

Nonrestrictive Modifiers in Nonparenthetical Positions

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1 Introduction

Two areas of lingering empirical and theoretical uncertainty:

- the systematic but often subtle semantic differences between prenominal and post-nominal adjectives first noted by Bolinger (1967)
- the systematic but often subtle semantic differences between preverbal and postverbal adverbs, many of them noted early on by Jackendoff (1972)

The focus here, a part of this larger puzzle: A parallel between prenominal adjectives and preverbal adverbs in the availability of nonrestrictive interpretations.

The agenda:

- use the contrast in the availability of nonrestrictive interpretations between prenominal and postnominal adjectives to probe a corresponding distinction among adverbs
- argue that this is in fact essentially the same phenomenon, and that independent assumptions about modifier syntax, focus/information structure, or prosody do not suffice to explain it
- propose an interpretation for these nonrestrictive uses in which they contribute expressive meaning involving modification of something like an implicit contextually-restricted definite description

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- present a means of assembling these interpretations—in terms of (more or less) the understanding of expressive meaning in Potts (2003) in which it is a separate semantic dimension computed alongside ordinary meaning—that relies crucially on a link between linear order and the compositional mechanism that drives the computation of expressive meaning
- consider (or at least ask) whether a multidimensional interpretive procedure in which aspects of (pretheoretically) pragmatic meaning are calculated compositionally alongside ordinary semantic meaning (such as that of Potts or Chierchia 2001) might warrant the sort of re-evaluation I consider here of the role of linear order in interpretation

2 The Phenomenon

2.1 *The Contrast in Adjectives*

Among the more important aspects of the larger puzzle of how adjective position and interpretation correlate are the differences between prenominal and postnominal adjectives (Bolinger 1967, Larson 1999, others).

What's relevant here: prenominal adjectives in English are ambiguous between what Bolinger (1967) characterizes as restrictive and nonrestrictive readings, as in (1), but postnominal adjectives have only the restrictive reading, as in (2):

- (1) Every *unsuitable* word was deleted. (Larson and Marušič 2004)
 - a. Restrictive: 'Every word that was unsuitable was deleted.'
 - b. Nonrestrictive: 'Every word was deleted; they were unsuitable.'
- (2) Every word *unsuitable* was deleted. (Larson and Marušič 2004)
 - a. Restrictive: 'Every word that was unsuitable was deleted.'
 - b. *Nonrestrictive: 'Every word was deleted; they were unsuitable.'

This effect is not always easy to demonstrate—in part because English adjectives don't generally like to be postnominal—but it can also be perceived in judgments of pragmatic oddness:

- (3) a. Every *needless and profoundly reprehensible* war crime should be prosecuted.
b. #Every war crime *needless and profoundly reprehensible* should be prosecuted.

The postnominal position in (3b) gives rise to the feeling that the speaker does not regard all war crimes as needless and reprehensible.

An explanation for why we won't be hiring Harold to play Santa this year at the mall:

- (4) a. Last year, while talking to the kids, he used several *obviously stunningly inappropriate profanities*.
- b. #Last year, while talking to the kids, he used several *profanities obviously stunningly inappropriate*.

Nothing odd about (4a) (apart from perhaps Harold's behavior), but (4b) is bizarre. It suggests that Harold erred in selecting the wrong profanities to utter to the children, and that if he had selected different ones we might gladly hire him again.

The same contrast occurs in Spanish more straightforwardly than in English:

- (5) los *sofisticados amigos* de María (Mackenzie 2004)
Nonrestrictive: 'María's friends in general; attributes sophistication to them as an incidental property'
- (6) los *amigos sofisticados* de María
Ambiguous: 'just those friends of María who are sophisticated', or 'María's friends in general (who all happen to be sophisticated)'

Italian is similar:

- (7) Le noiose lezioni di Ferri se le ricordano tutti. (Cinque 2003)
a. Restrictive: 'Everybody remembers F's classes, all of which were boring.'
b. *Nonrestrictive: 'Everybody remembers just F's classes which were boring.'
- (8) Le lezioni noiose di Ferri se le ricordano tutti. (Cinque 2003)
a. Restrictive: 'Everybody remembers F's classes, all of which were boring.'
b. Nonrestrictive: 'Everybody remembers just F's classes which were boring.'

