SALMON TRAPPING

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I. Introduction

Let us call a sentential context <u>semantically transparent</u> if and only if all synonymous expressions are substitutable for one another in it <u>salva veritate</u>. A sentential context is <u>semantically opaque</u> if and only if it is not semantically transparent. Nathan Salmon has boldly advanced a refreshingly crisp theory according to which belief contexts are semantically transparent.[1] If he is right, belief contexts are much better behaved than widely suspected.[2] Impressive as it is, I do not believe that Salmon's theory is completely satisfactory. I shall not try to refute his theory, however. My aim is more modest. It is to show that his theory, in conjunction with a number of auxiliary but important claims he makes to buttress the theory, seems to lead to semantic opacity of belief contexts.

II. Salmon's Theory

Salmon's theory may be summarized as follows:

(A) The verb `to believe' is a dyadic predicate, expressing a
     dyadic relation the second <u>relatum</u> of which is a
     proposition, and when the verb takes a `that'-clause as
     its grammatical direct object, the second <u>relatum</u> is the
     proposition the `that'-clause refers to;

(B) Any `that'-clause refers to the proposition expressed by
     the embedded sentence;

(C) Synonymous sentences express the same proposition;[3]

(D) Sentences which are identical except for synonymous parts
     are synonymous;[4]

(E) 'X believes that Y' is true if and only if (by analysis)
     for some w, the referent (or the denotation) of `X' grasps
     the referent P of `that Y' by means of w and bears a
     certain relation BEL to P via w, where `X' and `Y' are
     schematic letters for a subject term and a sentence,
     respectively.

Obviously (E) is the central thesis of the theory. But (A) - (D) are
no less integral to the theory. If one denies any of (A) - (D), one
either loses grips with (E) or makes it unable to sustain semantic
transparency of belief contexts. How plausible are (A) - (D)?

    (A) might appear vulnerable on two fronts. First, some
philosophers might object to the construal of the belief predicate as

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dyadic. Those philosophers might prefer to construe it as triadic,

for example. But at the very least, the surface grammatical form of

`X believes that Y' and its logical behavior seem to suggest that the

verb `to believe' is a dyadic predicate. That `to believe' is a

dyadic predicate at least enjoys an initial plausibility, so that

those who wish to deny it seem to bear a burden of justification.[5]

Second, some philosophers might object to the invocation of

propositions. The best-known objections against propositions are due

to W. v. Quine, but many semanticists theorizing on belief sentences

agree that those and other traditional objections against

propositions are not conclusive.[6]

As for (B), the best way to understand it seems to be to

construe `that' as a singular-term forming sentential operator. This

is a popular view and does not appear to be immediately

objectionable. (C) seems even less controversial, provided that all

the relevant parameters to which the expression relation is to be

relativized are understood to be fixed. (D) is a straightforward

instance of the principle of semantic compositionality, which appears

hard to deny, except for contexts like direct quotational contexts.

I am reluctant to accept all of (A) - (D) myself. In

particular, I am reluctant to accept (B) or (C).[7] However, (A) - (D)

seem to have a reasonable amount of initial plausibility. Whether or

not they will withstand all possible objections in the final

analysis, they are not my immediate target. For the sake of
argument, I shall assume that (A) - (D) are all true.

III. Semantic Transparency

To begin with, we need an uncontroversial pair of synonyms. I am not
sure whether in fact there are such pairs. However, semantic
transparency would be a vacuous thesis in the absence of a genuinely
synonymous pair of expressions. For the sake of discussion,
therefore, I shall assume that some pair of expressions are
synonymous. I shall further assume that the verbs `to buy' and `to
purchase' are such a pair. My choice of this particular pair is
incidental. Salmon himself uses such pairs as `ketchup'/`catsup,'
`furze'/`gorse,' `color'/`colour' in British English, and `tomato' as
pronounced in American English/`tomato' as pronounced in British
English.[8] Nothing of importance hinges on a particular choice of
synonyms. If `to buy' and `to purchase' need to be replaced with
another, genuinely synonymous pair, our discussion will be easily
modified to accommodate such a change.

Consider the following belief sentences:

(1) Jane believes that stock brokers buy stocks;

(2) Jane believes that stock brokers purchase stocks.

Let us call the proposition expressed by the sentence embedded in the `that'-clause in (1), viz.,

(3) Stock brokers buy stocks,

Pam. Given the synonymy of the two verbs in question, (C) and (D) jointly entail that the sentence embedded in the `that'-clause in (2), viz.,

(4) Stock brokers purchase stocks,

also expresses Pam. Then by (A) and (B), (1) and (2) share the same truth condition, namely, that Jane stand in the belief relation to Pam. Now, this is sufficient for the salva veritate substitutivity of `buy' and `purchase' in (1) and (2). More generally, (A) - (D) are sufficient for semantic transparency of belief contexts. Does this mean that (E) is irrelevant to supporting semantic transparency of belief contexts? No. (A) is in need of a further elucidation of the dyadic belief relation, and (E) is meant to supply just that.

According to (E), Jane stands in the belief relation to Pam if and only if for some w, Jane grasps Pam by means of w and BEL (Jane, Pam, w). Three questions arise immediately: What is the range of the variable `w'? What is the triadic relation of grasping? What is

the triadic relation BEL? Officially Salmon stops his theoretical

explanation here and recommends that we might as well regard grasping

and BEL, as well as the kind of things in the range of `w,' as

primitive. He, however, does not shy away from providing further

informative elaborations outside his strictly official line.

According to such further elaborations, `w' is said to range

over <u>ways of grasping a proposition</u>, which might be understood in a

number of different ways, but there are two leading ideas. One idea

points to a public language, like English. One way to grasp Pam in a

particular way is to grasp it by correctly understanding a particular

English sentence which expresses Pam. The other idea uses Mentalese.

