FUNCTIONS OF ENGLISH *Man* *

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Abstract

This paper discusses the semantics of the English particle *man*. It is shown that this particle does different things when used sentence-initially and sentence-finally. The sentence-initial use is further shown to separate into two distinct intonational types with different semantic content. A formal semantics is proposed for these types.

Particles are usually taken to mark the pragmatic status of the information conveyed by a sentence; for instance, the German particle *ja* has been analyzed as marking hearer-old information, an idea which has been discussed in various frameworks (cf. Kratzer 1999, Zeevat 2003, Kaufmann 2004, Potts 2005). This paper shows that particles can have purely semantic effects as well, and in some cases even show locality effects in modification. The particular particle I consider here is English *man*. This particle can appear both sentence-initially and sentence-finally. In what follows I will call the sentence in which *man* appears the *host* sentence of the particle.

(1) Sentence-initial: Man, I know that.

(2) Sentence-final: I know that, man.

In this paper I will concentrate on sentence-initial *man*, mostly for reasons of space: since the particle shows quite different semantic and pragmatic effects in sentence-initial and sentence-final position, it is difficult to give a full picture of both in a brief paper. I will, however, provide data that shows the two are distinct, in section 1. I will then move, in section 2, to providing data relating to the semantics of sentence-initial *man* that gives a picture of the semantics of the particle. A formalization of this picture, or at least steps toward such a formalization, will be provided in section 3. Section 4 summarizes and discusses how *man* compares with other particles in English, and with similar particles in other languages.

1 Differences between the 'men'

Here I will discuss some characteristcs of sentence-final *man* that serve to distinguish it from its sentence-initial counterpart. The end of the section will briefly discuss one way in which it can be formalized.

The first thing to note is that *man*, when used sentence-finally, produces a sense of insistence. In the imperative sentences in (3a), for instance, the speaker seems relatively neutral about how he guesses the hearer will react to his instruction, where in (3b), he seems to anticipate that the hearer will resist carrying out the commanded action. Intuitively, *man* here makes the command stronger.

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(3) a. Go buy some beer.

b. Go buy some beer, man.

When testing this claim, it is important that the intonation of the two examples be kept as constant as possible.[1] There is a tendency to increase the range of pitch variations in (3b), probably because *man* is associated with informal speech. This should be avoided because pitch variation of this sort usually marks emotion. Thus, when stress is increased or pitch peaks made higher, a sense of insistence appears anyway, so the point at issue is not resolved. Even when intonation is kept constant, however, the sense of insistence remains.

This situation is not limited to imperatives. In declaratives also, sentence-final *man* seems to try to force acceptance on the hearer, as shown by the following minimal pairs.

(4) a. You don't need that.

b. You don't need that, man. (insistent/pushy)

(5) a. John came to the party.

b. John came to the party, man. (assumes doubt on part of hearer)

The situation can be clarified further by considering dialogues like the following. Here speaker A makes a statement which is contradicted by speaker B. Speaker A then repeats her first statement in hopes of getting speaker B to accept it. In this last utterance, it seems to me, use of *man* is much more natural than not. The same goal could also have been accomplished by use of emphatic focus in the second sentence; the second utterance by A seems odd with neither the particle nor any kind of special focus, as if A didn't care whether B accepted her statement, despite having taken the trouble to repeat it.

(6) a. A: John came to the party.

b. B: No he didn't.

c. A: John came to the party, man.

Another property of sentence-final *man* is perhaps its most puzzling in view of the previous discussion, which makes it look very much like it has a purely pragmatic function: It licenses modal subordination.[2] Modal subordination is a discourse phenomenon in which an anaphoric expression is dependent for its meaning on an antecedent which is in an ordinarily inaccessible position. As the name suggests, this position is canonically in the scope of a modal, as in the examples in (7), modelled after examples by Roberts (1989).

(7) a. A wolf might come in. # It is big and hairy.

b. A wolf might come in. It would be big and hairy.

In English licensing of modal subordination by sentence-final *man* requires futurate *will*, probably for tense reasons; but *will* by itself clearly does not license modal subordination without the particle.

(8) a. A wolf might walk in. ? It will eat you first.

[1] Since the particle adds an extra syllable, intonation will of course change to some degree, however.

