Compromising Positions and Polarity Items

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0. Introduction
This paper looks at two theories of negative polarity licensing that utilize the notion of strength or strengthening to explain NPI distribution. I consider Kadmon and Landman (1993) and Israel (1996, 2001, 2005), both of whom define strength in terms of downward inferencing relations.

I claim that various compromising adverbs such as pretty much, virtually, practically, etc., disrupt this pragmatic inferencing and so raise problems for theories depending on this type of motion. Taking pretty much as a test case, I suggest that the compromising data can be accounted for by the semantic notion of (non)veridicality, as demonstrated in Giannakidou (1998, 1999, 2002, etc.). In the rest of the paper then, I will illustrate the problems the compromisers raise first for Kadmon and Landman (K&L) and then Israel. The last section shows how the (non)veridicality theory of Giannakidou successfully manages the data.

First, however, it is necessary to make some general remarks in regard to the meaning and use of pretty much. As a compromiser or otherwise, pretty much has rarely been mentioned in linguistic literature. However, the approximator almost, which has a similar (though not identical) semantics and distribution has received much attention over the years (Sadock 1981, Rapp and von Stechow 1999, Horn 2002, Morzycki 2002, etc.). In the next section, I will provide a brief introduction to the semantics and syntax of pretty much as they compare with almost.

1. Meaning and Use of Pretty Much
There are at least two uses of pretty much, which might not be totally distinct from one another. Use 1 is a speaker-oriented hedge, which normally requires a parenthetical pause to set it apart from the sentence it modifies. As with most hedges this use can occur before or after almost any constituent, and it makes a comment on the speaker’s commitment to that particular element or to what is said generally: i.e., it can take wide or narrow scope. Importantly, this use almost always requires a parenthetical pause.
(1) USE 1: speaker-oriented hedge that does not contribute to semantic truth conditions. Requires parenthetical pause.

The arrows in (2) indicate possible hedge sites (though the longer the parenthetical pause the more versatile the hedge becomes), and the scope can often be predicted by its location—though again, not always. This use does not seem to contribute to the semantic truth conditions, and I will consider two diagnostics in §1.5 in support of this suggestion.

(2)  Rikki saw all his friends in Georgia last summer.  (Use 1)

Use 2, however, is fully integrated into the syntactic structure: it does not require a parenthetical pause. I suggest Use 2 does contribute to semantic content. And, we see in (4) that its distribution is much more limited than the speaker hedge in Use 1.

(3) USE 2: Compromising adverb that does contribute to truth conditions. No parenthetical pause is required. It is fully integrated to the syntax, as in (4):

(4)  Rikki saw all his friends in Georgia last summer.  (Use 2)

Non-pause pretty much (Use 2) does not generally appear sentence initial, as in (5a-b), unless it is restricting a universal quantifier, as in (5c). Use 1 is fine sentence initial in (5d-e).

(5)  a. *Pretty much someone stole the crown jewels.  (Use 2)
    b. *Pretty much Bret ate all the meat.  (Use 2)
    c. Pretty much everyone left the party early.  (Use 2)
    d. Pretty much, someone stole the crown jewels.  (Use 1)
    e. Pretty much, Bret ate all the meat.  (Use 1)

Use 2 does not generally occur immediately below negation as in (6a), but it is okay with a bit more distance (6b). Use 1 is fine immediately below negation in (6c) or at a distance in (6d).

(6)  a. *Gene didn’t pretty much see anyone.  (Use 2)
    b. Gene didn’t see pretty much anyone.  (Use 2)
    c. Gene didn’t, pretty much, see anyone.  (Use 1)
    d. Gene didn’t see, pretty much, anyone.  (Use 1)

From here on, I will be interested only in Use 2, or the one that is fully integrated to the syntax and contributes semantic content.
1.1. **What *Pretty Much* Modifies**

*Pretty much*, like *almost*, can function as a verbal modifier or a nominal modifier, as in (7a) and (7b), respectively. I will rely on both the nominal and verbal modifiers throughout this paper, but primarily so on the verbal modifier.

As a nominal modifier, *almost* prefers to restrict universals, as in (7b), and so has been used as a diagnostic for universal quantification (Carlson 1981, but see Horn 2005 for an alternate view). In (7b) we see *pretty much* prefers universals as well. In (7b’) the existential *someone* is difficult for both *pretty much* and *almost*.

(7) a. Rod *{pretty much/almost}* won the race.

   b. *{Pretty much/almost}* everyone left the party early.

   b’. *{Pretty much/almost}* someone left the party early

In (7c), in which *anyone* would seem to require an existential reading under the negation, *almost* appears to be unacceptable. Examples such as (7c) have a long history of “ungrammaticality”, dating at least to Horn (1972), Carlson (1981), and others over the last three decades. (But see Horn 2005 for numerous examples that suggest this construction is more acceptable than previously thought.)

