Would You Believe It? The King of France is Back!
(Presuppositions and Truth-Value Intuitions)

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This paper is concerned with the contrast between two kinds of sentences involving definite descriptions. When people are asked to assign truth-values, they feel "squeamish" about *The King of France is bald*, while they confidently and without hesitation judge *My friend went for a drive with the King of France last week* to be false. This contrast has often been taken to show that the first sentence has no truth-value because its presupposition (that there is a King of France) is not satisfied, while the second sentence has no presupposition of existence (of a King of France) and is thus simply false.

I will argue against this picture. Even the second sentence carries an existence presupposition. Rather than concluding that therefore the truth-value gap analysis of presupposition is incorrect, I will say that the second sentence actually does have no truth-value. The judgment people give is based on a fall-back strategy that assigns truth-values even to sentences that strictly speaking have no truth-values. Much of the paper is concerned with describing this fall-back strategy.

1. Background: A Plausible Theory of Presupposition

Sentences with definite descriptions such as those in (1) and (2) have two distinct meaning components, one of which involves a presupposition, at least that is what I will assume, indeed presuppose, without argument.

(1)   The King of France is bald.

(2)   The mathematician who proved Goldbach's conjecture is a woman.

The sentence in (1) presupposes that there is a King of France and asserts that he is bald. The sentence in (2) presupposes that there is a mathematician who proved Goldbach's conjecture and asserts that that mathematician is a woman.

Of course, when we talk of a sentence doing things like "asserting" and "presupposing", that can only be some sort of short hand description. It is really language users who are doing such things. What we should say is that something in the semantics of these sentences constrains the uses that speakers can put these sentences to. A theory of presupposition is concerned with this interplay of semantics and pragmatics. In particular, such a theory specifies (i) what the pragmatics facts are that need to be explained, (ii) what it is in the semantics of these sentences that constrains language users in such a way as to produce the pragmatic facts about presupposition, and (iii) how the semantics is connected to the pragmatics.

I will sketch my favorite theory of presupposition without suggesting that one should not explore alternatives.[1] What this paper is about is what role truth-value intuitions play in the investigation of presuppositions. As far as I can see, this issue arises in the alternatives to my preferred theory just as much and thus, even followers of these alternatives should find something useful in my discussion.

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[1] The theory I sketch is largely based on the writings of Karttunen (1974), Stalnaker (1972, 1973, 1974, 1978, 1998, 2001), and Heim (1982, 1983, 1990, 1992). The one ingredient that I add is to ground pragmatic presuppositions in semantic/logical presuppositions (at least for definite descriptions). For recent surveys of the area see Soames (1989) and Beaver (1997).

1.1 The Pragmatic Data about Presupposition

The main empirically observable facts that motivate theories of presupposition are two:
(i) sentences like (1) and (2) are hard to use felicitously unless the speaker takes it for
granted that the "presupposed" component of meaning is already common ground among
the participants in the conversation (as Stalnaker puts it: these sentences "require a
speaker presupposition");[2] (ii) the fact in (i) persists even when such sentences occur
embedded in larger constructions (this phenomenon is known as "presupposition
projection").

Usually when one is asked to appreciate the fact that (1) and (2) are normally taken as
signalling certain things about what the speaker is taken for granted, one is supposed to
just consult one's intuitions about felicitous uses of these sentences. But there are at least
some suggestive tests. Observe for example:[3]

(3)   A: The mathematician who proved Goldbach's Conjecture is a woman.
        B: Hey, wait a minute. I had no idea that someone proved Goldbach's
            Conjecture.
        B': #Hey, wait a minute. I had no idea that that was a woman.

Hearer B legitimately complains that A presupposed that someone proved the conjecture,
when it was not in fact established prior to A's utterance. Hearer B' illegitimately makes
a parallel complaint about an asserted, non-presuppositional component of A's statement.

While asserted, non-presuppositional components of meaning are manipulated at will by
the embedding construction, presuppositional components are typically inherited by the
whole construction. Two sample environments are the complements of attitude verbs like
hope and the antecedents of conditionals:

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[2] I do not wish to get bogged down in debates about the proper characterization of the pragmatic facts about
presupposition. Some discussion of related matters, especially those concerned with the phenomenon of
presupposition accommodation, can be found in von Fintel (2001b) and Stalnaker (2001). What is
important here is that there are such facts and that we recognize them when we see them.

[3] The *Hey, wait a minute* test is a variation of a criterion proposed by Shanon (1976).

(4) a. I hope that the King of France is wise.

 b. If the King of France is wise, James (the Francophobe) will be quite disappointed.

(5) a. I hope that the mathematician who proved Goldbach's Conjecture is a woman.

 b. If the mathematician who proved Goldbach's Conjecture is a woman, James (the misogynist) will be quite disappointed.

In (4), it is not part of what is hoped for that there is a King of France; instead it is assumed background that there is a King of France. In (5), again it is not part of the hope (but a background belief) that someone proved Goldbach's Conjecture. Similar observations can be made about the conditional examples. Here, the existence of a King of France or of someone who proved Goldbach's Conjecture is background and the distinction made is between situations where the King is wise or not and between situations where the person who proved Goldbach's Conjecture is a woman or a man.[4]

1.2 The Semantic Source of the Pragmatic Facts about Presupposition

I will assume that the source (or one source) of the pragmatic facts we just sketched lies in the semantics of sentences. I will assume that sentences express partial propositions that sometimes assign no truth-value to a state of affairs or possible world.[5] One says that a sentence has the semantic presupposition that *p* iff the proposition it expresses does not

[4] Again, there is of course much more to be said about presupposition projection, but I trust that my readers are familiar enough with the phenomenon.

[5] Other analyses do not start with partial propositions as the semantic values. They assume a Russellian two-valued semantics. Facts about pragmatic presuppositions are encoded at an independent level. This idea was perhaps first suggested by Sellars (1954) in his response to Strawson (Sellars should therefore be cited as an early advocate of a dynamic perspective on communication.):

> Russell's analysis is correct, but needs to be supplemented by an account of the conventions relating to the *dynamics* of discussion or argument, the order in which assertions should be made and challenged.

There are a number of such theories on the market. Perhaps the best known is Karttunen & Peters' system where a sentence is associated with a pair of propositions as its semantic value: the ordinary content and the presupposed content (Karttunen and Peters, 1979).

assign a truth-value to states of affairs where *p* doesn't hold. I will work with a Frege-Strawson semantics for definites:

(6)   *The P Q* expresses a partial proposition which is defined only for worlds in which there is a unique P and which is true in a world w iff the unique P in w is Q in w.

We will discuss shortly that this semantics is not one that we can argue for on the basis of raw truth-value intuitions. Rather its advantages lie in how well it can be used to derive the pragmatic facts about presupposition.