[2] See Siegel (2002) for formal semantic work on the English particle *like* that shows it also can have an impact on purely semantic content.

b. A wolf might walk in. It will eat you first, man.

McCready (2005) gives an account of the above facts using SDRT (Asher and Lascarides 2003) and a dynamic modal semantics. The basic idea is that sentence-final *man* has an underspecified meaning, the realization of which depends on the discourse connection between the *man*-hosting sentence and its attachment point in previous discourse. In contexts like that in (8b), *man* receives a modal-like meaning, which does not arise elsewhere; in other contexts *man* serves to strengthen the assertion (or command), with the effect of forcing the hearer to accept its content.

Such an analysis, however, is not appropriate for sentence-initial *man*, which has a very different semantics. To see this, note first that while sentence-final *man* can license modal subordination, sentence-initial *man* cannot. As the following example shows, the tense of the sentence that hosts the particle does not make a difference here.

(9) A wolf might walk in. # Man, it eats/ate/will eat you first.

Second, it is not clear that sentence-initial *man* is associated with any kind of insistence. While (10a), which contains a sentence-final occurrence of the particle, expresses a kind of insistence, (10b) does not when intonation is kept constant. Again, one must take care here not to add new stresses and pitch contrasts.

(10) a. John didn't come to the party, man.

b. Man, John didn't come to the party.

I conclude that a story like that needed for sentence-final *man* is not right for the sentence-initial counterpart. But what is the right semantics for sentence-initial *man*? To answer this question, we must look at some more data; this will be the task of the next section.

2 What does sentence-initial *man* mean?

This section will show that sentence-initial *man* actually does multiple things, and that what exactly it does in a given sentence is dictated in large part by phonology, though in a different way than one might think given the above discussion. I will claim that sentence-initial *man* expresses both surprise and some emotion with respect to the proposition denoted by the sentence. Further, with the right intonation, it also strengthens the interpretation of some gradable predicate within the host sentence, in much the way that adverbials like *very* do. Thus, the meaning of the particle is complex; and, at least with one intonational pattern, is also clearly part of the extensional semantic content of the utterance.

First, the emotional content. Sentence-initial *man* expresses some emotion, positive or negative, about the content of the sentence that hosts it.

(11) Positive

a. Man, I got an A on my calculus test!!

(12) Negative

a. Man, I wrecked my car this morning.

Exactly what emotion SI *man* expresses depends on the propositional content of the host sentence. Thus, where (11a) is interpreted as positive because the content is (ordinarily) understood pragmatically as being good—since it's ordinarily good to get good grades in calculus—the emotion expressed in (12a) is negative, since ordinarily wrecking one's car is bad for a variety of reasons. Of course, intonation must be kept constant here as well.

However, the conditioning of the emotion *man* expresses is not always just based on world knowledge. It can also depend on the speaker. In the following example, for instance, if the sentence is uttered by a rabid Republican supporter, it feels positive, while if it's uttered by someone who leans leftward politically, the hearer interprets *man* as expressing a negative emotion.

(13) Man, George Bush won again.

There are still other factors that can influence the interpretation of *man*. We have seen already that SI *man* is speaker- and content-dependent. As it turns out, it is also world-dependent:

(14) Man, I just won a million dollars in the lottery!

(15) a. Scenario A: lump sum payment, one-time tax of 40%.

b. Scenario B: payment over 20 years, total tax payout of 120% after inflation.

On scenario A, the hearer will understand the expressed emotion as positive, and on scenario B, as negative, illustrating that the content also varies depending on the world of evaluation.

Of course, propositions are presumably understood as bad or good in the absence of particles too. One might think that the particle actually doesn't have much to do with this aspect of how the sentence is understood. But this is not quite right. What the particle does is make this emotion into a true part of the sentence meaning, by making it overt in the logical form. The emotional content is no longer implicit. Thus, sentence-initial use of *man* ensures that the hearer understands that the speaker has made the relevant judgement.

Now I would like to introduce intonation into the picture. I will continue, however, to avoid use of the kind of intonation that expresses emotion. Instead, I will focus on how the particle relates phonologically to the rest of the sentence. Sentence-initial *man* has, as it turns out, two possible intonations. It can be kept separate from the host sentence, forming a separate phonological or intonational phrase,[3] a use which I will call *comma intonation*. It can also be phonologically integrated into the rest of the sentence, which I will refer to hereafter as *integrated intonation*.

