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A PROSENTENTIAL THEORY OF TRUTH

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What is a theory of truth? Some take themselves to be giving an account of the property of being true, an explanation of what it is that makes X true when it is true (correspondence, coherence), while others address themselves to the problem of what sorts of things are most fundamentally to be said to be true (propositions, statements, sentences). Underlying these theories, and others, is a standard grammatical analysis of ordinary English sentences containing 'is true': ' X is true' is analyzed into a subject ' X ' and a predicate 'is true', where the role of the predicate is to express the property *truth* which an utterer of the sentence ascribes to the referent of ' X '. Our purpose here is to offer a coherent alternative to this subject-predicate analysis. But why the need for an alternative to the obvious one we all love so well? Our principal reason is simply that a given grammatical analysis can sometimes mislead, or sometimes restrict our philosophical intuitions. We claim that our alternative account – a prosentential theory of truth – eliminates some of the problems about truth; by no means all, but some of those it fails to eliminate it at least relocates in what we shall argue are advantageous ways. Moreover, we think our analysis provides independent insight into the role of truth locutions and also constitutes a natural framework for a wide range of insights various philosophers have had about truth – insights scattered around in such as Frege (1892), Ramsey (1927), Strawson (1950), Quine (1970), and Prior (1971). Lastly, the alternative analysis suggests directions in which philosophizing about truth might move – directions not at all suggested by the standard account.

1. RAMSEY

A natural way into our theory is provided by Ramsey's so-called 'no-truth' or 'redundancy' theory, so we shall begin there. Then in succeeding parts of this paper we shall (§2) explain and (§3) defend the

prosentential theory, and finally (§4) look at its consequences and applications.

1.1. *Ramsey: Exposition*

We are about to present a semantical analysis of truth talk which we label the ‘redundancy theory’ and which might well be one Ramsey 1927 had in mind. We say ‘might well’ because Ramsey’s explanation of his theory is so condensed it is hard to see exactly what he does have in mind. Anyhow, our explication of Ramsey’s theory goes like this: if we allow ourselves to enrich English in a rather modest way – by the addition of machinery for propositional quantification – we can say *without* the help of a truth predicate anything we can say *with* it.

Ramsey’s idea was that in many simple cases the truth predicate can be dropped with no loss of assertional content.

1. That snow is white is true.

and

- 1’. Snow is white.

presumably come to the same thing. We use ‘is true’ sometimes ‘for emphasis of for stylistic reasons’, he says, but the truth predicate brings no new assertional content. But ‘true’ plays many other roles in ordinary usage, and we need to look at all of them before we can sensibly evaluate the redundancy claim. If we call 1–1’ and its cousins cases of the *disappearing* kind since the truth predicate disappears without residue, perhaps we should call the next set of cases *repetition* cases. We do not know if Ramsey considered them, but it is pretty clear how truth-free translations should go.

2. Mary says that snow is white, but if that’s true then snow reflects the sun’s rays.

becomes

- 2’. Mary says that snow is white, but if snow is white then snow reflects the sun’s rays.

Or, as in conversation:

3. *Mary*: Snow is white. *John*: That’s true.

Presumably Ramsey's paraphrase would be

3'. *Mary*: Snow is white. *John*: Snow is white.

So far the apparatus of propositional quantification hasn't figured in, but it does when we consider *quantificational* cases like:

4. Everything John says is true.
5. Everything John says about the house is true.
6. The consequences of true propositions are true.
7. Every proposition is either true or false.

Using propositional quantification and some standard connectives, these come out as

- 4'. $\forall p$ (John says that $p \rightarrow p$)
- 5'. $\forall p$ (John says of the house that $p \rightarrow p$)
- 6'. $\forall p \forall q (p \ \& \ (p \Rightarrow q) \rightarrow q)$, where \Rightarrow is a consequence connective.
- 7'. $\forall p (p \vee \sim p)$.

Our translation 4' construes 4 as saying in part something about John and not simply as asserting what John asserted. But there are cases where, when asked for an opinion, in order either to save time or a lot of repetition we say

8. What John said is true.

That it was John who said it doesn't matter much; what we're doing is making clear our position. So we might use the conditional '/' of Belnap 1973, translating 8 as:

8'. $\forall p$ (John said that p/p).

Closely allied to the quantificational cases are the *indirect reference* cases, such as:

9. Goldbach's conjecture is true.

If we have a substitutional interpretation of our propositional quantifiers and the apparatus of quantification in and out of quotes as in Belnap and Grover 1973 we might try

9'. $\exists p$ (Goldbach conjectured that $p \ \& \ \forall q$ (Goldbach conjectured that $q \rightarrow ('p' = 'q')$) & p).

But this is right only if exactly one sentence is thought of as expressing Goldbach's conjecture. If, more plausibly, more than one sentence expresses the conjecture, we need something like

- 9". $\exists p$ (Goldbach conjectured that p & $\forall q$ (Goldbach conjectured that $q \rightarrow (p \rightleftharpoons q)$) & p)

where $p \rightleftharpoons q$ only if 'p' and 'q' express the same conjecture. (But what connective is this?) A fifth category of cases, cutting across the others, is constituted by the *modified* cases, i.e., those in which the verb in 'is true' is modified by tensing or in some other way. Consider examples of 'modified disappearing' or 'modified repetition' cases.

10. It is not true that someone is coming down the road.
 11. It might be true that there are people on Mars.
 12. *Bill*: Women are treated equally in the profession. *John*: I wish that were true.
 13. *John*: Rome is the center of the known world. *Bill*: That's not true, but it used to be true.

In these cases Ramsey would probably get the effect of modification of the verb in 'is true' by analogous modification of the interior sentence, e.g.

- 10'. No one is coming down the road.
 11'. There might be people on Mars.
 12'. *Bill*: Women are treated equally in the profession. *John*: I wish that women were treated equally in the profession.
 13'. *John*: Rome is the center of the known world. *Bill*: Rome is not the center of the known world, but Rome used to be the center of the known world.

It might be a good deal harder to transfer the verb modification from 'is true' to the interior verbs in cases where the interior sentences are significantly more complex than in 11–13, e.g., with lots of subordinate clauses and verbs. Laying aside this doubt, however, as well as others which we shall shortly raise, suppose Ramsey's translation program *can* be carried through. What has he told us about the semantical role of 'is true' in English? What he has *not* done is define a single semantical role for the truth predicate, but he probably did not intend to give that sort of semantics for 'true'. It is more likely that he would have surveyed the rather

wide variety of translations represented by 1'–13' and concluded that 'is true' is what Russell called an "incomplete symbol". It isn't easy to say exactly what Russell meant by that, but this is pretty close: suppose you have a fragment of English and you are considering in a Russellian spirit the 'logical form' of the sentences in that fragment by seeing how they most naturally translate into some formal or semi-formal target language – say (again Russellian) a language with the machinery of first-order quantification with identity plus a bunch of ordinary English, but without definite or indefinite articles. It might happen – in the case of definite and indefinite descriptions, for instance – that the target-language translations of English sentences do not contain any *one* kind of expression that we can pick out as the translation of, e.g., definite descriptions. Sentences containing 'the present king of France' will get translated by target-language sentences with various structures, leaving us no plausible candidate for the first-order-quantificational expression that means the same as 'the present king of France'. In such cases we can say that the English expressions in question are 'incomplete symbols' – provided we remember the relativization of this claim to a particular choice of target-language.

Ramsey might plausibly claim that he has shown the truth-predicate to be an incomplete symbol in this sense, where the target-language we have in mind is the truth-predicate-free part of English plus propositional quantification: there is nothing which translates 'is true', but there are ways of capturing (complete) expressions containing 'is true' as a proper part. Of course Ramsey doesn't say anything like this, but it's a line he might have developed.

That's our reconstruction of Ramsey's redundancy theory. Speculative though it is as exegesis of Ramsey's views, it seems to us a sensible theory, or at least a good first approximation to a sensible theory. Our own theory is in many respects a variation on Ramsey's theme but – so we shall urge – a variation which is also an improvement. Before presenting it, however, we should consider a number of objections which might be made against Ramsey.

1.2. *Ramsey: Objections*

We consider six rather different sorts of objections. The first two suggest that our data base is too small; i.e., that other cases cast doubt on the theory.

Indexicals. First a type of case where there is no obvious rule for systematic translation; namely, indexical repetition cases such as

14. *John*: I am greedy. *Mary*: That's true.

We cannot use simple minded repetition here as we did in 3', for clearly the translation should have Mary uttering 'You are greedy' or perhaps 'John is greedy'; we do not want Mary saying 'I am greedy'. However, although we are not even remotely in a position to advance a generally applicable translation schema for such examples, it seems to us plausible that there should be at least an approximation unto one; and in any event we shall indicate later (§3.1) how this objection can be placed in proper perspective by our own prosentential theory.

