsible for the distributional effects known as polarity sensitivity.

The key to this proposal is the idea that lexical items can be sensitive to rhetorical properties of the contexts in which they appear: some forms, those with a high informative value, are inherently emphatic; others, those with a low informative value, are inherently understating. Both are constrained to appear in contexts which will be compatible with their particular rhetorical predispositions.

Forms combining a low q-value with a high (i.e. emphatic) i-value (e.g. *any, the least bit, say a word*) are NPIs because only in "negative" contexts can the expression of a low q-value be informative enough to count as emphatic. Thus, in a negative context like (21a) *say a word* is fine because it makes an absolute, and therefore emphatic claim; the positive (21b), on the other hand, is ill-formed, because it is incompatible with the NPIs emphatic semantics.

- (21) a. Monica didn't say a word!
- b. *Monica said a word!

Similarly, forms combining a high q-value with a low (i.e. understating) i-value (e.g. *much*, *all that*, adverbial *long*) are NPIs because only in negative contexts are their high q-values uninformative enough to count as understatements. While *all that* makes an appropriately weak claim in the negative (22a), the affirmation of (22b) is at odds with its understating semantics.

- (22) a. Hillary wasn't all that surprised.
b. *Hillary was all that surprised.

Parallel explanations apply, *mutatis mutandis*, for PPIs combining a high q-value with an emphatic rhetorical force (e.g. *a great deal*, *utterly*, *scads*), or a low q-value with an understating rhetorical force (e.g. *somewhat*, *rather*, *fairly*, *a tad*). See Israel (1996) for details.

The Informativity Hypothesis depends on two crucial assumptions. The first is just that features like informativity can function as lexical semantic features. While probably no one would deny the importance of these basic pragmatic categories, many might doubt their significance for lexical semantics, preferring rather to derive them as general discourse properties. The second, more important assumption, is that these essentially pragmatic features can play a central role in the explanation of grammatical phenomena. This is hardly a new sort of idea, but there remains a significant fault line in the field between approaches which focus narrowly on distributional facts and more pragmatically driven, functionalist accounts, which themselves sometimes slight the importance of basic structural observations. The essence of the Informativity Hypothesis is that a proper account of the distributional facts governing polarity items depends on the recognition of fundamentally pragmatic features like informativity.

The polysemy of *ever* offers compelling evidence for both these assumptions. Something like rhetorical emphasis is an important feature of *ever* in all its uses, and in some uses it seems to be the only significant semantic feature. Given the presence of this feature, the Informativity Hypothesis correctly predicts the linkage between *ever*'s quantificational semantics and its varying polarity sensitivities. Because *ever* is inherently emphatic in all its uses, it can only occur in contexts which are compatible with its emphatic expression. As a universal quantifier, where it encodes a high q-value, *ever* is limited to positive polarity contexts because only in these contexts can a high q-value count as emphatic. As an existential quantifier, where it encodes a low q-value, *ever* is limited to negative polarity contexts because only in these contexts can a low q-value count as emphatic. The link between polysemy and polarity sensitivity is no coincidence. *Ever*'s varying sensitivities reflect its essentially emphatic semantics.

3. Parallels Between *Any* and *Ever*

Thus far I have surveyed the variety of *ever*'s uses, analyzed in broad strokes the structure of its polysemy, and explored the basic link between its lexical semantics and its polarity sensitivities. In this section, I turn from the particularities of *ever*'s own behavior to consider its significance within the broad paradigm of English quantificational devices. As will be shown, the adverbial *ever* displays several important structural and semantic parallels with its nominal counterpart, the indefinite determiner *any*. These two forms seem to fill a common slot in the paradigms of nominal and adverbial quantifiers. Both forms make a similar contribution to sentence meaning, indicating, in the loose formula of Kadmon and Landman, "a reduced tolerance for exceptions" (1993: 356). Both forms have similar patterns of polysemy, each exhibiting a basic split between existential and universal-type usages. And finally, these two forms together seem to constitute their own distinct class of indefinite polarity items, both being subject to an almost isomorphic set of licensing conditions.