Interestingly, there are restrictions on which of these intonational patterns can be used with certain host sentences. Some host sentences, like (16a), are good with both comma and integrated intonation, though the meaning is different, as discussed in detail below. Some sentences, however, like (16b), are good with comma intonation only. There do not seem to be sentences which require integrated intonation, again for reasons that will become clear in the ensuing discussion.

(16) a. Man, this water is hot! (comma or integrated)

b. Man, John came to the party last night. (comma only)

To clarify the picture it is useful to look at some more data.

[3] I don't want to take a position here about the phrasal status of the particle in terms of phonology. The terms 'phonological phrase' and 'intonational phrase' here are purely descriptive.

(17) OK with both intonational patterns:

a. Man, it's hot.

b. Man, that's a cool shirt.

(18) Bad with integrated intonation:

a. Man, over 70,000 people were killed by the tsunami in Asia.

b. Man, George Bush was reelected.

What do these examples have in common? The host sentences in (17) all express the speaker's judgement in the sense that they involve gradable predicates. In contrast, the host sentences in (18) do not include gradable predicates: they simply describe past events. Based on these and similar examples, the right generalization seems to be that *man* can be intonationally integrated only if the host sentence contains a gradable predicate. In this case, what is expressed by the particle is that the gradable predicate holds to a high degree: for instance, *Man, it's hot* with integrated intonation means something roughly similar to *Man, it's really hot* with comma intonation. From this we should conclude that *man* has two distinct semantic contents, one which appears when it is used with integrated intonation and one which appears when it is phonologically separate.

It is easy, however, to find examples that look problematic for the generalization just stated. For instance, the following examples describe past events and are not obviously gradable (when compared to predicates like *long* or *red*, at least); nonetheless, integrated intonation is fine with them.

(19) a. Man, we drank beer last night.

b. Man, George Bush won the election.

However, when one considers the interpretation of the sentences the generalization can be seen to hold. (19a) means that we drank *a lot* of beer last night; (19b) means that George Bush *really* won the election, for instance by a vast margin (meaning that it is literally false). However, these interpretations only arise when *man* is phonologically integrated with the host sentence. Thus we seem to get coercion of *drink beer* and *win the election* into something gradable when integrated intonation is used. Not so when we use comma intonation, however; in this case, the particle merely comments on the fact expressed by the host sentence. Examples like these therefore ultimately support the generalization that integrated *man* requires a gradable predicate.

Note though that the mere presence of a gradable predicate is not enough. The gradable predicate must retain its 'covert comparative' status, where it measures the degree of the property it denotes against some other salient degree (to anticipate the analysis).

(20) Man, that's the bluest shirt I've ever seen. (comma only)

Here the use of a superlative precludes degree modification.

There is more to be said about intonation. Sentence-initial *man* can have at least two distinct tones in isolation, based on analysis using the Macquirer program.[4] Each tone can appear with both comma and integrated intonation. Descriptively they are the following.

- A low tone that rises (R).

[4]There may be additional possibilities, but I will restrict myself to these two in the present paper.

- A low tone that rises, then falls again (RF).

These two tones are associated with particular semantic content as follows.

- R: surprise
- RF: exasperation (= negative emotion)

These then are the basic lexical semantic phenomena our analysis must account for. I will now turn to giving a formal analysis. We will see later, however, that there are complications that will entail some revision of the first version I will give.

3 Formal semantics

Nearly everything we will do in this first attempt at a semantics will survive unchanged into the second. I will start out with defining the emotional expression part of *man*'s meaning. I first define a function E from (Kaplanian) contexts to propositions to emotional predicates.

- A context is a tuple $c = \langle c_A, c_T, c_W, c_P \rangle$, where
  c_A is the agent of c,
  c_T is the time of c,
  c_W is the world of c,
  and c_P is the place of c.
- $E : c \mapsto \wp(W) \mapsto A$, where $A \in \{\textbf{bad, good}\}$.