Modification. Now a type of case in which translation is simply impossible; modified quantificational and indirect reference cases such as

15. Each thing Mark said might be true.

where there is no verb, such as that in 11, to which to transfer the 'might', and similarly

16. Something Charlie said is either true or not true.
17. All that Judith said was true, but none of it is true now.

Of course one might try for 15 something like

- 15'. $\forall p$ (Mark said that $p \rightarrow$ it might be the case that p)

or

- 15''. $\forall p$ (Mark said that $p \rightarrow$ that p might obtain)

but clearly being the case and obtaining are just variants of being true, and if allowed would reduce the redundancy theory to triviality. In view of this problem we think the 'straight' Ramsey theory which takes as its target English without truth but with propositional quantification is false. But we can modify the theory along lines Ramsey might approve by adding to the target language not only propositional quantifiers but also a somewhat indeterminate array of connectives such as a possibility ('might') connective M ; a past tense connective P , and a negation connect-

ive \sim (which the reader presumably thought we already had anyhow). Then 15–17 could be translated by

- 15^{'''}. $\forall p$ (Mark said that $p \rightarrow Mp$)
 16'. $\exists p$ (Charlie said that $p \ \& \ (p \vee \sim p)$)
 17'. $\forall p$ (Judith said that $p \rightarrow (Pp \ \& \ \sim p)$)

The general idea is to add a connective operating on sentences for each modification of 'is true' which we cannot otherwise handle; with the expectation that these connectives, like negation, would by and large be ones we would want for other purposes anyhow. It is this modified theory which we henceforth call the redundancy theory; the theory is that truth is redundant given propositional quantification and some connectives answering to verb modifications. We rather believe that given this additional apparatus, translations in the spirit of Ramsey can generally be found, and we shall proceed on that basis.

The next two objections question the accuracy of the translations.

Aboutness. Someone might argue that 'That snow is white is true' is about the proposition that snow is white while its translation 'Snow is white' is about snow, and conclude that *therefore* the translation fails. We are not going to argue directly against this objection, involving as it does the Paradox of Analysis. What we *shall* do is offer what we believe to be a comprehensive theory rooted in the assumption that in at least the easy disappearing cases and repetition cases, the assertional content of the translation matches that of the sentence translated. We'll rely on the success of our theory as evidence for the reasonableness of this assumption.

Pragmatics. A more telling objection is that even if the translations preserve assertional content, they leave out other features of truth discourse, features that shouldn't be neglected.

The chief problem lies with the repetition cases. Is the translation of 'That's true' in

3. *Mary:* Snow is white. *John:* That's true.

as

- 3'. *Mary:* Snow is white. *John:* Snow is white.

a good translation? Given the assumption that 'That's true' expresses what it's antecedent expresses, the translation succeeds in this one respect.

But remember the sage advice in Strawson 1950, §4. that

‘true’ and ‘not true’ have jobs of their own to do, ... In using them, we are not *just* asserting that X is Y or that X is not Y . We are asserting this in a way in which we could not assert it unless certain conditions were fulfilled; we may also be granting, denying, confirming, etc.

On some occasions John can grant that snow is white, or agree that snow is white, by uttering the sentence ‘Snow is white’ (perhaps with emphasis) but there are occasions in which he would not do this as successfully as he would if he used the sentence ‘That is true’. In using ‘That is true’ one acknowledges that there is an *antecedent*, and thereby one acknowledges the source of the idea. It is necessary that there be an antecedent for one to successfully grant or agree with something, and if one *intends* to express agreement then the antecedent must normally be explicitly acknowledged. The stuttering suggested by the Ramsey translation 3’, does not do this; put another way, by using ‘That is true’ John avoids the charge of plagiarism. Thus *pragmatically* the Ramsey translations fail. This is obvious also in those cases where the truth predicate is used as either an abbreviatory device, or to save repetition. We endorse this objection, and overcome it in our prosentential theory (see especially §2.4).

The final two objections have to do with the legitimacy of propositional quantifiers such as those used in 4’–9’.

What price redundancy? The first of these objections suggests that propositional quantification is mysterious and not at all in line with the rest of English. Or to put it another way, the objection is to calling Ramsey’s theory a *redundancy* theory, since it doesn’t show truth to be redundant in English itself, but only in some curious *ad hoc* extension of English. We postpone consideration of this objection until after our prosentential theory has been presented, and then argue in §3.1 that its force is minimal.

Grammar. The second objection claims that propositional quantification is just downright ungrammatical. Ramsey anticipates the objection that variables have got to have predicates attached to them even if they occupy sentential positions, but unfortunately his reply isn’t especially convincing.

We have in English to add ‘is true’ to give the sentence a verb, forgetting that ‘ p ’ already contains a (variable) verb. This may perhaps be made clearer by supposing for a moment that only one form of proposition is in question, say the relational form aRb ; then ‘He is always right’ could be expressed by ‘For all a, R, b , if he asserts

aRb , then aRb ', to which 'is true' would be an obviously superfluous addition. When all forms of proposition are included the analysis is more complicated but not essentially different....

If there were just some few 'forms' a substituent for ' p ' might take, say ' aRb ' and ' Fa ', we could understand Ramsey as claiming that ' $\forall p...p...$ ' is to abbreviate ' $\forall a\forall R\forall b...aRb...$ and ' $\forall a\forall F...Fa...$ ', or something like that. But it is plain that the number of forms is in fact infinite, so talk of 'variable verbs' cannot be made sense of along these lines. But even if Ramsey was confused about the logical machinery he wanted to use, we need not be. Propositional quantification can be made perfectly respectable both formally and informally, and it is a mistake to suppose that variables in the grammatical category of sentences – variables that take sentences as substituents – somehow need to have verbs stuck onto them to make grammatical sense. But it is a natural mistake, which might arise as follows.

Suppose we try reading 4', which is in the Ramsey language with its propositional quantifiers, into unadorned English. If we follow the style of reading usually given formulas containing bound occurrences of individual variables, we will use pronouns to capture the bound variable, which gives

For each proposition, if John said that it, then it.

As the quote from Ramsey already says, and as Heidelberger (1968) and others have pointed out, these sentences lack essential predicates. The obvious candidate, as Ramsey and the others suggested, is 'is true', giving

4". For each proposition, if John said that it is true, then it is true.

All of which suggests that if the grammar of formulas containing bound propositional variables is to be in the spirit of English grammar, then the language with quantifiers should have a truth predicate (say ' T ' read 'is true') so that instead of 4' we should have

4'''. $\forall p$ (John said that $Tp \rightarrow Tp$).

But since ' T ' is a predicate and ' Tp ' a sentence, ' p ' must be a *term* of the language, i.e., it must occupy nominal positions. This means that the quantifiers are binding *individual* variables (of a special sort) and not variables occupying *sentential* positions. So putting aside the disappearance

of redundancy which follows upon the reintroduction of the truth predicate, the quantifiers turn out not to be as we described them in setting up the Ramsey language; Ramsey's variables bind variables occupying sentential positions. Some people would go one step further and claim what is demonstrated here is that it is impossible to give a coherent account of anything but *individual* quantification.

But all this rests on a mistake and we count it a virtue of our own theory that it both explains the mistake and why it is natural. We follow Sellars (1960) and Prior (1971) in arguing that there is something essentially wrongheaded about the above analysis (see Grover (1972) for a more detailed account of our view on this matter): the fact is that while relative pronouns can be used to provide adequate readings of formulas containing bound occurrences of individual variables (occupying nominal positions), they do not cope with bound occurrences of propositional variables, since the latter occupy sentential positions. To obtain adequate readings we need something which does the kind of cross-referencing achieved by variables, and which also occupies a position a sentence could occupy. In the case of individual variables the cross-referencing is done by pronouns, but they occupy nominal positions. So what is wanted is something which is like a pronoun, but which occupies a sentential position. What is wanted is a *prosentence*. Roughly, just as a pronoun is sometimes said to stand in for a proper noun, and a proverb (e.g., 'do') for a verb, so prosentences stand in for sentences: that is, with respect to their own grammatical category, prosentences are to be generic in the sense that pronouns and proverbs are. An analysis of bound propositional variables in terms of prosentences rather than pronouns will in §4.3 show that these variables must not have predicates attached to them.

So much for the mistake; why is it natural? It is a natural mistake just because English – plain English – probably does not contain any generally available atomic (one word) prosentences on a par with 'it' and its cousins. For this reason *easy* readings of sentences involving propositional quantifiers of the Ramsey variety are not available. But – and this is a principal thesis of this paper – English does have some prosentences, albeit non-atomic ones; we argue that 'That is true' and 'It is true' are prosentences, a fact which can be used to meet the 'ungrammaticality' objection to Ramsey (as we shall spell out in §4). But the philosophical interest of prosentences goes far beyond the mere reading of propositional quantifiers;

for instance, they will help us argue a version of the Ramsey redundancy thesis. Like Ramsey, we do not think the truth predicate need be construed as having a property-ascribing role in ordinary English. But unlike Ramsey, we think it is possible to say a bit more about what the usual semantical role of the truth predicate (i.e., 'is true') is. Specifically, we think 'is true' can be taken to be a fragment of a prosentence – either the prosentence 'it is true' or the prosentence 'that is true', *wherever* it occurs. In the remainder of this paper we shall first explain what we take pro-sentences to be (§2.1); then we shall explain just what we mean by the claim that 'is true' is a fragment of a prosentence (§2.2–2.6) and field such objections as we can (§3). Finally we shall see what philosophical consequences can be milked from all of this (§4).