1.3 The Semantics-Pragmatics Interface

The way that we connect the partial semantics of sentences to the pragmatic facts about presupposition is via a bridging principle. This has been hinted at by Stalnaker in a number of places: a sentence with a semantic presupposition can only be used in smooth communication if the truth of the presupposition has been established prior to the utterance of the sentence. According to this principle, any semantic presupposition becomes a pragmatic presupposition.[6]

The other fact that needs to be explained is the projection behavior of a presupposition. Here there are two ways to go. (i) One can locate the mechanics in the semantics so that projection then is simply the outcome of compositional semantics. Embedding operators in general would "pass on up" the partiality of their complements, with the exceptions of the ones that Karttunen called plugs and filters. One thus computes a partial proposition expressed by the larger structure, which gets turned into a pragmatic presupposition via the bridging princple. (ii) The alternative is a dynamic-pragmatic account of projection à la Stalnaker or Heim. Here one thinks of the ingredient clauses in the larger construction

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[6] Soames (1989) argues that this principle, which is assumed to be quite natural by Stalnaker, is in fact not one that follows with any kind of conceptual necessity. Maybe it is better seen as an irreducible property of the way natural language is used. Note also that not all pragmatic presuppositions need to be grounded in semantic presuppositions. The principle goes one way only: all semantic presuppositions trigger pragmatic presuppositions.

as independently accessed by the pragmatics. For example, when a conjoined sentence is asserted, in effect there is a sequence of two assertions. Since the second assertion occurs after the first one, any presuppositional requirements it may have need to be satisfied by the context as affected by the first assertion. --- I will not explore the choice between these options here.

Even though my presentation has been very sketchy, I hope that it is not too hard to imagine that a plausible theory of presupposition can be built that is grounded in a partial semantics for sentences like (1) and (2) and that derives the observable pragmatic facts about presupposition in a principled manner from that partial semantics.

2. The Trouble with Truth-Value Intuitions

One might have thought that a particularly direct argument for the theory of presupposition that I just sketched could be based on truth-value intuitions. The theory says that when the presupposition of a sentence like (1) or (2) is not satisfied in a given world, the partial proposition expressed by the sentence fails to assign a truth-value to that world. So, we should expect that people judge these sentences to have no truth-value in the relevant circumstances. (1), for example, should be judged to have no truth-value given that there is currently no King of France.

This is in fact what Strawson claimed to be the case in "On Referring", the paper that largely inaugurated the modern study of presuppositions. He wrote the following about an example that is a variant of (1):

> Now suppose someone were in fact to say to you with a perfectly serious air: *The King of France is wise*. Would you say, *That's untrue*? I think it is quite certain that you would not. But suppose that he went on to <u>ask</u> you whether you thought that what he had just said was true, or was false; whether you agreed or disagreed with what he had just said. I think you would be inclined, with some hesitation, to say that you did not do either; that the question of whether his statement was true or false simply <u>did not arise</u>, because there was no such person as the King of France. You might, if he were obviously serious (had a dazed astray-in-the-centuries look), say something like: *I'm afraid you must be under a misapprehension. France is not a monarchy. There is no King of France.* (Strawson, 1950)

In a later paper, Strawson reported his intuition in less theoretically laden terms: "[w]e feel very squeamish indeed about *The King of France is bald* presented abruptly, out of context" (1964).[7]

Russell, however, denied the intuition that the relevant sentence is neither true nor false:

> Suppose, for example, that in some country there was a law that no person could hold public office if he considered it false that the Ruler of the Universe is wise. I think an avowed atheist who took advantage of Mr. Strawson's doctrine to say that he did not hold this proposition false would be regarded as a somewhat shifty character. (Russell, 1957)

A natural reaction at this point is to consider people's intuitions about truth-value gaps to be too unreliable to merit scientific attention.[8] This does not at all mean that semantic theories that assume the existence of truth-value gaps are thereby discredited. Far from it. But argumentation cannot and should not proceed by simply polling naïve speakers about whether sentences are false or neither true nor false. Unsurprisingly then, the attention of research on presupposition has been directed elsewhere, primarily towards finding an adequate analysis of the projection behavior of presuppositions.[9]

A clear statement of the state of affairs is found in Soames' dissertation:

> We have reliable intuitions distinguishing truth from untruth. If we also had reliable intuitions distinguishing falsity from truth-valuelessness, then we could evaluate the claim that [a relevant sentence] is truth-valueless rather than false. Since I don't think we have such intuitions, I don't think that we can directly evaluate this claim. Logical presupposition is not a relation about which we have direct intuitions, but rather is a theoretical construct that can be used to account for certain inferences. (Soames, 1976: p. 169)

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[7] We need to do some philological digging to find why, how, and when the central example changed from attributing wisdom to the King to reporting his loss of hair.

[8] "Direct reflection is obviously of little use, since Russell and Strawson seem to have honestly had opposite intuitions in this case" (Thomason, 1990: 327).

[9] This is, I take it, the consensus view of presupposition experts. It is not, however, a point that has yet to be widely recognized outside this circle. Quite often, when relevant claims in the syntax/semantics literature -- that a particular expression or construction carries a presupposition – are debated, there are appeals to intuitions about truth-value gaps rather than a presentation of projection facts, for example. See von Fintel (2001a) for an example.

In considering simple sentences (including simple quantifications) one would have no reason to abandon bivalence if doing so did not facilitate the account of larger sentences. If one were only concerned with simple sentences, and nothing more complex, then one could simply write into the truth definition whatever is necessary for these sentences to be true, letting all failures of truth be instances of falsity. This is troublesome only when different reasons for a sentence's being untrue affect whether or not some more complex sentence is true. Distinguishing between falsity and truth-valuelessness allows us to mark such differences. (Soames 1976: 202-203).[10]

We should thus conclude that attributing partial propositions to sentences as their semantic values is not something that is subject to secure and direct intuition. The move is a theoretical one put forward as a useful and perhaps necessary ingredient of an overall theory of presupposition, which is primarily concern with finding the best available explanation of the projection behavior of presuppositions and the pragmatic facts we alluded to earlier. This is of course a not too unfamiliar picture: a theory whose basic assumptions are not subject to direct intuition but that is globally supported by indirect argumentation based on more complicated facts.

3. Strawson's Contrast

But things do not stay that simple. Consider some additional examples offered by Strawson in work following up on his 1950 paper:

Suppose, for example, that I am trying to sell something and say to a prospective purchaser *The lodger next door has offered me twice that sum*, when there is no lodger next door and I know this. It would seem perfectly correct for the prospective purchaser to reply *That's false*, and to give as his reason that there was no lodger next door. And it would indeed be a lame defense for me to say, *Well, it's not actually false, because, you see, since there's no such person, the question of truth and falsity doesn't arise*. (Strawson 1954)

[10] Soames reports that Dummett (1967: 61-63, 1973: 417-429) comes to the same conclusion.

Suppose I am ignorantly boasting about my friend's visit to Rome and mention the King of France as one among the distinguished people he had seen there. I might say *He had lunch with the prime minister, had an audience with the pope, and then went for a drive with the King of France*. Someone might say, *Well, at least it's false (not true) that he went for a drive with the King of France - for there's no such person*. (Strawson 1954)

For example, there is no King of France; and there is, let us say, no swimming-pool locally. But there is, let us say, an Exhibition in town; and there is, let us say, no doubt of Jones' existence. If we consider the statements

> (i) Jones spent the morning at the local swimming-pool
> (ii) The Exhibition was visited yesterday by the King of France

it may seem natural enough to say (i) that it is quite untrue, or is false, that Jones spent the morning at the local swimming-pool, since there isn't one; that, however Jones spent the morning, he did <u>not</u> spent it at the local swimming-pool, since there is no such place; and similarly (ii) that it is quite untrue, or is false, that the Exhibition was visited yesterday by the King of France; that, whoever the Exhibition was visited by yesterday, it was <u>not</u> visited by the King of France, since there is no such person. (Strawson 1964)

To concentrate, consider the following pair:

(7)   #The King of France is bald.