2.2 The Contrast in Adverbs

Adverbs also manifest a contrast between restrictive and nonrestrictive interpretations. Peterson (1997) makes this essential observation, using examples along the lines of (9):

- (9) The Titanic('s) rapidly sinking caused great loss of life.
a. Restrictive: 'The Titanic's sinking being rapid caused great loss of life.'
b. Nonrestrictive: 'The Titanic's sinking, which was rapid, caused great loss of life.'

Peterson, though, does not relate this contrast to the structural position of the modifier—indeed, he suggests postverbal manner adverbs like the one in (10b) have nonrestrictive readings too. As Shaer (2000, 2003) points out, though, the availability of such non-restrictive readings is doubtful.¹

- (10) The Titanic('s) sinking rapidly caused great loss of life.
a. Restrictive: 'The Titanic's sinking being rapid caused great loss of life.'
b. *Nonrestrictive: 'The Titanic's sinking, which was rapid, caused great loss of life.'

This may be clearer in embedded contexts, as in (11), or—paralleling the adjectival cases more closely—in antecedents of conditionals that restrict a quantificational adverb, as in (12):

- (11) a. It is regrettable that the Titanic slowly sank.
b. It is regrettable that the Titanic sank slowly.
- (12) a. If a ship slowly sinks, it is always regrettable.
b. If a ship sinks slowly, it is always regrettable.

An attempt to sharpen the intuition:

- (13) I'll bet you \$80 that Floyd, who has read a lot of medical books, could easily perform a successful nose job in a moving taxi.

If it turns out that Floyd has in fact read *no* medical books, I do not lose the bet—indeed, if he has read no medical books but nonetheless manages to perform a

¹ The * here is mine.

successful nose job in a moving taxi, I win it. This resistance to narrow scope (here, wrt *bet*) is a signature property of nonrestrictive expressions (or, a bit more precisely, of ones that contribute expressive meaning).

If, though, Floyd manages to perform a successful nose job in a moving taxi, but it was not easy, a quandary results—it is not clear whether I win or lose the bet.

This is expected, because the *easily* in (13) has both restrictive and nonrestrictive readings. On the restrictive reading, I lose. On the nonrestrictive one, I win.

If nonrestrictive interpretations were possible post-verbally, we would expect the same uncertainty to arise if the terms of the bet had instead been (14):

- (14) I'll bet you \$80 that Floyd, who has read a lot of medical books, could perform a successful nose job in a moving taxi easily.

But not so. If this is the bet we had made, and it had in fact required some effort for Floyd to perform the nose job, I clearly lose. So a nonrestrictive reading is not possible here.

The conclusion: adjectives and adverbs behave similarly with respect to these contrasts—in English, both permit nonrestrictive readings on the left but not on the right.

3 Some Analytical Possibilities

3.1 Blaming Focus

A natural intuition here is to suppose that these facts could be understood in terms of focus. This is an approach pursued by Göbbel (2004), who suggests that focused modifiers receive restrictive readings and non-focused modifiers receive nonrestrictive ones.

Certainly, there seems to be a connection here, and prosodic considerations more generally seem to be relevant, but this kind of explanation does seem to be sufficient on its own to explain the contrasts...

- One difficulty is that no matter how one manipulates focus in the betting example with a postverbal adverb in (14), I lose:

- (15) a. I'll bet you \$80 that Floyd, who has read a lot of medical books, could perform a **SUCCESSFUL** nose job in a moving taxi easily.
b. I'll bet you \$80 that Floyd, who has read a lot of medical books, could perform a successful **NOSE JOB** in a moving taxi easily.
c. I'll bet you \$80 that Floyd, who has read a lot of medical books, could perform a successful nose job in a **MOVING** taxi easily.

If the restrictive reading were only possible when the adverb is focused, it would be necessary to suppose that *easily* is in fact focused in all of these examples, and indeed that it is not possible to *not* to focus it in this position. This seems undesirable.

