

Possessives vs. Indefinites:
Pragmatic Inference and Determiner Choice in English*

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1. Introduction

It has been argued that the four maxims of Grice's Cooperative Principle can be reduced to two opposing forces, one speaker-based and one hearer-based (Horn 1984). The interaction of these two forces is said to account for, among other things, inferences of possession or non-possession associated with the use of the indefinite article in certain contexts. Closer examination, however, reveals that the choice between a possessive pronoun and the indefinite article, and the inferences induced by each, are not reducible to these opposing forces, but rather are determined by a complex interaction among syntactic construction, extralinguistic context, and real-world knowledge.

2. The division of pragmatic labor

Horn (1984) reduces the four maxims of Grice's (1975) Cooperative Principle to two. Briefly, the hearer-based Q Principle, "Make your contribution sufficient; say as much as you can, given R," is a lower-bounding principle inducing upper-bounding implicata (thus, John ate two apples Q-implicates not four), while the speaker-based R Principle, "Make your contribution necessary; say no more than you must, given Q," is an upper-bounding principle inducing lower-bounding implicata (thus, John ate the brownies R-implicates John ate all the brownies). Thus, according to Horn, "A speaker who says '...p...' may

license the Q-inference that he meant '...at most p...'; a speaker who says '...p...' may license the R-inference that he meant '...more than p...' (1984:14) Clearly the two are in conflict, and horn proposes a method of resolving the conflict: his "division of pragmatic labor":

- (1) The use of a marked (relatively complex and/or prolix) expression when a corresponding unmarked (simpler, less 'effortful') alternative expression is available tends to be interpreted as conveying a marked message (one which the unmarked alternative would not or could not have conveyed). (1984:22)

Thus, unmarked expressions induce R-inferences to the stereotypical situation -- an "inference to the best interpretation." (Atlas and Levinson 1981:42) In 2a, then, the R-inference to the stereotypical situation is 2b:

- (2) a. I broke a finger.
b. The finger is the speaker's.

One problem that is immediately apparent is that of defining what constitutes a marked expression. In 2a, the indefinite article presumably is to be considered unmarked, since it induces the inference to the stronger statement in 2b, and does not license the inference to the marked situation, wherein the finger is NOT the speaker's. This latter inference, to the marked case, is in fact licensed by 3a, which induces the inference in 3b:

- (3) a. I slept in a car yesterday.
b. The car is not the speaker's.

however, if 2a is in fact unmarked, it is not clear how it differs from the putatively marked 3a, assuming that the stereotypical instance of sleeping in a car involves sleeping in one's own car. It is, moreover, unclear what additional information is contributed by the equally acceptable 4:

- (4) I broke my finger. [1]

If in fact 4 is no more informative than 2a, then by the R Principle ("say no more than you must"), it should be avoided. However, 2a and 4 are equally acceptable.

In attempting to explain this paradox, Horn points out that the speaker of 3a could have chosen the more precise

possessive form, but did not, thus Q-implicating 3b, while to use the possessive 4 might suggest that the speaker has only one finger. However, this explanation is clearly inadequate if 2a and 4 are equally acceptable, with no evidence of a difference in interpretation.

In fact, an examination of the distinction between the use of possessive pronouns and the indefinite article points up the complexity of the interaction between pragmatic, syntactic and extralinguistic factors. Consider 5 and 6:

- (5) It seems a little over-dignified to call what's going to happen "surgery." They're going to scrape a patch on my nose. [R. Reagan, quoted in the San Francisco Chronicle, 8/1/87, p. 12]
- (6) That would have to be when I broke my knuckle. That was about a year ago. [T.L., on telephone, 12/16/87]

While by Horn's analysis the use of the possessive in 5 correctly predicts that the President has only one nose, presumably the speaker of 6 has more than one knuckle, yet the use of the possessive in this instance is equally felicitous. Moreover, assuming an 'out of the blue' context, where the body part in question belongs to the speaker, there seems no clear-cut way to reconcile 7a-f with an unadorned theory of Q and R implicature:

- (7) a. My arm is broken.
- b. #An arm is broken.
- c. I chipped my tooth.
- d. I chipped a tooth.
- e. #I burst my blood vessel.
- f. I burst a blood vessel.

Rather, the choice of a vs. my in such expressions appears to be a function of syntactic construction, extralinguistic context, and number of relevant body parts.

