PRECISION IN VAGUENESS

The Semantics of English 'Approximatives'

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In this paper, the author explicates a number of English 'approximatives' such as around, about, approximately, roughly, at least, at the most, almost and nearly. In each case, she offers a paraphrase substitutable for the particle itself. She argues against a 'radically pragmatic' approach to particles, advocated by Sadock and others, and advocates an alternative, 'radically semantic' account. She tries to show that even the vaguest 'hedges' and 'approximatives' can be given rigorous semantic explications, which correctly account for the particles' use.

1. Introduction

The assumptions which underly the present article are, in a sense, banal and common-sense, although they are far from fashionable. Thus, I assume that words (all words) have meaning, that this meaning can be discovered and that it can be stated, and that it is a responsibility of the semanticist to try to discover it and to state it. I assume that the meaning of a word determines its range of use, and that the validity of semantic formulae postulated by the semanticist has to be assessed on the basis of their predictive power with respect to the range of use. I also assume that the postulated semantic formulae should be intelligible, and I regard their intelligibility as a precondition of their verifiability.

Finally, I assume that verifiability of semantic formulae depends on their substitutability (salvo sensu, not salva elegantia) for the expressions defined. With respect to particles, this crucial principle was stated three centuries ago by Leibniz (Wierzbicka (1976, 1980), Goddard (1979)):

"For a proper explanation of the particles it is not sufficient to make an abstract explication (...); but we must proceed to a paraphrase which may be substituted in its place, as the definition may be put in the place of the thing defined. When we have striven to seek and to determine these suitable paraphrases [emphasis in the original, AW] in all the particles so far as they are susceptible of them, we shall have regulated their significations." (Leibniz (1949: 366-367))

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For example, the meaning of the English expressions at least, at the most, only, merely and just, can be stated, roughly, as follows: 1

AT LEAST (at least 50 cents; bring at least five) it is not less than X it could be a little more than that one could think that it would be less than that

ONLY (only 50 cents; bring only five; it is only a game) it is not more than X one could think that it would be more than that

MERELY (merely fifty cents; it is merely a game; ?bring merely five; *it merely happened like that)

it is not more than X one could think that it would be more than that it is not much it is not something important

AT THE MOST (at the most fifty cents; bring five, at the most)

it is not more than X it could be less than that one could think that it would be more than that

JUST (just the two of us; just fifty cents; just a moment!; I was just looking; I was just passing)

it is not much

one could think that it would be more than X

it is not more than X

'X' and not something other than 'X', is a good word to say about it

To verify the adequacy (or otherwise) of semantic formulae of this kind, we have to check to what extent they can account for the differences in the range of the use of the particle in question. For example, why is one more likely to say:

Only 47 people came.

than:

²Just 47 people came.

¹ For a pioneering study of several of the words discussed in the present paper see Sapir (1949). For some relevant observations see also Horn (1972).

The semantic formula posited for just (or, more precisely, for the relevant meaning of just)² suggests something like 'it is a small thing' and 'I'm being precise'. Combinations such as just the two of us (perhaps two lovers) or just the three of us (perhaps a small family circle) are self-explanatory in this respect. Expressions such as just the two (three) of us seem to convey the idea of an intimate, cohesive group. The assurance just two ('two is the right word') can be taken as implying: 'no outsiders'. But there is nothing self-explanatorily 'small' about the number 47. Nor is there any reason why the speaker should want to assure the addressee that in saying '47' he is being accurate: '47' doesn't sound like an approximation. On the other hand, just 50 may sound all right, especially if it is, say, just 50 cents rather than just 50 people: it is easy to think of 50 cents as a small thing, and it is easy to understand why '50' could be suspected of being an approximation. Or consider the sentence:

It just happened like that.

Just implies that 'not much' can be said about the thing in question, that it 'no more' than happened (e.g., it was not pre-planned or pre-arranged), and it also conveys the idea that happen (rather than, say, do or arrange) is the right word to use, under the circumstances. The sentence:

[?]It merely happened like that.

is much less felicitous, because it is not clear what exactly the speaker is trying to dismiss as unimportant, and why. On the other hand, the sentences:

It is just a game. It is merely a game.

are both felicitous, and easily interpretable. Just a game implies 'no more than a game' and 'game is the right word for it (rather than, say, serious business)'; and merely a game dismisses the game in question as something unimportant.