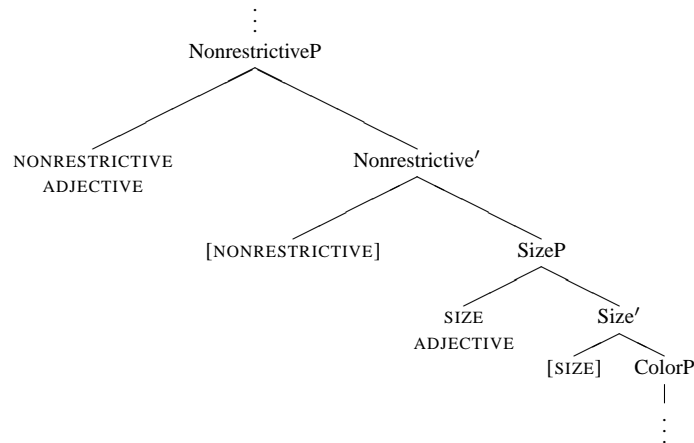
- Another difficulty: how to explain the adjective facts? Since in Spanish postnominal adjectives correlate fairly directly with restrictive interpretations, this approach would entail that postnominal adjectives are necessarily focused in Spanish, even when they are not DP-final as in (5–6).
- Further, it would require that prenominal adjectives in Spanish and Italian *cannot* be focused, since these are nonrestrictive... An odd state of affairs, and one that would in itself require some kind of explanation.²
- These effects are typically described using terms like 'nonrestrictive', 'double assertion' (Peterson 1997), or 'parenthetical', and they are naturally paraphrased using *incidentally* or *by the way*. This is not how expressions that simply lack focus are normally described.

3.2 Assimilating These to Other Effects of Modifier Position

Another natural approach to these observations is to view them as of fundamentally the same sort as facts about e.g. the relative order of adjectives of evaluation, color, and size, or of pragmatic, subject-oriented, and manner adverbs. Might the explanation for these facts about nonrestrictive readings follow from a more general theory of modifier distribution? Might there be a single spot associated with nonrestrictive modification, as perhaps in a vaguely Cinquean (Cinque 1994, 1999 and many others) treatment as in (16)?:

² Certainly, it is not clear that this result would follow from purely from facts about the distribution of phrasal stress, for example.

(16) A MORE-OR-LESS CINQUEAN POSSIBILITY:



Maybe. But there is reason to think that these facts about nonrestrictive readings are of a different sort...

- As Shaer points out, the restrictive/nonrestrictive distinction in adverbs cuts across adverb classes. Both the subject-oriented adverb *accidentally* and the (pure) manner adverb *softly* manifest the contrast, for example:

- (17) a. Clyde $\left\{ \begin{smallmatrix} \text{softly} \\ \text{accidentally} \end{smallmatrix} \right\}$ muttered something offensive.
 b. Clyde muttered something offensive $\left\{ \begin{smallmatrix} \text{softly} \\ \text{accidentally} \end{smallmatrix} \right\}$.

This distinction similarly cross-cuts adjective classes as well.

- The restrictive-nonrestrictive contrast targets multiple modifiers at a time, grouping together ones of different classes:

- (18) I'm positively tickled pink to meet your charming lovely Portuguese wife.

Here, all the prenominal adjectives are most naturally interpreted nonrestrictively—this does not suggest that the addressee has any other wives, or that any of them are anything other than charming, lovely, and

Portuguese.³

4 Modifier Position in Computing Expressive Meaning

4.1 Expressive Meaning

Crucial to what needs to be captured: The sense of 'double assertion'.

This can be done by recognizing that, like nonrestrictive relatives and numerous other constructions, these nonrestrictive modifiers involve a species of expressive meaning (Kratzer 1999, Potts 2003, and references there).

A few characteristics of expressive meaning:

- Speaker oriented: Convey the speaker's commentary on what is being said.
- Resistant to narrow scope.
- Unlike conversational implicatures, do not arise from the context of use.

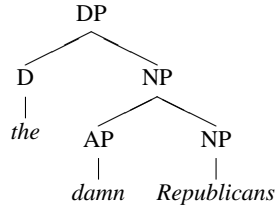
4.2 Potts (2003): Some Theoretical Machinery and Damn Expressive Adjectives

Potts devises a framework in which expressive and ordinary descriptive meaning are computed compositionally in parallel, along two distinct dimensions. He explicitly proposes an analysis of nonrestrictive uses of adjectives, focusing on ones that lexicalize a nonrestrictive meaning such as *damn* and *fucking*,⁴ and assigns the structure in (19) the interpretation in (20):

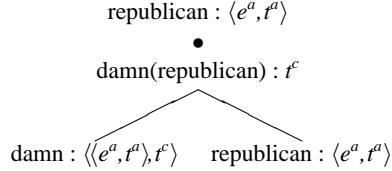
³ Curiously, it seems to be the case that when one prenominal adjective is interpreted nonrestrictively, all of them tend to be. I have no explanation of this—maybe it's some kind of psycholinguistic effect.