(8) ^{F}Last week, my friend went for a drive with the King of France.

People who are aware that there is no King of France quite reliably and confidently judge the second sentence to be false, while they display a certain amount of "squeamishness" about the first. I wish to understand this difference. From now on, I will annotate examples to indicate the relevant judgment: # means "squeamishness", F means confident judgment of falsity.[11]

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[11] I have found that most of my informants consistently felt there to be a clear difference between these sentences, and that once they fixed on the difference they could easily assign other sentences to one of the two cases. There are also speakers that have simpler patterns of judgment. I have encountered people who consistently report Russellian judgments of falsity, even for sentences like (7). There may also people who have "squeamish" judgments throughout, even for sentences like (8). Both these populations are easy to "explain" within my favorite theory (and probably in any theory of presupposition). The Russellians simply map any untruth (false or undefined) to FALSE, while the squeamish ones have direct intuitive access to the Strawsonian semantics of definite descriptions. The real challenge are the majority of speakers who make the difference between (7) and (8) as described in the text. For these, we need an analysis of the kind I plan to develop in what follows.

Strawson's new examples should make us reconsider the view we arrived at about the status of truth-value intuitions. Once one appreciates the robustness of the contrast, the suspicion arises that perhaps we were too quick to dismiss truth-value intuitions as unreliable and useless for the theory of presuppositions. Based on the clear distinction in intuitions, Fodor (1979) in fact argued that the contrast between the new examples and the original cases (*The King of France is bald*) is a point in favor of a truth-value gap analysis for the latter. Perhaps, this pattern of judgments should be taken as showing that (7) indeed does not have a truth-value while (8) has the truth-value false. One might further think that the reason for this difference in truth-value status is that while (7) presupposes that there is a King of France, (8) does not carry that same presupposition.

In this paper, I will argue against this picture. I will argue that even (8) presupposes that there is a King of France and that (at least from the perspective of the theory of presuppositions that I favor) it may well be the case that this is because it has no truth-value in the technical sense. Truth-value intuitions continue to be untrustworthy. This, however, is not the consensus view in the field, to put it mildly.

4. Previous Analyses of Strawson's Contrast

4.1 Paradise Found

Many people have reacted to Strawson's contrast with an extremely seductive analysis. The first tenet of this analysis is that truth-value gap judgments do after all correlate neatly with absence/presence of a presupposition. In the F-sentences there is no presupposition that there is a King of France. In the #-sentences there is such a presupposition. The second tenet of the analysis is that the difference between the two kinds of examples lies in what the sentences are about, their topic/focus articulation. Basically, the story goes that all and only topical definites carry presuppositions.

There are two possible ways to go from here. The more straightforward system attributes a semantic presupposition to all definite descriptions, but then introduces a mechanism that renders this presupposition harmless whenever the definite is non-topical. Only presuppositions in the topic survive this procedure. This may have been roughly what

Strawson had in mind when he talked about a referring expression being "absorbed" into the predicate.

In most work inspired by Strawson's 1964 paper, a different line is pursued. Definites initially have a non-presuppositional, Russellian semantics; presuppositions are induced if and only if the definite is (in) the topic. This idea about the link between topichood and existential presupposition continues to be a very popular assumption and can for example be found in: Reinhart (1981, 1995), Hajicova (1984), Gundel (1988), Horn (1986), Lambrecht (1994), Erteshik-Shir (1997), Zubizaretta (1998). Concrete and explicit formalizations of this idea are hard to find, but see work by Cresti (1995) and Percus (1996, 1998).

Let me be blunt: these analyses are fundamentally mistaken.

4.2 Paradise Lost

The most important point I want to get across in this paper is that there is no neat correlation between truth-value gap judgments and presence/absence of presuppositions. If we take the new Strawson examples that are judged false without hesitation and submit them to the usual tests for the presence of presuppositions, we find that they clearly carry existence presuppositions just like the old examples.[12] A speaker who says *I had breakfast with the King of France this morning* is not asserting that there is a King of France. Rather, the existence of the King of France is still taken for granted.

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[12] I am disagreeing with Strawson here. He writes about the example *My friend went for a drive with the King of France* that "the existence of a King of France is not, in this example, a presupposition of the whole discussion, as is the existence of the friend whose exploits I am recounting" (Strawson, 1954). Similarly, Horn (1989: 488) writes of his example *The King of France is sitting in the chair to your right*: "if I note that the designated chair is clearly empty, I am far less inclined to grant that you have presupposed the existence of the King of France – and even less likely to grant that what you have said is neither true nor false if, in fact, France is a republic". By the way, Horn notes that for his example "[w]hat is at issue is not the criterion of aboutness, but a distinction in verification procedures". This remark takes us to the main line of thought to be pursued in this paper.

Here's the *Hey, wait a minute* test for a couple of representative examples:

(9) A: ^{F} The King of France attended the APEC conference this week.

   B: Hey, wait a minute – I had no idea that France is still a monarchy.

   B': # Hey, wait a minute – I had no idea that he was at that conference.

(10) A: ^{F} This year's Fields Medal was awarded to the mathematician who proved Goldbach's Conjecture.

   B: Hey. Wait a minute – I had no idea that someone proved the Conjecture.

   B': # Hey. Wait a minute – I had no idea that she got the medal.

By this test, the definites in these sentences still carry existence presuppositions. This diagnosis is also confirmed by some projection data:

(11) I hope that the King of France attended the APEC conference this week.

(12) If the King of France attends the APEC conference this week, there is a chance the proposed treaty will take effect soon.
   cf. If France has a King and he attends the APEC conference this week, there is a chance the proposed treaty will take effect soon.

(13) I hope that this year's Fields Medal was awarded to the mathematician who proved Goldbach's Conjecture.

(14) If this year's Fields Medal is awarded to the mathematician who proved Goldbach's Conjecture, my friend James (who has hopes on it himself) will be quite disappointed.

Clearly, all these examples show the presupposition triggered by the definite description project out of the embedding constructions. Therefore, these examples have the usual presuppositions, although the local sentences in which the definite appears are judged

false when asserted on their own. Presuppositionality and truth-value judgments are still not linked as tightly as one might have hoped.[13]

This is the central negative lesson of this paper: do not take truth-value gap judgments as reliable tests for presuppositions. The remainder of the paper is devoted to the search for an empirically adequate analysis of the circumstances under which sentences with failed presuppositions are judged plainly false rather than giving rise to squeamishness.

4.3 Not about Topic/Focus

Even if one is persuaded that the pattern of truth-value intuitions is not reflective of the presence or absence of presuppositions, one might still be attracted to the other plank of the majority view. Perhaps, it is indeed the topic/focus articulation of a sentence that determines whether a problematic definite will give rise to truth-value gap judgments. Perhaps, a definite that carries a false presupposition will indeed give rise to a truth-value gap judgment if and only if it is a topical definite.