To grasp Pam in a particular way is to grasp it by having a certain

particular Mentalese sentence occupy a certain particular functional

position. We shall return to this Mentalese idea later, but Salmon

opts for the former in his informal unofficial elaborations and

explains the BEL relation along the following lines: BEL (Jane, Pam,

w) if and only if Jane is disposed to assent, sincerely and upon

clear-headed and careful reflection, to a certain English sentence

expressing Pam and determined by w, assuming that Jane is a

sufficiently competent English speaker. The theoretical role of w is

exhausted by its determination of the English sentence in question,

and as a result, the urgency of a need for a serious ontology of ways

of grasping a proposition evaporates. Thus we might as well take the

determination relation to be identity.

If we leave grasping and BEL, as well as the kind of things in the range of `w,' as primitive, as Salmon's official line seems to insist, I am afraid we do not have much of a theory of belief. If we just say that grasping and BEL are relations involving sentences, we have a little more of a theory but still not much. We need less sketchy analyses, or at least explications, of grasping and BEL, along with the kind of things in the range of `w,' in order to assess Salmon's theory with sufficient theoretical involvement. I shall therefore follow Salmon's own loose and informal elaborations and understand grasping and BEL in terms of sentential attitudes as outlined above, even though strictly speaking Salmon's official theory does not include explications of grasping or BEL or the kind of things in the range of `w.'[9] Henceforth, by the Salmonesque Sentential Theory (SST for short) I shall refer to Salmon's official doctrines on belief, summarized as (A) - (E), plus this additional understanding of grasping, BEL, and the kind of things in the range of `w.'[10]

Let us return to (1) and (2). Suppose that Jane is a competent speaker of English and, in particular, knows the meaning of the verb `to buy' fully. Assuming that she fully knows the meanings of all other words occurring in (3) and its grammatical structure, Jane understands (3) correctly as an English sentence. This is sufficient

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for Jane's grasping Pam by means of (1). She is also disposed to assent (sincerely and upon clear-headed careful reflection) to (3) as she understands it. So, there is a sentence S such that Jane grasps Pam by means of S and BEL (Jane, Pam. S). Therefore, according to SST, (1) is true. Since (2) has the same truth condition as (1), according to SST, (2) is also true.

IV. Auxiliary Claims

I said that I would not argue against Salmon's official theory but only against the conjunction of Salmon's official theory with a number of auxiliary claims Salmon makes to circumscribe it. I have already mentioned the first of the auxiliary claims:

(F) Sentences of English (or other natural public languages) are the third relata of grasping and BEL.

(F) bridges the gap between Salmon's official theory and SST. The second auxiliary claim is the following:

(G) It is metaphysically possible that Jane grasps Pam by means of (3) and by means of (4), BEL (Jane, Pam, (3)), and it is not the case that BEL (Jane, Pam, (4)).

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Let us suppose that the possibility envisioned in (G) is actual.

Then Jane grasps Pam by means of (4) and not-BEL (Jane, Pam, (4)).

Assuming Jane's sufficient competence in English, and in particular,

her full knowledge of the meaning of (4), this apparently makes it

intuitively plausible to deny that (2) is true. But as we saw, (2)

is true according to SST. Thus, SST faces the task of explaining the

apparent plausibility of the falsity of (2). Salmon does provide an

explanation for why (2) appears false when it is in fact, according

to him, true. The explanation is as expected. The `that'-clause in

(2) not only refers to Pam but also contains (4) as its embedded

sentence. The fact that (4) occurs in (2) naturally gives rise to

the (wrong) impression that (2)'s truth condition requires that Jane

be disposed to assent to (4) as she (correctly) understands it.

Since Jane is not so disposed, it is easy to mistake (2) to be false.

Thus, to utter (2) is a more misleading way to report Jane's belief

than uttering (1). But (2) is no less true than (1), all the same.[11]

This is a smooth and elegant explanation of the apparent falsity of

(2).

There is a different explanatory task SST faces as a result of

taking (G) seriously. SST needs to explain how it could be the case

that both BEL (Jane, Pam, (3)) and not-BEL (Jane, Pam, (4)). Such an

explanation is made challenging by the assumption that Jane correctly

and fully understands both sentences (3) and (4). To withhold belief

from a proposition P is to grasp P and not accept P. In Salmon's terminology, for X to withhold belief from P is for X to grasp P by means of some w and not-BEL (X, P, w).[12] In particular, for Jane to withhold belief from Pam is for her to grasp Pam by means of some sentence S and not-BEL (Jane, Pam, S). Jane grasps Pam by means of (4) and she is not disposed to assent to (4) as she understands (4), hence not-BEL (Jane, Pam, (4)). Therefore, Jane withholds belief from Pam. But Jane also believes Pam; for she grasps Pam by means of (3) and BEL (Jane, Pam, (3)). It then follows that Jane believes Pam and withholds belief from Pam. Intuitively this appears to make Jane doxastically somewhat reproachable. Believing and belief withholding appear to be mutually opposing and perhaps even incompatible attitudes. SST needs to explain away this apparent doxastic defect of Jane. The third auxiliary claim acknowledges this explanatory burden:

>   (H) This apparent doxastic defect of Jane needs to be
>   explained away.

There is yet another, related need for explanation. SST needs to justify the asymmetry it postulates between BEL and non-BEL. Provided that all supportive conditions are met, according to SST, the fact that BEL holds among Jane, Pam, and (3) is sufficient for

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the truth of (1) and (2), whereas the fact that non-BEL holds, or BEL fails to hold, among Jane, Pam, and (4) is insufficient for the falsity of (1) or (2). Why is such a theory preferable to a rival theory which reverses the asymmetry and says that given all supportive conditions, the fact that BEL fails to hold among Jane, Pam, and (4) is sufficient for the falsity of (1) and (2), whereas the fact that BEL holds among Jane, Pam, and (3) is insufficient for the truth of (1) or (2)?[13] Commitment to face such a challenge constitutes the fourth and last auxiliary claim:

> (I) It needs to be explained why, when X grasps P by means of S, obtainment of BEL among X, P, and S suffices for X's believing P, whereas failure of obtainment of BEL among X, P, and S does not suffice for X's not believing P.