Here **bad, good** are of type $\langle\langle s,t\rangle,t\rangle$: functions from propositions into truth-values. Thus E maps contexts to functions from propositions into emotion-describing predicates.

We can now take sentence-initial *man* to be defined as follows, as a first step. What this definition does is to apply an emotion-expressing predicate determined by context and the propositional content of the host sentence to that propositional content.

- $[\![man]\!] = \lambda p.[p \wedge E(c)(p)(p)]$

This lexical entry is designed so that $P(\varphi)$, P an emotive particle, entails φ. The formula $A(\varphi)$ that the particle semantics outputs should be read 'the agent of the utterance context holds the attitude A to φ in w.'

The next step will be to add surprise to this picture. We can make use of a standard scale of likelihood, as do Guerzoni (2003) and McCready (2004).

- $\varphi >_{L_c} \psi$ iff $\Gamma \models \mathit{Likelihood}(\varphi) > \mathit{Likelihood}(\psi)$, where Γ is a set of contextually relevant facts in c.

In words, φ is more likely than ψ in a context c iff, given a contextually relevant set of facts, the likelihood of φ is greater than that of ψ.

Recall that R(ising) intonation was associated with an expression of surprise. We can express this surprise in the following way, given the scale of likelihood defined immediately above. Here C is a contextually determined set with respect to which the likelihood of p is evaluated.

- $[\![R]\!] = \lambda p.[\mathit{MOST}_q(q \in C \wedge q \neq p)(q >_{L_c} p)]$

In words, the proposition p is less likely than most other propositions in some contextually determined set: that is, of all possibilities that are comparable to p, p was the least likely one to happen.[5]

This formula is of type $\langle\langle s,t\rangle,t\rangle$, similar to sentence-initial *man*. I therefore assume that it combines with the particle via functional composition, yielding

- $[\![man_R]\!] = \lambda p.[p \wedge E(c)(p)(p) \wedge MOST_q(q \in C \wedge q \neq p)(q >_{L_c} p)]$

Given this, the semantics of (21a) will be as in (21b), which is as desired.

(21) a. Man, it's raining outside.

b. $raining(w,t) \wedge E(c)(raining(w,t))(raining(w,t))$
$\wedge MOST_q(q \in C \wedge q \neq raining(w,t))(q >_{L_c} raining(w,t))$

That is, it is raining, the speaker holds some attitude, good or bad, toward that fact, and it was unlikely that it would rain (according to the speaker at least).

There is one more type of intonation to deal with: rising-falling intonation. Recall that this tone indicates a kind of exasperation. I will assume that this amounts to a simple indication that the speaker takes the propositional content of the host sentence to be negative.

- $[\![RF]\!] = \lambda p.[\mathbf{bad}(p)]$

Combined with the semantic frame for the particles, this will yield the following:

- $[\![man_{RF}]\!] = \lambda p.[p \wedge E(c)(p)(p) \wedge \mathbf{bad}(p)]$

This semantics yields a prediction about what sorts of sentences are compatible with rising-falling intonation. Specifically, it predicts that if E returns a positive emotion wrt a given sentence, it should be incompatible with RF intonation (on the natural assumption that it is incoherent for a speaker to simultaneously hold positive and negative attitudes toward a single proposition). This seems to be right. Since being rich can be assumed to (ordinarily) be a positive trait, E will return **good** when applied to the sentence *I'm rich*, yielding an incoherent result when rising-falling intonation is used. And, indeed, sentences like (22) are rather unnatural.

(22) # Man, I'm rich!
RF

(23) a. $[\![22a)]\!] =$
$rich(i) \wedge E(c)(rich(i))(rich(i)) \wedge \mathbf{bad}(rich(i))$

b. $[\![22a)]\!] =$
$rich(i) \wedge \mathbf{good}(rich(i)) \wedge \mathbf{bad}(rich(i))$

The above picture seems right for *man* in its phonologically separate form. However, integrated intonation must be different, for it involves a notion of comparison. Further, this notion is not derivable (as far as I can see) from any of the above semantics. We thus must take the particle to be ambiguous. I turn my attention now to formulating the semantics of the integrated form.

[5] There are subtle issues here that relate to the evaluation time of likelihood. Certainly once something happens it is no longer unlikely that it happened; still, it perhaps *was* unlikely that it would happen before it did. I will ignore this complication in this paper.