Since *any*, unlike *ever*, has been a major focus of attention in the study of polarity, it is instructive to consider its analysis in light of its parallels with *ever*. Two significant conclusions will be drawn from this section. First, the strong parallels between *any* and *ever* clearly suggest that these forms' polysemy patterns are a recurrent and presumably systematic feature of the grammar. On the other hand, as will be seen, these parallels are not perfect, and this suggests that the details of this patterning must involve at least some stipulation. I will thus argue that the evidence from *ever* militates against a unified analysis of the free choice and polarity sensitive uses of *any*, even as it clearly shows that both uses must be viewed as tightly and systematically related.

3.1. The Quantificational Paradigm: Phantom Indefinites

The set of quantificational sentence adverbs which includes *ever* forms part of a larger paradigm with the nominal quantifiers of English. It appears that English provides a range of quantificational devices which can be manifested lexically either as nominal determiners or as sentence adverbs.

	Nominal Q's	Adverbial Q's
Universal	<i>all, every</i>	<i>always</i>
Majoritary	<i>most</i>	<i>usually</i>
Multiple	<i>many, a lot of</i>	<i>often, frequently</i>
Medial	<i>several, a few</i>	<i>occasionally</i>
Simple Indefinite	<i>a, some</i>	<i>once, sometimes</i>
Paucal	<i>few, scant</i>	<i>rarely, seldom</i>
Phantom Indefinite	<i>any</i>	<i>ever</i>

Table 1

Table 1 distinguishes seven basic quantificational types along with some of their lexical instantiations in the nominal and adverbial paradigms. The table is offered here only to be suggestive, and I will not in this paper explore the specific quantificational parallels and categories it suggests. The point I want to emphasize is just that the relationship between *any* and *ever* forms part of a much larger system of parallels in the quantificational system of English.

I use the term *phantom indefinite* here to label the particular quantificational properties which *any* and *ever* share. The term, originally suggested to me by Gilles Fauconnier, is intended to capture the peculiar way these forms designate an instance which, in some sense, isn't really there. Phantom indefinites do not refer directly—they cannot, for example, introduce a new discourse referent to a mental space. Rather they pick out an arbitrary and schematic 'ghost' of an instance and thereby trigger inferences to the set of all other possible instances in a category (cf. Israel 1995: 164). I will not, in this paper, attempt to explain further the nature of phantom reference. The details are mysterious enough, but it hardly matters. For our purposes phantom reference is simply a convenient label for the core grammatical property which *any* and *ever* share. The important point is just that there is indeed such a property which unites these forms.

3.2. The Common Meaning of Phantom Indefinites

One of the distinguishing features of *any* and *ever* as negative polarity items is their common occurrence in contexts where they lack any focal prominence. Unlike other more obviously emphatic NPIs like *sleep a wink*, *say a word* or *in the slightest*, *any* and *ever* occur without stress and frequently appear in contexts which seem to be neither

emphatic nor really rhetorically marked in any way: in sentences like *Have you ever been to Harlem?* or *Becky doesn't have any heroin*.

Observations of this sort have led Rullmann (1996) to suggest that unstressed indefinite NPIs like *any* (and presumably *ever* too) are in fact semantically identical to plain indefinite determiners (in English *a(n)* and the zero determiner), the only difference being the former's restriction to negative polarity contexts (1996: 348-349). The plain implication of this claim is that sentence pairs like those in (23-24) must be semantically and pragmatically synonymous.

- (23) a. Glinda doesn't eat seafood.
b. Glinda doesn't eat any seafood.
- (24) a. Few of my friends drink wheat grass juice.
b. Few of my friends ever drink wheat grass juice.

This conclusion does some mild violence to my own intuitions. Although the difference here is admittedly subtle, I think there is an important distinction between the sentences in these pairs. Indeed, I would suggest that the difference is in fact precisely a matter of informative strength: the presence of *any* or *ever* makes the (b) sentences somehow stronger and suggests a more categorical proposition, or at least a more resolute attitude, than is found in their unadorned (a) counterparts. Echoing Kadmon and Landman (1993: 356) on *any*, I suggest that both of these forms indicate "a reduced tolerance for exceptions." For example, if Glinda is known to hate seafood in general but to enjoy the occasional tuna fish sandwich, (23a) might be a valid generalization, while the more stringent (23b) could be somewhat misleading. Similarly, while (24a) might fairly describe people who simply lack a taste for wheat grass juice, the use of *ever* in (24b), even without stress, clearly suggests a deliberate and categorical avoidance of the grassy libation. The differences here are, of course, a matter of nuance, but then there is no reason to deny the significance of nuance. Pace Rullmann, even without stress, these forms do make a contribution to sentence meaning and their contributions are, if not identical, at least very analogous. The exact nature of this contribution may be difficult to pin down, but its effects should be clear enough.