3. The factors influencing determiner choice

First, there seems to be a strong correlation between the number of relevant body parts and the relative acceptability of the possessive pronoun vs. the indefinite article. Very consistently, the fewer the body parts involved, the more acceptable the use of the possessive and the less acceptable the use of the indefinite article. For

example, in 8a-e, it can safely be assumed that the speaker has one nose, two arms, ten fingers, many ligaments, and innumerable blood vessels; note the high correlation between the number of relevant parts and the gradation of my vs. a acceptability [2]:

- (8) a. I bumped {my} nose.
 {#a}
 b. I broke {my} arm.
 {?an}
 c. I broke {my} finger.
 {a}
 d. I tore {?my} ligament.
 {a}
 e. I burst {#my} blood vessel.
 {a}

While it is not entirely clear why this pattern exists, it seems likely that the possessive is preferred over a insofar as the body part under discussion is considered a unique individual rather than part of an unindividuated group. [3] Compare 9a-b:

- (9) a. I slept in {my} car.
 {#a}
 b. I ate {#my} pea.
 {a}

Since the speaker is likely to have only one or two cars, my is preferred over a in 9a; but since peas generally come in a mass, my sounds odd in 9b. Thus, the difference between the implicatures licensed by 2a and 3a is not one of Q- vs. R-implicature, but rather involves a numerical distinction: Since most people own one or perhaps two cars, 9a can be expected to pattern with 8a or 8b rather than 8c-e -- and in fact it does. Notice that if the speaker were the owner of a used car lot, and thus owned, say, hundreds of cars, then for him to say I slept in a car yesterday would sound fine, and would NOT implicate that the car was not his, as it seemed to when we considered 3a out of context. [4]

Notice, moreover, that while the literature contains many discussions of syntactic and semantic phenomena involving alienable vs. inalienable possession in a number of languages (e.g., Seiler 1983; Fox 1981; Hyman, et. al., 1970), a comparison of 8a-e and 9a-b demonstrates that the question of determiner choice in the cases being discussed here is not subject to this distinction. Rather, sentences

such as 2a and 3a are subject to the same set of considerations influencing determiner choice, and these considerations cannot be reduced to a simple Hornian division of pragmatic labor.

A second factor in determiner choice is the particular syntactic construction used. The above pattern for my holds also in the construction a/my N V, where the noun is a body part; in this context, however, the use of a doesn't even achieve "questionable" status until much higher up the numerical scale, and in fact it never attains complete acceptability, as seen in 10a-c:

- (10) a. $\begin{Bmatrix} \text{My} \\ \text{\#A} \end{Bmatrix}$ finger is broken.
 b. $\begin{Bmatrix} ?\text{My} \\ ?\text{A} \end{Bmatrix}$ ligament tore.
 c. $\begin{Bmatrix} \text{\#My} \\ ?\text{A} \end{Bmatrix}$ blood vessel burst.

Here the use of my is seen to pattern as in 8c-e, but a, though it again becomes more acceptable as the number of body parts increases, never gains full acceptability. Thus, in most contexts a speaker will use an expression of the form NP V a(n) N in talking about these large-group parts.

The relative infelicity of uttering, for example, A tooth hurts is due to the lack of an identifiable "anchor" for the body part; that is, without prior attribution of agency, ownership of the tooth is not readily determinable. [5] It is here that inference to a stereotypical situation is most likely to play a role. While a sentence like A bone broke is neutral regarding whose bone is being discussed, the construction I broke a bone or I hurt a tooth evokes a discourse entity (here, I) as an anchor; thus the hearer can appeal to the stereotypical situation -- wherein one damages one's own body rather than someone else's -- in interpreting the utterance. The utterance of 11a, then, will implicate that it was John's finger that was broken, while 11b will implicate that the torn ligament belongs to Mary:

- (11) a. John broke a finger.
 b. Mary tore a ligament.

For this reason, a change of context can induce a change in acceptability judgments. When the context is altered such that it is clear whose body, and which part, is being talked about -- for example, if a cast or bandage is being worn that makes it obvious -- then the

acceptability of utterances such as 12 rises markedly.

(12) A blood vessel burst.

Interestingly, the use of the possessive in this construction is also more acceptable in the new context, perhaps because the cast or bandage makes it clear which body part is being discussed, thus individuating it as a unique element.