Generally speaking, only is perfectly neutral, merely is depreciative, and just easily lends itself to mildly positive (reassuring, defensive, apologetic etc.) interpretations. For example, the title of Kipling's volume 'Just so stories' could hardly be changed to 'Merely so stories': it may make sense for an author to take an encouraging or a reassuring tone in speaking about his work, but it would be odd for him to dismiss it as unimportant, not worth bothering

² The particle *just* has a few different, though related, uses – and senses – in English. Cf. Goddard (1979) and (1978).

about. The expression just for fun could well be used as an advertising slogan, but merely for fun could hardly be so used. The sentence:

She is merely a child.

could well be used in a situation when one was trying to dismiss a girl's words as unimportant or unreliable. In a situation when one was trying to protect a child from excessive burdens one would be perhaps more likely to say:

She is just (only) a child!

It is worth noting that *merely*, in contrast to *just* and *only*, can hardly combine with an imperative (whether explicit or implicit):

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Bring just (only; *merely) two.

Just a moment! *Merely a moment!
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The imperative implies 'I want X', but *merely* implies 'X is not worth bothering about'; hence the semantic clash. Finally, why can one say, in reply to the question 'who was there?':

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Only John and me. (Only me.) Just John and me. (Just me.)
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but hardly:

²Merely John and me. (²Merely me.)

I suggest the reason is that *merely* and *mere* combines with predicates, not with referring expressions; whereas *only* and *just* combine with both. To account for this aspect of *merely* one could perhaps refine its semantic formula along the following lines:

MERELY (it was merely a promise; mere words; she is a mere child; merely 50 cents)

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one can say that A is X one can't say that A is more than that one could think that it would be more than that it is not much it is not something important
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By contrast, the meaning of *only* can perhaps be represented as follows:

ONLY

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one can say that A_1 is X one can't say it of any other A_1 (or: of any more A_2) one could think that one could say it of more A_2
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As Peter of Spain argued seven hundred years ago, *only* always presupposes a certain category, whose members other than those specified in the sentence are excluded from the predication. Thus,

Only Socrates runs.

must be interpreted as:

Of all the philosophers (men, Greeks ...) only Socrates runs.

This explains the oddity of the sentence:

Of all the horses, only Socrates runs.

(Cf. Peter of Spain (1964), see also Goddard (1978).)

2. Around vs. about

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Around 50 people came. / About 50 people came. Come around 5 o'clock. / Come about 5 o'clock.
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Dictionaries usually 'define' around via about (and/or via approximately), and vice versa. And indeed, in many contexts, the two words seem interchangeable. A rough gloss for all three is suggested by another 'approximative' expression, which can often – though by no means always – be substituted for them: more or less.

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50 people came, more or less. (2) Come at 5 o'clock, more or less.
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It appears that both *around* and *about* introduce a number; a number, however, to which the speaker is not wholly committed. Accordingly, the following components can perhaps be postulated for both:

if one said 'it is X' it could not be more than a little different from what is true

it could be a little less than X, it could be a little more than X it couldn't be much less than X, it couldn't be much more than X

However, *around* differs from *about* in being able to apply to a whole area, or a whole period, surrounding a point, as in the following sentence:

Hats of this kind were worn in Paris around 1880.

If we replaced *around* with *about*, the sentence would imply that what is meant is one particular year, not a few years, as in the case of *around 1880*. In fact, *about* can hardly apply to a period at all; rather, it is used as a guess, or an estimate, or a 'shot' at one particular point in time:

Hats of this kind first appeared in Paris (in) about 1880.

