

LINGUISTIC AWARENESS OF ENGLISH EMPHATIC -SELF*

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A. INTRODUCTION: The Study

This paper comes from a research project postulating, at the outset, inherent "asymmetry" between possible readings of syntactically ambiguous sentences, and a relation between this asymmetry, on the one hand, and grammatical marginality, on the other. As Piquette (1977) has noted, the two or more possible readings of grammatical, ambiguous sentences are not equally plausible, not even in isolation. There must be inherent syntactic asymmetry underlying these differences in plausibility independently of context.

To test this idea, we have examined what are traditionally called "reflexive pronoun" constructions in French and English, and in particular here, reflexive vs. "emphatic" readings (Moyne 1971, Cantrall 1973, Klenin 1974) of English-self constructions. Though both native speakers and advanced learners of English participated in the study of interest, and showed some statistically significant differences in performance, we will not deal with these differences here. Rather, we will try to demonstrate in some detail how the results of our study indicate a pervasive syntactic asymmetry between reflexive and "emphatic" readings of -self constructions.

To set up an environment in which either or both a reflexive and an emphatic reading might be possible, we presented 15 very simple sentences, with and without the -self form, to our 54 respondents, all students in undergraduate programs in French ↔ English translation. In these sentences, as we see in (1), the -self form immediately follows the finite verb form and precedes an adverbial or a complement, except in (g) and (h), which are ambiguous between the reflexive and emphatic readings, the -self form being final.

- (1)
- a) Mary sat (herself) down.
 - b) John learned (himself) to play the piano.
 - c) John showed (himself) to be successful.
 - d) John absented (himself) from class.
 - e) John remembered (himself) how the accident happened.
 - f) John reminded (himself) how the accident happened.
 - g) Mary weakened (herself).
 - h) Mary dressed (herself).
 - i) This jacket washes (itself) well.
 - j) I sang (myself) a song.
 - k) Paul believes (himself) to be intelligent.
 - l) Paul pretends (himself) to be intelligent.
 - m) I imagined (myself) on vacation.
 - n) I am applying (myself) to the task.
 - o) I am applying (myself) for the job.

In particular, we hypothesized that reflexive readings would dominate emphatic readings, on the assumption that in the former the -self form represents an argument, while in the latter it does not. The optional vs. obligatory status of the -self form in certain reflexives, e.g. (a) vs. (d); and the optional vs. ungrammatical status of the emphatic, depending on the intra-sentential context, e.g. in (e) vs. (j), allowed room for variation in readings and grammaticality judgments. To encourage this variation, moreover, we distinguished the emphatic from the reflexive as two

"interpretations" of *-self* forms, asked our respondents first to give one or two interpretations of each of the 30 sentences (15 x 2 variants), and only then to judge whether, for each interpretation, the sentence was grammatical on that interpretation. Since our respondents were translation students, they were able to understand our explanation of syntactic ambiguity and grammaticality, to give French translations or English paraphrases as interpretations, and then grammaticality judgments. We postulated that syntactic analysis, and therefore interpretation, can be done for ungrammatical sentences independently of any analogy to corresponding grammatical ones, notwithstanding the classic assumption in modern linguistics (Chomsky 1964), and that parsing can thus be done independently of a grammaticality judgment. Interpreting before judging the grammaticality of the sentence on that interpretation would hopefully bring out emphatic as well as reflexive readings, even if the respondent then rejected the sentence as ungrammatical on one, the other, or both.

One further assumption is of course that the syntactic analysis which the respondent entertains for a sentence can be gleaned from his interpretation in the form of a translation or paraphrase. We believe that grammaticality judgments must be associated with a reading of the sentence, to reveal what syntactic analysis is being accepted or rejected. The attempt to vary the type of intra-sentential context following the *-self* form was inspired by the hypothesis that the non-native speakers among our respondents would vary among themselves and differ from the native speakers as to knowledge of the syntactic status of *-self* in different types of contexts: reflexive and optional, sentences (a) & (h), reflexive and obligatory, sentence (d), emphatic (and therefore optional), sentences (b), (e), (l), & (o), ungrammatical under either reading, sentence (i), or grammatical under both (i.e. ambiguous), sentences (g) & (n). These conditions did indeed produce a plethora of interpretations and grammaticality judgments associated with them. In what follows, we abstract from differences among respondents, and concentrate on how the abundant data confirmed our main hypothesis of asymmetry between reflexive (argument) and emphatic (adjunct) readings of *-self* forms.