Similarly, the status of the injury as old vs. new information can affect acceptability. [6] If the body part in question is already salient from a previous discussion, for example, my may become much more acceptable. For instance, in a context where both interlocutors are aware of B's having torn a ligament, the following dialog is felicitous:

- (13) A: Too bad you can't be in the big race tomorrow.
 B: Yeah; I had hoped to win -- but that was before I tore my ligament.

Again, in this case the body part has already been individuated through the interlocutors' prior knowledge of the injury. [7]

Finally, for 14, which patterns as expected --

- (14) I ripped {my} sleeve.
 {?a}

-- acceptability judgments for a vs. my are reversed if the sleeve in question is not being worn by the speaker, but rather is among a pile of shirts on a table. [8] Here the problem is not so much one of attachment or inalienable possession, as has been suggested, but rather of number, in which case the patterning of intuitions falls out as expected. That is, since the number of sleeves in this case is no longer two but rather many, we would expect the judgments to reverse in favor of a.

4. Conclusions

It can be seen, then, that while an R-based implicature may perhaps be invoked to explain the inference from 2a to 2b, it is not at all clear that a Q-based implicature is responsible for the inference from 3a to 3b; what IS clear is that there is much more than the Hornian division of pragmatic labor involved in the seemingly simple choice between the possessive pronoun and the

indefinite article, and in what is conveyed by each. [9]
While a more detailed account of determiner choice calls for an examination of a large corpus of naturally occurring data, it is evident that the factors involved include (at least) number, syntactic construction, and real-world knowledge. A complex interaction of syntactic, pragmatic and extralinguistic factors come together to determine our lexical choices, and in developing a theory of linguistic competence we must be prepared to address such interactions.

NOTES

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[1] In fact, a reviewer has noted that I broke a finger and I broke my finger are both ambiguous in that the finger could be either from the speaker's body or not, and if from the speaker's body, either attached or not. Thus, to obtain the reading in which the finger is attached to the speaker, each requires an additional inference.

[2] Interestingly, when a sentence describes the loss of a body part, the indefinite article may become more acceptable:

- (i) a. ?I broke an arm in the football game.
- b. I lost an arm in the war.
- c. #John burned a hand.
- d. John burned a hand off.

This suggests that there are semantic factors involved as well. I am indebted to a reviewer for providing examples b-d.

[3] Larry Horn (p.c.) has pointed out the following possible counterexample:

- (i) I hurt a ball.

however, judgments on the acceptability of (i) vary. It is likely that the difference between (i) and 8b above stems from the infrequency of a single ball being referred to; i.e., balls are generally less clearly individuated. This would constitute additional evidence that the effect is due to individuation status rather than being strictly numerical.

[4] It has been pointed out to me that, even when the speaker owns only one car, a becomes more acceptable if the speaker's intent is to emphasize that the location of sleeping was a car, rather than to identify a particular car or describe his relationship to it; e.g.:

- (i) A: I heard you slept in a boat last night.
B: No, I slept in a car. (where the car is his own)

Interestingly, however, such a use does not extend to all possessions:

- (ii) A: I heard you drove to Florida with a cousin.
B: #No, I drove to Florida with a mother. (where the mother is his own)
- (iii) A: I heard you broke a rib.
B: #No, I broke a nose. (where the nose is his own)

[5] For this reason, a sentence such as 10a can become perfectly acceptable if extended in such a way as to provide an anchor:

- (i) A finger is broken on my right hand.

I am indebted to a reviewer for providing this example.

[6] I am grateful to Jim McCawley for pointing this out to me.

[7] It is not clear that all previously known information will show this effect. See Prince 1981 for an insightful discussion of the various types of "given" and "new" information.

- [8] A reviewer has pointed out that (i) is acceptable:

- (i) I ripped a sleeve off my dress.
- (ii) I ripped the sleeve off my dress.

Notice, however, that if the dress were being worn at the time of the ripping, (ii) rather than (i) would be used. Therefore, in (i) the sleeve may be considered to be one among a large number of sleeves owned by the speaker (rather than one of the two she is wearing).

[9] It should be noted that these results seem to be language-specific. For example, while the German data below largely parallel the English data in terms of distribution of the possessive pronoun and indefinite article, the potential for using a reflexive in combination with either a definite or indefinite article complicates the issue. (I

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