Salmon seems to offer an ingenious explanation simultaneously for both. If he is successful, he kills two birds, (H) and (I), with one stone.

V. A Perceptual Analogy

Salmon's writing strongly suggests that the basic idea of his double-duty explanation is best appreciated by means of an analogy.

Suppose that Jane goes to a state fair and visits the Hall of Mirrors, in which numerous mirrors are arranged in a clever configuration designed to trick visitors. The Hall is also illuminated by an array of many light bulbs of various colors, strategically placed to compound the visitors' confusion. As Jane enters the Hall from the east, another visitor, Chuck, enters the Hall from the west. For the occasion of his visit to the fair, Chuck has chosen to be dressed in a white suit. Jane and Chuck are now in the Hall of Mirrors, so positioned relative to each other and to the mirrors that Jane sees one reflection of Chuck to her north and another reflection of Chuck to her south. Chuck is illuminated by some red and blue light bulbs from odd angles just so that the north reflection Jane sees shows him as someone in an entirely red suit and the south reflection shows him as someone in an entirely blue suit. Jane does not realize that she is looking at one and the same person. As a result, she immediately comes to perceive the person whose image is reflected on the north mirror to be a man in a (uniformly) red suit, and waves toward the mirror--she likes red, so she likes people in red suits. She also perceives the person whose image is reflected on the south mirror to be a man in a (uniformly) blue suit, and does not wave toward the mirror--she is indifferent to blue, so she is indifferent to people in blue suits. She greets Chuck as she sees him to the north and fails to greet him as she sees him to the south.

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There is nothing mysterious or pathological about this combination of Jane's action and inaction toward Chuck in those circumstances.

The object of Jane's perception remains the same, viz., Chuck. But the intermediaries (the mirrors) differ and this gives rise to the two apparently conflicting reactions. Similarly, when Jane both believes Pam and withholds belief from Pam, the object of Jane's attitudes remain the same, viz., Pam. But the intermediaries (the sentences (3) and (4)) differ and this gives rise to the two apparently conflicting attitudes. The perceptual analogy shows that there is nothing mysterious or pathological about this. An explanation of the kind (H) calls for is thus provided.

Jane sees Chuck on the north mirror and waves at him in that direction. This is sufficient for her greeting Chuck. Jane sees Chuck on the south mirror but does not wave at him in that direction. This is not sufficient for her not greeting Chuck. All in all, Jane does greet Chuck. Analogously, when Jane grasps Pam by means of (3) and BEL (Jane, Pam, (3)), it is sufficient for her believing Pam, whereas when Jane grasps Pam by means of (4) but not-BEL (Jane, Pam, (4)), it is not sufficient for her not believing Pam. All in all, Jane does believe Pam. An explanation of the kind (I) calls for is thus provided.

The analogy is a good one. Just as Jane sees Chuck twice over, Jane grasps Pam twice over. Conceptual access to a proposition is on

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a par with perceptual access to a person.[14] Chuck appears to Jane as

two people, and Pam appears to Jane as two propositions. The

distinction between appearance and reality is at the core of this

Salmonesque account. The corresponding distinction for perception is

uncontroversial, and so is the distinction for attitudes. Or so says

the Salmonesque explanation. I claim that if such a perceptual

analogy is acceptable, belief contexts are semantically opaque.

VI. Propositional Appearance

Chuck is one man, and Jane sees him twice over. That is reality.

The mirrors make it seem to Jane as if she saw two different men.

That is appearance. Let us look at the appearance a little more

closely. From Jane's point of view, it appears as if there were two

men in the Hall with her. On the north mirror Chuck appears to Jane

to be clad in red, and on the south mirror he appears to Jane to be

clad in blue. In appearance, the Hall seems to contain exactly two

men who are clearly distinguishable from each other. Jane can gather

as much specific visually available information as she cares about

Chuck by examining the reflections. And such information is correct

information about Chuck, we shall assume, for the mirrors do not

deceive Jane in any regard other than concerning the identity of the

man she sees to the north and the man she sees to the south and their

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sartorial chromatic attributes.

Jane's opposing reactions toward Chuck are explained by reference to the two different mirrors. Thus,

> (5) Via the north mirror Jane takes Chuck to be clad in red but does not take him to be clad in blue, and via the south mirror Jane takes Chuck to be clad in blue but does not take him to be clad in red;
>
> (6) Jane's taking Chuck to be clad in red via the north mirror explains why she waves at him as she sees him on the north mirror, and her taking Chuck to be clad in blue via the south mirror explains why she does not wave at him as she sees him on the south mirror.

What about Pam? From Jane's point of view, it appears as if there were two propositions expressed by (3) and (4), where in fact there is only one, viz., Pam. The intermediate items responsible for creating this appearance to Jane are the sentences (3) and (4). So, (3) and (4) play the roles parallel to the roles played by the mirrors. Thus corresponding to (5) and (6), we have the following schemata:

> (*) Via (3) Jane takes Pam to be M but does not take it to be

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Q, and via (4) Jane takes Pam to be Q but does not take it
to be M;

(#) Jane's taking Pam to be M via (3) explains why she accepts
Pam as she grasps it by means of (3), and her taking Pam
to be Q via (4) explains why she does not accept Pam as
she grasps it by means of (4).

The perceptual analogy forces us to confront the question: What
terms replacing `M' and `Q' make the schemata (*) and (#) true? To
put one half of the question more informally: As she understands
(3), Jane takes Pam to be a certain specific proposition; Exactly
what specific proposition ?

The answer cannot be merely that Jane takes Pam to be the
proposition (3) expresses. There are two problems with it.

First, it would falsify (#). It is evidently not the case that
Jane accepts Pam as she grasps it by means of (3) because she takes
(3) to express the proposition (3) expresses. To say otherwise is to
put the cart before the horse. Jane accepts Pam as she grasps it by
means of (3) because she takes (3) to express a certain particular
proposition she believes. For any sentence S, if Jane thought S
expressed that same particular proposition, Jane would be disposed to
assent to S, thus accepting the proposition as she grasped it by
means of S.