⁴ He calls these 'expressive adjectives', using the term in a more restricted sense than I will here. He suggests, though, that analogous nonrestrictive uses of e.g. *lovely* work roughly similarly.

(19)



(20)



The crucial ingredients in (20):

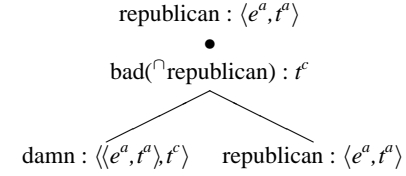
- The descriptive meaning is above the bullet; the expressive meaning is below it.
- The colons separate denotations and their types; types come in two flavors: ordinary/descriptive/at-issue and expressive/conventionally-implicated, superscripted with a and c respectively.
- A rule of semantic composition—‘CI Application’⁵—that puts descriptive and expressive denotations together in the way (20) reflects. This rule is roughly the expressive counterpart of the standard functional application rule.

He suggests *damn* denotes a function that predicates of the kind correlate of its argument some generalized disapproval predicate whose exact nature is irrelevant to the combinatorics, as in (21) (where \cap is the nominalization function of Chierchia 1984, mapping a predicate to a kind):

(21) $\text{damn} \rightsquigarrow \lambda X. \text{bad}(\cap X) : \langle \tau^a, t^a \rangle, t^c$

So (21) could be spelled out more fully as (22):

(22)



4.3 Bumps in the Road

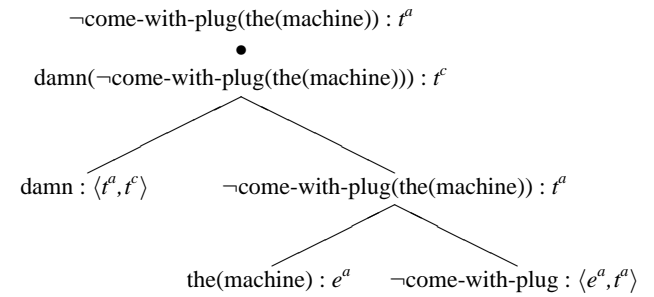
A few difficulties would have to be overcome in directly extending this approach to the phenomena in section 1.

- In order to account for many uses of expressive adjectives of this sort, this approach involves assumptions about the relation between constituency and compositionality that give rise to severe problems in understanding the adverb facts:

(23) The damn machine didn’t come with an electric plug.

On its most natural interpretation, this does not convey the speaker’s disapproval of machines as a kind, as (21), coupled with usual assumptions about compositionality, would suggest. Potts suggests that the expressive adjective here receives a clause-modifying adverbial interpretation (as adjectives like *occasional* can; Stump 1981, Larson 1999, Zimmerman 2000):

(24)



This sort of explanation predicts that (25a), which involves the expressive adjective *fucking*, should have a reading identical to that of (25b), which involves its adverbial counterpart:

⁵ ‘CI’ is for ‘conventional implicature’.

- (25) a. A fucking Republican sold my grandmother to Halliburton.
b. A Republican fucking sold my grandmother to Halliburton.

These do, however, differ—(26a) conveys disapproval of Republicans, (26b) of having one's grandmother sold to Halliburton. There need not be any disapproval of Republicans generally conveyed in (26b), but there does not appear to be any natural reading of (26a) that fails to convey disapproval of Republicans.⁶

• If this approach were simply applied as-is to most of the examples of interest here, the wrong interpretation would result:

- (26) Every unsuitable word was deleted.
a. 'Words (as a kind) are unsuitable.'
b. 'Unsuitably, every word was deleted.'
- (27) It's regrettable that the Titanic slowly sank.
a. 'Sinkings (as a kind) are slow.'
b. #?'Slowly, it's regrettable that the Titanic sank.'

• The distinction between leftward and rightward modifiers remains to be explained.

But despite these obstacles, there is reason to think that pursuing the analogy to *fucking* and *damn* might be fruitful. If we view these expressions as simply lexicalizing nonrestrictive interpretations that are in general available, but, as section 1 argues, only on left branches, we would expect it to be impossible to use them on the right (on the relevant interpretation). This seems to be the case:

- (28) a. He fucking ate the whole goddamn thing.
b. *He ate the whole goddamn thing fucking.
- (29) a. He might damn well invade Iran.
b. *He might invade Iran damn well.

⁶ Similarly, (i) has a reading involving disapproval of one's grandmother that neither (25a) or (25b) quite seems to have:

(i) A Republican sold my fucking grandmother to Halliburton.