But here as well, I have to raise some doubts. It just doesn't appear to be true that all topical/non-focal definites lead to truth-value gaps:

(15)   Let me tell you about my friend, the King of France.

^{F} I had breakfast with $\left\{ \begin{array}{c} \text{the King of France} \\ \text{him} \end{array} \right\}$ this morning.

The second sentence in (15) is on a par with the other new examples, it is plainly false. Nevertheless, it would appear to be about the King of France, since it occurs in a discourse that is meant to be about the King. Or imagine overhearing a dialogue between two people laboring under the misapprehension that there is a King of France:

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[13] The only work on presuppositions that also stresses this point is Burton-Roberts (1989: esp. Section 2.2 and Chapter 9). However, since I do not understand his treatment of presupposition, I will not discuss it.

(16)   A: Have you heard anything about the King of France recently? I think he may be getting old and decrepit.

        B: Well. ^F Bill Clinton had breakfast with him last week and he looked just fine I hear.

We would of course think that these two belong somewhere nice and cozy where they can't hurt anyone. But still they are talking <u>about</u> the King of France and what B says feels blatantly false.

Another example:

(17)   ^F I had breakfast with the King of France this morning. ^F He and I both had scrambled eggs.

The second sentence seems clearly false, even though after the first sentence (which is certainly false as well) the King of France will have become topical.

There is then some empirical reason to doubt the validity of the generalization that it is topical definites that lead to truth value gap judgments while it is definites absorbed into the predicate that contribute to simple judgments of falsity. One may of course still safely hold that it is usually not a good thing to talk <u>about</u> a non-existent entity as if it existed.

So, we need to explore further what the precise circumstances are under which presuppositionally loaded sentences are judged false and precisely when they give rise to squeamishness. This is not an easy task. Donnellan (1981) wrote a whole paper that, apart from introducing a few further examples to worry about, is a meditation on the fickleness of linguistic intuitions. He writes:

> I find no easy way to organize the explanation for our intuitions about the sorts of examples philosophers have been primarily concerned with - reference failure. And I have not tried to deal with the much broader application of the notion of presuppositions that linguists have made. Nothing I have said supports or denies that assertions have presuppositions or that, about the sorts of examples philosophers have been interested in, Russell was or was not correct as against Strawson. I do suggest that intuitions are not simple things to account for.

5. The Mechanics of Rejection

We will develop an alternative view of Strawson's contrast. The basic intuition is that the judgments we have about the relevant sentences are not directly reflective of their semantic status. Rather, once we are faced with presupposition failure with its concomitant truth-value gap, there are fall-back strategies to fill in the gap. We will speculate at the end why there should be such strategies.

Here is the idea of what the relevant strategy is. The later Strawson examples are rejected as false without squeamishness because they misdescribe the world in two ways: their presupposition is false, but in addition there is another untruth, which is <u>independent</u> of the failure of their presupposition. We imagine that someone who rejects them as false reasons that even if their presupposition is true (which it isn't), they would still be false because of that other false claim.

We start by discussing a previous incarnation of the analysis we will explore.

<u>5.1 Lasersohn's Idea</u>

Lasersohn (1993) argues that what's going on is that whenever presupposition failure looms we test whether we can assign a truth-value <u>independently</u> of our knowledge about the non-existence of the referent in question. He writes:

> [A]n affirmative statement which might otherwise be judged of indeterminate truth-value (because it contains a term which fails to refer) can instead be judged false, provided the context makes it possible to determine that the statement could not possibly be true regardless of whether the term has reference or not. […]
>
> Why is it that someone who points at an empty chair and says *The King of France is sitting in that chair* seems to be saying something false? I would like to suggest that it is because *even if we suspend our knowledge that there is no King of France, there is no way of consistently extending our information to include the proposition that the King of France is sitting in that chair.* Such an extension is impossible because we know the chair to be empty.
>
> In contrast, if we suspend our knowledge that there is no King of France, our information *may* then be extended either to include the proposition that the King of France is bald, or to include the proposition that the King of France is not bald.

The idea then is this, *The King of France is sitting in that chair* is false for us, since the following is true for us: *Suppose I didn't know that the King of France didn't exist. Then, if I learned that the King of France did exist, I would still know that he is not sitting in that chair (because that chair is empty).*

5.2 Rejection Relative To a Body of Information

Lasersohn framed his analysis in terms of "data semantics", based on work by Veltman (1981[1984]) and Landman (1986). Instead of explicating his particular formulation, we will work with a perhaps simpler framework. First, we will continue to assume a Frege-Strawson semantics for definites, as layed out in the beginning of this paper. With this decision we are of course at an initial loss to account for Strawson's contrast. All the sentences referring to the present King of France should equally fail to assign a truth-value to our world. To make the system flexible enough, we add to this semantics a pragmatics of assent and rejection. We will in effect assume two kinds of "truth-values": (i) the semantically assigned values 1 and 0 which are the values a partial proposition can give for a particular evaluation world, and (ii) the pragmatically assigned values TRUE and FALSE which reflect the status of the sentence with respect to a given body of information. The claim we are developing is that naïve judgments of truth-values give intuitions about pragmatic TRUTH and FALSITY and are not directly reflecting the semantic status of a sentence.

Sentences are assessed with respect to a given body of information D, which we will model as a consistent set of propositions. A sentence is accepted as TRUE iff it is entailed by the given body of information D, or equivalently, iff it has truth-value 1 in all the worlds compatible with D. A simple rule for rejection would say that a sentence is rejected as FALSE iff its negation is entailed by the given body of information, or iff it has truth-value 0 in all the worlds compatible with D.

(18)   Acceptance

Accept a sentence ϕ as TRUE with respect to a body of information D iff for all worlds w compatible with D: $[\![\phi]\!](w) = 1$.

(19)   Rejection (first attempt)

Reject a sentence ϕ as FALSE with respect to a body of information D iff for all worlds w compatible with D: $[\![\phi]\!](w) = 0$.

Note quickly that there is a lot of space in between TRUE and FALSE. If there are both worlds in D where ϕ is true and worlds where it is false, then ϕ will be judged neither TRUE nor FALSE. Further, as soon as ϕ is undefined for any world in D, it will also be neither TRUE nor FALSE.

So far, we have not gained anything yet for our problem with sentences with non-referring definites. Rejection must be more complicated. Lasersohn's idea was that the given body of information which does not admit evaluation of the sentence with its failed presupposition is adjusted or revised to admit the sentence. Let's postulate an operation that does this:

(20)   Revision

For any body of information D and any proposition π, $\text{rev}_\pi(D)$, the revision of D so as to entail π, is a body of information that is as much like D as possible but that entails π. If D already entails π, $\text{rev}_\pi(D) = D$.

Our procedure for pragmatic rejection is then:

(21)   Rejection (revised)

Reject a sentence ϕ (with presupposition π) as FALSE with respect to a body of information D iff for all worlds w compatible with $\text{rev}_\pi(D)$: $[\![\phi]\!](w) = 0$.