To account for this difference between about and around, we could perhaps differentiate the relevant components as follows:

AROUND

it could be X, it could be a little more than X, it could be a little less than X

ABOUT

it could be either X, or a little more than X, or a little less than X

This means that *about* applies to one point: X, or something a little more than X, or something a little less than X; but *around* could in principle apply to a number of points: X, and some points a little more than X; and some points a little less than X. Of course such an extended interpretation can be excluded by a particular context, such as around 50 people/about 50 people, where the difference in question gets neutralized, but given an appropriate context the extended interpretation is always available for around, and not for about. For example:

"The next few days were very hot, so we returned to our pattern of resting during the hottest part of the day and around (?about) midnight.." (Facey (1981:144))

Another difference between around and about has to do with the idea of 'rounding' encoded in the former, but not in the latter. While one would be unlikely to say either 'around 87 people or 'about 87 people, it is easier to say about 27 or 28 people than around 27 or 28 people, and easier still to say about 6

³ Sadock (1981:262) claims that all English 'approximatives' have the conversational implicature 'not P', i.e. 'not exactly P'. It seems to me, however, that this is simply not true. Expressions such as around 50 people, about 50 people, or approximately 50 people don't imply that the real number was necessarily other than 50. If the expression almost 50 implies that the real number was other than 50, it is a feature of the semantics of almost, not a consequence of Gricean conversational principles with regard to 'approximatives' in general.

or 7 people than around 6 or 7 people. In fact, around 6 or 7 people sounds as if one was rounding some fractional number, such as six and a half, or six and three quarters. To account for this difference between around and about, I would postulate the following component for around:

I say X, and not something a little different from X because I want to say a number that is easy to think of

No such component would be postulated for *about*. The fact that one is unlikely to say *about 87 people* can be explained without positing any such component: it is simply a bizarre thing to do to mention such a high number as a rough estimate; if the figure was based on counting then there would be no need for *about*, and if it was not based on counting then the estimate would probably be made in tens rather than in single units (some eighty or ninety people). But when one says *about 6 or 7 people* one *is* trying to be accurate as far as possible, and no process of 'rounding' is implied. In sum, the proposed tentative formulae for *around* and *about* read as follows:

AROUND

if one said 'it is X' it could not be more than a little different from what is true

it could be X, it could be a little more than X, it could be a little less than X it couldn't be much less than X, it couldn't be much more than X

I say X, and not something a little different from X, because I want to say a number that is easy to think of

ABOUT

if one said 'it is X' it could not be more than a little different from what is

it could either be X or a little more than X or a little less than X it couldn't be much less than X, it couldn't be much more than X

It is worth mentioning that *about* was discussed in a recent paper by Sadock. He (1981: 267) writes:

"I suggest that about be given the following definition: A sentence of the form about P is true just in case P is a quantitative proposition and there is a possible world not very different from the real world in which P is true."

Unfortunately, Sadock's definition would apply to around as well as it does to about. It would also apply equally well to the expression more or less, or the word approximately (to be discussed in the next section). Since in fact each of these different 'quantitative approximatives' has its peculiar range of use, Sadock's definition is clearly insufficient.

3. Approximately vs. around and about

Approximately is similar to around in implying a process of 'rounding'. One would be unlikely to say:

A feature which separates approximately from both around and about is its greater degree of abstraction and conceptual complexity (reflected in its stylistic 'bookishness' and formality). For example, approximately can apply to relationships between sizes or dimensions rather than to straight numbers:

This line is approximately (*around) twice as long as that.

This block is approximately (*around) three times as long as it is wide.

The action was repeated 5 times, at approximately (*around) equal intervals.

Being a more 'learned' and abstract word, *approximately* suggests also a degree of control and mental discipline. It doesn't sound like a rough estimate, or a rough 'shot', which could reflect a lack of concern for accuracy, but on the contrary, as a purposeful device, revealing a respect for precision even at times when the speaker feels precision is not called for.

Needless to say, it is not easy to reflect such subtleties in appropriate semantic formulae. As a first approximation (!), the following formula can perhaps be proposed:

APPROXIMATELY (15 years; twice; equal; straight angle)

if one said 'it is X' it would not be more than a little different from what is true

if it is more than X, it is not more than a little more than X if it is less than X, it is not more than a little less than X I say 'X' because I want to say something that is easy to think of

I don't want to say something that is a little different from what is true as if it were true

4. Approximately vs. roughly

Dictionaries (e.g. both Webster and OED) equate approximately and roughly with one another. For example, Webster (1977) says: "rough – approximate (a rough guess)". However, in the very example provided to illustrate this presumed identity, approximate couldn't be substituted for rough (*an approxi-

²Approximately 7 people came.