2. PROSENTENTIAL THEORY: EXPOSITION

Since our theory is that 'true' can be thought of always as part of a pro-sentence, we should try to get a little clearer about what pro-sentences are and how they work.

2.1. *Anaphora, and Pro-sentences*

The key linguistic relation in this area is that of *anaphora*: for something to be a proform it is crucial that it can be used anaphorically. We shall not try to provide a full or rigorous account of the relation of anaphora; that is clearly a job for linguists, and none of them has yet developed an adequate theory even for the relatively simple cases where anaphors occupy nominal positions (see Partee (1970), we remark that our philosophical exploitation of the concept of anaphora renders its further articulation by linguists a consummation devoutly to be wished). What we'll do instead is discuss a number of examples, some of them taken from the literature, to show the variety of anaphoric expressions in our language, to illustrate their complexity, and to conjecture as to their point.

Anaphoric uses of pronouns have come in for the most discussion. Consider the following:

18. Mary wanted to buy a car, but *she* could only afford a motor-bike.
19. If *she* can afford it, Jane will go.

20. John visited us. *It* was a surprise.
21. Mary said that the moon is made of green cheese, but I didn't believe *it*.
22. Goldwater won in the West, but *it* didn't happen in the East.

In order to understand these sentences we must be aware of the grammatical ties which obtain between, for example, 'she' and 'Mary' and between 'she' and 'Jane', because only then do we know that 'she' is used in the one case of refer to Mary and in the other to Jane. In such cases the pronoun is said to be used *anaphorically*. Pronouns can also be used to refer *independently* as in 'That isn't my book' uttered along with a pointing gesture or the like. (The terminology derives from Parsons 1970; of course such pronouns are not independent of all context; but they refer independently of any antecedent.) Following the linguists we call the word or phrase with which an anaphoric pronoun is linked, its *antecedent* – thus the antecedent of 'she' in 18 is 'Mary'. This terminology, though not of course the theory, ignores the possibility that an anaphoric pronoun may precede its antecedent as in 19. Whenever a pronoun is used anaphorically, the pronoun is said to be an *anaphor*. The relation which obtains between an anaphor and its antecedent is the relation of *anaphora*. It should be noted that although the relation of anaphora involves cross-referencing, an anaphor does not 'refer' to its antecedent in the sense in which proper nouns and independently referring pronouns are said to 'refer' to their referents; i.e., 'she' is not used to refer to 'Mary', but to Mary.

Geach 1967 called pronouns as used in 18 *pronouns of laziness*. We'll follow him in this even though the characterization this terminology suggests does not survive many examples. But the initial idea is that such pronouns 'stand in' for their antecedents and so may serve as abbreviatory devices, etc. This suggests that wherever a pronoun of laziness is employed we could just as well substitute its antecedent. In the case of 18 this yields

- 18'. Mary wanted to buy a car, but Mary could only afford a motorbike.

In some cases, and perhaps with 18', substitution of the antecedent for the anaphor introduces ambiguities not present in the original. We suggest

that one reason for using anaphoric pronouns is to make it clear that only *one* person or thing is being talked about throughout.

What's more, naive substitution of the antecedent sometimes isn't even possible, since in cases like 20 the grammatical categories of the anaphor and its antecedent differ: the antecedent of 'it' is the sentence 'John visited us'. To obtain the right word or phrase for substitution we might move to either 'John's visit' or 'John's visiting us'. These we'll call *anaphoric substituends*. We include example 22 from Lakoff partly to show that the anaphora relation can be complex. In order to find an appropriate anaphoric substituend for 'it' in 22, it seems we need to take into account not only grammatical considerations but also the sense of the whole sentence. Just reflect upon the contrast between the substituend for 'it' in 22 and in 'Goldwater won in the West, but *it* didn't surprise me'.

Anaphoric pronouns can also be used to make general statements. Borrowing from logicians, we'll call these *quantificational* uses of anaphoric pronouns. For example,

- 23. If any car overheats, don't buy *it*.
- 24. Each positive integer is such that if *it* is even, adding 1 to *it* yields an odd number.

We are far from clear as to precisely what should count as the antecedents of these pronouns, but we shall in all innocence presume them to be the quantificational phrases 'any car' and 'each positive integer'. Note that the relation between an anaphor and its antecedent in these cases differs radically from the relation in laziness cases: it won't do to substitute the antecedent (or a semantically equivalent transform) for the anaphor. Just consider

- 23'. If any car overheats, don't buy any car.

More profoundly, quantificational anaphoric pronouns don't pick up a *referent* from their antecedents the way pronouns of laziness do, in view of the fact that their antecedents usually can't be construed as referring expressions. They do, however, pick up both a family of anaphoric substituends and sometimes a family of objects, the former determining what is to count as an *instance* in the way that

- 24'. If 3 is even, adding 1 to 3 yields an odd number

is an instance of 24. This subdivision into pronouns of laziness and quantificational pronouns is suggested by Partee 1970.

Some (not linguists, we suppose) might want to call 'her father' in

Mary loved her father

a pronoun on the grounds that it can be construed as having an antecedent, 'Mary', and an anaphoric substituent, 'Mary's father', but we rule it out as a pronoun *not* because it is compound but rather on the grounds that it lacks the generic quality of other pronouns; that is, within wide limits (gender, etc.) ordinary pronouns are completely generic or indeterminate with respect to what can be used as a substituent for them.

Anaphors do not always occupy nominal positions. There are, for example, proverbial uses of 'do'. 'Do' is used as a proverb of laziness:

Dance as we *do*.

Mary ran quickly, so Bill *did* too;

and as a quantificational proverb

Whatever Mary *did*, Bill *did*

Do whatever you can *do*.

'Such' and 'so' can be used anaphorically as proadjectives:

The pointless lances of the preceding day were certainly no longer *such* (Scott).

To make men happy and to keep them *so* (Pope).

It may not be possible to find clear cases where 'such' and 'so' are used as quantificational proadjectives. As a final example, consider the proadverb of laziness in

She twitched violently, and while *so* twitching, expired.

As a generic term for 'pronoun', 'proverb', 'proadjective', etc., we'll use *proform*, and explain presentences as a species of this genus. Since anaphora is relational, one might speciate anaphoric proforms either according to the position they occupy (nominal, adjectival, etc.) or according to

the grammatical category of their antecedent. Without implying that either principle of classification is likely to appear unrefined in a sophisticated grammar, we shall use the former, noting that linguists with whom we have conferred tend to employ the latter; e.g., the 'it' in 20 which we called a pronoun on the grounds that it occupies a nominal position, they would call a prosentence (if they had such a word) on the grounds that its antecedent is a sentence. As a consequence of our decision, a pronoun must occupy a nominal position, a proadjective must occupy an adjectival position, and a prosentence must occupy a (declarative) sentential position.

We have said that a prosentence is to be limited to (declarative) sentential positions; but what about its antecedents? Should its antecedents be limited to declarative sentences as well? (Recall from 20 that the antecedents of pronouns are by no means limited to nominal constructions.) We almost avoid deciding by labeling prosentences as such in either the *wide sense* or in the *narrow sense* according as they do or do not admit other than declarative-sentential antecedents; but we choose to use 'prosentence' as meaning 'prosentence in the *wide sense*' for at least the course of this paper. This means that in the laziness cases the antecedent need not be a declarative sentence, and in the quantificational cases that the antecedent might, for example, be a nominal quantificational phrase.

We draw these considerations together to come up with some rough criteria representing a good thing to mean by 'prosentence':

It can occupy the position of a declarative sentence.

It can be used anaphorically in either the lazy way or the quantificational way.

Consequently, in each such use it has an antecedent from which one may derive an anaphoric substituend (in the laziness cases) or a family of anaphoric substituends (in the quantificational cases) – in either case, the substituends are sentential, matching the position of the anaphor.

It is 'generic' in the sense that, in one use or another, any declarative sentence might turn up as anaphoric substituend.

With this characterization, necessarily rough because of the primitive state of the theory of anaphora, we may ask: does English have any prosentences? Or first, does English have any *atomic* (i.e., one word) prosentences? Yes. Indeed J. Carson and R. Chisholm have pointed out to us

that Brentano 1904 uses the very word ‘prosentence’ (‘Fürwort’) to describe ‘yes’. And if ‘yes’ is an atomic presentence, so is the laziness use of ‘so’ in

I don’t believe Rachel is sick, but if *so*, she should stay home,

although some troublemaker might prefer to say that there is elipsis in this example and that in ‘the deep structure’ ‘so’ is a proadjective. (Ditto for ‘I think so’ and ‘I believe so’). In any event, even if presentences, and atomic ones, these are not *generally available* in the sense that they can be put in arbitrary sentential positions. One cannot say, ‘I don’t believe Rachel is sick, but if she has a fever, then *so*’. And one must say ‘I know that that is so’ (adjectival position), not ‘I know that so’ (sentential position as required for presentences). We *have* heard ‘I know so’, but we’ve heard it in bars. From this kind of evidence we conclude that English as it stands does not have any generally available atomic presentences. What would English be like if it did?