In order to talk formally about degrees to which properties hold, I want to introduce some notions from the semantics of gradable adjectives and comparatives. Here I'll assume a scalar theory of such adjectives (Kennedy 1999) on which they denote relations between individuals and degrees, which are a kind of measure of the extent to which a property is held. According to this theory, the logical form of a sentence with an adjectival predicate in the absolutive construction,[6] like that in (24), is as shown below in simplified form.

(24) This salsa is hot.

(25) $[\![(24)]\!] = hot(this\_salsa)(d_s)$

In this formula, d_s refers to a degree which comprises the 'standard' for the property in question, here hotness; d_s thus denotes the degree of spiciness above which a taste can be truly stated to be spicy. In this particular instance, d_s is contextually determined. The first argument of *hot*, *this_salsa*, here denotes an individual. degree. In the model theory, degrees are treated as points in a scale, modelled as a (dense) partial order. Each gradable predicate is associated with a scale. Whether a predicate applies truly to a particular individual depends on the position of the degree associated with that individual on the scale. Kennedy assumes a function δ that maps individuals to the degree associated with them; δ is relativized to predicates, so there are actually a family of δ functions, one for each predicate: $\delta_{spicy}, \delta_{tall}$, and so on.[7] δ maps the individual argument to a point on the scale: in the present case, it maps the salsa to the degree of spiciness that the salsa has. If the degree associated with an individual x, $\delta_P(x)$, is greater than the standard d_s (i.e. if $\delta(x) \geq d_s$), then $P(x)$ is true.

Given this background, we can think about the contribution of sentence-initial *man* with integrated intonation. In (26), the particle indicates that the salsa is spicy to a high degree.

(26) Man, this salsa is spicy.

We can understand this as meaning that the *degree* of its spiciness is greater than the degree of spiciness of most other spicy things; in this sense, it can be said to raise the standard of comparison (cf. (Klein 1980) on *very*).

(27) $spicy(this\_salsa)(d_s) \wedge most_y(spicy(y)(d_s))(\delta_{spicy}(y) \ll \delta_{spicy}(this\_salsa))$

Abstracting, we get the following: x the individual denoted by the subject, S the gradable property ('spicy'), P a restrictor ('salsa').

(28) $\lambda x.[\lambda P.[\lambda S.[P(x) \wedge S(x)(d_s) \wedge most_y(S(y)(d_s) \wedge x \neq y)(\delta_S(y) \ll \delta_S(x))]]]$

Note that it is in no way straightforward to make this work out compositionally, since the particle is located at the left edge of the clause and has no access to the meaning constructors corresponding to the gradable property or the subject. Thus, if we want to adopt this semantics, we have to make assumptions about the combinatorics, such as raising the various elements or abstracting away from the tree as is done in, for instance, glue semantics (Dalrymple, Lamping, Pereira and Saraswat 1997).

We also must add the emotional content previously discussed to the reprsentation in (28). I will ignore the contribution of intonation for now, but note that in order to add it we also must assume that intonation is associated with a polymorphic type or that it is straightforwardly type-shifted, which seems anyway to be a natural move.

[6] Absolutive constructions are those in which a statement is made about the applicability of some gradable adjective to an individual. This construction should be set against e.g. comparatives, in which the applicability of the adjective is stated with reference to other individuals.

[7] For some predicates, these scales may be identical, however.

(29) Integrated particles (minus tone):

a. $[\![man_i]\!] = \lambda x.[\lambda P.[\lambda S.[P(x) \wedge S(x)(d_s) \wedge most_y(S(y)(d_s) \wedge x \neq y)(\delta_S(y) \ll \delta_S(x)) \wedge E(c)(S(x)(d_s) \wedge most_y(S(y)(d_s) \wedge x \neq y)(\delta_S(y) \ll \delta_S(x)))(S(x)(d_s) \wedge most_y(S(y)(d_s) \wedge x \neq y)(\delta_S(y) \ll \delta_S(x)))]]]$

Very messy, but this seems to be what we need if we are going to go with this sort of account.

But, in fact, this account does not seem to be quite the right way to go (though the pieces are all more or less correct). We can see this by looking at some more data. The way the semantics is set up now, there are no restrictions put on what predicate the particle modifies. This is too permissive, as we will now see.