3.3. Parallel Polysemy

Important evidence for the quantificational parallelism between *any* and *ever* comes from their tantalizingly similar patterns of polysemy. As noted above, *ever* has distinct universal and existential usages. The facts for *any*, voluminously established over more than three decades (Klima 1964; Horn 1972; Fauconnier 1975; Ladusaw 1980; Carlson 1980, 1981; Kadmon and Landman 1993; Lee and Horn 1994, *inter alia*), are strikingly parallel: in its polarity sensitive uses, as in (25), *any* has the quantificational force of an existential quantifier; in other uses, as in (26), *any* expresses a "free choice" (FC) meaning akin to that of a universal quantifier.

- (25) a. Sydney didn't drink any vodka.
b. If Sydney drinks any vodka, he may become unruly.
c. Sydney denies drinking any vodka.
- (26) a. Sydney drinks any vodka.
b. Sydney drank any vodka we offered him.
c. Anybody would cringe to see Sydney behave the way he did.

While opinion is divided as to how these facts are best explained, and while there are viable analyses deriving both the universal and existential behaviors of *any* from a unified ‘indefinite’ semantics (e.g. Kadmon and Landman 1993; Lee and Horn 1994), there is a clear consensus that *any*, like *ever*, expresses both existential and universal meanings. The fact that two such closely related words share such a striking pattern of polysemy makes it difficult to dismiss as a mere lexical fluke. On the other hand, it certainly leaves open the question of how it should be explained. One possibility is that any unified analysis of *any* should also apply, *mutatis mutandis*, to *ever*. But this would seem to presuppose a more or less perfect parallelism between the uses of *ever* and *any*. As it turns out, while the parallelism is nearly perfect in the existential uses, there are significant differences between Universal *ever* and Free Choice *any*. As we will see in Section 4, these differences have important consequences for a theory of *any*.

3.4. Syntagmatic Parallels: Polarity Licensing Conditions

The parallels between *any* and *ever* are sharpest in the distributional details of their existential, negative polarity uses. As is well known, polarity items vary widely in their particular licensing requirements (cf. Heim 1984, van der Wouden 1994, Krifka 1995, Hoeksema & Klein 1995, Rullmann 1996). *Any* and *ever* in particular are notorious for their unusually loose standards, often using the merest excuse for an implicit negation as justification for slipping into a sentence. In this section I will show that these two forms consistently pattern together as a distinct class of NPI.

This section contrasts the licensing conditions for *any* and *ever* with those of other polarity items, in particular their closely related negative polarity cousins, the minimizers. Minimizers, forms like *drink a drop*, *budge an inch*, *the least bit*, and *in the slightest*, are polarity items which designate a minimal amount or degree on some scale and whose use is restricted to those grammatical contexts in which they can count as somehow emphatic (cf. Schmerling 1971; Fauconnier 1975; Israel 1995, 1996).

3.4.1. Occurrence Outside of Focus. As noted above, *any* and *ever* appear freely in topical contexts where they lack any focal prominence. In fact, these indefinite NPIs are acceptable even in sentences where some other constituent receives strong, contrastive stress. This clearly sets them apart from the minimizers, which are obligatorily focal and cannot occur in contexts where another constituent is focal and takes contrastive stress.

- (27) a. I don’t know about Glinda, but **Lulu** didn’t drink any eggnog.
 b. *I don’t know about Glinda, but **Lulu** didn’t drink a drop of eggnog.
- (28) a. I don’t know about Lulu, but **Glinda** hasn’t ever read Lacan.
 b. *I don’t know about Lulu, but **Glinda** hasn’t read a word of Lacan.

The starred (b) sentences here suffer from the implicit presupposition that alternative values for the focused element will satisfy the positive predication of the minimizer. In other words, (27b) is peculiar because it suggests that someone other than Alice did in fact drink precisely a drop of eggnog. For whatever reason, the indefinite NPIs do not force such awkward presuppositions, and so are fine in these contexts.

