

EVIDENCE FOR PRESUPPOSITIONAL INDEFINITES

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The background for this squib is the ongoing debate about whether natural language quantifiers carry existence presuppositions, a claim that was prominently introduced by Strawson (1952) and that has been very influential in recent work in the syntax/semantics-interface, in particular Diesing (1992).¹ Drawing on observations and analyses first explored by Milsark (1974, 1977), Diesing argues that sentences containing indefinites like *some students* are potentially ambiguous between a presuppositional reading and a non-presuppositional one. A simple pair of examples will illustrate the main point:

- (1) a. There are some major mistakes in this manuscript.
- b. Some mistakes in this manuscript are major.

Quite clearly, the sentence in (1a) does not presuppose that there are major mistakes in the manuscript, but simply asserts their existence. The crucial claim is that the sentence in (1b) presupposes the existence of mistakes in the manuscript and asserts that some of them are major. (1b) is seen as an instance of the generalization (due to Milsark) that

This squib arose out of class discussions at MIT. Some of the material was also presented in talks at the 1995 workshop on Context Dependency in the Analysis of Linguistic Meaning in Bad Teinach, and in 1997 at Indiana University, at the Max Planck Institute in Nijmegen, and at the ZAS in Berlin. I am grateful for comments from audience members on these occasions.

¹See also Diesing & Jelinek (1995) on the correlation between sentence structure, NP position, and presuppositional readings of noun phrases.

when an indefinite occurs as the subject of an individual-level predicate, an existence presupposition with respect to the common noun predicate of the indefinite will be present. Diesing tries to unify Milsark's generalization with a similar generalization about scrambled indefinites in German.

In a backlash, Reinhart (1995) has forcefully argued that Diesing's claim that there are presuppositional indefinites is not well supported. In this squib, I will endorse Reinhart's critique of Diesing's argumentation, but I will move on to produce convincing evidence that there are in fact presuppositional indefinites.

1 The Issue

My aim in this squib is to argue that the Milsark/Diesing generalizations are correct.² We will not be concerned with evaluating any particular explanation of the effect. What is at issue is whether the effect exists at all. One crucial question that will be left open here is whether the presuppositionality is to be analyzed as part of the meaning of the indefinite NP. This is the position taken by Milsark and Diesing. The alternative would analyze indefinite NPs themselves uniformly as non-presuppositional and attribute the existence presupposition carried by sentences such as (1b) to other sources, such as the topic-focus articulation of the sentence. This is the position apparently favored by Reinhart. When I

²There is a third generalization that is sometimes assumed to be at work. A particular prosody on indefinites like *two students*, with stress on the numeral and destressing of the predicate, seems to go naturally with a presuppositional reading, as in

- (i) There were a number of cats and dogs in the yard. TWO cats were chasing a dog.

In fact, Diesing seems to endorse this claim. But, Milsark had already warned that this correlation is not a tight one. And recent work by Büring (1996) shows that this stress pattern does not induce an existence presupposition.

use the term “presuppositional indefinite”, I intend to stay neutral between these options. Strictly speaking therefore, we should speak of “presuppositional readings of sentences with indefinites”.

The most important methodological point to remember is that it will not be enough to show that a particular sentence (with a supposedly presuppositional indefinite) can be uttered in a context where an existence presupposition is satisfied. What has to be shown is that such a sentence can only be uttered in such a context. A supposedly presuppositional indefinite needs to be shown to require a context satisfying its presupposition. Diesing’s evidence falls short in this respect, as Reinhart points out.

2 Problems with Diesing’s Evidence

We need to distinguish between two claims: (i) that there are sentences with indefinites that unambiguously carry an existence presupposition, and (ii) that there are sentences that are ambiguous between a presuppositional reading and a non-presuppositional reading. The second claim is much harder to argue for.

Consider an example from Diesing:

(2) Every person saw three ghosts.

Diesing writes: “Here the basic context could be visiting an old, rundown house. On the narrow scope, presuppositional reading of *three ghosts* the house could be known to be haunted by a set of ghosts such as the ghosts of all of Bach’s 20-odd children. In this context, every person could see three of the ghosts, the partitive *of* indicating the presuppositional reading. [...] On the cardinal reading, the house would have no such preestablished reputation. Every person could see three ghosts, even three different ghosts each time. In this case the sentence in (2) would merely assert the existence of

ghosts seen.” But as Reinhart stresses, the fact that (2) can be uttered in two different contexts is no argument for any ambiguity. If one had established independently that indefinites of the same sort as *three ghosts* in (2) are ambiguous, then it might seem expedient to say that (2) must be ambiguous as well. But Diesing’s consideration do not get the argument off the ground.