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(This suggests an objection to any theory, including SST, that analyzes propositional attitudes in terms of sentential attitudes. The objection says that any such theory puts the cart before the horse. Jane's disposition to assent to (3) should be understood as a product of Jane's belief of Pam and her correct understanding of (3); her belief of Pam and understanding of (3) are conceptually prior to her disposition to assent to (3). Salmon himself speaks approvingly of "the traditional conception of belief as inward assent to a proposition."[15]   Such a conception seems to be closer to the truth than SST, which makes disposition to assent to a sentence conceptually prior to belief. One could, of course, say that this only reminds us that SST is not Salmon's official theory. This would be fair enough and is in fact true. But the reason we chose to focus on SST rather than Salmon's official line is that SST is a fuller theory. Also, Salmon appears to suggest that one should understand "inward assent to a proposition" as assent to a proposition by means of some intermediary, which SST construes as a sentence. If so, this does not help clarify how he can avoid putting the cart before the horse after all. Our challenge to Salmon then would be to press him for a comparably full alternative theory.)

The second problem is closely related to the first, though distinct from it. In the perceptual case, Jane does more than taking Chuck to be the man whose image the north mirror reflects. Just by

noticing the north mirror to reflect a unified man-shaped image, she

takes the mirror to reflect an image of some man or other. By a

closer examination of the reflection, she obtains further information

about the man, that he is wearing a red suit. Similarly, just by

regarding (3) to be an unambiguous grammatical sentence, Jane takes

(3) to express some proposition or other. What further information

does Jane obtain by closer understanding of (3)? This goes to the

heart of the matter. Jane's linguistic understanding of (3)

corresponds to her visual examination of the reflection. To take Pam

to be nothing more than the proposition (3) expresses is like barely

seeing Chuck (due to extreme myopia, say) and taking him to be

nothing more than something whose image the north mirror reflects.

Just as she is an acute seer, Jane is a competent speaker of English,

understanding (3) and (4) correctly and fully. We should respect

this fact in replacing `M' and `Q' to verify (*) and (#). That is,

we should reject any replacement that makes Jane indistinguishable

from a less than fully competent English speaker.[16]

               VII. Semantic Opacity

Should we replace `M' with `Pam'? No. Jane takes (3) to express a

certain particular proposition because she understands (3).

Moreover, her understanding of (3) is the correct understanding of

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(3). Thus, if Jane takes Pam to be Pam via (3), it is because her understanding of (3) is correct and (3) expresses Pam. Jane is no less linguistically competent with respect to (4) than with respect to (3); she understands the verb `to purchase' just as well as the verb `to buy.' So her understanding of (4) is just as good as her understanding of (3). And (4) in fact expresses Pam. Therefore, Jane's situation vis-à-vis (4) is perfectly parallel to her situation vis-à-vis (3). It follows then that Jane takes Pam to be Pam via (4) just as much as she takes Pam to be Pam via (3). Therefore, if Jane takes Pam to be Pam via (3), Jane also takes Pam to be Pam via (4), which falsifies (*).

   It might be objected that by insisting on verifying (*), I am being unfair to SST. When Jane attributes a property to a man on a perceptual basis and fails to attribute the same property to the same man on another perceptual basis, she need not be doing so on qualitatively different perceptual bases. Suppose that the north and the south images of Chuck look exactly alike to Jane, and yet Jane takes them to be images of two men. Since she thinks the man she sees to the north is different from the man she sees to the south, she might perfectly well think differently of these men and behave differently toward the two mirrors. Furthermore, she might be so disoriented as to be unable to specify the two men she appears to be seeing either as "the north one" and "the south one" or as "the right

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one" and "the left one." She might only be able to specify them as

"that one," while pointing in one direction, and "that other one,"

while pointing in another direction. No matter, it is perfectly

metaphysically possible for Jane to think that she is seeing two

radically indistinguishable men. Analogously, it might be asked

rhetorically, why could it not be the case that Jane takes (3) and

(4) to express two radically indistinguishable propositions?

 I am in fact not being unfair to SST. The objection has a

point but takes it too far. It is true that Jane need not

perceptually attribute two different properties to Chuck by means of

the two mirrors in order to behave differently. But this is so only

because Jane could take one mirror to reflect the image of an M and

take another mirror (or possibly even the same mirror a second later)

to reflect the image of another M, where `M' abbreviates the

conjunction of all the predicates for the apparent properties of

Chuck.[17] Let us apply this to the belief case and say that Jane

takes (3) to express a P, while taking (4) to express another P.

What would `P' be?  Obviously `Pam' will not do, for `a Pam' and

`another Pam' are nonsensical.[18] It is also clearly unsatisfactory

to say simply that Jane takes (3) to express a proposition, while

taking (4) to express another proposition, for this makes Jane

indistinguishable from a less than competent speaker. There does not

seem to be any plausible candidate for `P.'

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It is equally unpromising to replace `M' with `a true proposition' and `Q' with `an untrue proposition,' for it still fails to distinguish Jane from a less than perfectly competent speaker. Jane understands (3) and assigns a specific content to it. She also takes every sentence with that content as expressing a true proposition. That is why via (3) she takes Pam to be a true proposition. The right replacements for `M' and `Q' should tell us what specific contents Jane assigns to (3) and (4). In this regard it is hardly an improvement to replace `M' with, say, `a proposition which describes what stock brokers do' and `Q' with `a proposition which does not describe what stock brokers do.' Jane's linguistic competence is still not fully respected.

This eliminates many other equally unsatisfactory candidates and strongly suggests the following rather obvious replacements: `the proposition that stock brokers buy stocks' for `M' and `the proposition that stock brokers purchase stocks' for `Q.' It is hard to imagine what better replacements we could possibly have.

(7)   Via (3) Jane takes Pam to be the proposition that stock
      brokers buy stocks;
(8)   Via (4) Jane takes Pam to be the proposition that stock
      brokers purchase stocks.