3.4.2. Non-Rhetorical Questions. Another clear difference between indefinite and minimizer NPIs arises in their behavior in questions. While *any* and *ever* appear freely in both simple information questions and in rhetorical questions, most other NPIs either force a rhetorical reading or at least heavily bias a question towards a negative response.

- (29) a. Have you seen any unicorns in Sausalito? (information or rhetorical)
 b. Have you ever seen a unicorn Sausalito? (information or rhetorical)
 c. Have you seen so much as a single unicorn in Sausalito? (rhetorical only)

We should note that various other NPIs (e.g. *yet* and *much*) pattern with the indefinites with respect to their behavior in questions and in non-focal contexts. There are, however, also contexts which seem to clearly establish the uniqueness of the indefinites as a distinct, natural class of polarity items.

3.4.3. Only. One context which welcomes indefinite NPIs apparently to the exclusion of any other is the focus of *only* (cf. Lee and Horn 1994). The examples in (30) show that *ever* and *any* serve to emphasize the restricted extent of the focus of *only*, while NPIs like *the least bit* and *yet* are simply ungrammatical in the same context.

- (30) a. Only people who've ever read Lacan will understand this movie.
 b. Only people who've read any Lacan will understand this movie.
 c. *Only people who've read the least bit of Lacan will understand this movie.
 d. *Only people who've read Lacan yet will understand this movie.

In fact, the question of why *any* and *ever* count as emphatic here, and in fact why this context should license NPIs at all, remains something of a mystery (cf. Israel 1995; Horn 1996). Whatever the explanation, the fact that *any* and *ever* share the peculiar distinction of being the only polarity items to appear in this context clearly suggests that these forms must have something important in common.

3.4.4. Negated *Because* Clauses. Negated *because* clauses are another context in which *ever* and *any* share the peculiar distinction of being the only NPIs to be licensed. As the examples in (31) show, a negation with wide-scope over a *because* clause can reach inside the clause to license an indefinite polarity item but not (at least not as easily) to license a minimizer like *the least bit*.

- (31) a. Sidney didn't get the job because she had ever studied tax law. The boss just liked her perky attitude.
 b. Sidney didn't get the job because she had any special talents. The whole thing was rigged from the beginning.
 c. *Sidney didn't get the job because she had the least bit of talent. The whole thing was rigged from the beginning.

Again, the nature of the licensing mechanism here has attracted considerable attention and in fact remains a matter of controversy (Linebarger 1980, 1987; Kadmon & Landman 1993; Johnston 1994). But again whatever explanation one chooses, the facts clearly suggest that *any* and *ever* form a distinct, natural class of polarity items.

3.4.5. Phrasal Comparatives. Another dramatic indication of the uniqueness of indefinite polarity items comes from their behavior in comparative contexts. *Any* and *ever* appear to be unique among English polarity items in their ability to occur in phrasal comparatives. Hankamer (1973) argues for a basic distinction between phrasal comparatives, in which *than* heads a prepositional phrase as in (32a), and clausal comparatives, in which *than* heads a full clause as in (32b).

- (32) a. Glinda dances more than Sydney.
b. Glinda dances more than Sydney sings.

As Hoeksema (1983) notes, clausal comparatives license a wide variety of polarity items which are not licensed in the corresponding phrasal comparatives. As the examples in (33) demonstrate, NPIs like *a red cent*, *yet* and *in years* cannot be licensed in comparatives which lack an explicit VP.

- (33) a. Sally's more likely to give her whole salary to the LSA than *(she is to give) a red cent to the Campaign to re-elect Snodgrass.
b. Hillary drinks more wheat grass juice than Monica *(does) yet.
c. Glinda has been smoking more these days than *(she *(has)) in years.

The examples in (34) show that *ever* and *any*, on the other hand, both occur freely in such contexts.

- (34) a. Glinda knows more about dancing than any of my friends.
b. Glinda is having more fun than ever.
c. Airline passengers may be angrier than ever about terrible service. (wsj)

Ever in particular occurs very frequently in this context: a full 9% of *ever*'s occurrences in my corpus are in phrasal comparatives, making this one of the most important contexts for the Existential use. (By contrast, a mere 3% occur in clausal comparatives.)