One method philosophers and logicians employ for presenting an analysis of some aspect of language in which they are interested is to show how the piece in question would look in some specially constructed (not necessarily formal) language. The point of introducing a special language may be to allow one to idealize the situation somewhat so that special features can be highlighted and the other features, judged to be irrelevant to the issue at hand, ignored. In such circumstances it is not (usually) going to be claimed that English is *exactly* like the introduced language, but rather that bits of English can for certain purposes be thought of as working or fitting together in the way demonstrated. It might also be argued that, with respect to *just* that feature which is being analyzed English might well have been constructed in this other way. We shall employ this method in getting clear on the concept of a presentence in relation to English.

2.2. *English + ‘Thatt’*

We ask you then (temporarily, and as a heuristic device) to pretend we have a generally available atomic presentence, written ‘thatt’ (Prior 1971 proposes ‘thether’; our ‘thatt’, deriving from Grover 1972 where there is a fuller discussion of its point and purpose in relation to propositional quantification, is easier to say if you keep the final ‘t’ silent.) That is, we ask you to consider a language English + ‘thatt’ in which ‘thatt’ is a

generally available and atomic presentence. We might use 'thatt' as a presentence of laziness as in

John: Snow is white. *Mary:* *Thatt*.

or in

Bill: There are people on Mars. *Susan:* If *thatt*, we should see signs of life very soon.

Here Bill's remark is the antecedent of Susan's utterance of 'thatt', and Susan's remark gets its content from this antecedent. But like other anaphoric proforms, 'thatt' is generic – when Susan utters it with 'There are people on Mars' as its antecedent, she gives it the sense of that sentence, but with another antecedent 'thatt' would have another sense.

And quantificationally, 'thatt' could help us express such generalizations as 'Every proposition is either true or false' without recourse to a truth predicate – thus (using 'not' in the old fashioned way as a connective)

For every proposition, either *thatt* or not *thatt*.

Or even

For every proposition, if John says that *thatt*, then *thatt*.

The analogy between quantificational uses of 'thatt' and bound propositional variables would parallel the familiar analogy between quantificational pronouns and bound individual variables. And we thereby solve the problem of reading Ramsey's propositional variables (without adding a truth predicate) not into English itself but at least into English + 'thatt' – with the further addition (as in the final form of the Ramsey language) of a variety of connectives answering to verb modifications. (We note that Prior 1971 takes the further step of introducing new expressions for the quantificational expressions as well as for the variables; instead of the still nominal quantificational phrase 'for every proposition' which we have (thus making 'thatt', we suppose, a presentence in the wide sense), he has 'for everywhether' in analogy with 'everywhere', etc. We think the maneuver useful – see the remark on p. 121 of Grover 1972 – but suppress it in the interest of readability.)

A few things about our hypothetical generally available atomic presentence are worth noting. First: 'thatt' is *never* a referring expression, whether used quantificationally or as a presentence of laziness. When

Mary says ‘Thatt’ in response to John’s ‘Snow is white’, the prosentence behaves semantically like its antecedent. Since Mary is referring to snow just as John is, ‘Thatt’ functions sententially just as ‘Snow is white’ does. Second: in quantificational uses of pronouns, perhaps some sense can be given to questions like “What does ‘it’ *range over* in ‘Whatever John wants, I want *it* too?’” – although even here there seems to be a rather quick assumption that any adequate semantics for quantificational pronouns in English would treat them as closely analogous to bound individual variables of formal objectual quantification. But it is not at all easy to make intuitive sense of a question like “What does ‘thatt’ *range over* in ‘Every proposition is such that either *thatt* or not *thatt*?’” – since ‘thatt’ always occupies a sentential position. The *instances* of this generalization are all things like ‘Snow is white or not snow is white’, ‘Nixon is president or not Nixon is president’, etc. – and although these instances are ‘about’ things like snow and Nixon, surely *these* things cannot be what ‘thatt’ ranges over. Perhaps ‘thatt’ ranges over propositions, but how can that be so if the instances of the generalization aren’t even *about* propositions? We won’t pursue this further, but on the face of it, anyway, questions about what ‘thatt’ ranges over are misplaced, as are theories about ontological commitment that assume ‘thatt’ must ‘range over’ something. Third: when Mary says ‘Thatt’ following John’s ‘Snow is white’ she is repeating what he said in an obvious sense of ‘repeat’, but it would be a mistake to think her speech-act amounts to nothing more than just saying ‘Snow is white’ again. Mary isn’t plagiarizing. Her choice of ‘Thatt’ as a way of asserting that snow is white has the interesting pragmatic property of *acknowledging* the presence of an antecedent. ‘Thatt’ would quite literally make no sense in the absence of an antecedent.

A last and crucial point: we believe that although English + ‘thatt’ is doubtless rather different from English *grammatically* (we shall emphasize this below), the addition of ‘thatt’ would not constitute a significant *conceptual* alteration of English. It is not like adding some new property-ascribing predicates or linguistic features which would allow us access to new domains of discourse or world views; rather, English + ‘thatt’ is conceptually the same as English. The difference is ‘merely’ grammatical, and indeed as we have indirectly suggested in our account of anaphors, even the grammatical addition is in many respects (though not all) in the spirit of English grammar.

2.3. 'That is True' and 'It is True' as Prosentences

That takes care of 'thatt'. We return to a previous question, and ask whether English itself contains any generally available prosentences-dropping now the requirement that they be atomic. And our answer is of course affirmative: 'that is true' and 'it is true' can be and should be thought of as anaphoric prosentences, just like 'thatt'. This claim contains several elements, the first and easiest of which involves checking the behavior of 'that is true' and 'it is true' against the criteria for prosentences.

The first requirement is satisfied since 'that is true' and 'it is true' clearly occupy sentential positions; furthermore, unlike 'so' and 'yes', they are generally available in that (roughly) they can occupy any such position.

For cases of the 'repetition' variety, the following holds: when 'that is true' or 'it is true' are used significantly, they are used in the context of some statement being made or considered. Further, as Austin 1950 and Strawson 1950 recognized, 'that is true' and 'it is true' are usually thought to be intimately connected with the statement, or – as we prefer to put it – with the sentence used to express the statement. For instance,

Bill: There are people on Mars. *Mary:* That is true.

John: Bill claims that there are people on Mars but I don't believe that it is true.

We claim 'There are people on Mars' can sensibly be regarded as the anaphoric antecedent of 'that is true' and 'it is true', and therefore as the sentence for which they are 'standing in'. Since this holds generally (i.e., for any declarative sentence and not just for the sentence 'There are people on Mars'), 'that is true' and 'it is true' are generic in the appropriate sense, and can be thought of as prosentences of laziness. This account differs radically from the standard one since on (what we have called) the subject-predicate account 'that' in 'that is true' is always treated separately as referring by itself to some bearer of truth, whether it be a sentence, proposition, or statement. On our account crossreferencing – without separate reference of 'that' – happens between the *whole* expression 'that is true' and its antecedent.

The only other feature of prosentences that needs checking is whether 'that is true' or 'it is true' can be used quantificationally. We have not

found a case where ‘that is true’ is used quantificationally, but ‘it is true’ obviously can be so used, as in our earlier example

4". For each proposition, if John said that it is true, then it is true.

with instances like

4*. If John said that Kate is a coward, then Kate is a coward.

Of course there are many other examples.

Since ‘that is true’ and ‘it is true’ occupy sentential positions, since they are used anaphorically, both of them as prosentences of laziness and ‘it is true’ quantificationally, since they are generic, and since the notions of antecedent and anaphoric substituent are appropriate to them, they can both be said to be prosentences. (Following Prior 1971 we note that Wittgenstein 1953, though not of course using our terminology, was alert to the fact that certain sentences, including ‘That is true’, are used as prosentences; see Part I, 134–136.)

2.4. *English**

So some uses of ‘it is true’ and ‘that is true’ (to avoid duplication, henceforth we’ll often just say ‘that is true’) are prosentential, but we are after bigger game than this. In the spirit of Ramsey our claim is that *all* truth talk can be viewed as involving only prosentential uses of ‘that is true’. In order to support this claim we are going to have recourse to a second artificial language, but this time one which is a *fragment* of English instead of an extension like English + ‘thatt’. English* is not to contain the truth predicate in any interesting sense, but English* *does* have the prosentences ‘that is true’ and ‘it is true’; however, these are to be *treated as* atomic prosentences like ‘thatt’. That is, the truth predicate will not be isolable: sentences such as ‘What Barbara said is true’ do not belong to English*. And the verb ‘is’ in ‘that is true’ cannot be modified.