In what follows, I will not attempt to argue for the ambiguity claim. Instead, we will try to find evidence that there are unambiguously presuppositional indefinites, in particular subjects of individual-level predicates and scrambled indefinites. Consider then one of Diesing’s examples that is supposed to show that scrambled indefinites in German are unambiguously presuppositional:

- (3) a. weil ja doch zwei Cellisten in diesem Hotel abgestiegen sind.
because PRT PRT two cellists in this hotel stayed are
‘because after all there were two cellists staying at this hotel’
- b. weil zwei Cellisten ja doch in diesem Hotel abgestiegen sind.
because two cellists PRT PRT in this hotel stayed are
‘because two cellists stayed at this hotel after all’

The indefinite subject NP *zwei Cellisten* occurs to the left of the particle complex *ja doch* in (3a) and to the right of it in (3b). The particle complex is taken to mark the left boundary of the VP. Diesing now needs to show that while (3a) does not necessarily carry a presupposition, (3b) unambiguously signals an existence presupposition. But the argument she provides is insufficient: “The sentence in (3a) asserts the existence of two cellists who have taken rooms in this hotel. ... In (3b), ... the two cellists are two of some larger set of cellists. The context situation might be [my emphasis, KvF] one in which a busload of cellists has arrived in town (perhaps for a Villa-Lobos festival), and two of the cellists are staying in this hotel, four more at a local bed-and-breakfast, another with an aunt, and so on.” Reinhart correctly observes that what would really have to be shown is

that (3b) cannot be uttered in a context where the cellists are not already established, otherwise we need not conclude that (3b) carries the relevant presupposition. Diesing provides no argument to that effect.

Note another issue: the presupposition that Diesing detects is not simply one of existence of entities that satisfy the common noun predicate of the indefinite. Both of her examples that we have seen so far, the ghost example in (2) and the cellist example in (3), were described as involving presupposed existence of a particular set of ghosts or cellists. I will assume that we have here an interaction between a simple existence presupposition and the possibility of covert domain restriction. My example in (1) and most of the others I will discuss are designed to focus in on the existence presupposition, by using descriptively rich predicates so that further domain restriction will be inoperative.

3 Reinhart's Challenge

Having discussed the deficiencies in Diesing's argumentation, Reinhart presents some minimal pairs and implicitly challenges anyone to demonstrate that these sentences exhibit any difference in the kinds of readings they allow:

- (4) a. Some ghosts study Dutch.
Some students of Dutch are ghosts.
- b. Some ghosts are speakers of Dutch.
Some speakers of Dutch are ghosts.

Since the predicates in these examples are individual-level predicates, we expect that the indefinite subjects are read as presuppositional, which should mean that the pairs differ in meaning. Reinhart writes: "there seem[s] to be no difference in the number of readings

here.” She sees the sentences as equivalent and “has difficulties imagining what others could mean when they don’t”.

It should be noted that other writers have detected an intuitive difference between such supposedly “symmetric” pairs. McCawley (1993: Example 6.4.10) feels there to be a difference between the following examples:

- (5) a. Some Buddhists are vegetarians.
- b. Some vegetarians are Buddhists.

McCawley does not say what the intuition is but he suggests that a treatment based on an existence presupposition may be adequate.

Similarly, Belnap (1970, 1973) has a system that predicts non-equivalence of such pairs and he seems to claim that this accords with his intuitions: “‘Some unicorns are animals’ is nonassertive while ‘Some animals are unicorns’ is just plain false. Or to take another example, ‘Some of John’s children are asleep’ is nonassertive if John has no children, while ‘Some sleepers are children of John’s’ is under the same condition false. To my ear, this partial failure of conversion rings true.”

4 What to Expect from a Presupposition

What is it that we should expect from a case of an unambiguously presuppositional indefinite? We should not expect too much. In particular, we should not expect that such an indefinite when used in a context that does not satisfy the presupposition leads to a truth-value gap. Both Diesing and Reinhart actually seem to assume that the presuppositionality thesis would lead us to expect truth-value gap judgments. Diesing claims in connection with the sentence *SOME ghosts are in the pantry; the others are in*

the attic, that “if no ghosts exists the sentence will not be straightforwardly false; its truth-value will be undefined” (p. 59).³ And Reinhart discusses the following example:

(6) Two firemen are available.

She writes: “The ambiguity we are expected to note ... is extremely subtle. It can be tested only when the N set is empty, i.e. in a world containing no firemen. Next, what we are asked to check here is our meta-theoretic intuitions regarding whether the sentence is undefined or false, in such a world, or even less reliable intuitions about which contexts we could have uttered the sentence in.”^{4,5}

We should keep in mind that it is well-known that judgments of truth-value gaps are notoriously unreliable and highly variable. Recent work on presuppositions has mostly been conducted under the assumption that the relevant data concern pragmatic presuppositions signalled by particular presupposition triggers and the compositional behavior of such presuppositions, i.e. phenomena like presupposition projection,

³The sentence just discussed also contains a definite *the others*, which by itself may be responsible for any feeling of presuppositionality.