4.4 Adding Another Ingredient: Contextual Domain Restrictions

Maybe one can get a handle on the kind of interpretations needed here by taking seriously paraphrases like Larson and Marušič (2004)'s 'Every word was deleted. They were unsuitable.'

This seems to involve predicating *unsuitable* not of a kind, but rather of something like an E-type pronoun, or—on a paraphrase like '...The words were unsuitable'—of a definite description.

In either case, a crucial additional ingredient would be contextual domain restrictions. That is, what's being quantified over in these cases is not, of course, all words, but only the contextually relevant ones—a fact I'll reflect here using a contextually-supplied resource domain variable *C* (cf. Westerståhl 1985, von Stechow 1994):⁷

- (30) a. Every unsuitable word_C was deleted.
b. 'Every word_C was deleted. The word_C were unsuitable.'
c. 'For every word *x* in *C*, *x* was deleted, and the sum of the words in *C* was unsuitable.'

$$(31) \quad \forall x[[\text{word}(x) \wedge x \in C] \rightarrow \text{deleted}(x)] : t^d$$

$$\bullet$$

$$\text{unsuitable}(\sup(\lambda y . \text{words}(y) \wedge y \in C)) : t^c$$

Striving to assemble these kinds of interpretations may be a step toward a more adequate general understanding:⁸

- (32) a. If a ship slowly sink_{SC}, it's always regrettable.
b. 'Every ship-sinking_C is regrettable. The sinkings_C (i.e., the relevant sinkings) are slow.'
c. 'For every ship-sinking event *e* in *C*, *e* is regrettable, and the sum of all the ship-sinking events in *C* is slow.'

⁷ In addition to contextual domain restrictions, these rough interpretations introduce a supremum operator that loosely corresponds to the definite determiner in the paraphrases. This is not as significant a move, however. Indeed, the Chierchia (1984) nominalizing type-shift \cap itself has this general kind of semantics (at least extensionally). I am also placing the resource variable *C* directly in the syntax, as a subscript on the head, for reasons that may become clear.

⁸ There is a certain amount of sleight of hand taking place in (32) to avoid intensionality.

$$(33) \quad \begin{array}{c} \forall e[[\text{ship-sinking}(x) \wedge e \in C] \rightarrow \text{regrettable}(e)] : t^a \\ \bullet \\ \text{slow}(\text{sup}(\lambda e' . \text{ship-sinking}(e') \wedge e' \in C)) : t^c \end{array}$$

4.5 The Proposal: Expressive Predicate Modification

The essential idea: Since this is a two-dimensional semantics, with two distinct kinds of meaning being computed and different composition rules assembling them, perhaps we can assume rules that introduce expressive meaning may look different in principle from ones that do not. Specifically, maybe rules that introduce expressive meaning can be directly sensitive to linear order in a way ordinary non-expressive meaning is not.

(This would reflect the common intuition that nonrestrictive modifiers are in some sense secondary or additional—extra comments on the current utterance that happen to be interleaved with it.)

So, let's supplement Potts' model—which already has a rough counterpart to standard functional application—with a rough counterpart of a rule of intersective modifier interpretation (such as Predicate Modification in Heim and Kratzer 1997), and make it sensitive to linear order:⁹

(34) EXPRESSIVE PREDICATE MODIFICATION

$$\begin{array}{c} \beta : \langle \sigma^a, t^a \rangle \\ \bullet \\ \alpha(\text{sup}(\beta)) : t^c \\ \swarrow \quad \searrow \\ \alpha : \langle \sigma^a, t^a \rangle \quad \beta : \langle \sigma^a, t^a \rangle \end{array}$$

(...where α is left of β)