So far we have worked with VP predicates. Object-internal predicates are also possible (in predicative positions).

(30) Man, this is spicy salsa.

One then wonders whether gradable predicates in *any* position can serve as input to the particle. The answer is a definite no.

Sentence-initial *man* cannot modify gradable predicates within embedded sentences (thanks here to Bernhard Schwarz).

(31) a. Man, John thinks Bill ate some spicy salsa.

b. Man, Jimmy knows Fred has a beautiful girlfriend.

c. Man, it's too bad this data is so complicated.

Here, the particle can only modify the 'embedders'—*think, know, be too bad*. The gradable predicates in the complements of these verbs are not available at all.

These restrictions suggest that a semantics for the particles like the one proposed above, on which no (non-stipulative) restrictions are put on what the particle modifies, cannot be correct. I want now to explore an alternative that preserves the insights of the above while avoiding (I think) most of its problems.[8]

The idea is that, rather than pulling out all the elements of the sentence and modifying them separately, the particle modifies rather a set of degrees. In order for this to work, it is necessary to modify the semantics given above, changing it to an object of type $\langle\langle d,\langle s,t\rangle\rangle,\langle s,t\rangle\rangle$, i.e. to a function that maps functions from sets of degrees to propositions, to propositions. Effectively we need the semantics of a modifier which however changes the type of its argument. This can be given as follows.

- $\lambda D^{\wedge}_{\langle d,\langle s,t\rangle\rangle}\exists d[D(d) \wedge most_{d'}(D(d') \wedge d \neq d')(d' \ll_{S(D)} d) \wedge E(D(d) \wedge most_{d'}(D(d') \wedge d \neq d')(d' \ll_{S(D)} d))(D(d) \wedge most_{d'}(D(d') \wedge d \neq d')(d' \ll_{S(D)} d))]$

Note that this semantics in effect presupposes that a gradable predicate is contained in its argument, for if it is not, the expression will be undefined.

This semantics preserves the intuitions of what we had before, but is stated in a form that does not require the complicated combinatorics that the previous version did. Further, it allows us to derive the restriction on what gradable predicate the particle can modify, with a single stipulation. We must assume that an operation of existential closure of degree arguments takes

[8] I want to thank Hans Kamp (p.c.) for suggesting this line of attack.

place at a node earlier than that at which modification by *man* happens. What exactly this node may be is open to question, because there is what looks at first glance like conflicting evidence about the exact syntactic position of *man*. Two likely candidates are Spec of CP and Spec of IP. Support for the first is provided by examples like these.

(32) a. Man, what did you buy?

b. Man, if you do that, what do you think is going to happen?

c. If you do that, man, then there's going to be some trouble.

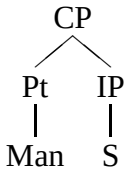
Here *man* clearly precedes elements in C: the WH-element *what* and the conditionalizer *if*. Note however that all of these examples involve a comma intonation on the particle. Integrated intonation is not possible here. It is also possible to find what looks like evidence that *man* is in Spec of IP, as in the following example, in which the particle follows *then*, which is in C. This example, conversely, does not allow comma intonation; only integrated intonation is possible.

(33) If he comes tonight, then man there is going to be some trouble.

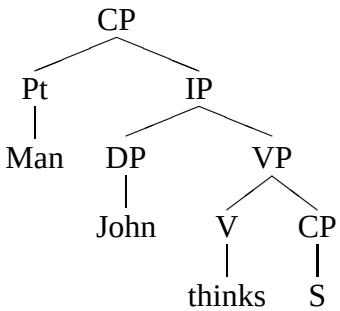
I conclude that there are two distinct positions for the particle. When it has comma intonation, it appears in Spec of CP; when it has integrated intonation, it appears in Spec of IP.[9]

Now, given that integrated *man* performs its modification at IP and existential closure of degrees takes place at CP (if needed), it makes sense that gradable predicates in embedded clauses are not available for modification: the degree argument associated with them has been closed off, and is no longer visible to particles in the higher clause. The same holds for superlatives like (20); again, the degree argument is existentially closed, and cannot be modified. In fact we have a type mismatch. The two cases are as follows (with somewhat schematic syntax).