If we accept (7) and (8), as it seems inescapable, then our question is answered, provided that taking Pam to be the proposition that stock brokers buy stocks is not the same as taking Pam to be the proposition that stock brokers purchase stocks. More accurately, provided that (7) does not entail (9) or that (8) does not entail (10):

>   (9) Via (3) Jane takes Pam to be the proposition that stock brokers purchase stocks;
>
>   (10) Via (4) Jane takes Pam to be the proposition that stock brokers buy stocks.

This means that our question is answered only if a substitution of `purchase' for `buy' in (7)--or a substitution of `buy' for `purchase' in (8)--is not <u>salva veritate</u>.[19]

This is my argument for the existence of semantically opaque attitude contexts from SST plus the other auxiliary claims. The context in which `buy' occurs in (7) is semantically opaque; so is the context in which `purchase' occurs in (8).[20]

VIII. Opacity of Belief Contexts

This still does not give us semantic opacity of belief contexts. I

now argue that if the sentential context of (7) in which `buy' occurs
is semantically opaque, then belief contexts are semantically opaque.

Suppose that the context in which `buy' occurs in (7) is
semantically opaque, and in particular, that it is possible for (7)
to be true and (9) false. Let us now ask the following question:
What is the correct way to parse (7)? A number of different answers
are possible, but I think there are only two reasonably plausible
candidates. The first says that (7) predicates a quadratic relation
and the second says that it predicates a triadic relation. I claim
that the first is inconsistent with SST and the second makes belief
contexts semantically opaque.

The quadratic analysis, which is the most faithful to the
surface form of the sentence, says that (7) predicates the relation,
"Via ( ) ( ) takes ( ) to be ( )," among (3), Jane, Pam, and the
proposition that stock brokers buy stocks. <u>Ex hypothesi</u> it is
possible for the quadratic relation to hold among (3), Jane, Pam, and
the proposition that stock brokers buy stocks, without holding among
(3), Jane, Pam, and the proposition that stock brokers purchase
stocks. So, the proposition that stock brokers buy stocks is not
identical with the proposition that stock brokers purchase stocks.
But this seems impossible to reconcile with the conjunction of (B),
(C), and (D), which entails that `that stock brokers buy stocks' and
`that stock brokers purchase stocks' refer to the same proposition.

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The triadic analysis treats (7) as consisting of three names, `(3),' `Jane,' and `Pam,' and one predicate, `Via ( ) ( ) takes ( ) to be the proposition that stock brokers buy stocks.' This long triadic predicate is regarded as lacking any semantically significant internal structure, so that the result of substituting `purchase' for `buy' in it is an altogether different structurally unconnected predicate. This eliminates the basis for semantic transparency of the context in which `buy' occurs in (7).  But it similarly eliminates the basis for semantic transparency of the context in which `buy' occurs in (1), a belief context. It is theoretically not impossible to detach the treatment of the `that'-clause in (1) from the treatment of the `that'-clause in (7), so as to preserve the semantic transparency of (1) without preserving the semantic transparency of (7). But such a maneuver seems totally unmotivated.

IX. More Opacity

Given our discussion in Section VII, we should be able to predicate many _de re_ relations between Jane and Pam:

    (11) Jane believes Pam because she takes it to be the

        proposition that stock brokers buy stocks;

    (12) Jane withholds belief from Pam because she takes it to be

the proposition that stock brokers purchase stocks.

If our discussion in Section VII was right, the contexts in which `buy' and `purchase' occur in these sentences are semantically opaque. Or consider:

(13) Jane takes the proposition that stock brokers buy stocks
     to be the proposition that stock brokers buy stocks.

The contexts in which `buy' occurs first in (13) may be semantically transparent, but the context for the second occurrence of the word is semantically opaque.  This indicates that it is not `that'-clauses per se that create semantic opacity. Other semantically opaque contexts include those in which `buy' occurs in the following sentences:

(14) Jane grasps a proposition as the proposition that stock
     brokers buy stocks;
(15) Jane recognizes a proposition as the proposition that
     stock brokers buy stocks;
(16) A proposition is presented to Jane as the proposition that
     stock brokers buy stocks;
(17) (3) specifies a proposition as the proposition that stock

brokers buy stocks.

If one insists, as Salmon perhaps wishes to, that (11) - (17) contain no semantically opaque contexts, then assuming the propriety of the kind of <u>de re</u> talk about propositions in (11) - (17), our solution to the problem of verifying (*) and (#) becomes unavailable. One is then obliged to provide different ways to fulfill (H) and (I), while respecting the perceptual analogy. There does not seem to be any promising way to do so.

X. Untrapping?

Our replacements for `M' and `Q' in (*) and (#) crucially employ `that'-clauses. A defender of SST might propose to resist it. Such a move is not without textual support. As far as I can detect, Salmon in fact has never employed locutions such as "X takes P to be the proposition that Y," "X grasps (or comprehends) P to be the proposition that Y," "X recognizes P as the proposition that Y," and the like in print, where `Y' is to be replaced with a sentence. Instead, Salmon repeatedly makes assertions like the following:

An ancient astronomer-philosopher ... unhesitatingly assents to `Hesperus is Hesperus', but is not in the least disposed to

assent to the sentence `Hesperus is Phosphorus', even though he understands both sentences perfectly and, in fact, associates the very same proposition with each sentence.

... the astronomer-philosopher does not recognize the proposition he attaches to the second sentence as the very same proposition he attaches to the first sentence ...

He grasps the very same proposition in two different ways ... and he takes this single proposition to be two different propositions.

When he takes it as a singular proposition of self-identity between the first heavenly body sometimes visible in such-and-such location at dusk and itself, he unhesitatingly assents inwardly to it. When he takes it as a singular proposition identifying the first heavenly body sometimes visible in such-and-such location at dusk with the last heavenly body sometimes visible in so-and-so location at dawn, he has no inclination to assent inwardly to it, and may even inwardly dissent from it.[21]

Cleaned up and adapted to fit our example, they become:

(18) Jane associates (or attaches) the same proposition with
     (3) and (4);

(19) Jane does not recognize the proposition she attaches to
     (3) as the same proposition she attaches to (4);

(20) Jane grasps Pam in two different ways;

(21) Jane takes Pam to be two different propositions;

(22) When Jane takes Pam as a proposition attributing the
     property expressed by the verb phrase `to buy stocks' to
     stock brokers, she assents inwardly to it;

(23) When Jane takes Pam as a proposition attributing the
     property expressed by the verb phrase `to purchase stocks'
     to stock brokers, she has no inclination to assent
     inwardly to it.