Before we talk more about the specifics of the revision procedure employed here, let's quickly do a couple of examples.

(22)   # The King of France is bald.

The sentence will be accepted as TRUE iff in all of the worlds compatible with the given body of information there is a King of France, who is bald. The sentence will be rejected as FALSE if in all of the worlds compatible with the given body of information the King

of France has hair. The sentence will also be rejected as FALSE under the following conditions: (i) the given body of information does not entail that there is a King of France, (ii) but once we revise the body of information enough to include the existence of a King of France, the revised body of information entails that the King of France has hair.

(23) ^{F} The King of France is sitting in that chair.

The sentence will be accepted as TRUE iff in all of the worlds compatible with the given body of information there is a King of France, who is sitting in that chair. The sentence will be rejected as FALSE if in all of the worlds compatible with the given body of information the King of France is somewhere other than in that chair. The sentence will also be rejected as FALSE under the following conditions: (i) the given body of information does not entail that there is a King of France, (ii) but once we revise the body of information enough to include the existence of a King of France, the revised body of information entails that the King of France is somewhere other than in that chair.

The intuition about the contrast between the two sentences is that it follows from a difference in what kind of information is retained during the revision. Once we revise our information to include the existence of a King of France, we have no way of determining positively whether he has hair or not. Nothing in our prior state makes that determination and the mere addition of a King of France to the furniture of the world does not necessitate anything about his hair. In contrast, even if we revise our information to include the existence of a King of France, this will not get rid of the piece of information that the chair pointed at is blatantly empty.

The substance of the analysis then lies in specifying how exactly the revision procedure works. Lasersohn's account is actually only the shell of an analysis. As Lasersohn admits (Fn. 4), "a rigorous definition of [revision] is not a trivial enterprise". But from his informal remarks and from a look at contrasts such as the one between (22) and (23), we can draw some preliminary conclusions about the intended analysis.

5.3 Epistemic revision, not counterfactual reasoning

One immediate decision we have to make about the nature of revision in pragmatic rejection is whether it is counterfactual or epistemic. This is an easy decision. Clearly, the reasoning cannot actually be running on ordinary counterfactual lines, because it is not too hard to imagine a scenario where if there were a King of France, he would indeed be sitting in that chair. Nevertheless, even if we had such counterfactual beliefs, the sentence would still be judged FALSE if the chair is obviously in fact empty. So, the reasoning is running on epistemic lines: the piece of information that there is no one sitting in that chair or that the person sitting in that chair is not King of France is so <u>entrenched</u> that it wouldn't be overturned upon learning that there is a King of France.

The procedure we need is then something like this: to revise D so as to entail π, remove from D anything that is incompatible with π, add π to D, and furthermore discard any information in D that was believed <u>just because</u> π was believed to be false.

(24)   <u>Commonsense epistemic revision</u>
        Remove $\neg\pi$ from D.
        Remove any proposition from D that is incompatible with π.
        Remove any proposition from D that was in D just because $\neg\pi$ was in D.
        Add π to D.
        Close under logical consequence.

The resulting picture is that what is involved in pragmatic rejection is roughly the same procedure that would apply if someone who believed that π is false was reliably informed that π is in fact true. That person would then start believing π, stop believing anything logically incompatible with π, and stop believing (presumably becoming agnostic about) anything previously believed just because π was believed to be false.[14]

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[14] At least that's my amateur's hunch about belief revision. It would be interesting to compare what we are doing here to established results in the literature on belief revision.

Another way to see the picture we get from Lasersohn's paper is to correlate the judgments about the contrast between the King's being bald and the King's sitting in that chair with a contrast between two corresponding *even if*-conditionals:

(25)   Even if there is a King of France (which there isn't), he is still not bald.

(26)   Even if there is a King of France (which there isn't), he is still not sitting in that chair/that chair still empty.

I would not assent to (25) but I would assent to (26). What is happening in these *even if*-conditionals seems to be similar to how Lasersohn conceives of the procedure for rejecting sentences with failed presuppositions. The speaker does not really give much credence to the possibility that the antecedent is true, but if it is true and the information state has to be revised accordingly, the consequent will still be true – belief in its truth will be unaffected by the revision. (25) and (26) differ in exactly the expected way.

5.4 Why not simpler?

Lasersohn's proposal seems intuitively appealing, since belief revision of the kind sketched in (24) is independently needed. But one might wonder whether something even simpler might not work. The simplest idea, perhaps, would be to keep all information that is logically consistent with ϕ's presupposition:

(27)   Minimal logical revision (or: Very grudging revision)
        Remove $\neg\pi$ from D.
        Remove any proposition from D that is logically incompatible with π.
        Add π to D.
        Close under logical consequence.

There is another way of putting this analysis: all that is needed for a sentence with a failed presupposition to be judged FALSE (rather than evoking the squeamish truth-value gap judgment) is that it have an entailment that is false but that itself does not entail the falsity of the sentence's presuppositions. It is permissible that this false entailment itself

is only known to be false because its falsity is entailed by the known falsity of the presupposition.

But this goes too far, which was already seen by Fodor (1979), who starts by considering and then rejecting an account very much like the one just offered. Consider:

(28)   #The King of France is bald.

(29)   FThe King of France is standing next to me.

Fodor writes:

> The idea here is that the existence or non-existence of a King of France is IRRELEVANT to the valuation of (29). We need not know whether there is a King of France in order to determine that (29) is false; all we need establish is that there is no King of France standing next to me; that is, either that there is no one standing next to me or that the person or persons standing next to me are not King of France. […]
>
> To put it informally, and in overtly verificationist terms, this theory says that (28) has no truth value because to evaluate it we would need to look at the King of France and we cannot; and that (29) does have a truth value because to evaluate it we need only look at me and at those people who are near me. But this is unsatisfactory, for it simply shifts the puzzle one step further back. If we can make a list of the people standing next to me and determine that no King of France is on it, why could we not also make a list of the people who are bald and establish that no King of France is on IT?

So, the problem with the simpler mechanism in (27), apart from it being different from realistic belief revision, is that now essentially all relevant sentences are predicted to be judged FALSE, because in principle they could be shown to be misdescribe the world without engaging the presupposition.

5.5 The Dilemma

As sketchy as Lasersohn's analysis is, it is demonstrably wrong. Consider:

(30)   F The King of France is on a state visit to Australia this week.

(30) is judged FALSE, which is quite unexpected under Lasersohn's account. The fact is that most of us judge (30) to be FALSE while our <u>only</u> ground for doing so is our belief that there is no King of France. Imagine, for example, that like me you have no reliable information about the daily political life and current events in Australia. There is no <u>entrenched</u> information, independent of your disbelief in the King of France's existence, that would ensure that the King of France is not on a state visit to Australia. So, Lasersohn would expect the example to be on a par with *The King of France is bald*, contrary to intuition.

There's a lot more examples where (30) came from:

> (31) [Coming across an abandoned umbrella on a park bench]
>
> ^{F} This umbrella was left here by the King of France.[15]

It is merely our knowledge that there is no King of France which supports our conviction that the umbrella was not left by the King of France. Damagingly to Lasersohn's account, while (31) is judged FALSE, one would presumably not assent without hesitation to the corresponding *even if*-statement:

> (32) Even if there is a King of France (which there isn't), this umbrella was left by someone else.