(7) c. (*)I didn’t talk to *almost* anyone.

   c’. *I didn’t almost talk to anyone.*

*Pretty much* in the same position appears to be less controversial. In (7d) it straightforwardly modifies *anyone* under negation. However, in (7e) it is less acceptable directly under negation, as is *almost* above in (7c’).

(7) d. I didn’t talk to *pretty much* anyone.

   e. *I didn’t pretty much talk to anyone.*

I’ll return to examples like (7d) a bit more in §2.1, as they will be useful in arguing against Chierchia (2004), who proposes a theory of NPI licensing based on an extension of K&L, but with a more rigid scope definition.

1.2. **Scalar Positions of *Pretty Much* and *Almost***

*Pretty much* seems to occupy a point or range of points nearer the endpoint of the relevant scale than does *almost*. In (8a) *almost* suggests completion of Sid’s dissertation is close, but that it clearly has not been achieved.

(8) a. Sid has *almost* finished his dissertation.

In (8b) *pretty much* also suggests completion is close, but there is the further suggestion that ultimate completion could hinge on something other than Sid’s not having finished writing the dissertation.
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(8) b. Sid has pretty much finished his dissertation.

A likely explanation for this is that *pretty much* suggests a point nearer the scalar endpoint than does *almost*: *<pretty much, almost, not quite, halfway, etc.>*. So in an ordering of steps to ‘dissertation completion’,¹ *almost finished* might allow one to still be in the writing process, while *pretty much finished* might extend from the final stages of writing to the post-writing administrative tasks of dissertation completion, as in (8c) where Sid has finished writing his dissertation but has yet to defend or file it.

(8) c. Sid is pretty much finished with his dissertation, now he just has to defend it.

In (8d) with *almost*, it seems odd to continue with the exception of Sid having to defend the dissertation. For comparison, *not quite* seems even worse in this example.

(8) d. # Sid is *almost, not quite* finished with his dissertation, now he just has to defend it.

The difference in scalar positions is supported by Horn’s (1972) diagnostic for quantitative scales, in which the conjunction *in fact* requires the second conjunct to make a stronger claim than the first.

(9) a. Johnny almost won the race, in fact he pretty much did win it.
    b. # Johnny pretty much won the race, in fact he almost did win it.

One final example suggesting the differing scalar locations is adapted from Horn (2002).

(9) c. Republicans would concede that Gore almost won the 2000 election, but most would deny that he pretty much won it.

1.3. *Almost Counterfactuals*

Another clear contrast between *pretty much* and *almost* is that most of the *almost* examples allow a counterfactual reading in addition to approximating, while *pretty much* allows only the compromising reading. In (10) *pretty much* provides the expected weakening of the strong NPI *lift a finger* such that Tommy actually did lift a finger to help, but only a little bit.

(10) Tommy *{pretty much/almost}* didn’t lift a finger to help.

¹ We might envision such an ordering as something like *<filing, defense, writing, outlining, etc.>*
However, with *almost*, the more primary reading is a counterfactual one, where Tommy had planned not to help but then changed his mind. Perhaps a paraphrase such as *Tommy wasn’t going to lift a finger to help, but then he did after all when he remembered the Good Samaritan parable.* In this reading there need not be a comment on the amount of help Tommy actually gave. (Cf. Rapp and von Stechow 1999 for discussion of *almost* counterfactuals.)

If we increase the strength of the NPI using a squatitive (Horn 2001, and unpublished work by Háj Ross and Paul Postal 1995), only the counterfactual reading seems to be available, as in (11), and Vince cannot be said to have received even a small amount of the item X in question.

(11) Vince almost didn’t get squat.

In (12), however, with the *pretty much* squatitive, Vince clearly can have received just a little bit of X.

(12) Vince pretty much didn’t get squat.

1.4. Composition of *Pretty Much*

*Much* is an understating NPI, as in (13a). It makes weaker claims than stronger NPIs, as in (13b), and it is awkward in the non-negative environment in (13c).

(13) a. Ted doesn’t read much.
    b. Ted doesn’t read at all.

*Pretty*, as intensifying adverb, prefers a positive environment, as in (14a), and it is less acceptable under negation in (14b).

(14) a. Axl was pretty late last night.
    b. *Axl wasn’t pretty late last night.

This allergy toward negation isn’t normal behavior for an intensifier, as can be seen in a comparison with *very* in (15).