B. RESULTS

One indicator, in Table I, of a bias in favor of reflexive readings is the fact that the respondents collectively proposed a great number of reflexive interpretations for the four *-self* sentences which were grammatical only on an emphatic reading (i.e., b, e, l, and o):

Table I: Reflexive interpretations proposed for sentences grammatical only on emphatic reading

A) Respondents:	54
B) Sentences grammatical only on emphatic reading:	4
C) Maximum possible interpretations for (B): (54 x 4 x 2 interpretations)	432
D) Reflexive interpretations for (B):	177
E) Total interpretations for (B):	346

We see that reflexive interpretations account for more than half of the interpretations proposed for the sentences that were grammatical only on an emphatic reading. This would seem to indicate a bias in favor of reflexive readings. But a bias against emphatic readings? To answer this question, let us examine, in Table II, the extent to which the respondents collectively rejected these

same purely emphatic sentences, i.e. judged them ungrammatical on any reading or readings which they proposed for them:

Table II: Rejection of sentences grammatical only on emphatic reading

A) Sentences grammatical only on emphatic reading:	4
B) Rejections of (A):	88
C) All grammatical sentences:	23
D) Rejections of (C):	184

We see that the rejections of the four purely emphatic sentences account for nearly half the rejections of the 23 grammatical sentences. Thus, although we had drawn attention to the emphatic in our directions to the respondents (see above) and indeed received many emphatic interpretations, purely emphatic sentences were judged ungrammatical on the reading or readings which the respondent attributed to them a disproportionate number of times.

What about sentences which were grammatical on both the reflexive and the emphatic reading, i.e., sentences (g) and (h) above, where the post-verbal *-self* is final and thus ambiguous? Was there any tendency, either in interpreting them, or in judging their grammaticality on these interpretations, to disfavor the emphatic? To answer this question, we can ask, in Table III, how often they were read as emphatics, and how often the authors of these interpretations judged them grammatical on these readings.

Table III: Emphatic interpretations of ambiguous (grammatical) sentences

A) Ambiguous sentences (g & h):	2
B) Maximum possible interpretations for (A): (54 x 2 x 2 interpretations)	216
C) Total interpretations for (A):	167
D) Emphatic interpretations for (A):	93
E) Emphatic interpretations of (A) judged grammatical:	53

We see that most of the time, i.e., in 57% of the cases, the respondents judged these sentences grammatical on the emphatic readings which they had proposed for them. Yet this result compares unfavorably with the overall frequency with which, for grammatical sentences, the respondents declared them grammatical on the readings they proposed: 67%.

Was there a particular bias against these two ambiguous sentences, perhaps because of their ambiguity? The answer seems to be no, if we compare, in Table IV, the rejections of these sentences to those of the purely emphatic ones (above), and examine the number of times they were judged ungrammatical on an interpretation proposed:

Table IV: Rejection of ambiguous (grammatical) sentences

A) Rejections of (g):	14
B) Rejection of (h):	1
C) Interpretations of (g) judged ungrammatical:	38
D) Interpretations of (h) judged ungrammatical:	22

Comparing Tables III and IV, we see that the 107 interpretations of these sentences which were judged ungrammatical, out of a total of 167, come close to 67%, the overall rate of acceptance of interpretations of grammatical sentences. We also see, however, that (g) fares much worse than (h), while differing from it only as to the verb. This reminds us that each verb as a lexical item has properties which affect its relative acceptability in a given construction. Intuitively, we might note in this connection that *s'habiller*, the obvious French translation of *dress oneself*, in (h), is a typical true reflexive, while the decision as to the most obvious translation of *weaken oneself*, in (g), is more litigious.