Notice that none of these sentences contains a specification of a
proposition by means of a `that'-clause. All of these sentences are
free of even an appearance of semantic opacity. I suspect that this
is no accident. I am inclined to speculate that Salmon is aware of
the possible threat of an argument like the one I have given for
semantic opacity, and as a result has tried to steer clear of the
kind of locution which would make him vulnerable to such an argument.
This naturally suggests an obvious rebuttal to my argument for
opacity. It is to restrict one's locutions concerning attitudes

about propositions to the ones like (18) - (23) and refuse to grant

locutions using `that'-clauses in a crucial way, such as (7) - (15).

The problem with such a rebuttal is that it is unmotivated.

What reason is there for such a move except the desire to block the

argument for semantic opacity? The ad hoc-ness becomes especially

acute when we take (H) seriously. There is much to be said about how

Jane takes Pam to be two different propositions, as a result of which

she directs apparently conflicting attitudes toward Pam

simultaneously. It is an important part of our explanation that she

take Pam to be the proposition that stock brokers buy stocks and also

takes Pam to be the proposition that stock brokers purchase stocks.

To say less than this--e.g., merely to say that Jane takes Pam to be

the proposition (3) expresses and also takes Pam to be the

proposition (4) expresses, while believing that (3) and (4) express

different propositions--is not good enough.

Another reason why Salmon should not refuse uses of `that'-

clauses in the relevant way under discussion is that he comes very

close to using a `that'-clause in that way himself:

He or she understands both `Furze is furze' and `Furze is

gorse' without recognizing their synonymy. In particular, he

or she understands `Furze is gorse', but fails to recognize the

proposition thus expressed as the logical truth that furze is

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furze.[22]

Adapting it to our example, we might as well take Salmon as saying:

> (24) Jane fails to recognize the proposition expressed by
>   `Buying is purchasing' as the logical truth that buying is
>   buying.

If we may use a `that'-clause in this way, why may we not use `that'-clauses as we do in (7) - (15)? If (24) is an acceptable locution, so is (25):

> (25) Jane recognizes the proposition expressed by `Buying is
>   buying' as the truth that buying is buying.

But if (25) is acceptable, so are (26) and (27):

> (26) Jane recognizes the proposition expressed by `Buying is
>   buying' as the proposition that buying is buying;
> (27) Jane recognizes the proposition expressed by (3) as the
>   proposition that stock brokers buy stocks.

The difference between (7) and (27) is insignificant.

Aside from this, there is an interesting extra point we can squeeze out of this passage by Salmon. If all attitude contexts are semantically transparent, (24) entails:

(28) Jane fails to recognize the proposition expressed by
`Buying is purchasing' as the logical truth that buying is
purchasing.

(28) entails that the truth that buying is purchasing is a logical truth. But is it? It seems not.[23]

Another reason why a refusal to use `that'-clauses in the relevant way is ill motivated is that there are non-attitudinal locutions (at least on the surface) which are obviously respectable locutions and which employ `that'-clauses that way: e.g., (16) and (17).

If my argument is successful, Salmon seems to face the following choices:

(i)   Abandon one or more of (A) - (E), which constitute
         Salmon's official theory;

(ii)   Abandon (F), which says that sentences are the third
         <u>relata</u> of grasping and BEL;

(iii)   Abandon (G), which asserts the possibility of BEL

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holding among Jane, Pam, and (3) without holding

among Jane, Pam, and (4);

(iv)   Abandon (H) or (I), thus discharging SST from the

explanatory burden;

(v)   Abandon the perceptual analogy in addressing (H) and

(I);

(vi)   Abandon semantic transparency of belief contexts.

I do not mean to imply that (i) - (vi) exhaust all possible choices

for Salmon, even if my argument is successful. Nonetheless, they

seem to be the most obvious ones. I think all of them would

seriously mar Salmon's position. (i) would obviously break the

backbone of Salmon's theory.

    (ii) would rob Salmon of an important fleshing out of his

theory, leaving him with barely a theory of the logical form of

belief sentences. Some might recommend that Salmon should abandon

(F) and explicate grasping and BEL in terms of Mentalese instead.

The idea is that for Jane to grasp Pam by means of a sentence S in

Jane's Mentalese L is for S to express Pam in L and be in Jane's

"grasp box," where to say that S is in Jane's "grasp box" is a

metaphorical way of saying that S occupies a certain specific

functional position within Jane's mind. And for BEL to hold among

Jane, Pam, and a sentence S in L is for S to express Pam in L and be

in Jane's "belief box." It is a virtue of such a move to eliminate
(or analyze away) attitude or attitude-like relations altogether in
favor of (or in terms of) functional relations. This would break the
perceptual analogy, or any analogy involving anything intentional,
unless the analogy itself is recast in purely functionalist Mentalese
or quasi-Mentalese terms. However, there is a serious problem with
such a move. It concerns the notion of propositional expression by a
Mentalese sentence. It is by no means easy to give a non-circular
analysis of this highly theoretical notion. For a sentence S in
Jane's Mentalese L to express a proposition P is at least for S to
have a certain functional role. What is problematic is to spell out
exactly what that functional role is and say what more is needed if
any. It would obviously be viciously circular for Salmon's purposes
to say either that for S to express P in L is for S to be in Jane's
"grasp box" if and only if Jane grasps P, or that for S to express P
in L is for S to be in Jane's "belief box" if and only if Jane
believes P. All proposed analyses of propositional expression by a
Mentalese sentence that I am aware of are variants of this and are
susceptible to vicious circularity for Salmon's purposes.[24]