English* as so far (partially) defined will certainly not be able to accommodate all of English truth talk, in exact analogy to the deficiency of the Ramsey language with propositional quantifiers: since English* does not permit us to tinker with the interior of prosentences, it needs some special connectives to get the effect of tensing, modalizing, and so on, in the modification cases – just like the Ramsey language. Since we want English* to be a proper fragment of English, we will not, however,

allow ourselves to add some funny connective symbols; instead, we will draw from English itself such connectives as

it was true that, it will be true that, it is possible that, it might be true that, it is necessary that, it is not true that, it is false that,

and so forth.

Upshot: in English* 'true' can only be used *either* in one of the pro-sentences 'that is true' or 'it is true' *or* in a connective employed in order to meet difficulties in connection with modification. With respect to the latter, we'll hyphenate (e.g., 'it-is-not-true-that') in order to reenforce our commitment to have the truth predicate non-isolable in English*.

Now we can sharply state a principal claim of our pro-sentential theory of truth: English can be translated without significant residue into its fragment English*. And a further claim is that such a translation is perspicuous and explanatory.

It should be pretty clear from our discussion of translation from English into the Ramsey language how English* paraphrases of truth locutions will go, but there are some nuances to be observed; so let us briefly gather together a sample of cases.

Some of the disappearing cases (§2.1) could be treated as in the translations into Ramsey by making the truth predicate disappear entirely, but the treatment of others can be *improved* in respect of explanatory power by invoking the pro-sentential features of English*. Consider

25. It is true that snow is white, but it rarely looks white in Pittsburgh.
26. That there have been cases when the IRA has been responsible for unwarrantedly brutal acts is true, but that none of their actions can be justified, is not true.

The usual reason for using a truth predicate in contexts like 25 and 26 is to explicitly grant a point, and then by means of a quick 'but' go on to ask that not too much be made of the point. If the antecedent 'Snow is white' is obvious enough, one could just say

27. That's true, but it rarely looks white in Pittsburgh.

instead of 25. We resort to the likes of 25 or 26 when the required antecedent is not at hand, or if it is at hand, because we think the audience

needs to be reminded what it is. In English* we might get this effect by means of a complex speech act consisting of an explicit statement of the antecedent plus the I-grant-your-point bit, i.e., plus a prosentence. Thus

- 25'. Show is white. That is true, but it rarely looks white in Pittsburgh.
- 26'. There have been cases when the IRA has been responsible for unwarrantedly brutal acts. That is true, but it-is-not-true-that none of their actions can be justified.

Granting somebody's point is a very paradigm of prosentential talk. So we think it illuminates the pragmatics of 25 and 26 to think of them as English versions of the English* 25' and 26'.

So much for the disappearing cases. The simple repetition cases are already in English* but we want to suggest that reflection upon English* deepens our understanding of these cases. When an English* speaker says 'That is true' in response to 'Snow is white' as in the repetition case 3 above, his 'That' is not an independently referring pronoun, denoting the statement that snow is white, and his 'is true' is not a property-expressing predicate used to ascribe truth; it is a prosentence of laziness, anaphorizing to 'Snow is white' and thereby, on this occasion, meaning that snow is white. Of course this utterance of 'That is true' is not, as Ramsey may have supposed, literally replaceable by another utterance of 'Snow is white', since that would be plagiarism. 'That is true' like *all* anaphors needs an antecedent, and its use acknowledges that an antecedent is there to be had.

Translation of quantificational cases is straightforward, but not without interest. For example,

4. Everything John says is true

gets read into English* as

- 4". For each proposition, if John said that it is true, then it is true.

It is understood that on the prosentential account the instances of 4" in English* are *not* such as

If John said that that snow is white is true, then that snow is white is true,

which construes the 'it' as the anaphor (a pronoun); rather, its instances are such sentences as

If John said that snow is white, then snow is white,

which takes 'it is true' as the anaphor (a prosentence) and 'snow is white' as an anaphoric substituent.

In order to get the effect of the indirect reference in

9. Goldbach's conjecture is true

in English* we need to invoke a connective like 'that _____ is-the-same-conjecture-as-that _____', which we abbreviate by ' \rightleftharpoons ', and we also need some device to keep straight the cross-referencing of our quantificational prosentences, on pain of syntactical ambiguity. Perhaps we should have an infinite stock of prosentences 'it is true', 'it is true₁', ..., paralleling the infinite stock of distinct propositional variables in the Ramsey language, plus a bunch of quantifying expressions with subscripts (for instance). Then we would say

9". There is a proposition₁ such that Goldbach conjectured that it is true₁, and for every proposition₂ if Goldbach conjectured that it is true₂ then it is true₁ \rightleftharpoons it is true₂, and it is true₁.

That's messy, but the idea is obvious enough.

We remark that adding these additional prosentences extends English*, but that nothing is going on here that is not already necessary for reading ordinary first order quantifications into English. That is, unvoiced opinion to the contrary notwithstanding, we point out that no one has ever provided a thorough translation of first order quantification into English *as it is*, as opposed to English with a denumerable family of distinct pronouns and quantifiers.

Lastly, we translate the various modification cases by utilizing the various connectives provided for this purpose. For example,

That's not true (or: that's false)

goes into

It-is-not-true-that that is true (or: it-is-false-that that is true)

which, though awkward, has the merit of suggesting that the point of 'it's false' in English is not primarily to describe or characterize but rather to provide us with a way of asserting the contradictory of any given

sentence, and with anaphoric overtones when we want them. This analysis, incidentally, ties in with Strawson's observation that we tend to use 'not true' rather than 'false'; our explanation is that the former is closer to the prosentence 'that is true.'

If we consider an example of tensing such as

That was true

we run into the difficulty that

It-was-true-that that is true

is not grammatical English; the interior sentence must also be past tensed. The same does not hold for the future:

That will be true

can grammatically go into

It-will-be-true-that that is true.

We think this rule of English not worth bothering about and continue to think of English* as a fragment of English. (Alternatively, we could complicate our description of English* by adding 'that was true' as a prosentence to be used only in certain contexts; namely, contexts requiring the past tense because of an already present past tense, so that the 'was' would have no semantic force whatsoever.)

The upshot is that ordinary English truth talk can be thought of as prosentential precisely as English* truth talk is prosentential. But in English we have different conventions for achieving the effects that we achieved in English* by combining prosentences with connectives. In English we are permitted to rewrite the interior of our prosentences in order to get the effect of tensing, modalizing, negating, and so on. Instead of the English* 'It-might-be-true-that that's true' we can say 'That *might be* true'. And instead of the English* 'It-is-false-that that is true' we can say 'That is false' – in this case rewriting the 'true' part of 'That is true' instead of the 'is' part. Finally, English permits us to form elliptical and other 'shorthand' locutions like 'Everything John says is true' instead of the full-blown "Everything (or 'Every proposition') is such that if John says that it is true then it is true". But aside from these grammatical differences, English truth talk is just like English* truth talk.

So English truth talk is semantically and pragmatically like English* truth talk. The two languages have different grammatical conventions, but in English, as in English*, the truth predicate does not play a property-ascribing role. Truth, to coin a phrase, isn't a real predicate.

2.5. 'True' in Connectives

The reader will have noticed a certain tension in our argument: on the one hand we characterize ourselves as offering a prosentential theory of truth, while on the other we keep honest by noting that English* 'true' is allowed not only in prosentences but also in connectives. In fact we think we can by and large both have and eat our cake by explaining these connective uses of 'true'; without however explaining them away. There are two quite different contexts in which the connectives crop up: when the argument of the connective is a prosentence, and when it is not.

The first sort emerges from the modified quantificational cases like 15, or a modified indirect reference case, or a modified repetition case like

13. *John*: Rome is the center of the known world.
 Bill: That's not true, but it used to be true.

which we treat as a paradigm for all. 13 of course goes into English* as

- 13". *John*: Rome is the center of the known world.
 Bill: It-it-not-true-that that is true, but it-used-to-be-true-that that is (was) true.

Here we argue that the *extra* 'true' in the connectives is from a philosophical point of view redundant, as can be seen from the following consideration: English* would have been equally illuminating for these cases had we allowed 13 as it stands to be part of English*, with the proviso that its grammar, its 'deep structure', is to be understood in terms of modified prosentences. That is, we might have allowed 'that is not true', 'it used to be true', and other cases of modified prosentences as already in English*, with the understanding that their 'form' is, in sort of MIT lingo, PRO+MOD; just as MIT treats 'liked' as 'like+PAST'. (We remark in passing that there are complexities here, as nearly everywhere in linguistics; e.g., 'that was true' is sometimes to be understood *de dicto* as in 'The president is a Texan – that was true, but...' and sometimes to be understood *de re* as in 'The president is in California – that was true,

but ...'.) From the point of view of these cases, then, our only reason for putting connectives in English* was to allow ourselves to unsophisticatedly let deep structure appear on the surface.

Cases in which the argument of the connective is a proper sentence get a somewhat different treatment, and indeed these cases divide into two. In the first place there are the simple modified disappearing cases like

It-is-not-true-that Rome is the center of the known world,
but it-used-to-be-true-that Rome is (was) the center of the
known world.