We are left with quite a dilemma. The version of Lasersohn's analysis which assumes that the rejection stratgey uses commonsense belief revision makes the wrong prediction for (30) and (31). On the other hand, we can't loosen the analysis too much, say by using the simple idea in (27), since then even *The King of France is bald* should be judged FALSE

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[15] Smart alecs might complain that the umbrella could conceivably have been left by the last King of France and just has been lying on that bench for a (very) long time. Such nitpickery can be defused by considering a modernized variant like *This cell phone was left here by the King of France*.

5.5 Footholds for Rejection

The question is how to distinguish between these two examples:

(33) # The King of France is wise.

(34) ^F The King of France is on a state visit to Australia this week.

In each case, we have no reason to reject the sentences other our knowledge that there is no King of France. We have no independent counterevidence, evidence that we could hold onto while admitting – albeit not seriously – that there may be a King of France after all. In both cases, there is <u>possible</u> counterevidence, independent in principle from the existence of the King of France. We could list all wise people and not find the King of France on the list. We could explore what is going on in Australia right now and not find any state visit in progress by a King of France. Based on our knowledge that there is no King of France, we are convinced that these pieces of evidence could be obtained. I take it that it won't help to claim that one couldn't possibly list all wise people.

Here's what might do the trick. In the case of (34) but not in the case of (33), there is a <u>contextually salient</u> entity whose properties (known or not known) are *in principle* enough to falsify the sentence. In (33), there is no contextually salient entity mentioned (other than the King of France) whose properties could establish that (33) is false. In (34), Australia is made salient and can thus furnish an independent foothold for falsification.

The idea then is that the rejection strategy can be based on facts that we know must be there (since we know that the presupposition of the sentence is false) <u>and</u> that we know could be established by examining an entity that everyone involved agrees exists. So, in effect we are using the following revision procedure:

(35) <u>Conversational revision</u>

Remove ¬π from D.

Remove any proposition from D that is incompatible with π.

Remove any proposition from D that was in D just because ¬π was in D,

unless it could be shown to be true by examining the intrinsic properties of a contextually salient entity.

Add π to D.

Close under logical consequence.

We would of course need to explore what counts as a contextually salient entity of the right kind and what exactly it means to say that the intrinsic properties of that entity are enough to falsify the sentence. To a first approximation, contextually salient entities will be those mentioned in the relevant sentence (or perhaps in prior discourse). Perhaps, one could use the discourse referents of File Change Semantics or Discourse Representation Theory. I will not have to say much about this.

Crucially, a sentence like *The King of France is bald* does not make salient or even mention the set of bald people in the world. The predicate *bald* is not a referring expression. So, the account we are now considering correctly predicts that the classic example is not one that can be judged FALSE in the face of presupposition failure. But compare it with the following:

(36) ^F Among the bald people in this world is the King of France.

^F The King of France is one of the bald people in this world.

These sentences do contain expressions referring to the set of bald people in this world. Since we know that the King of France is not among them, we judge these sentences to be FALSE.

The contextually salient entity may not have to be mentioned in the same (or any) sentence. David Pesetsky (pc) reports that *The King of France is bald* can be judged false if made in the presence of a list that enumerates all the reigning monarchs of the world together with their hairstyle.

The contextually salient entity that underwrites our judgments of FALSITY may not have to be an entity of the normal kind. Examples that make claims about particular episodes or situations seem to allow FALSITY judgments:

(37)　^{F} The King of France is jogging right now.

　　　^{F} The mathematician who proved Goldbach's Conjecture died yesterday.

One may think that stage-level predicates, those that make episodic claims such as those in (37), will thus always give rise to FALSITY judgments.[16] But there are cases where it seems that the episodes are too diffuse to count as independent footholds for falsification:

(38)　$^\#$ The King of France is having rotten luck these days.

　　　$^\#$ Rotten luck has lately befallen the King of France.

Since individual-level predicates make claims that are in general not localized, one would think that they give rise to more # judgments than stage-level predicates. Lasersohn in fact considers and rejects the idea that all and only subjects of individual-level predicates give rise to truth-value gaps. His counter-example is:

(39)　^{F}The King of France is on the Rochester faculty.

The argument is that *be on the Rochester faculty* is an individual-level predicate, but that the sentence (39) is naturally judged false. However, as pointed out to me both by Orin Percus and Irene Heim, *be on the Rochester faculty* is perhaps not a true individual-level predicate. It can for example be felicitously used as a predicate in *there*-insertion contexts:

(40)　There are many geniuses on the Rochester faculty.

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[16] The distinction between "stage-level" and "individual-level" predicates is due to Carlson (1977a, 1977b), see also Kratzer (1995) and Diesing (1992).

Let me give an example that does make Lasersohn's point:

(41) ^{F} The King of France owns this pen.

Clearly FALSE. Nevertheless, the definite is the subject of an individual-level property. So, not all subjects of individual-level predicates lead to truth-value gaps.

Let's expand (41) into a full paradigm:

(42) $^\#$ The King of France owns a pen.

(43) ^{F} The King of France owns this pen.

The predicate here is an individual-level predicate in both cases. The difference lies in whether there is a specific object that the King of France is claimed to own. The intuition is that there is a clear contrast: (41) is much easier to judge FALSE than (42). Consider also the following in contrast to (42):

(44)   a. ^{F} Among the pens in the world, there is one owned by the King of France.

        b. ^{F} The King of France owns at least one among the pens in the world.

These seem again easier to judge FALSE than (42), but surely the semantics is the same. The relevant difference seems to be that (44) presents the set of all pens as an entity that we can talk about, while (42) does not.

5.6 A Side-Remark: Independent Verification

Another way to see the intuitive force of the new generalization is this. Imagine you want to convince a doubter of the existence of the King of France. Then, you will want to provide a piece of evidence that can be verified and that then (and only then) will support the notion that there is a King of France. Imagine using the following sentences in the scenario given.

(45) Look, of course there is a King of France!

    a. … I had breakfast with him this morning.

       … He's married to my daughter.

       … He likes my daughter.

       … He owns this pen.

    b. #… He's bald.

       #… He is married to a Dutchwoman.

       #… He likes his daughter.

       #… He owns a pen.

The sentences that are useless in this kind of argument are exactly those that don't give any foothold for verification independently of the King of France himself.

5.7 Salient Footholds and Aboutness

The proposal I am developing might seem overly complicated. Why can't we just say that the difference between *The King of France is in Australia* and *The King of France is bald* is that the former mentions an entity other than the King while the latter doesn't? That would be much simpler. Well, according to the intuition we are pursuing one needs more than just some referential expression in the sentence denoting a contextually salient entity: it has to be the case that one could falsify the sentence by looking at that entity. The sentence must say something false <u>about</u> that entity. Here are a couple of nice contrasts that show the force of this requirement:

(46) ^{F} The King of France died in the car accident on the turnpike last night.

    ^{F} The King of France was involved in the car accident on the turnpike last night.

    $^{\#?}$ The King of France heard about the car accident on the turnpike last night.