(15) a. Axl was very late last night.
    b. Axl wasn’t very late last night.

Compositionally, *pretty much* amounts to a fusion of a PPI and an NPI. For the most part, its distribution is similar to a PPI. It is perfectly acceptable in (16a) in a positive environment and less acceptable in the immediate negative environment

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2 Cf. Israel (1996) on understating NPIs.
of (16b).

(16) a. David Lee pretty much doesn’t want to go to school.
    b. *David Lee doesn’t pretty much want to go to school.

While *pretty much* does have positive tendencies, they are not absolute, as suggested above in (7d). We could speculate that the fusion of the NPI and PPI has something to do with its freer distribution or lessened sensitivity, but this is not material to the greater purpose of this paper.

1.5. Speaker-oriented vs. What is Said

Potts (2005) distinguishes integrated VP adverbs that do contribute to the narrow sense of what is said from speaker-oriented adverbs that do not and instead function as utterance modifiers. In (17a-c) [Pott’s (4.121)] *luckily* is set off by comma intonation.

(17) a. *Luckily, Willie won the pool tournament.*
    b. Willie, *luckily, won the pool tournament.*
    c. Willie won the pool tournament, *luckily.*

According to Potts the commas represent intonational phrase boundary markers, suggesting the adverb contributes supplemental material and does not contribute to the narrow sense of what is said. For Potts, this is the primary factor in differentiating uses of the adverb. Compare (17) to the pause-free (18a-b) [Pott’s (4.122)], which he claims do make semantic contributions in the narrow sense.

(18) a. Willie *luckily* won the pool tournament.
    b. Willie won the pool tournament *luckily.*
    c. *Luckily Willie won the pool tournament.*

The diagnostic can be adapted easily to the degree compromising *pretty much* examples. The primary readings of (19a-c) involve a speaker comment on Eddie’s winning.

(19) a. Pretty much, Eddie didn’t win anything.
    a’. *Pretty much Eddie didn’t win anything.*
    b. Eddie, pretty much, didn’t win anything.

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3 Here and throughout, I use Grice’s expression “what is said” (1989) to indicate asserted content and to contrast with what is implicated as well as with what Bach (1999) (following Grice) has called second-order speech acts: for example, adverbials such as *confidently, in other words*, etc., that can be “used to comment on some aspect of the speech act being performed in the utterance of the matrix sentence” (328). Relevance theorists would refer to these two levels of meaning as conceptual and procedural.
In the integrated (20), the primary readings are compromised, such that Eddie might have won a little bit, supporting the claim that non-pause *pretty much* is not just an utterance modifier and does contribute semantic content.

(20) Eddie pretty much didn’t win anything.

Bach (1999:340) utilizes indirect quotation, his IQ test, to determine if an element contributes semantic content. If there can be an accurate and complete indirect quote of the utterance which includes the element in question, then the element does contribute semantic content.

(21) a. David Lee pretty much doesn’t have a red cent (maybe a couple of bucks, but that’s it).
    b. Alex said that David Lee pretty much doesn’t have a red cent (enough for the cab ride home, but that’s it).

Now compare the speaker-oriented hedge’s (Use 1) behavior in the IQ environment.

(22) a. Al, pretty much, smashed the ashtray.
    b. Sandy said that Al, pretty much, smashed the ashtray.

(22a) expresses reluctance on the part of the speaker to make the statement—it does not compromise smash. In (22b) the hedge does express reluctance in the IQ, but it now belongs to the new speaker rather than to Sandy. It is difficult to assign a reading to (22b) where *pretty much* contributes to the original embedded statement.

In the remainder of the paper I illustrate the problems compromising *pretty much* raises for K&L and Israel as well as how these problems are avoided by (non)veridicality.

2. Kadmon and Landman’s Strengthening

According to K&L, NPIs have a lexical property that induces semantic widening, which results in a reduced tolerance of exceptions. Pragmatic strengthening is a result of the NPI-contributed semantic widening. If this widening creates a stronger statement, the NPI will be licensed. K&L use NPI *any* as a test case, and their formalization is represented in (23).

(23) (C) **STRENGTHENING**

*Any* is licensed only if the widening that it induces creates a stronger statement, i.e., only if the statement on the wide interpretation => the statement on the narrow interpretation
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wide: We don’t have potatoes, cooking or other. =>
narrow: We don’t have cooking potatoes.

Now consider (24) [K&L’s (31)]: speaker A asks of speaker B (who is a cook for a group of 50 people).