Here we think that the work of 'true' is to be semantically redundant while providing pragmatic punch by way of anaphoric overtones, as in our treatment above of the unmodified disappearing and repetition cases; consequently, though we make no effort to rid ourselves of 'true' in these connectives in these cases, we think the spirit remains prosentential. And although 'true' is irredundant in such cases, this should not be taken as implying that it functions ascriptively (see §4.9).

In the second place, we think – perhaps 'conjecture' would be more accurate – that there are cases falling under the rubric 'modified disappearing' in which there is no way to eliminate 'true' without semantic loss. Example: by the *contradictory* of a sentence we mean one which has exactly the opposite truth conditions; and we conjecture that there are in English sentences for which one cannot find an unambiguous contradictory without using a connective made from a predicate, such as 'it is not true that'. Whether or not one agrees that this is so depends heavily on the rest of one's views on English; e.g., depending on one's theory of indicative or subjunctive conditionals, it will or will not be easy to find contradictories for 'if the switch is up then the light is on' or 'if Mary were to leave him then Paul would expire'. Or contradictories of various sentences on this page. Let us assume however that our conjecture is correct; we then have the task of explaining why the same 'true' which crops up in prosentences is also required to form connectives which, while at least apparently not performing any prosentential or quasi-prosentential role, seem to be essential in forming the contradictory (for example) of certain recalcitrant sentences. The best we can do as of this writing is to tell a story: in the beginning there were prosentences, and the people in those days used them in a lazy way, even in a modified lazy

way, and some amongst them in redundant connectives in a modified disappearing way when they wished to endow their speech with presentential overtones. Soon it came to pass that they saw the utility of these conventions and transferred them to cases in which their use was not redundant; and so it is unto this very day.

2.6. *English and English**

If (as we claim) English* can do everything English can, and more perspicuously at that, why is English English and not English*? Precisely, why are the presentences of English *not* atomic as in English + 'thatt' but rather grammatically decomposable into a subject and predicate, and why in English is 'true' allowed outside of connectives and presentences?

Our short answer is that English loves the noun-plus-verb-phrase (or N + VP, as MIT says) construction, and that vast numbers of its grammatical features cater to this love. For example, in English modal, tense and other changes in a sentence are typically made by some modification of the verb; e.g., the change from 'There are people on Mars' to 'There might be people on Mars'. An advantage of having decomposable presentences is that their verbs are, as those of other sentences, accessible to modification, so that changes can be made in presentences in the standard manner:

That might be true.

In contrast (as we have already indicated) if presentences are not decomposable, then connectives must be included in English to do the jobs (e.g., modalization) usually done in English by verb modification:

'It-might-be-true-that that is true', or 'Maybe that is true'.

A special case of this arises when a presentence is used to ask a question as in

Mary: Snow is white. *Ann*: Is that true?

The change from the presentence 'That is true' to 'Is that true' exactly mirrors the change from 'Snow is white' to 'Is snow white' which is, roughly, another way of asking the same question. Had there been available only atomic presentences, then 'Is that true?' would have had to be rendered as the composition of a presentence plus a functor which takes as input a declarative sentence and yields as output a yes-no question. So,

given the way we do things in English, the subject-predicate structure of 'that is true' provides great flexibility.

Similarly, because there is a separable truth predicate we can, when we wish to agree with all that someone else has said, use an already available nominalization (e.g., 'what John said'), and then restore the sentential character of what is said by means of the innocuous truth predicate, giving

What John said is true,

which after all is much less clumsy than the English*

For each proposition if John said that it is true then it is true.

Such use of the truth predicate to take us from a nominalization to a sentence without semantic addition is further discussed in Belnap 1974.

So we are delighted to be speakers of English rather than English*, treasuring exceedingly the easy grammatical availability of 'true'; but let us not be blinded by 'mere' grammar.

3. PROSENTENTIAL THEORY: OBJECTIONS

It seems to us that the prosentential theory is of some philosophical interest and we shall try to explain where this interest lies. But first we need to consider some complaints our theory will doubtless have to face.

3.1. *Nonobjections*

Though we are supposed to be dealing with objections, it seems worthwhile to lead off by briefly considering how our theory avoids certain objections which we raised against the Ramsey theory.

Indexicals. Since our translation of the repetition cases leaves them as they were, there is simply no basis for a comparable objection. But the problem is relocated into the semantics of the fragment English* of English: when John says 'I am greedy' and Mary replies 'That is true', as in the indexical repetition case 14, Mary's remark does not – as we've already noted – mean that *she* is greedy. The semantics for English* will need to have rules governing this use of prosentences, rules specifying how 'That is true' can make the same assertion as 'You are greedy' when

its antecedent is 'I am greedy'. The simple-minded formula "prosentences of laziness assert what their antecedents assert" has to be refined, since in one sense Mary *is* asserting what John asserted, while in another sense she isn't. And we note the *advantage* of this relocation: the problem is one for the semantics of proforms *generally* and is in no way specific to prosentences or truth talk; e.g., there is the same or a similar problem with respect to the anaphoric 'he' in

John: My son has a wart on his nose. *Bill:* He is the image of his father.

or 'it' in

Lucille: You dance well. *Fred:* It's news to me.

Modification. We have already supplied English* with some connectives to handle the verb modification problem, so again there is no basis for an objection unless it is felt that some of our connectives are strained or unenglish, or that we leave open just which connectives are needed. We certainly agree with the spirit of the last part of the objection, but doubt that it affects our proposal to see truth talk in a new light. For example, if it is objected that 'the same conjecture' connective of 9" awaits explanation, we hasten to agree, but add that those who set themselves the task of analyzing language must also account for such usage. Our claim is that truth doesn't complicate the issue: we believe that we can incorporate within the prosentential theory any account of such expressions which is thoroughly adequate for the rest of English without the truth predicate.

Aboutness. Our response to this objection was given above.

Pragmatics. We take it that the prosentential account gets the pragmatics right as the Ramsey translations do not, especially with respect to what we have dubbed 'plagiarism'.

What price redundancy? Not for a minute have we tried to show that 'true' is redundant; in fact we have continually urged the importance of the anaphoric role of *prosentences* involving 'true'. On the other hand we have argued the redundancy of a *separable* truth predicate, but since English* is a proper fragment of English, it cannot be objected, as it was to Ramsey, that we have *added* something to English in order to make the separable truth predicate redundant. We'll return to the question of redundancy in §4.9.

Grammar. Since English* is a fragment of English, no objection comparable to the alleged ungrammaticality of propositional quantifiers can get off the ground; though of course we think that objection is anyhow unsound.

3.2. *Quotation*

Turning now to real objections, probably the most obvious line of attack on our theory is that it ignores cases where we predicate truth of *named* sentences – e.g., quoted sentences. *Surely* truth is being ascribed in a perfectly straightforward way in a statement like

27. ‘Snow is white’ is true.

We could take a Ramseyish stance here and insist that 27 means that snow is white. But again it seems to us that this obscures certain rather important pragmatic features of the case. These features are more obvious when a foreign language sentence is under consideration, so imagine that a German representative has said “Schnee ist weiss” in the course of some debate, and during a later discussion of the debate we say

28. If ‘Schnee ist weiss’ is true, then....

Why 28 instead of

If it’s true that snow is white, then....

or

If snow is white, then....

There are several possible reasons. By quoting the German sentence we make it quite clear that it is the German representative’s claim that we’re entertaining. Or if no elegant translation is available, quoting might enable us to preserve the original character of the remark. And similarly, if no elegant translation is available, or even if there is one but we’re not sure what it is, by quoting we can consider what was said without worrying about a translation. Or ignorant of German grammar, we might resort to saying “‘Schnee ist weiss’ *must* be true; after all, Fritz has said so”, since we know how to modalize the verb in ‘is true’ but we don’t know how to modalize the verb in ‘Schnee ist weiss’.

These pragmatic aspects of the use of quotation *cum* truth predicate

suggest, as a first approximation, an account along the following lines. Suppose English* has a display-former ‘Consider: _____.’ One displays or exhibits a sentence by writing, say, ‘Consider: snow is white’. We think English*-speakers could get the pragmatic effects of quoting and saying ‘is true’ by performing the complex speech-act of uttering

29. Consider: snow is white. That is true.

Why not think of “‘Snow is white’ is true”, in English, as working just like 29 in English*? Maybe one reason not to think of it this way is that quotation is generally taken as involving *reference to* sentences or other expressions; quotes are name-forming functors. Our suggestion departs from this tradition. Of course we’re talking here about quotation as used in ordinary English, not quotation as used in some formal or quasi-formal language. Maybe quotation in ordinary English should *not* be thought of as a matter of referring to expressions. We don’t want to push this any harder now. It’s food for thought, anyway.