(47) ^{F} The King of France is in town.

    $^{\#?}$ The King of France is out of town.

Just by looking at information about the car accident on the turnpike last night, we would presumably be able to obtain a list of people involved in the accident and also whether they died or not. But we wouldn't have any way of determining who heard about it. Similarly, by looking at the town in question (Paris, I would think) we can figure out whether the King is in it. But we can't figure out by looking at the town whether the King is out of it or whether he doesn't exists.

So, the mere presence of a referential item does not necessarily prevent #-judgments. The sentence has to be make an independently falsifiable claim <u>about</u> the entity referred to.

By the way, the analyses we mentioned that employ the notion of *topic* also use the term "about". But it is important to recognize the difference between the two approaches. Discourse-based analyses consider whether an exchange is centered around giving information about an issue or about an entity. A sentence is about an entity in this discourse sense iff it answers a question that was asked about that entity. My account asks whether the sentence could be verified/falsified by looking at a particular entity and its intrinsic properties. If so, it is about that entity. A sentence like *The King of France is in Australia*, in that light, is both about Australia and about the King of France.[17]

5.8 How Independent Does the Counterevidence Have to Be?

Unfortunately, our new account is still not quite correct. Consider in fact our primary example of a sentence that is not rejected as FALSE but gives rise to squeamishness. Add to this just one more example that will illustrate the problem:

(48)   #The King of France is bald.
(49)   #? The man who Sandy went out with last night is bald.

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[17] The sense in which *The King of France is on a state visit to Australia* is (partly) about Australia involves the concept of <u>aboutness</u> that David Lewis has explored (Lewis, 1988), see also Goodman (1961). For some relevant linguistic discussion see Portner & Yabushita (1998).

Notice with dismay that both of these examples in fact contain terms referring to salient entities: (48) refers to France, (49) refers to Sandy. Furthermore, there will be in our body of information propositions about those entities which while compatible with the existence of the King of France are incompatible with the truth of (48) and (49). We believe that France does not have a bald King. This belief is logically consistent with the existence of the King of France and it is about a salient entity: France. Since we believe that Sandy did not go out with any man last night, we also believe that Sandy did not go out with a bald man last night. The latter belief is logically consistent with Sandy going out with a man last night and it is about a salient entity: Sandy.

Why are these sentences not rejected as FALSE?

We can't retreat to the position that the pieces of counterevidence considered here are ineligible because they were believed to be true <u>just because</u> the presupposition of the offending sentence was believed to be false. We can't go that way because of the problem with the state visit to Australia and the umbrella on the park bench in Paris.

Consider the contrast again:

(50) #The King of France is bald.
      counterevidence: France does not have a bald King.

(51) ^F The King of France is on a state visit to Australia this week.
      counterevidence: Australia is not being visited by a King of France this week.

Both pieces of potential counterevidence are about salient entities and are believed to be true <u>just because</u> we believe there to be no King of France. What distinguishes them?

Here is an idea: the counterevidence in (51) is <u>in principle</u> epistemically independent of the offending presupposition. While we believe it to be true <u>just because</u> we believe the presupposition to be false, we could conceivably show it to be true while not showing the presupposition to be false. We travel to Australia and see what's going on.

In contrast, the potential counterevidence in (50) is not epistemically independent of the non-existence of the King of France, even in principle. As soon as we show that France does not have a bald King, we will also have shown that France does not have a King at all.

The same diagnosis would seem to apply to Sandy in (49). It is plausible that we couldn't establish that Sandy did not go out with a bald man without also establishing that she did not go out with a man at all.

We are left with a description of what's going that looks like this:

(52)   Conversational revision (final version)
       Remove $\neg\pi$ from D.
       Remove any proposition from D that is incompatible with π.
       Remove any proposition from D that was in D just because $\neg\pi$ was in D,
       unless it could be shown to be true by examining the intrinsic properties of a contextually salient entity without at the same time showing that π is false.
       Add π to D.
       Close under logical consequence.

5.9 Another Wrinkle: Laws

We have concentrated on sentences about the King of France which either do or do not make false claims about some other entity. But the account we formulated, and indeed its ancestor from Lasersohn's paper, makes a further prediction. If the claim of the sentence about the King of France is incompatible with some general fact (which is so general that it certainly is not believed just because we believe there is no King of France), the sentence should be rejected as FALSE.

Relevant examples include:

(53) a. ??The King of France is a woman.

   b. ??The King of France owns a unicorn.

   c. ??The King of France owns lakefront property in Bavaria. (I. Heim, pc)

While I am not so sure about judgments here, there do seem to be many speakers who judge these to be plainly false. The relevant pieces of counter-evidence here are: Kings are male, there are no unicorns, and there is no private ownership of lakefront property in Bavaria.

5.10 Strawson's Curveball

Strawson has an example that might threaten our account:

(54) Q: What reigning monarchs are bald?
   A: The King of France is bald.

Strawson reports the intuition that *The King of France is bald* as an answer to the question in (54) is felt to be false. If that is so, it would support his topic-based approach (which it was of course meant to) and remove support from my approach. The idea is that in the context of the question *What reigning monarchs are bald?*, our sentence is not about the King of France (in a discourse sense) but rather about baldness. As soon as the offending definite is not what the sentence is about, we should reject the sentence as FALSE.

My account has no provision tying the evaluation of the sentence to the question it answers. So, it would seem that (54) is predicted to receive a #-judgment.

One could quibble with the empirical claim here. Perhaps, (54) is still naturally given a #-judgment even in the context of Strawson's question. But let's assume that the sentence can be rejected as FALSE. The only escape route for my account is to say that there must be a salient entity here about which the sentence makes a false claim. I would suggest

that the question in (54) in fact introduces such an entity: the set of reigning monarchs. The answer then makes a false claim about that set: that it contains a bald King of France.

5.11 Reformulation? [18]

Abusch & Rooth (2000) briefly report on Lasersohn's analysis and recast his procedure in the following way (actually, this is my recasting of their recasting):

(55)   Reject a sentence ϕ (with presupposition π) as FALSE with respect to a body of information D iff there is a $D' \subseteq D$ such that for all $D'' \supseteq D'$ such that D" entails π: for all worlds w compatible with D": $[\![\phi]\!](w) = 0$.

We can reject ϕ as false if our body of information D contains a more limited body of information D' which is compatible with the presuppositions of ϕ and that has the property that no matter how it is expanded into a body of information D" which entails the presuppositions of ϕ, the resulting D" will falsify ϕ.

This does seem to recapture Lasersohn's sketch of an analysis quite faithfully. Unless it is further modified in the same ways as we have discussed, it will make the same incorrect predictions. For example, my body of information has a more limited subset which entails that France has no bald King, which can be expanded into a bigger body according to which France does have a King, but no matter how the expansion is done, the resulting set will falsify *The King of France is bald*.

It is possible that my modifications will seem more natural when using this reformulation of Lasersohn's analysis. I leave that to my readers to explore.

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[18] This section and the next one briefly bring up some issues from a new paper by Dorit Abusch and Mats Rooth (2000). I may have more to say about their analyses on some other occasion.