The analysis of phrasal comparatives and the status of *any* in these contexts remain somewhat controversial. Hoeksema (1983) and Aranovich (1996) argue that phrasal comparatives are not downward entailing, that they therefore do not license polarity items, and that instances of *any* in phrasal comparatives are free choice usages. Hendriks (1993) offers a contrary opinion. None of these authors pays any attention to the behavior of *ever*. At the very least, this behavior seems to undermine the free choice analysis of *any* in these contexts, since there is no evidence that *ever* ever does function as a free choice indefinite. However these matters are resolved, the important point for our purposes is that once again *ever* and *any* seem to be unique among English polarity items as the only NPIs which can be licensed in a comparative without an explicit VP.

3.4.6. Ironical Usage. While *ever* and *any* are in most respects very liberal NPIs, there is one way in which they are unusually strict about their licensing conditions. Unlike many other NPIs, they simply will not tolerate jocular or ironic uses. As the examples below suggest, while a minimizer like *read a word* can be used to make an ironic concession, *any* and *ever* are flatly ungrammatical in such contexts.

- (35) A: I'll bet none of my students have read a word of Deleuze.
B: Well, some of them have probably read **a word**, maybe even two or three.
(36) A: I'll bet none of my students have read any Bataille.
B: *Well, some of them have probably read **any**.
(37) A: I'll bet none of my students have ever read Lacan.
B: *Well, some of them have probably **ever** read him, maybe even several times.

While I can offer no comprehensive explanation for the complex behavior of *any* and *ever*, it should be clear that these forms have more in common than do most NPIs. The parallels in their meanings, in their patterns of polysemy, and in their particular

polarity sensitivities all suggest that these two forms share some basic grammatical property. I propose to call this property phantom indefiniteness. It remains to be seen how far can this one property go in accounting for the behavior of these two forms.

3.5. Universal *Ever* is not a Free Choice Indefinite

There is a limit to the parallelism between *any* and *ever*. Universal *ever* is not a free choice indefinite and Free Choice *any* is not, strictly speaking, a universal quantifier. Universal *ever* seems to have essentially the same sort of truth conditions as any other temporal universal adverb, like the more colloquial *always*. One doesn't have the sense, in other words, that in a sentence like *my natural will ever cleaved to evil*, or any of the other examples of Universal *ever*, one is being asked to choose any random point in time to verify the assertion. But this is precisely the essence of a free choice indefinite. Free Choice (FC) *any* does not really quantify over a set of instances so much as it offers up a random instance to be chosen at the interpreter's discretion. The universal effect arises from the freedom of choice: if it doesn't matter which you choose, then it must be true for every possible choice. But as Vendler (1967) points out, there is an important difference between someone offering you *any cookie* and someone offering you *every cookie*: in the first case though you can choose as you like, you still only get one cookie.

There are two basic lines of argument to show that Universal *ever* is not a free choice indefinite. The simplest and probably most compelling is just that it does not have the right meaning. This is clearest when one compares *ever* with a true free choice temporal adverb like *any time*: while (38a) makes an open invitation, (38b) is simply ungrammatical. Of course, *ever* does play an important role in the free choice meaning of *whenever* in (38c). But then examples like this also make it clear that *ever* alone does not have a free choice meaning.

- (38) a. Come visit me any time.
b. *Come visit me ever.
c. Come visit me whenever.

The second line of argument points to differences in the distribution of Universal *ever* and true free choice indefinites. First of all, Universal *ever* occurs in contexts where free choice indefinites cannot. Carlson (1981) notes that FC *any* cannot, for example, be used to describe perfective situations involving stage-level predicates as in (39a). As (39b) shows, Universal *ever* is not subject to any such constraint, and in this example it clearly refers to a specific set of instances of increasingly miserable whining.

- (39) a. *The hungry cat demanded any more food.
b. The hungry cat whined ever more miserably.

Since Universal *ever* is a positive polarity item, there are also contexts where it cannot occur but which freely allow free choice usages. The most obvious such context is sentential negation. (40a) without the *just* is ambiguous between a free choice and an existential reading of the *any*. With the *just* the *any* in (40a) can only be a free choice usage. (40b), on the other hand, is unambiguous without the *just* and simply ungrammatical with it.