A final morsel: though we can understand and have accounted for 27 and 28, we doubt that sentences such as these are ever used in ordinary English, an absence possibly explained by their pointlessness in the context of the flexibility of our language. With respect to 28, a philosopher’s insistence that the German sentence be quoted probably derives from a false belief that speakers of English can only mention but never use German sentences as part of their discourse. But as a matter of descriptive fact, this is not an accurate account of fluent English: we do not have such restrictions on the usage of sentences belonging to other languages; although, of course, if it is not expected that the audience will understand the sentence in question, then a translation should usually be provided. So in our German representative case, if we want either to preserve the character of the remarks, or if we haven’t an easy translation, then what we do is say

If schnee ist weiss, then...;

or, if we want to be more careful about acknowledging an antecedent, we say

If it’s true that schnee ist weiss, then...

thus providing a problem for semanticists.

3.3. *Tunnel Vision*

Do we like the presentence account of truth because we suffer from tunnel vision? The charge goes like this: the suggestion that ‘that is true’ and ‘it is true’ function presententially looks fine so long as you pay no attention to other, grammatically similar locutions. But if you *do* look at a somewhat broader slice of English, you’ll notice usages like the following:

30. *John*: There are seven-legged dogs.
 Mary: That’s surprising, but it’s true.
31. *John*: The being of knowing is the knowing of being.
 Mary: That’s profound, and it’s true.

Take 30, for instance. Surely it is obvious that the first conjunct of Mary’s reply, ‘that’s surprising’, is in no way presentential. It is a *characterization*, an ascription of the property *being surprising* to what John said. The same goes for ‘That’s profound’ in 31. The proper analysis of ‘That’s profound’ would treat the pronoun as referring demonstratively to John’s statement, while ‘is profound’ expresses a property Mary intends to ascribe to that statement. Now wouldn’t it be simpler to treat ‘it is true’ the same way? Why construe ‘it is true’ as a presentence when the proper construal of other analogous locutions involves pronouns like ‘it’ and ‘that’ referring to statements or propositions, and properties being ascribed to such things? If one motivation for the presentence account of truth is to avoid having our truth talk commit us to the existence of propositions as ‘bearers of truth’, surely that motivation is undercut by the fact that we need to analyze ‘that’ in ‘That is surprising’ as referring to a proposition (or something proposition-like, such as a statement in the what-is-said sense of statement). Our talk is full of demonstrative pronominal reference to things other people say. Why complicate matters by treating ‘That’s true’ and ‘It is true’ differently?

Several things need to be said in reply to this charge. First of all, it simply isn’t true that the pronouns in ‘That’s surprising’ and ‘That’s profound’ refer to statements in the what-is-stated, or ‘propositional content’ sense of statement. What kind of thing is surprising? Facts, presumably, or events or states of affairs. The fact that John visited us was surprising, John’s visit was surprising. Statements or assertions can be surprising, but only in the act, as opposed to the object, sense of

statement or assertion – *statings* or *assertings*. One can say ‘That there are seven-legged dogs is surprising’, but only because this can mean that the fact that there are seven-legged dogs is surprising. And one can say ‘What he is saying is surprising’, but only because this can mean that the fact he is reporting is a surprising one, or else that the fact that he is saying what he is saying is surprising. In 30 what is said to be surprising is the fact that there are seven-legged dogs. But the fact that there are seven-legged dogs is not what is said to be true (on the assumption that ‘it’ in ‘It’s true’ refers to something which is being described as ‘true’). The fact that there are seven-legged dogs, the state of affairs *there being seven-legged dogs*, cannot be ‘true’.

And propositions are not profound. Certain kinds of *acts* can be profound – insights or thoughts, for instance. *Statings* that formulate profound thoughts or insights can be profound, so in the *act* sense of statement there are profound statements. But statements in the *act* sense are not what are supposed to be true. The upshot of all this is that even if we construe both pronouns in ‘That’s surprising, but it’s true’ (for instance) as referring, they must refer to different things. One can make it appear that they refer to the same thing by noting that each can be replaced by some expression like ‘that there are seven-legged dogs’, but this is so precisely because the expression in question is ambiguous between ‘the fact that there are seven-legged dogs’ and ‘the proposition that there are seven-legged dogs’. So a theory that treats both ‘that’ and ‘it’ in ‘That’s surprising, but it’s true’ as referring demonstratively is not as neat and economical as it first appears. Moreover, since the things that are surprising or profound are not the same as the things that are (supposedly) true, it has not been shown that reference to propositional contents is involved in ‘That’s surprising’ and the like, and the let’s-get-rid-of-reference-to-propositions motivation for construing ‘It is true’ pro-sententially has not been touched.

Perhaps there are other locutions where it *is* plausible to claim a pronoun is used to refer to a proposition. Consider

32. *John*: Some dogs eat glass. *Bill*: I believe it.

Mary: You believe it, but it’s not true.

It is arguable that propositions, the very entities usually taken to be bearers of truth, are the objects of belief. We are not at all sure about this,

but for now we are prepared to grant that *if* 'it' in 'You believe it' is construed as a separately referring pronoun, its referent will have to be a proposition. And consequently, given the desire to treat the two occurrences of 'it' in Mary's statement as coordinate, we have the makings of an objection to our theory. But why can't we give a very different account of 'You believe it'? We suggested above that 'it is false' works like a prosentence prefixed by a negation connective, like the English* 'It-is-not-the-case-that it is true', so that the semantical connection between an utterance of 'It is false' and the statement denied is one of prosentential anaphora, not pronominal reference. We are inclined to think a parallel treatment can be given for sentences like 'You believe it'; the idea is that it works like a prosentence prefixed by a non-truth-functional connective – i.e., works like 'You-believe-that it is true', so that the semantical connection between the utterance and its antecedent statement is again prosentential anaphora, not pronominal reference. English permits us to use a special predicative phrase ('is false' in 'It is false' or 'you believe' in 'You believe it') instead of a special connective and an untouchable prosentence in the style of English* ('It-is-not-true-that it is true', 'You-believe-that it is true'). The English grammatical convention is doubtless motivated by considerations of convenience and flexibility. But the crucial point is that in neither 'It is false' nor 'You believe it' need 'it' be analyzed semantically into a referring pronominal subject with a predicate expressing a property which the speaker means to ascribe to the referent. We cannot consider all the ramifications of this approach now (see also Prior 1971), but it seems plausible. If it is plausible, then we still have no reason to think pronominal references to propositions is a commonplace in ordinary English, or even that it happens at all.

There is another sort of 'tunnel vision' with which we might be charged; namely, we haven't associated 'that's true' with 'that's right' and we haven't contrasted it in an Austinian way with 'that's exaggerated' and its cousins. A child is counting blocks on the floor and eventually looks up and says

I have fifteen blocks.

You remark

That is right.

One might comment that you could just as well have said 'That is true'. Should expressions like 'That is right' and 'That is an exaggeration' be prosentential? But isn't the point of saying 'That is right' to remark on the fact that the child has counted correctly, that something has been well done? On some occasions you can of course do this by saying 'That is true' – in agreeing, you applaud – and to this extent there is considerable overlap. Unlike Austin 1950 we think, however, that even though sometimes one locution appears to do as well as the other, 'That is exaggerated' and 'That is right' are crucially different from 'That is true', since the point of each is different. Expressions like 'exaggerated' and 'right' fit where certain skills and techniques are in question, for example counting, or possibly language skills. E.g., when you draw a peninsula longer than it should be we say your map exaggerates certain features, and when a child learning language says 'cow' when pointing to a cow we can say the child got the word right. But since there is no clear line to be drawn between the learning of language and simply using it, there must be tremendous overlap between 'That is right' and 'That is true'.

3.4. *'That' as the Anaphor*

Can't you do everything you want, it might be objected, by taking 'that' in 'That is true' as the anaphor? Surely this would, at the very least, simplify the work of your colleagues the linguists. In replying to this objection a distinction has to be made: does or does not taking 'that' separately as an anaphor commit us to taking it as referring, presumably to a proposition, statement, or sentence, and to taking the separable 'is true' as characterizing? Suppose first it does; then we certainly could not accomplish our objectives, one of the principal ones being the demonstration that truth talk is wholly intelligible without truth bearers or truth characteristics. Of course this is not to argue against the truth-bearer cum truth-characteristic theory or against the theory that 'that' in 'That's true' refers; such a discussion is well beyond the scope of a paper devoted to the presentation of an alternate theory.

Suppose however we entertain the possibility of viewing 'that' in 'That's true' as the anaphor but without commitment to a referential construal of 'that' or a characterizing construal of 'is true'; after all, it has often enough been argued that other nominal constructions are non-referring and other predications non-characterizing. Such a theory, we think, might well be

viable; it might even explain how the philosophical thrust of our presentential theory harmonizes with the linguistic details of English grammar. But we suspect it will not be easy to state such a theory clearly, and that even if it is stated the presentential theory will be useful in rendering it intelligible. In any event further judgment on such a theory must await its appearance.

4. CONSEQUENCES AND APPLICATIONS

So much for objections; now it is time to look at the philosophical payoff we've been promising.