²Approximately 17 or 18 people came.

mate guess). Similarly, one can have a rough estimate but not an *approximate estimate. Generally speaking, roughly implies a quick action, and a willingness to sacrifice precision in favour of convenience, ease and simplicity. Approximate has no such connotations, and, on the contrary, while signalling a lack of accuracy it manages to convey a respect for accuracy.

Another important difference between *roughly* on the one hand and *approximately* (and, for that matter, *around* and *about*) on the other, has to do with the qualitative, non-quantitative character of *roughly*. The sentence:

This block is roughly twice as long as it is wide.

sounds fine, but the following two sound a little less felicitous:

It was roughly 5 o'clock.

There were roughly 50 people present.

Furthermore, *roughly* can apply to purely qualitative matters, as in the following sentence:

My idea, roughly, is this.

Approximately is not restricted to numbers and quantities, but it does seem to be restricted to matters of form, where an accurate reproduction of all the parts is possible. For example, one can say, I think:

The meaning of the word X can be stated, approximately, as follows.

if one assumes that there is a unique optimal semantic formula which one may try to approximate, better or worse. One can hardly say, however,

⁹My idea is, approximately, this.

Approximate(ly) implies that accuracy is possible, rough(ly) doesn't. One can do a rough sketch for a future painting, but not an 'approximate' one.

ROUGHLY

if I said 'X' it would not be more than a little different from what I want to say

I say 'X' because I want to say something that one can say quickly (in little time) and that is easy to think of

I can say something better if I want to spend more time thinking about it

5. Almost vs. nearly

Almost is similar to around, about and approximately in so far as it, too, purports to give an approximate idea rather than an accurate statement of fact. It is tempting to say, therefore, that if someone is 'almost bald' or 'almost blind' it doesn't differ more than a little from being 'bald' or from being 'blind'. One is tempted, accordingly, to postulate for almost the following semantic component:

if I said 'X' it would not be more than a little different from what is true

However, this analysis runs into difficulties when applied to sentences such as:4

John almost killed Harry.

There is certainly more than a little difference between (1) being killed, and (2) narrowly escaping death. To account for such cases, one could try to postulate two different senses for *almost*, along the following lines:

ALMOST₁

if I said 'X' it would not be more than a little different from what is true

ALMOST₂

if something happened that wouldn't have been more than a little different from what happened, it would be true to say X

Almost2 could then be said to occur in sentences referring to various 'narrow escapes', where the deletion of almost would make the sentence patently false, and almost1, in sentences where the deletion of almost would leave the sentence approximately true (as in he is almost bald/blind). It may be worth mentioning in passing that in some languages other than English – for example, in Polish – there are two separate lexical items, corresponding to these two different uses of almost:

⁴ Sentences of this kind were discussed in Morgan (1969) and in McCawley (1973), where it was pointed out that they are ambiguous as to what *almost* modifies: "(a) 'John almost did something which (had he done it) would have had the effect of Harry's dying' (e.g. he intended to kill Harry but changed his mind); (b) 'John did something which almost had the effect of Harry's dying' (e.g. he fired at Harry but the bullet missed), and (c) 'John did something which had the effect of Harry's becoming almost not alive' (e.g. he fired at Harry and wounded him so seriously that he was in grave danger of death, but he recovered from the wound)" (McCawley (1973:331)). However, the ambiguity discussed by Morgan and McCawley is not relevant to the issue discussed here, as on all the three interpretations the deletion of *almost* would make the sentence patently false.

- (1) On jest *prawie* lysy. 'He is almost bald.'
- (2) On o malo jej nie zabil.

'He almost killed her.' (literally: By not much he didn't kill her.)

Since, however, English doesn't distinguish lexically the two senses corresponding to *prawie* and *o malo nie*, good methodology requires that we should at least make an effort to find a unitary semantic formula for the two uses, or at least for the common core of the two uses. The following rough formula suggests itself as a possibility:

if something was no more than a little different from what it is (was), it would be true to say 'X'

In support of such a unified formula, I would point out that while there is more than a little difference between being killed and being 'almost killed', there may well be no more than a little difference between a shot that kills and a shot that 'almost kills' (but misses); or between a rage that leads to a killing and a rage that almost leads to a killing.