(34) Good case:



(35) Bad case:



A further prediction of the analysis is that gradable predicates in relative clauses are not available for modification due to the presence of an intervening CP node. This prediction seems to be correct.

(36) a. Man, John ate a piece of cake that was big.

[9]There is a possible issue here in that this analysis seems to allow sentences like *What man did you eat such a big piece of cake for?*, on the reading where *man* modifies the predicate *big*, since *man* is in Spec of IP. I think there must be additional syntactic reasons for this. For now, I will put it aside.

b. Man, John ate some salsa that was spicy.

Man in these sentences can only modify the main verb, not the embedded adjective.

Let me now mention some other restrictions, which I will not however deal with in this paper. Let's start with a consideration of DP-internal predicates. It appears that whether a particular predicate can be modified depends greatly on what the head of the DP is; in particular, it appears that predicates in the scope of indefinites can be modified, and those in the scope of definites cannot. (The examples that follow should all be understood as involving integrated intonation.)

(37) a. Man, John ate some spicy salsa.

b. * Man, John ate the spicy salsa.

In fact, the set of determiners that allow this kind of modification seems to be fairly small. I have manipulated the NP content in these examples to allow for determiners that prefer mass and count nouns.

(38) Possible:

a. Man, John ate a big piece of cake.

b. Man, John ate two big pieces of cake.

(39) Impossible:

a. * Man, John ate many big pieces of cake.

b. * Man, John ate few big pieces of cake.

c. * Man, John ate most big pieces of cake.

d. * Man, John ate all the big pieces of cake.

e. * Man, John ate {more than/less than}two big pieces of cake.

f. * Man, John ate every big piece of cake.

All the determiners in (38), as well as *some*, are indefinite, whereas all the determiners in (39) and also *the* are definite. Clearly there is a correlation to be found between indefiniteness and the possibility of NP-internal modification. However, it is not clear to me at present exactly how it should be characterized within the present theory, and so I will leave the problem for future work.[10]

Another interesting issue is that there is some freedom as to what predicate the particles modify. In examples in which there is more than one (potentially) gradable predicate, it seems that either can be modified.

(40) Man, George Bush won a hard election.

Here either the extent of the victory or the hardness of the election can be modified. One has the intuition that intonational prominence on a particular predicate influences which predicate is chosen. Therefore, it might be that focus should play a role in selecting *S*. I cannot resolve this question here, and leave this issue also for the future.

[10] A first idea is that the function of the predicate is different in the definite DPs than it is in the indefinite ones. Perhaps in definite DPs adjectives work more to pick out a referent than to say something about it, and therefore are not further modifiable. Formally we might say that there is existential quantification over the degree argument at, say DP level in definite but not indefinite DPs. The consequences of this proposal are not completely clear to me at present and so I will leave this as a speculation.

4 Conclusion

In this paper I have given a semantic characterization of the behavior of sentence-initial *man* in English. We have seen that it involves degree modification on one use, and that intonation plays a large role in its meaning. I have left some issues unsettled, but I think the present framework is well suited to handle them.[11]

There are a number of particles in English and other languages that behave much like *man*. In English we find *dude*, *boy (%)*, *girl (%)*, *G*, *bro*, and many others. Interestingly, there are differences between these particles and *man*: *dude* can be used only with independent intonation, and *boy* only with integrated intonation. The reasons for these differences remain unclear.

(41) a. Man, this water is hot. (independent or integrated)

b. Dude, this water is hot. (independent only)

c. Boy, this water is hot. (integrated only)

In other languages, it is quite common to find particles of this sort. In Japanese, for instance, there are the particles *yo* and *zo* (McCready In press), which are semantically similar to sentence-final *man*. There do not seem to be any particles corresponding to the sentence-initial use: though there are several which are related to the comma use, none of these can be used with integrated intonation. The same seems to hold true for Spanish *guey* 'dummy/dude' and *tio* 'uncle' and French *merde* 'shit' and *putain* 'whore'. It may be that the reasons for this lie in independent intonational facts about these languages, but this must be explored further.

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[11] It may turn out that a translation into alternative semantics will be needed to deal with the focus facts, though.

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