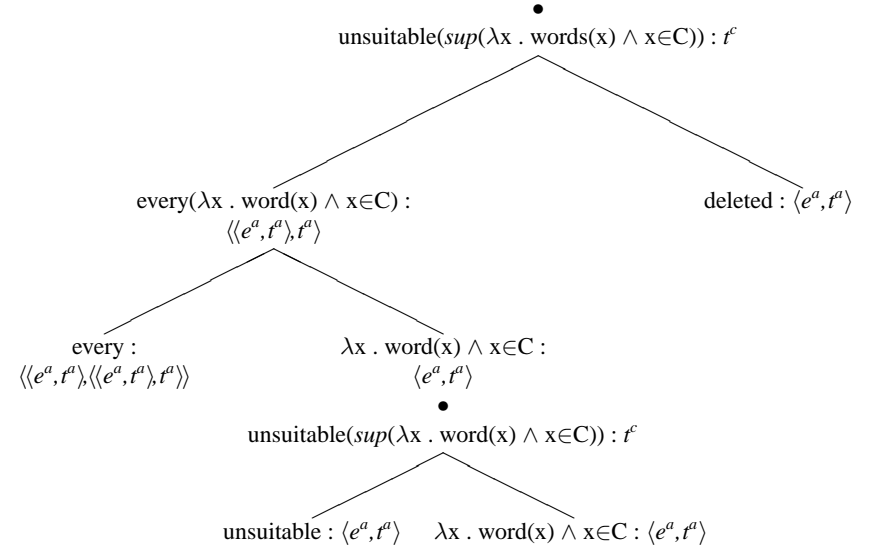
This will give rise to interpretations such as (35) and (36):¹⁰

⁹ This is slightly simplified, in that strictly speaking, it should reflect that the daughters can themselves have expressive meaning. For expository purposes, though, it is safe to set this aside.

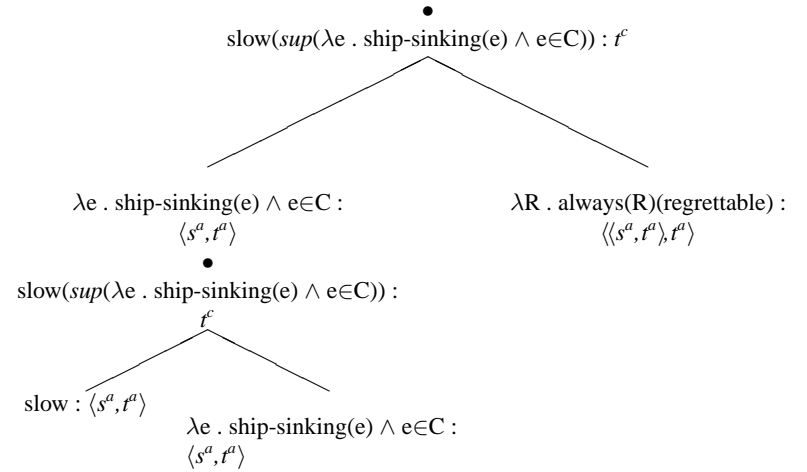
¹⁰ Events (or, as would ultimately be necessary, situations) are of type s . I am assuming the following:

(i) for any α , $\alpha_C \rightsquigarrow \lambda x . \alpha(x) \wedge x \in C$

- (35) a. [Every [unsuitable word_C]] was deleted.
b. $\text{every}(\lambda x . \text{word}(x) \wedge x \in C)(\text{deleted}) : t^a$



- (36) a. [If [a ship sinks_C]] [it is [always regrettable]].
b. $\text{always}(\lambda e . \text{ship-sinking}(e) \wedge e \in C)(\text{regrettable}) : t^a$



4.6 Events?

I'm using event(ualitie)s here, rather than situations (or worlds) principally for simplicity, but—at least as things are set up here—this can't ultimately be the case.

What I've said so far implies that (37a) should have an interpretation like (37b), which is borderline nonsense:

- (37) a. If Herman forgets his umbrella, it always rains.
b. 'Every event of Herman forgetting his umbrella is an event of it raining.'

We can get out of this by using situations (in the Kratzer 1989) instead as von Stechow (1994) does. So far as I can see, this poses no special problems here, but it does entail some significant intensional ontological commitments one might not have expected having to make in an account of what seems to be an essentially extensional phenomenon.

Alternatively, it might be possible to get away with using events after all if some relation other than identity is slipped in somewhere—for example, maybe in (37) what is called for is something like 'there is an event of it raining loosely coinciding every event of Herman forgetting his umbrella'—but I'm not sure where this relation would come from or how general such an approach could be.

So, one way or another, just following the logic of the proposal and maintaining the analogy to adjectives that drives the analysis of the adverb cases here, one is led to rely on some relatively heavy-duty machinery.

5 Final Remark

The core empirical argument: Both adjectives and adverbs can receive nonrestrictive interpretations only in leftward positions, and that they contribute expressive meaning (just as nonrestrictive relatives do).