However, the fact remains that $almost_1$ – in contrast to around, about and approximately – seems to approximate the target, so to speak, 'from below', not from both sides. An expression such as around 50 can refer to situations when the actual figure was more than 50 (say, 52 or 53), whereas almost 50 cannot be so used. This difference between almost and around could be easily accounted for if we posited for almost (in the relevant sense) one additional component:

it is a little less than X

But this simple solution runs into difficulties when one considers sentences such as:

Almost nothing was left. Almost nobody came.

Even if we do posit two different meanings for *almost*, it will not help us, since in these sentences *almost* is not used in the sense of narrow escape; clearly, it is not *almost*? but *almost*1.

Sadock (1981) has argued against the inclusion of the component 'less than X' in the semantic representation of almost, and I think that the acceptability of expressions such as almost nobody and almost nothing supports his position in this respect. On the other hand, his conclusion that almost means virtually the same thing as about and around (roughly, 'not very different from what is

real') can hardly be accepted, in view of the radically different interpretations of expressions such as *almost 50* (definitely no more than 50 and in fact less than 50) and *around 50* (could be a little more than 50).

I believe that the clue to the dilemma is provided in Padučeva's (1985:74) analysis of the Russian equivalent of almost (počti). As she points out, almost encapsulates a negative component as well as a positive one. A sentence such as:

Almost 50 people came to the party.

conveys the idea that one can't say truly of any 50 people that 'these people came to the party'. The sentence:

Around (about) 50 people came to the party.

doesn't imply that. The positive component: 'if one said X it wouldn't differ much from what is true' can be assigned bo both *almost* and *around*, but the negative component can only be assigned to *almost*.

As a final point concerning *almost*, it should be mentioned that like *around* (and unlike *about*), *almost*₁ implies a process of 'rounding'. One can hardly say:

?Almost 7 people came.

although one can very well say:

Almost twenty people came.

It requires, therefore, the 'rounding' component:

I say 'it is X' because I want to say something that is easy to think of

Sadock (1981:267) asserts that "with the exception of a few idioms such as about to and just about, almost can occur wherever about can". But in fact one can hardly substitute almost for about in a sentence such as:

About six or seven people came.

The 'rounding' component postulated here for *almost* accounts for this difference. Sadock notes also that if, say, the actual number of demonstrators on a particular occasion was 950, then the sentence:

Almost 1000 demonstrators picketed.

'seems truer than':

Almost 990 demonstrators picketed.

The 'rounding' component posited here explains such facts. '1000' may well seem the closest number bigger than 950 that could be chosen on the grounds of being 'easy to think of' (in comparison with '950'). But there is no reason why '990' should be thought of in such terms. But unlike *around*, *almost* is not in any way restricted to numbers, and unlike approximately, it is not restricted to formal relationships. One can say:

This block is almost twice as long as it is wide.

but one can also say:

Mary is almost pretty.

whereas one can't say:

*Mary is approximately (*around, *about) pretty.

Interestingly, *almost* differs also in this respect from *nearly*, which is otherwise analogous to *almost* in all respects.

*Mary is nearly pretty.

The fact that one can say:

We are nearly (*around, *about, *approximately) there.

suggests that *nearly* is not restricted to numbers or numerical relationships. I presume that the reason why one can't say *nearly pretty* is that *nearly* is so to speak 'upward graded' (cf. Sapir (1949)), in other words, that it is viewed in terms of 'adding more of the same'. But it is not clear what exactly would have to be added to make someone pretty if they are 'almost pretty'. This component explains also the following contrast:

Almost/*nearly nothing was left.

As a first approximation, the relevant component of *nearly* can be formulated as follows:

not much would have to be added to it to make it X

Finally, both *almost* and *nearly* imply an assumption that the level referred to surpasses the expectation. In this respect, they are analogous to the expression *at least*, and warrant the positing of the same component:

one could think that it would be less than that

or perhaps:

I think this is more than one would expect

Thus, the following two semantic formulae can be proposed for *almost* and *nearly*:

ALMOST₁

one can't say truly that X

if something was no more than a little different from what it is (was), it would be true to say 'X'

one could think that it would be less than that

I say 'X' because I want to say something that is easy to think of

NEARLY

one can't say truly that X

if something was no more than a little different from what it is (was), it would be true to say 'X'

because not much would have to be added to it to make it X one could think that it would be less than that

I say 'X' because I want to say something that is easy to think of

The analysis of *almost* proposed here differs profoundly from the 'radical pragmatic' one proposed in Sadock (1981). According to Sadock, "the meaning of *almost* is such as to make a statement of the form *almost* P true just in case there is a possible world in which P is true that is not very different from the real world" (1981:258–259). Sadock believes that all the aspects of the use of *almost* can be explained in terms of this meagre definition strengthened only by 'heavy doses of Gricean pragmatics'.