⁴Reinhart’s expectation that truth-value judgments are crucial to determining whether a presupposition is present is also shown by her own experiments that are designed to test for presuppositions. She reports that strong determiners seem to carry an existence presupposition since speakers uniformly judge *Every American king lived in New York* to be neither true nor false. Indefinite sentences like *Two American kings lived in New York* on the other hand are reported to evince mixed truth-value judgments (some false, some indeterminate).

⁵Note again that an example like (6) will bring in the problem that if it can be used presuppositionally, it would probably be read as involving a particular salient set of firemen. Reinhart’s complaint about having to consider judgments for imaginary worlds with no firemen is therefore slightly off the mark. But the point stands that discussion is facilitated by using indefinites with richer predicates.

accommodation, and cancellation.⁶ Neither Diesing nor Reinhart consider the question of whether there are presuppositional indefinites in this light.

5 Evidence from Presupposition Projection

What we should do then is test examples where indefinites predicted to be presuppositional occur in environments from which a presupposition is expected to project. If such examples are reliably felt to signal that the speaker is taking it for granted that objects of the relevant sort exist, and if this is not so for examples where an indefinite is predicted to not have to be presuppositional, then we have solid and direct evidence for presuppositional indefinites. Here then is a number of such tests.

First Experiment. We can embed the test cases in a yes/no-question, one of the embedding environments from which a presupposition will project:

- (7) a. Are there $\left\{ \begin{array}{c} \text{any} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ major mistakes in this manuscript?
- b. Are $\left\{ \begin{array}{c} \text{some} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ mistakes in this manuscript major?

⁶Informative surveys are Soames (1989), Horn (1996), and Beaver (1997). It is a wide open question whether the pragmatic approach to presupposition has anything to say about judgments of truth-value gaps. Diesing is aware of the pragmatic analysis of presuppositions. In Fn. 4 on p. 141, she writes that “[t]he presuppositionality described by Milsark seems to correspond to what Soames (1989) calls “pragmatic presupposition”, which can be thought of as what is taken for granted by speakers and hearers in a conversation.” But she does not explore the issue any further.

We find that the questions in (7b) are reliably taken to signal that the existence of mistakes (major or minor) in this manuscript is to be taken for granted, as not in dispute. This not so for (7a). The indefinites in the *there*-context do not seem to carry an existence presupposition, while those used as the subject of the individual-level predicate *major* are presupposition triggers. We find similar judgments if we test the examples from Reinhart's Challenge:

- (8) a. Do some ghosts study Dutch?
b. Are some students of Dutch ghosts?
c. Are some ghosts speakers of Dutch?
d. Are some speakers of Dutch ghosts?

Someone who does not believe in the existence of ghosts can simply answer "No!" to the questions in (8b) and (8d). But the questioner who asks (8a) or (8c) is taken to presuppose that ghosts exists and will probably be the target of more than just a negative answer.

Second Experiment. We can embed the indefinite under investigation in the antecedent of a conditional. This is a position from which we expect presuppositions to project unharmed. We can sharpen the judgment by prefacing such an example with a sentence that asserts that the speaker is agnostic as to the existence of the relevant sort of objects. Here are examples contrasting *there*-indefinites, indefinite subjects of stage-level predicates, and indefinite subjects of individual-level predicates:

- (9) I'm not sure yet whether there any mistakes at all in this book manuscript, but we can definitely not publish it

- a. if there turn out to be $\left\{ \begin{array}{c} \text{some} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ major mistakes in there.
- b. if $\left\{ \begin{array}{c} \text{some} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ major mistakes are found.
- c. #if $\left\{ \begin{array}{c} \text{some} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ mistakes are major.

A strong contrast is perceivable between the examples in (9a) and (9b) on the one hand and the examples in (9c) on the other hand. Attributing an existence presupposition to the sentences in (9c) would explain this judgment.