(iii) would cost him a claim which he repeatedly and
extensively defends and which is independently plausible. Still,
some might think that (G) should be rejected anyway, independently of
my argument. They might say that it is metaphysically impossible to

grasp a ceratin particular proposition by means of some intermediary
and grasp the very same proposition by means of another intermediary
without realizing that one is grasping the same proposition. If this
view is right, no explanation is possible for Jane's believing and
withholding belief from Pam, without making her as irrational as
someone who believes that stock brokers do and do not buy stocks.
But such a view is unconvincing. Suppose that Jane correctly
understands the verbs `to buy' and `to purchase' but doubts their
strict synonymy. She cannot think of any counterexample to their
synonymy but suspects that a sufficiently clever analytic philosopher
could produce one. Furthermore, she suspects that the difference
between the two verbs is such that one verb applies to what stock
brokers do but the other verb does not, even though she is totally
unable to articulate the difference. As a result, she is differently
disposed to (3) and (4). She thinks that she is dealing with two
radically indistinguishable propositions, just as she might be unable
to distinguish Chuck by means of the two mirrors and yet think that
she is seeing two radically indistinguishable men. This seems to be
a perfectly possible situation.[25]

(iv) would make Salmon's theory vulnerable to the accusation
that it makes certain belief-related phenomena mysterious. (v) would
leave him without an obvious and natural means to address (H) and
(I). And (vi) would directly destroy the core motivation for his

theory.[26]

Notes

1. See his <u>Frege's Puzzle</u> (Cambridge, MA: A Bradford Book, The MIT Press, 1986), "Reflexivity," <u>Notre Dame Journal of Formal Logic 27</u> (1986), 401-29, "Illogical Belief," James E. Tomberlin (ed.), <u>Philosophical Perspectives, 3: Philosophy of Mind and Action Theory, 1989</u> (Atascadero, CA: Ridgeview Publishing Company, 1989), 243-86, "Reference and Information Content: Names and Descriptions," D. Gabbay and F. Guenthner (eds.), <u>Handbook of Philosophical Logic IV: Topics in the Philosophy of Languages</u> (Dordrecht: D. Reidel, 1989), 409-61, "How to Become a Millian Heir," <u>Nous</u> 23 (1989), 211-20, "How <u>Not</u> to Become a Millian Heir," <u>Philosophical Studies</u> 62 (1991), 165-77, "The Pragmatic Fallacy," <u>Philosophical Studies</u> 63 (1991), 83-97, "Relative and Absolute Apriority," <u>Philosophical Studies</u> 69 (1993), 83-100, and "Being of Two Minds: Belief With Doubt," <u>Nous</u>, 29 (1995), 1-20.

2. A sentential context is <u>referentially transparent</u> if and only if all coreferential referring terms are substitutable for one another in it <u>salva veritate</u>. If no terms other than so-called "directly referential" terms, like proper names and demonstratives (and not definite descriptions), are considered referring terms, Salmon's theory will make semantic transparency of belief contexts entail their referential transparency; for according to Salmon, directly referential terms are synonymous if and only if they are

coreferential. If, on the other hand, definite descriptions are counted among referring terms (as was the case when Quine argued against referential transparency of modal contexts), Salmon's theory will not make semantic transparency of belief contexts entail their referential transparency. Since there is no general agreement as to the correct classification of definite descriptions in this regard or as to the condition of synonymy for proper names and other "directly referential" expressions, I shall not discuss the issue of referential transparency.

3. Of course, Salmon is well aware of possible contextual variations inherent in the expression relation. In fact, in the first two chapters of his book, <u>Frege's Puzzle</u>, he meticulously elaborates on further complications in this regard. I am ignoring all such complications. Let us simply assume that all relevant parameters are being held fixed.

4. Except for direct quotational contexts, in which an expression is mentioned rather than used.

5. See, e.g., Salmon, "Being of Two Minds: Belief with Doubt," Section IV.

6. For a more radical objection to (A), or to any other sufficiently detailed compositional semantic theory, see Stephen Schiffer <u>Remnants of Meaning</u> (Cambridge, MA: MIT Press, A Bradford Book, 1987).

7. See my "A Somewhat Russellian Theory of Intensional Contexts,"
James E. Tomberlin (ed.) <u>Philosophical Perspectives, 10 or 11</u>
(Atascadero, CA: Ridgeview Publishing Company), forthcoming.

8. Salmon also uses coreferential proper names as examples of
synonyms, but they are more controversial. See note 2.

9. In "Direct Reference, Propositional Attitudes, and Semantic
Content," Nathan Salmon and Scott Soames (eds.) <u>Propositions and
Attitudes</u> (Oxford: Oxford University Press, 1988), 197-239, first
published in <u>Philosophical Topics</u> 15 (1987), 47-87, Scott Soames is
somewhat bolder in his endorsement of a similar analysis of belief:
"If i is a sincere, reflective, and competent speaker, then i
satisfies jx believes that Sk relative to a context C (and assignment
f) iff i is disposed to assent to some sentence S' whose semantic
content in the context of assent = the semantic content of S relative
to C (and f)" (221). For a Salmonesque view which predates
publication of Salmon's work on this topic, see, e.g., Thomas Mckay,
"On Proper Names in Belief Ascriptions," <u>Philosophical Studies</u> 39
(1981), 287-303.

10. The main reason why Salmon does not officially accept SST is that
sentences are too coarse to play the role of the third <u>relata</u> of the
grasping and BEL relations. Kripke's "Paderewski" example
illustrates this. See Saul Kripke, "A Puzzle About Belief," A.

Margalit (ed.), <u>Meaning and Use</u> (Dordrecht: Reidel, 1979), 239-83.
However, the "Paderewski"-type examples at best seem to show that the
third <u>relata</u> of grasping and BEL are not sentence <u>types</u>. They seem
to allow the possibility of sentence <u>utterance tokens</u> to be the third
<u>relata</u>. Thus, SST need not be so far removed from Salmon's official
theory after all. At the same time, however, if one thinks it
possible to grasp a proposition nonlinguistically (say, purely
perceptually), one will have an independent reason for not accepting
only sentences, types or tokens, as the third <u>relata</u>. It is best for
us to stay away from such possibilities and "Paderewski"-like cases
so as not to exploit the difference between Salmon's official theory
and SST unduly.