(24) A1 Will there be French fries tonight?
    B1 No, I don’t have potatoes.
    A2 Maybe you have just a couple of potatoes that I could fry in my room?
    B2 Sorry, I don’t have ANY potatoes.4

B2 is stronger than B1, as it excludes more kinds or quantities of potatoes than does B1. Let’s look closer at a non-stressed B2, represented below as (25a). (25a) does seem wider and stronger than (25b), as K&L suggest it should be.

(25) a. Sorry, I don’t have any potatoes. =>
    b. Sorry, I don’t have potatoes.

But, the compromised and non-stressed (26a) clearly allows more exceptions than (26b), even with the widening any, contra what K&L would predict. Further, there is no entailment relation of the sort described in (23).

(26) a. Sorry, I pretty much don’t have any potatoes. -/->
    b. Sorry, I don’t have potatoes.

Further, it’s not clear to me that the compromised any example of (27a) is at all stronger than the compromised non-any (27b).

(27) a. I pretty much don’t have any potatoes.
    b. I pretty much don’t have potatoes.

Certainly the inference relation K&L require does not exist. More basically, K&L’s ability to state the strengthening relation is impeded. Recall: licensing occurs iff strengthening does. Strengthening is defined in terms of wide to narrow entailment (K&L 369). It appears that in an environment where the “strengthening” NPI is accompanied by a compromiser, the NPI has a less primary effect on the assertional force of the sentence, and problems arise for K&L’s proposal, as it is questionable if strengthening actually occurs even though the NPI is licensed perfectly.

4 The heavy stress on any is present in K&L’s example, though K&L claim widening is part of a semantic analysis of any and has nothing to do with stress. This does not seem correct to me nor to Krifka (1995). I’m not immediately concerned with stress in this paper, though.
2.1. Chierchia’s Extension of K&L
Chierchia (2004) extends K&L’s system of NPI strengthening as licensing. However, he wants strengthening to occur within the c-command environment between licensor and licensee: i.e., between negation and the NPI. What goes on outside this environment is irrelevant. In other words, Chierchia has a scope requirement for strengthening. K&L clearly do not have this kind of scope requirement (see K&L §2.6), nor does Israel.

Accordingly, the examples used above against K&L are not problematic for Chierchia, as the compromisers in (26)-(27) are located outside the negation/NPI c-command environment. For Chierchia then, it is necessary to compromise within the scope site, as in (28).

(28) Richie didn’t see pretty much anyone.

(28) does not seem strengthened by the presence of the NPI—even with the stronger scope requirements. This would need to be explained by Chierchia.

3. Israel’s Scalar Model of Polarity
Israel (1996, 2001, 2005) classifies polarity items as either emphatic or attenuating. Emphatic polarity items include minimizers such as *a red cent, move an inch*, etc., and they must appear in sentences that are stronger or more informative than an assumed scalar norm. For example, (29a) contains the minimizer *a drop*, which is an emphatic NPI. For this NPI to be felicitous the sentence it appears in must be more informative than the assumed scalar norm, as in (29b).

(29) a. Jimmie didn’t drink a drop. =>
b. Jimmie didn’t drink. scalar norm

(29a) is more informative than (29b), and thus the emphatic NPI should be licensed, as Israel predicts.

Attenuating NPIs are the mirror image of the emphatic, and so sentences with attenuating NPIs should be less informative than the scalar norm. Thus, (30b) contains the attenuating or weakening NPI *much*, and we see that the scalar norm in (30a) is in fact more informative, so *much* should be licensed.

(30) a. Jerry didn’t drink. => scalar norm
b. Jerry didn’t drink much.

For the rest of the paper, however, I will only be concerned with the emphatic NPIs, as in (29).

Israel arranges the notions of informativity within a scalar model, which is based on work by Fillmore, et al. (1998) and Kay (1990). The scalar model is essentially a set of ordered statements, within which quantitative inferencing relations can be predicted. Dramatically simplifying, in a set of statements, {x3,
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x2, x1}, if x3 is the stronger statement, then we can infer that if x3 is true then x2 is also true. That is, x3 unilaterally entails x2. But, if x1 is true it does not follow that x2 is true. Importantly, this is a pragmatic entailment rather than a logical one. Nothing about the structure of the world guarantees it, but the structure of the scale suggests the inferences should be valid, ceteris paribus.

For Israel, then, the compromisers disrupt the inferencing relations that are necessary for him to predict where emphatic NPIs should appear. Consider (29) again, in which the inferencing relations hold and NPIs are licensed as Israel predicts. Compare (29) now with (31), in which the compromised emphatic in (31a) does not entail the scalar norm in (31b), but in which the NPI is still licensed.

(31)  a. Jimmie pretty much didn’t drink a drop.  
     b. Jimmie didn’t drink.