But Sadock's definition would apply to *nearly* as much as to *almost*. It would also apply to *roughly*, and to a host of other 'approximatives' in English and in other languages (cf. Wierzbicka (in press a)). So how can such a definition, combined with the heaviest possible doses of Gricean pragmatics, account for the differences in the range of use of all such expressions?

I contend that what is needed to account for all such differences, as well as similarities, in the use of related expressions, is a 'radically semantic' approach, not a 'radically pragmatic' one (cf. Wierzbicka (in press b)).

6. No less, no more, as many as, exactly

Expressions such as no less and no more may seem to mean no more than what is manifest on the surface: 'no less' and 'no more'. In fact, however, they are analogous to at least and at the most in hinting at certain assumptions, and in countering these assumptions. Thus, no less signals something like 'one could think that it would be less', and no more signals something like 'one could think that it would be more'.

Furthermore, both no less and no more act as 'approximatives' of a sort, because they embody, respectively, the components 'it could be more' and 'it could be less'. It is important to stress that this is true only of those occurrences of these expressions which are not followed by any further quantification. It is by no means self-contradictory to say no less than X and no more than X. But this does not mean that no less on its own doesn't imply 'it could be more', or that no more on its own doesn't imply 'it could be less'. The semantic formulae in question would read:

NO LESS (no less than 5 years) it is not less than *X* it could be more one could think that it would be less

NO MORE (no more than 5 years) it is not more than X it could be less one could think that it would be more

The expression as many as (as much as) seems to be close to no less than in containing the following two components:

it is not less than X one could think that it would be less

In addition, however, it seems to contain the component 'it is X'. Thus, its full explication should perhaps read:

AS MANY AS

it is X

one could think that it would be less than that it is not less than that

Finally, exactly can be regarded as a kind of 'anti-approximative', and can perhaps be explicated as follows:

EXACTLY

it is X

it is not a little more than X, it is not a little less than X

I don't want people to think that I say something that is a little different from what is true

7. Concluding remarks

The analysis sketched above undermines, I hope, a number of assumptions which have gained currency in recent linguistic thinking. Such erroneous (in my view) assumptions include the following ones: either words in general, or most words, or in any case words such as particles, don't have meaning; or if they do have meaning this meaning cannot be stated in discrete terms. Words (all words, or most words, or in any case words such as the 'approximatives' discussed here) are semantically 'fuzzy', and can be 'handled' only by some sort of fuzzy logic; or, perhaps in terms of Gricean principles of interpretation, not in terms of any compositional semantics. It is good for semantics not to have a unified framework. The functioning of particles, 'hedges' and the like, can only be elucidated by pragmatics (for discussion, see Wierzbicka (1985) and (in press a and b)).

I think that views of this kind, which are often presented as radically new insights and as evidence of great progress in linguistics, are in fact a reflection of analytical failures. It is always easy to proclaim that 'something cannot be done'. I think the best refutation of such defeatist and, despite all the rhetoric, deeply pessimistic attitudes, consists in simply doing what allegedly cannot be done. The analyses submitted in the present paper are all, as befits the topic, rough and approximate. Hopefully, however, they are sufficient to show that even 'vague', 'subjective' and 'fuzzy' words such as particles in general and 'approximatives' in particular, do have a meaning, and that this meaning can be stated. What is required to state it more accurately than it has been done in the present paper is simply more time, more effort, more experimentation with devising and trying out formulae substitutable for the definienda.

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For example, Green (1983:1) claims that "for most words, the notion 'the meaning of the word X' simply does not make sense" and that "the most ordinary words in a language don't mean". See also Givón (1982), Labov (1973), Lakoff (1972), or Lyons (1981).

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