11. Salmon carefully offers his explanation in three parts, and what
I have said on his behalf here more or less corresponds to the
amalgamation of the second and third parts. See "Illogical Belief,"
249-50. We need not be particularly concerned with the first part.

12. See Salmon, "Being of Two Minds: Belief with Doubt."

13. A similar point is made by G. W. Fitch in "Non Denoting,"
<u>Philosophical Perspectives, 7: Language and Logic, 1993</u>, James E.
Tomberlin (ed.) (Atascadero, CA: Ridgeview Publishing Company, 1993),
474.

14. Cf. "Quantification into ... propositional-attitude contexts

should be no more enigmatic than quantification into perceptual contexts" (<u>Frege's Puzzle</u>, 125).

15. <u>Frege's Puzzle</u>, 130.

16. This consideration disqualifies "the proposition which attributes the property expressed by `to buy stocks' to stock brokers" as `M' and "the proposition which attributes the property expressed by `to purchase stocks' to stock brokers" as `Q.' Likewise with "the proposition which attributes the relation expressed by `to buy' to stock brokers and stocks" as `M' and "the proposition which attributes the relation expressed by `to purchase' to stock brokers and stocks" as `Q.'

17. Such a case corresponds to the `Paderewski'-type case of belief. See note 10.

18. 'A(nother) Pam' may mean "an(other) entity called 'Pam.'" But such a metalinguistic interpretation is clearly out of place here.

19. Some might suggest `the proposition that stock brokers buy stocks, which is expressed by (3)' as `M' and `the proposition that stock brokers purchase stocks, which is expressed by (4)' as `Q,' while insisting that `buy' and `purchase' are interchangeable <u>salva veritate</u>. This would not do, for essentially the same reason noted earlier; it is not the case that Jane is disposed to assent to (3)

because she takes it to express the proposition that stock brokers buy (i.e., purchase) stocks, which is expressed by (3), while failing to be disposed to assent to (4) because she takes it to express the proposition that stock brokers purchase (i.e., buy) stocks, which is expressed by (4). Again, to ground a difference in propositional attitude on a difference in sentential attitude is to put the cart before the horse.

20. The perceptual analogy I relied on in my argument is good enough for the Salmonesque purposes of satisfying (H) and (I). But the parallelism is not perfect and this might be interpreted as symptomatic of an independent problem in SST. Consider Janah, Jane's myopic cousin from abroad who knows little English. Janah knows that `buy' is a transitive verb and also knows the meaning of the word `stock,' but she knows nothing else (relevant) about (3). In such circumstances it seems fair to say that Janah partially understands (3) but fails to grasp Pam, or any other proposition, by means of (3). In contrast in the Hall of Mirrors, even though Janah is unable to figure out much of anything about the north reflection beyond the fact that it is an image of something, she nonetheless succeeds in seeing Chuck. Her vision of Chuck by means of the mirror is terribly blurred, but blurred perception is still perception. Janah's perception of Chuck by means of the north mirror is as _de re_ as Jane's, whereas Janah does not stand in any _de re_ relation to Pam by

means of (3) but Jane does. This shows that while the perceptual

relation Jane bears to Chuck and the belief relation she bears to Pam

are equally _de re_, the _de re_-ness of perception is independent of the

perceptual content but the _de re_-ness in the case of belief is not

independent of the propositional content which Jane takes (3) to

have. This is an important disanalogy between the perceptual case

and the propositional case. This means that Salmon's grasping

relation is not properly analogized by perception. Whether this

should be taken as an objection to Salmon or not, it is important to

note that our discussion in the text is independent of it. Our

discussion shows that even if we confine our attention to Jane, with

whom there is parity in _de re_-ness between perception and belief, SST

still faces a difficulty.

21. All four quotations are from _Frege's Puzzle_, 113.

22. "Relative and Absolute A Priority," 86.

23. Salmon might regard this merely as an objection to his self-

conscious pretense he adopts for the purposes of his discussion that

the property of being a logical truth is a property of propositions.

Salmon says that it is really sentences that are logically true, not

propositions, but that he chooses to speak for the sake of discussion

as if it were propositions that were logically true, not sentences;

see _Frege's Puzzle_, 129-33. It is not clear how innocuous he thinks

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his pretence is. While observing the pretense, Salmon has informed
me by personal communication that propositions like "Furze is gorse,"
"Ketchup is catsup," "Cougars are pumas," etc., are indeed logically
true. I find such a view implausible even under the pretense.

24. The latest is Stephen Schiffer's ingenious proposal in "A Paradox
of Meaning," Nous 28 (1994), 279-324. His project is to analyze the
actual-language relation. In his setup, our question receives an
immediate answer, "For S to express P in Jane's Mentalese is for S to
belong to a language L in which Jane thinks and S expresses P in L."
What is it for Jane to think in L? Schiffer's answer in a nutshell
is:

    Jane thinks in L iff (œP)(Jane believes P -> (>F)(>M)(M is a
    physical property & MF & F expresses P in L & F is tokened in
    Jane's belief box & it is metaphysically sufficient for Jane's
    believing P that [MF & F is tokened in Jane's belief box])).

This relies on the notion of belief, hence is circular for Salmon's
purposes. A full version of Schiffer's analysis speaks of other
propositional attitudes as well as belief, and that exacerbates the
difficulty.

25. This example is directly adapted from Steven Rieber,

"Understanding Synonyms without Knowing that They are Synonymous,"
Analysis 52 (1992), 224-28.

26. Versions of a predecessor to this paper were presented at
Graduate School and University Center, City University of New York,
and University of Florida in April of 1994. I thank all participants
at both universities and Nathan Salmon for helpful discussion. I
also thank two anonymous referees for useful comments.