- (40) a. Glinda won't kiss (just) any linguist!
b. Glinda won't (*just) ever kiss a linguist!

The conclusion here is that there is no reason to believe that *ever* can function as a free choice indefinite and there are excellent reasons to believe that it can't. Thus while *ever* and *any* both have universal-like usages, these usages are not in fact strictly parallel.

In conclusion, then, while *any* and *ever* exhibit overwhelming similarities they still retain their own distinctive personalities. As polarity items, their behavior verges on being identical, but in their universal usages the two are clearly distinct. This striking and yet strikingly limited parallelism has important implications for the analysis of both of these words.

4. Against a Unified Analysis of *Any*

In the last few years two important papers, Kadmon & Landman (1993) and Lee & Horn (1994), have developed unified analyses of *any* as an indefinite determiner. Both of these accounts view *any*'s polarity sensitive (PS) and free choice (FC) uses as parallel manifestations of a single core meaning in which *any* combines the basic semantics of the indefinite article *a(n)* with other semantic-pragmatic properties. The two accounts differ as to what these other properties might be, but both see the split between PS and FC *any* as reflecting a more basic split in the use of indefinites generally. As is well-known, the indefinite article has both an existential usage (as in *I saw a rhinoceros yesterday*) and a generic usage (as in *A rhinoceros should be treated with respect*). Both accounts appeal to this independently established fact as the basis for a unified analysis, and link PS *any* with the existential usage and FC *any* with the generic usage. Both accounts also go further, claiming that the same feature which makes the existential *any* polarity sensitive is also responsible for the free choice semantics of its generic usage.

While these analyses remain controversial, there is much to recommend them. Most importantly, by focusing on *any*'s status as an indefinite these analyses capture an important generalization regarding *any*'s split uses and the more fundamental existential-generic split of indefinites generally. Any theory which does not link the two types of *any* with the two types of *a(n)* will at least be obliged to explain why these forms have such similar split personalities.

Personally, I am convinced that *any* is an indefinite determiner and that its split uses reflect a common pattern for indefinites generally. The question remains, however, just how we should characterize this pattern. Both Kadmon & Landman and Lee & Horn propose that the same basic features which explain *any*'s behavior as an NPI also explain its free choice semantics as a generic. Both theories thus offer unified analyses of *any*, effectively deriving *any*'s split behavior from a single lexical entry for the word.

But even granting *any*'s common indefinite core, there may be compelling reasons to allow some autonomy between its two uses. While the basic split between PS and FC *any* may be grounded in and motivated by the more general pattern for indefinites, the precise details of the PS and FC usages may yet have to be stipulated in the lexical entry for *any*. In other words, *any*, like *ever*, might best be analyzed as a polysemous form with distinct senses related in a complex constructional network. I would suggest that the evidence from *ever* strongly supports such a conclusion.

The argument is very simple. On their existential uses *any* and *ever* appear to be exact counterparts. They have similar meanings and virtually identical distributions. We therefore conclude that *any* and *ever* must share some basic grammatical feature which explains their parallel behaviors. Let us say then that *any* and *ever* share the property of being phantom indefinites. What this means precisely is not at issue: it is simply the property that accounts for their common behavior.

On their Universal uses *any* and *ever* are not parallel, since Universal *ever* does not express the semantics of a free choice indefinite. The fact that *ever* helps derive such an indefinite in *whenever* only underscores the lack of parallelism, for it shows that there is no principled reason why *ever* couldn't express such a meaning: it just happens not to.

So *any* is a phantom indefinite with a free choice usage and *ever* is a phantom indefinite without a free choice usage. It seems evident then that the property of being a phantom indefinite, however it might be defined, cannot predict whether a given form will have a free choice usage or not. It therefore seems to follow that the same property which gives *any* and *ever* their special polarity properties cannot also be responsible for the free choice semantics of *any*. I therefore conclude that *any*, like *ever*, is a polysemous lexical item with distinct senses related in a complex network.