5.12 Other Quantifiers

Abusch & Rooth are also concerned with explaining patterns of truth-value judgments, but they mostly deal with the universal quantifier *every* and with so-called weak quantifiers like *no* and *two*. They argue that in these cases judgments of oddness may trace back to conversational implicatures rather than to presupposition failure. They do not discuss definites but for clearly presuppositional quantifiers like *both* they look favorably on a Lasersohn-style analysis.

In fact, they claim that *every* differs from *both*. They consider a scenario where someone reports on a reception and says one of the following sentences.

(56)   Every surviving Civil War vet was at the reception.
(57)   Both surviving Civil War vets were at the reception.

They say that a Lasersohn rejection mechanism applies to (57) and that we can easily imagine this dialogue:

(58)   A: Both Civil war vets who live in the city were at the reception.
        B: False, only Gulf war vets were there.

On the other hand, they report that according to their intuitions, (56) cannot be rejected as false. If any truth-value judgment is possible it is the smart-alecky

(59)   True, but just because there are no surviving Civil War vets.

They argue that *every* has a non-presuppositional subset meaning, just as many logic textbooks teach us. The oddness of (56) is not due to presupposition failure but because via conversational implicature one infers that the speaker must believe it to be possible that there are surviving Civil War vets, which to us is bizzarre, hence the feeling of oddness.

I think there's a little bit more to be said here. Let us look at the following scenario. We know that there are no incoming students from Australia this year. But the speaker who

asserts the sentences we will contemplate apparently doesn't share that knowledge and in fact might be mistakenly thinking that there are incoming students from Australia. How would you judge the following sentences? [I have given the usual F/# notation – based on my cursory field research – with the addition of some T judgments].

(60)   a. ^{T} No incoming student from Australia was at the meeting last night.

     b. $^{T/F}$ Every incoming student from Australia was at the meeting last night.

     c.   # Both incoming students from Australia were at the meeting last night.

(61)   a. ^{T} This week, I have had breakfast with no incoming student from Australia.

     b. $^{T/F}$ This week, I have had breakfast with every incoming student from Australia.

     c.   # This week, I have had breakfast with both incoming students from Australia.

(62)   a.   # This year, no incoming student from Australia is bald.

     b.   # This year, every incoming student from Australia is bald.

     c.   # This year, both incoming students from Australia are bald.

Some observations about what I found:

Every: Most of them being sophisticated linguists, my informants clearly saw the possibility of calling (60b) and (61b) true as the non-presuppositional subset meaning would predict. But there was also the sense that this is almost an ambiguity, a hypothesis that Abusch & Roth actually consider as plausible. Perhaps, *every* can be understood in the smart alec way, but it also has a more prosaic meaning where it is a presuppositional universal quantifier. Under that reading and assuming the theory of rejection developed here, the sentences in (60b) and (61b) should be judged false. Indeed, one of my informants wrote about (61b): "I feel as if it's definitely true or definitely false but I'm not sure which."

The most interesting facet of the judgments with *every* is that judgments of smart alec truth or plain falsity are much more readily available with the entity-anchored statements in (60b) and (61b). With predicates like *bald* as in (62b), informants found *every* just a weird as other determiners.

Both: Contrary to Abusch & Rooth's diagnosis of what's going on in their example (57), informants did not find the sentences with *both* in (60c) and (61c) false but assigned them to the squeamish type. This fact is of course unexpected from the point of view of my analysis. The feeling one might have is that it is much harder to ignore the failure of the presupposition that there are exactly two incoming students from Australia than the failure of the much less specific presupposition that there are such students in the first place. But making such a distinction in specificity between two presupposition triggers is not easily done within the confines of my specific proposal.

No: This determiner behaves pretty much as one expects based on the extensive literature on weak quantifiers in recent years (see for example Diesing 1992). Together with a stage-level predicate as in (60a) and (61a), *no* makes a simple set-theoretic claim (that there is an empty intersection between its domain and the matrix predicate) with no presupposition. But together with an individual-level predicate like *bald* in (62a), *no* triggers a presupposition that its domain is non-empty. In the absence of a salient foothold for rejection, the sentence arouses feelings of squeamishness.

I could and should go on and on, continuing to explore how various presupposition triggers behave when we probe them with the Strawsonian battery of examples. There is bound to be much to be discovered here. But let's be moderate for now and end this paper.

6. What Are Truth-Value Judgments Really About?

Our empirical generalization may look truly bizarre. I think that the way to make sense of it is to rethink what intuitions of truth-value judgments are about. As we said early on, truth-value judgments about a sentence are not directly reflective of the semantic value of that sentence. It appears that we prefer to give judgments of falsity even when strictly

speaking the sentence has no truth-value. Horror vacui? Perhaps, this is a matter of internalized charity towards speakers: making false presuppositions is a graver offense than asserting something false, so as much as we can we gloss over such a faux pas.

But still, if it were just a matter of mapping any untruth to FALSE judgments, we wouldn't expect the pattern we found. If truth-value judgments were primarily about the match between the sentence and the world, then all of the relevant sentences should be judged false because they misrepresent the world in some way or other.

Perhaps, the best explanation for the pattern of judgments discussed here can be achieved by assuming that we are dealing with intuitions about possible conversational moves. If a sentence is offered whose presupposition we know to be unsatisfied, we have to reject the sentence. But there are two rather different ways of doing that. My suggestion is that one of them corresponds to the feeling of squeamishness and the other to a judgment of FALSITY.

We get squeamishness if the only way to reject the speaker's sentence is by challenging its presupposition. If we want to correct the misconception, we will have to deviate from the current trajectory of the conversation and correct the speaker about what the common ground really is like. Suppose that this is a maneuver that we disprefer.

Now, if the sentence has entailments that we could in principle falsify independently of discussing its presupposition, we are still in business. It is much easier to see these examples as false, because we do not necessarily have to engage in a debate about the mistaken presupposition. We can move on to a discussion of those entailments and convince the speaker that s/he has no evidence for them. This is what lies behind the intuition that the sentence is false.

Of course, it remains a mystery why this procedure puts so much emphasis on salient entities that can serve as footholds for falsification.

7. Conclusion

So, whether a sentence with a failed presupposition is judged false or arouses feelings of squeamishness depends on the intricacies of a peculiar fall-back strategy which cares about having salient footholds for rejection. The pattern of truth-value judgments we discovered cannot serve as a direct diagnostic for the presence or absence of presuppositions. The right theory of presupposition will most likely be the one that best explains patterns of presupposition projection, as most researchers have always assumed. But mostly independent of that enterprise, we have seen that truth-value judgments are a rich subject in their own right.

Finally, the strategy we discussed does not appear to be the only fall-back available. In particular, where presuppositions of uniquenes rather than existence are concerned, people have discussed other ways of "repairing" presupposition failure. Stalnaker (1981, 1984) has argued that conditionals presuppose that there is a unique closest antecedent world. In the face of scenarios where this is unrealistic, he has suggested that a supervenience strategy kicks in. In effect, the failure of the uniqueness presupposition gets glossed over as long as all of the closest worlds behave the same. In the analysis of donkey sentences, a similar problem arises, see Barker (1996) and Geurts (2001) for relevant ideas.

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