I suggest an understanding of this couched in the general model of expressive meaning of Potts (2003) in which:

- These nonrestrictive interpretations involve predication of the modifier of something like a contextually-restricted definite description (rather

than, say, simply a kind)

- A rule of semantic composition, Expressive Predicate Modification, is introduced as roughly the expressive counterpart of the ordinary Predicate Modification rule, and makes direct reference to linear order, requiring an expressive modifier to be on a left branch
- A point I haven't emphasized here, but worth noting: Syntactic and semantic constituency coincide.

Semantic rules are now standardly thought to be unable in principle to refer to linear order. But in light of multidimensional semantic theories such as that of Potts and others (notably Chierchia 2001, who treats scalar implicatures in a compositional multidimensional way), perhaps it is worth considering whether in fact that this standard view should extend to these new levels of meaning—or, to put things another way, if these entirely distinct dimensions are genuinely necessary, maybe we should *expect* them to be fundamentally different in various respects.

References

- Bolinger, Dwight. 1967. 'Adjectives in English: Attribution and predication'. *Lingua* 18:1.
- Chierchia, Gennaro. 1984. *Topics in the Syntax and Semantics of Infinitives and Gerunds*. Doctoral dissertation, University of Massachusetts Amherst.
- Chierchia, Gennaro. 2001. 'Scalar implicatures, polarity phenomena, and the syntax/pragmatics interface'. Ms., University of Milan.
- Cinque, Guglielmo. 1994. 'Evidence for partial N-movement in the Romance DP'. In Cinque et al., ed., *Paths Toward Universal Grammar: Essays in Honor of Richard S. Kayne*. Georgetown University Press, Washington D.C.
- Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford University Press, New York.
- Cinque, Guglielmo. 2003. 'The dual source of adjectives and XP- vs. N-raising in the Romance DP'. Handout, North Eastern Linguistic Society (NELS) 35.
- Göbbel, Edward. 2004. 'Focus and marked positions for VP adverbs'. Ms., University of Tübingen.
- Heim, Irene and Angelika Kratzer. 1997. *Semantics in Generative Grammar*. Blackwell Publishers, Oxford.
- Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar*. MIT Press, Cambridge, Massachusetts.

- Kratzer, Angelika. 1989. 'An investigation of the lumps of thought'. *Linguistics and Philosophy* 12(5):607.
- Kratzer, Angelika. 1999. 'Beyond *Ouch* and *Oops*: How descriptive and expressive meaning interact'. Ms., University of Massachusetts Amherst; presented at the Cornell Conference on Theories of Context Dependency.
- Larson, Richard. 1999. 'Semantics of adjectival modification'. Lecture notes, LOT Winter School, Amsterdam.
- Larson, Richard and Franc Marušič. 2004. 'On indefinite pronoun structures with APs: Reply to Kishimoto'. *Linguistic Inquiry* 35(2):268.
- Mackenzie, Ian. 2004. 'Topics in spanish syntax'. Lecture notes, University of Newcastle Upon Tyne. URL: <http://www.staff.ncl.ac.uk/i.e.mackenzie/syntax.htm>.
- Peterson, Philip L. 1997. *Facts, Propositions, Events*. Kluwer Academic Publishers, Dordrecht.
- Potts, Christopher. 2003. *The Logic of Conventional Implicatures*. Doctoral dissertation, University of California, Santa Cruz.
- Shaer, Benjamin. 2000. 'Syntactic position and the readings of 'manner' adverbs'. In *ZAS Papers in Linguistics* 17.
- Shaer, Benjamin. 2003. 'Manner' adverbs and the association theory: Some problems and solutions'. In Lang, Edwald, Claudia Maienborn, and Cathrine Fabricius-Hansen, eds., *Modifying Adjuncts*. Mouton de Gruyter, Berlin.
- Stump, Gregory T. 1981. 'The interpretation of frequency adjectives'. *Linguistics and Philosophy* 4(2):221.
- von Fintel, Kai. 1994. *Restrictions on Quantifier Domains*. Doctoral dissertation, University of Massachusetts Amherst.
- Westerståhl, Dag. 1985. 'Determiners and context sets'. In van Benthem, Johan and Alice ter Meulen, eds., *Generalized Quantifiers in Natural Language*. Foris, Dordrecht.
- Zimmerman, Malte. 2000. 'Pluractional quantifiers: The *Occasional* construction in English and German'. In Jackson, B. and T. Matthews, eds., *Proceed-*

ings of SALT X. CLC Publications, Ithaca, New York.

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