According to Israel, “if a proposition entails the norm, its assertion is informative [emphatic] because it exceeds what one would normally expect to be asserted” (1998:47). So, the failed entailment relation of (31a-b) causes a bit of tension for Israel, as he depends on the entailment relation to determine whether NPIs (or statements that contain NPIs) are informatively emphatic or understating, and thus in what environments they should be allowed to occur.

4. Giannakidou’s (Non)veridicality
For Giannakidou (1998, 1999, 2002, etc.), NPI licensing boils down to a couple of heuristics, which are given below in (32)-(34).

A definition of (non)veridicality

(32)  (i) Op is veridical just in case Op p → p is logically valid. 
     Otherwise, Op is nonveridical.

(ii) A nonveridical operator Op is antiveridical just in case Op p → ¬ p is logically valid.

A linguistic expression α is a polarity item iff:

(33)  (i) The distribution of α is limited by sensitivity to some semantic property β of the context of appearance; and

(ii) β is (non)veridicality, or a sub-property thereof: β ∈ {veridicality, nonveridicality, antiveridicality, modality, intentionality, extensionality, episodicity, downward entailment, …}

Polarity licensing by nonveridicality

(34)  A polarity item α will be grammatical in a sentence S iff α is in the scope of a nonveridical operator β in S.

Essentially, a polarity item is acceptable if it falls within the scope of a nonveridi-
cal operator such as negation and various others. So, what happens with the *pretty much* examples? Consider (35).

(35) Bruce pretty much didn’t have any money.

NPI *any* occurs in the immediate scope of a nonveridical operator, i.e., negation, and it is licensed regardless of the status of DE-ness or strengthening, etc. This is already superior to K&L and Israel. But what about (28) above that was used against Chierchia, which was compromised within the scope site?

(28) Jon didn’t see pretty much anyone.

We can paraphrase *not-pretty much* in (28) as *hardly* or *barely*. However, if Jon hardly saw anyone, then the fact remains that he did see someone. This is a veridical context then, and we would not expect polarity items to be licensed in it. So the (non)veridicality theory has a bit more explaining to do with examples like this one.

Giannakidou allows for a Linebarger-like negative implicature\(^5\) as a secondary licensing mechanism for weaker NPIs such as *any, ever, at all,* etc. She refers to these as the *any*-class of NPIs,\(^6\) and they are not licensed but are instead “rescued” or “tolerated.” According to Horn (2001) *hardly* and *barely* convey ‘not at all’ via negative implicature, so it seems no great leap to allow the same thing here, especially since we seem to be talking about a similar subset of weak NPIs appearing in the *not-pretty much* environment. That is, *not-pretty much* allows the weaker NPIs in (36a-c), but it is more allergic to the stronger NPIs of (36d-f), which the (non)veridicality theory does not allow to be rescued anyway.

(36) a. I haven’t seen Disneyland that empty pretty much ever.\(^7\)
    b. So I didn’t have pretty much any money … \(^8\)
    c. We didn’t have pretty much any furniture in the living room … \(^9\)
    d. *Kris didn’t have pretty much a red cent.
    e. *Merle didn’t move pretty much an inch.
    f. *Waylon didn’t buy pretty much squat.

So, the *not-pretty much* examples seem to be accounted for by the existing

\(^5\) However, Giannakidou wants licensing by negative implicature as only a last-resort operation, not as a general pragmatic condition on NPIs like Linebarger (1987) does.

\(^6\) Exactly how class membership is calculated here is not clear, as there do not seem to be free choice possibilities for *ever* and *at all*, as there is with *any*.

\(^7\) <http://www.brendoman.com/index.php?cat=264>

\(^8\) <http://oomapaprincess.livejournal.com/>

\(^9\) <http://www.mayamalia.com/longs/simplicity/chapter38.html>
5. Conclusion

Statements that contain NPIs often do seem stronger or to carry a greater rhetorical force than their non-NPI bearing counterparts, but it is questionable whether this plays any important role in actually licensing NPIs. That is, strong statements can be compromised and the NPIs remain completely interpretable. It seems then that notions of NPIs needing to strengthen statements (K&L) or NPIs needing to appear in stronger statements (Israel) are not exactly what is needed to answer the question of NPI distribution. On the other hand, the identification of a common semantic feature such as (non)veridicality seems to avoid problems raised by the compromisers.

References


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10 Horn’s (2002) notion of assertoric inertia also provides a nice account of NPI licensing by hardly and barely. In this story, the positive propositions of hardly and barely are not asserted (in the sense of Stalnaker 1978) and so are transparent to negative licensing. Hardly and barely contrast with almost, in which the positive proposition is asserted and does not license NPIs.
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