Still, although the argument strikes me as very compelling, the conclusion remains somewhat tentative. There are, after all, important differences between a nominal determiner like *any* and an adverbial like *ever*. While the former applies to individuals (or, in the terminology of Cognitive Grammar, to things) the latter applies to propositions or relations. It seems reasonable that the differences between individuals and propositions might have something to do with the differences between *any* and *ever*.⁴

There is an intriguing observation to be made along these lines concerning the relation between judgement types and indefinites⁵: generic indefinites in general and free choice indefinites in particular can only function as the subject of a categorical judgement—they select an entity for conscious consideration and predicate something of that entity. A sentence adverb like *ever*, however, cannot be the subject of a categorical judgement. These forms attach to a proposition as a whole and propositions in general cannot be the subject of a predication. In certain complex constructions, however, a proposition can itself stand for an individual and thus function as the subject of a categorical judgement. I am thinking here of sentences like *Whoever wins the race will buy the drinks* and *Whenever she visits the neighbors complain*. In these examples the free relative picks out a type of individual or situation and predicates a complex set of affairs on that type. And interestingly, *ever* seems to play a key role in these examples by deriving the free choice relative that heads these constructions. I will not speculate further on the relationship between the free choice semantics of *any* and the universal semantics of *ever*, but it is possible that the key to their differences lies in the mysterious connection between judgement type and genericity. Certainly it is an area for further investigation.

5. Conclusions and Abiding Mysteries

In this paper I have attempted to lay the groundwork for a comprehensive account of a single word. At the very least, I hope that my efforts have demonstrated that this is a worthwhile and important endeavor. My goal in this work has been to take even the messiest facts as seriously as possible. Naturally, this means that I have found much more than I could possibly explain, but I do hope to have shown that there are important systematicities hidden in the chaos of *ever*'s many different uses. I have tried at least to offer a lucid glimpse into that chaos.

What I have found there, naturally, consists mostly of further mysteries. The parallels between *ever* and *any* seem to support a strong link between indefiniteness and negative polarity. But the details of that link remain a mystery: if *any* and *ever* are both phantom indefinites, we still don't know just what a phantom indefinite is.

The polysemy of *ever* and the details of its derivational usage seem to indicate a significant link between negative polarity and free choice semantics, but they also clearly complicate the apparently simple link one finds between the two uses of *any*. So while it is clearer than ever that there is an important, non-arbitrary relationship here, the nature of that relationship remains mysterious.

Still, while mysteries remain, we can confidently draw a few significant conclusions. First, the rich complexity of *ever*'s many uses and sub-uses strongly supports a general view of grammar in which polysemy is recognized as a normal state of affairs. Acceptance of polysemy should not be mistaken for the abandonment of important generalizations: just because we need to distinguish a broad set of highly specific construction types to account for the usage of a word does not mean that we are

excused from accounting for the significant patterns which hold across those constructions. Polysemy is the norm for lexical forms of all sorts, and polarity items are no exception. The challenge is not necessarily to eliminate distinct senses but rather to explain the ways in which distinct senses are related.

Second, the evidence from *ever* clearly supports the claim that polarity sensitivity is a function of lexical semantics. *Ever* offers a compelling case in which polarity sensitivity systematically varies as a function of a lexical item's constructional meaning. More importantly, the link between *ever*'s quantificational values and its status as an NPI or a PPI provides important corroboration for the Informativity Hypothesis and for the scalar model of polarity sensitivity developed in Israel (1996, 1997). The Informativity Hypothesis correctly predicts the link between *ever*'s polysemy and its polarity sensitivity. The conclusion is that polarity sensitivity in general is rooted in the conventional encoding of rhetorico-pragmatic features like emphasis and informativity.

Finally, it should be clear from the complex of behavior of *ever* and its complex parallels with *any* that indefinites come in a variety of different sorts. Much further study is needed to sort them all out.

¹Notes

¹ See Bybee (1985) or Langacker (1987) for a more detailed vision of grammars combining both higher order generalizations and the more specific patterns of usage from which they emerge.

² Note that Universal uses of *ever* have not always been so intolerant of negation. The following example from the OED clearly forces a universal reading in the scope of negation:

i) It [the island] was not euer compassed about with the sea. (1551 Robinson tr. *More's Utop.* ii. 73)

³ Labov does not distinguish between existential and universal uses of *any* and *ever*.

⁴ Bill Ladusaw and Larry Horn (p.c) have both encouraged me in this line of speculation.

⁵ Byrne (1998) provides an extensive discussion of the relationship between judgement types and indefinites.

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