The difference in behavior between the two verbs in this pair of sentences reminds us of another possible source of divergence in the treatment of emphatic *-self*: the following context. Given the assumption that the emphatic is not an argument but an adjunct, the question arises as to whether or not it is grammatical for all speakers and equally acceptable in the various types of non-final post-verbal contexts. For example, given the strict adjacency status of English, unlike French (White 1989), our sentence (j) has only the reflexive reading, in which *myself* is a dative. It cannot be read as emphatic, since on that reading the adjunct *myself* separates the verb, *sang*, from its lexical NP complement, *a song*.

The question arises, however, as to the relative acceptability of separating the verb from other types of complements. On the basis of our intuitive impressions of the data and conversations with pre-test volunteers, we suspected that infinitival complements were less acceptable than other non-lexical-NP complements after the emphatic. (See our sentences b, c, k and l.) It was possible to test this intuition in a limited fashion: there are four very similar pairs of grammatical sentences in which each pair differs in that *-self* must be read as reflexive in one member of the pair and emphatic in the other. The pairing is based on the fact that the complement after *-self* is identical or of the same type, i.e., PP, INF, or S. These pairs are (c) vs. (b) and (k) vs. (l), for the infinitival complement type, (f) vs. (e) for the sentential complement type, and (n) vs. (o) for the PP complement type.

We sought to determine whether our respondents had disfavored the emphatic, relative to the reflexive, more before one or the other complement type, all other things being equal (or as nearly so as our set of sentences allowed). We were able to answer this question by comparing each of the sentence pairs just mentioned with respect to the grammaticality judgments which the respondents paired with their interpretations of them: Did the respondents reject the sentence as ungrammatical, on their interpretation, more often when *-self* was necessarily emphatic before a given complement type than when it was necessarily reflexive? Table V presents, for each reflexive-emphatic sentence pair and their complement type, the number of times the respondents judged the sentence grammatical or ungrammatical, on the interpretation they proposed:

Table V: Judgments on interpretations of necessarily reflexive or emphatic sentences with paired complements

status of -self:	R	E	R	E	R	E	R	E
sentence:	c	b	k	l	f	e	n	o
complement type:	INF		INF		S	PP		
[+g] interpretations:	48	36	58	32	46	35	54	36
[-g] interpretations:	46	57	27	48	24	50	17	48

To evaluate these differences in proportional terms, however, we need to see the relative frequency of interpretations paired with judgments of ungrammaticality. Table VI presents these proportions:

Table VI: Percentage of interpretations rejected for necessarily reflexive or emphatic sentences with paired complements

Sentences	Types	Complements	Interpretations Rejected (%)
c	reflexive	INF	48.94
b	emphatic	INF	61.29
k	reflexive	INF	31.77
l	emphatic	INF	60.00
f	reflexive	S	34.29
e	emphatic	S	58.82
n	reflexive	PP	23.94
o	emphatic	PP	57.14

It is already clear, from the combination of the information in Tables V and VI, that for the relatively modest number of interpretations involved in each contrast, the small percentage differences between the case of each complement type after the emphatic would not be statistically significant: The level of rejection of the interpretations of the necessarily emphatic sentences was always close to 60%.

In fact, the statistical study, using the Cochran Q Test, examined all the logically possible sentence contrasts. Only 16 of these contrasts, however, could test hypotheses as to differences between the frequency at which the respondents rejected interpretations of sentences where reflexive or emphatic -self preceded different complements. That is, we retained for contrast both the sentence pairs differing as to the complement, but identical as to the reflexive or emphatic status of -self, and the sentence pairs differing as to the status of -self, followed by the same complement

type. This enabled us to isolate the factor of complement type, on the one hand, and that of the reflexive vs. emphatic status of *-self*, on the other.

As we see from the list of sentences in (1), the INF complement was different in (c) vs. (b) but the same in (k) vs. (l); the S complement in (f) vs. (e) was the same; and finally the PP complement in (n) vs. (o) was different. Table VII indicates the 16 sentence pairs retained for the statistical analysis. The general point was to allow for the possibility of significant contrast where the type or exact nature of the complement differed, but where *-self* had the same status, and for the possibility of contrast where the complement was the same, or of the same type, but the status of *-self* was different.