Next, we can try the same test with an indefinite object in German and compare a scrambled version with a non-scrambled version:

- (10) Ich weiß noch nicht, ob in diesem Buchmanuskript irgendwelche
I know yet not whether in this book manuscript any

Fehler sind, aber wir werden es auf jeden Fall nicht veröffentlichen
mistakes are, but we will it on every case not publish

können,
can

- a. falls doch $\left\{ \begin{array}{c} \text{einige} \\ \text{mehr als ein paar} \\ \text{eine gehörige Anzahl} \end{array} \right\}$ ernste Fehler drin sind.
- if DOCH $\left\{ \begin{array}{c} \text{some} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ serious mistakes therein are

- b. #falls $\left\{ \begin{array}{c} \text{einige} \\ \text{mehr als ein paar} \\ \text{eine gehörige Anzahl} \end{array} \right\}$ Fehler doch ernst sind.
 if $\left\{ \begin{array}{c} \text{some} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ mistakes DOCH serious are
- c. falls doch $\left\{ \begin{array}{c} \text{einige} \\ \text{mehr als ein paar} \\ \text{eine gehörige Anzahl} \end{array} \right\}$ ernste Fehler gefunden werden.
 if DOCH $\left\{ \begin{array}{c} \text{some} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ serious mistakes found are
- d. #falls $\left\{ \begin{array}{c} \text{einige} \\ \text{mehr als ein paar} \\ \text{eine gehörige Anzahl} \end{array} \right\}$ ernste Fehler doch gefunden werden.
 if $\left\{ \begin{array}{c} \text{some} \\ \text{more than a few} \\ \text{a significant number of} \end{array} \right\}$ serious mistakes DOCH found are

Again, we find that the prediction is borne out. The scrambled indefinites in (10b) and (10d) seem to signal an existence presupposition which clashes with the explicit assertion of the preamble.

Lastly, we can use this test to probe into the meaning of the sentences from Reinhart's Challenge. Here is one of the pairs embedded as a conditional antecedent:

- (11) a. If some ghosts were Dutch, Holland would be a strange place.
 b. If some Dutchmen were ghosts, Holland would be a strange place.

While most of us might assent to (11b), non-believers in ghosts may have problems with (11a), which seems to carry an existence presupposition with respect to ghosts projected from the antecedent.

Let us also check the contradiction scenario:

(12) I don't really know whether ghosts exist or not, but one thing I'm sure of is that

Holland would be a very strange place

a. #if some ghosts $\left\{ \begin{array}{c} \text{were} \\ \text{turned out to be} \end{array} \right\}$ Dutch.

b. if some Dutchmen $\left\{ \begin{array}{c} \text{were} \\ \text{turned out to be} \end{array} \right\}$ ghosts.

(13) I don't really know whether ghosts exist or not, but I wouldn't at all be surprised

a. #if some ghosts $\left\{ \begin{array}{c} \text{were} \\ \text{turned out to be} \end{array} \right\}$ Dutch.

b. if some Dutchmen $\left\{ \begin{array}{c} \text{were} \\ \text{turned out to be} \end{array} \right\}$ ghosts.

Indefinite subjects of individual-level predicates do seem to reliably induce an existence presupposition.

6 Conclusion

We have seen that solid empirical evidence is available to support the Milsark/Diesing generalizations about the interpretation of sentences with indefinites. We can now freshly turn to the task of deriving these empirical observations from more general theories.

References

Beaver, David

- 1997 "Presupposition." In Johan van Benthem and Alice ter Meulen, eds., *Handbook of Logic and Language*. Amsterdam: Elsevier. 939-1008.

Belnap, Nuel

- 1970 "Conditional Assertion and Restricted Quantification." *Noûs* 4: 1-12. [Followed by short comments by W.V. Quine and J. Michael Dunn]
- 1973 "Restricted Quantification and Conditional Assertion." In Hugues Leblanc, ed., *Truth, Syntax and Modality: Proceedings of the Temple University Conference on Alternative Semantics*. Amsterdam: North-Holland. 48-75.

Büring, Daniel

- 1996 "A Weak Theory of Strong Readings." *SALT* 6.

Diesing, Molly

- 1992 *Indefinites*. Cambridge, MA: MIT Press.

Diesing, Molly and Eloise Jelinek

- 1995 "Distributing Arguments." *Natural Language Semantics* 3: 123-176.

Horn, Larry

- 1996 "Presupposition and Implicature." In Shalom Lappin, ed., *The Handbook of Contemporary Semantic Theory*. Oxford: Blackwell. 299-319.

McCawley, James

- 1993 *Everything that Linguists have Always Wanted to Know about Logic* *but were ashamed to ask*. Chicago: Chicago University Press. [2nd Edition, much revised]

Milsark, Gary

- 1974 *Existential Sentences in English*. Ph.D. Dissertation, Massachusetts Institute of Technology.

Milsark, Gary

- 1977 "Toward an Explanation of Certain Peculiarities of the Existential Construction in English." *Linguistic Analysis* 3(1): 1-29.

Reinhart, Tanya

- 1995 "Interface Strategies." manuscript. OTS, Utrecht University. [To appear, MIT Press]

Soames, Scott

- 1989 "Presupposition." In Dov Gabbay and Franz Guenther, eds., *Handbook of Philosophical Logic, Vol. 4*. Dordrecht: Reidel. 553-616.

Strawson, P.F.

- 1952 *Introduction to Logical Theory*. London: Methuen.