Table VII: Necessarily reflexive or emphatic sentences compared for acceptance of interpretations

Sentence Pairs	Types	Complements
c	reflexive	INF _x
b	emphatic	INF _y
c	reflexive	INF _x
f	reflexive	S
c	reflexive	INF _x
k	reflexive	INF _z
c	reflexive	INF _x
n	reflexive	PP _x
b	emphatic	INF _y
e	emphatic	S
b	emphatic	INF _y
l	emphatic	INF _z
b	emphatic	INF _y
o	emphatic	PP _y
f	reflexive	S
e	emphatic	S
f	reflexive	S
k	reflexive	INF _z
f	reflexive	S
n	reflexive	PP _x
e	emphatic	S
l	emphatic	INF _z
e	emphatic	S
o	emphatic	PP _y
k	reflexive	INF _z
l	emphatic	INF _z
k	reflexive	INF _z
n	reflexive	PP _x
l	emphatic	INF _z
o	emphatic	PP _y
n	reflexive	PP _x
o	emphatic	PP _y

For the statistical test, it was only possible to retain the grammaticality judgments associated with the respondent's first interpretation, written in the space provided for it. The respondent also had to have judged the sentence [+] or [-] grammatical on that interpretation. For this test, in addition, the usual threshold for statistical significance ($p \leq .05$) had to be divided by the number of binary contrasts retained for the analysis, i.e. 16. Thus .003125 became the probability level at which the null hypothesis of equal acceptability of the members of the sentence pairs would be rejected. Table VIII shows the four contrasts in acceptability which were significant under these rigorous conditions:

Table VIII: Statistically significant contrasts in acceptability between sentence pairs

Sentence Pairs	Types	Complements	Cochran Q	Significance
n vs. c	reflex./reflex.	PP _x /INF _x	10.6667	.0011
f vs. e	reflex./emph.	S/S	16.1333	.0001
k vs. l	reflex./emph.	INF _z /INF _z	15.1250	.0001
n vs. o	reflex./emph.	PP _x /PP _y	18.2414	.0000

The only truly new result here is the significant difference in favor of the PP complement, over the INF complement, after the reflexive. We do not have the kinds of analogous data which would be necessary to determine whether this acceptability contrast goes beyond disagreements between us and our respondents as to possible complements for *show*, in sentence (c).

Apart from this result, the test simply confirmed statistically, for three sentence pairs, the fact that the reflexive is more acceptable than the emphatic after each of the three complement types, S, INF and PP. This relatively great disapproval of the emphatic before these other-than-lexical-NP complements might suggest that the above-mentioned adjacency condition on case assignment reviewed by White (1989), in its strict form for English, is not sufficiently restrictive to account for what appears here, at least, to be the unacceptability of an adjunct between finite verb form and complement.

C. CONCLUSION

White cites Chomsky (1981 and 1986) and Stowell (1981) for the formulations of the adjacency condition. What is relevant here is that "nothing can intervene between a verb and its direct object in English", except in instances of "the double object [or dative] construction" and "heavy NP shift" (White 1989:136; see also Fiengo 1980:199). As is shown in (1), we did not challenge the adjacency condition in this sense. What appears to be going on for some of our respondents, however, is that (adjunct) emphatic *-self* forms are problematic between the verb and complements generally, since, as we have just seen, S, INF and PP complements are frowned upon, almost equally, after emphatic *-self*. What it looks like is a generalized disapproval of adjuncts, or of this sub-type, in post-verbal, non-final position.

Far from explaining this, the literature on the adjacency condition emphasizes, on the contrary, that it is too strict for some configurational languages, and even for English in the two above-mentioned respects. It now appears to us that the explanation probably does not lie in a

more general verb-complement adjacency condition, but rather, as sentence (i) suggests, with the sub-classification of adjuncts with respect to their possible positions (within the set of positions possible for one or the other sub-class). Just as the relaxation of the adjacency condition in some configurational languages, such as French, only applies to a sub-class of adjuncts ("manner", in Stowell 1981's terms, cited in White 1989), individual grammars may differ as to the sub-class of adjuncts allowed in a position that is open to adjuncts in principle. The possibility of inter-speaker-and-learner variation as to this sub-classification seems to us now to be the next question to pursue.

NOTE

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