4.1. *Pragmatics*

As we argued in the course of discussing the disappearing and repetition cases in the context of English*, the presentential theory of truth helps explain many of the pragmatic features of our use of 'is true'. We've already harped on this a good deal – we've claimed, for instance, that the absence of plagiarism on John's part in the exchange

3. *Mary*: Snow is white. *John*: That's true.

can be understood if we view 'That's true' as a presentence of laziness that *has* to anaphorize to an antecedent; and our treatment of 25 and 26 via 25' and 26' offer further illustrations.

Strawson 1950 has drawn attention to such uses of the truth predicate as: granting a point ('that's true, but...'), considering a point ('if that is true, ...'), expressing agreement, and so on. Our construal of truth talk as presentential helps explain why 'is true' does all these jobs so well. We repeat: in using a proform one makes it explicit that nothing new is going on, that (in the case of pronouns) one is not talking about anything new, and that (in the case of presentences) one is not articulating anything new; anaphoric presentences *must* have antecedents, so using a presentence of laziness inevitably involves acknowledging an antecedent – the core pragmatic feature of granting points, expressing agreement, and so on.

Speaking of Strawson, in the course of criticizing Austin's views on truth, he remarks

It is of prime importance to distinguish the fact that the use of 'true' always glances backwards and forwards to the actual or envisioned making of a statement by someone, from the theory that it is needed to characterize such (actual or possible) episodes.

We concur, and our conception of truth talk as prosentential provides precisely the framework needed to make Strawson's point stick, for *every* proform glances. Furthermore, our theory even accounts for endemic failure to make the distinction Strawson urges as of 'prime importance': reference can involve either (or both) anaphoric reference or independent reference, and since people have not seriously considered the former, the possibility that the relation between 'that is true' and its antecedent may be that of anaphoric reference has not occurred to them. In ignoring anaphoric reference philosophers have assumed that the reference involved in 'that is true' is, through 'that', like that between a pronoun (say 'she', used independently) and its referent (say Mary). Once this picture dominates the need for bearers of truth begins to be felt; and it is then but a small step to the claim that in using 'is true' we are characterizing these entities.

4.2. 'That' as a Prosentence

Given an account of English which includes the grammatical category of prosentences one might find it useful to look at certain exceptional uses of words or phrases in terms of prosentences. Whereas, for example, 'that' is generally used as either an anaphoric pronoun or an independently referring pronoun, it might be that sometimes it is used prosententially, as the following example suggests.

32. *John*: Give me an example of a truism. *Mary*: Right is right.
 John (to Fred): Give me an example of a truism. *Fred* (nodding toward Mary): That.

The problems raised by Fred's use of 'that' in 32 are a bit tricky. It seems to us that there are two semantical approaches available, neither of which treats 'that' as an independently referring pronoun. We might view Fred's remark as elliptical for 'That is a truism', and view this on analogy with 'You believe it', as tantamount to a prosentence prefixed by a connective – 'It-is-a-truism-that that is true', where the prosentential fragment 'that is true' anaphorizes to Mary's utterance of 'Right is right'. But this approach has a serious drawback, a drawback shared by the account that construes Fred's utterance of 'That' as elliptical for 'That is a truism' or 'That is an example of a truism', where the pronoun is taken as referring independently to Mary's remark. To say that Fred's utterance of

'That' is elliptical for some such statement as 'That is a truism' is to say that Fred is *asserting* something, but he isn't. He is doing what he was asked to do – giving an example of a truism. If that isn't clear, suppose John had told Fred to give an example of a truism but not to make any assertions. Even in that case, Fred would have done what he was told to do by saying 'That', with an appropriate indication of Mary's remark.

Perhaps the best account, in view of this pragmatic feature of the case, is to construe Fred's 'That' as a prosentence which gets its semantical content from its anaphoric antecedent (Mary's 'Right is right'), but which does not have assertional force. What Fred does is *like* repeating Mary's speech act, but without plagiarizing. Mary 'displayed' the sentence 'Right is right' in order to give an example of a truism. By saying 'that', and indicating Mary's speech act via Mary, Fred achieves the effect of displaying 'Right is right' himself, but his use of a prosentence rather than simply repeating Mary's performance acknowledges the fact that she was there first.

This raises some interesting questions, which we can only touch upon here. Fred's prosentential use of 'that' carries its antecedent's semantical content but adds no assertional force of its own: Mary's utterance of 'Right is right' was not an assertion that right is right, and neither was Fred's utterance of 'that'. Is it generally true of prosentences that they borrow, anaphorically, the meaning or semantical content of their antecedents and the illocutionary force of their antecedents as well? Perhaps prosentences depend upon their contextual antecedents for meaning *and* illocutionary force. Although 32 supports this view, other examples do not. Consider

Mary (arguing with somebody): Right is right.

John (to Fred): Give me an example of a truism.

Fred (indicating Mary): That.

Mary *asserts* that right is right, and Fred uses her assertion as anaphoric antecedent for his 'display' of a truism, but although Mary's remark has assertional force, Fred's does not. Or consider

John: Give me an example of an asinine statement.

Fred: Whales aren't fish. *John*: But *that's true*.

In this case John's prosentential utterance, 'That's true', has assertional force – he is asserting that whales aren't fish – although its antecedent does not. Perhaps the prosentence 'That's true' always has assertional force, while 'that' used prosententially, never does. But this terrain obviously needs further exploration.

4.3. *Propositional Variables*

We can now return to our account of the grammar of bound propositional variables which in the Ramsey language occupy sentential positions. We shall argue that such variables have a prosentential character, and from this fact it becomes obvious that they should not have a truth predicate attached to them. Thus we'll finally answer the question raised long ago as to whether Ramsey's language must for grammatical reasons contain a truth predicate. The points are briefly presented since the topic has already been treated in detail in Grover 1972. Our strategy, of course, will be to show how formulas containing bound occurrences of propositional variables can be read into English* – a fragment of English where there isn't a separable truth predicate.

4'. $\forall p$ (if John says that p then p)

comes over into English* as

4". For every proposition, if John says that it is true then it is true.

It should be clear from this sort of case that propositional variables and quantificational prosentences do similar jobs: they occupy sentential positions and they do the cross-referencing required of them. Thus quantificational prosentences can be used in place of bound propositional variables in the same way that pronouns can be used for bound individual variables, and vice versa. Propositional variables have, so to speak, a prosentential character. But notice that 4" is *precisely* 'the obvious candidate' for an English translation of 4' that we suggested (in §1.2) might seduce somebody into thinking the Ramsey language needs a truth predicate – as in

4". $\forall p$ (John said that $Tp \rightarrow Tp$).

But 4" is a perfectly acceptable reading of 4' into English, and what is more important, a reading into English* (where 'true' occurs only in

connectives and prosentences). So there is no basis at all for the claim that 4^{''} reintroduces a truth predicate, or contains a separately bound nominal 'it', or in any other way suggests that we need a truth predicate in the formal language; 4^{'''} is chasing the wrong point.

4.4. *Propositions*

According to one realist tradition we cannot have an adequate philosophical understanding of the world without recognizing that there are *propositions* – propositional contents of statements, beliefs and the like. Perhaps the most persuasive line of argument available to the realist goes like this: any acceptable semantical theory for English will have to postulate a range of abstract entities to serve as bearers of truth, objects of belief, and so on. Though certain details may differ from theory to theory, the general semantical treatment of such sentences as 'That snow is white is true' or 'Charley believes that snow is white' will construe the former as an ascription of truth to the proposition that snow is white, and the latter as expressing a relation between Charley and the proposition that snow is white. But what is expressed by (e.g.) 'That snow is white is true' is true, so there must *be* such a thing as the proposition that snow is white.

Now we have proposed a semantical treatment of English truth talk that never construes *any* sentences involving 'true' as involving reference to a proposition, or anything to the sort. Does this give us a way of replying to the realist, a way of undercutting his argument, by showing that at least one adequate semantics for English does not have to employ propositions as objects of reference in truth talk? We really aren't sure, but we'll make some tentative suggestions.

Even if our semantics for locutions about truth makes no use of reference to propositions, there is still the matter of belief-sentences and other psychological attitudes. Perhaps any acceptable semantics for English will have to analyze 'Charley believes that snow is white' as expressing a relation between Charley and a proposition, and perhaps not. There *are* other possibilities – we suggested a certain line in our reply to the tunnel vision objection (§3.3), or one might try an adverbial theory, for instance, construing 'that snow is white' as a complex adverb modifying a one-place verb 'believes', rather than as a complex nominal expression referring to a proposition. We cannot take a stand on such matters now (obviously), but suppose something like an adverbial theory *is* a viable alternative to

the more traditional reference-to-proposition account. Suppose, that is, that our semantics need not introduce propositions to handle *singular* belief-sentences (or wanting-sentences, or ...). Supposing all that – and it is a lot to suppose – have we got the realist boxed in?

Perhaps one can never do that, but one virtue of the prosentential account of truth is that *generalization* about belief and other propositional attitudes need not force us to introduce propositions into our semantical theory as objects of reference if they aren't already required by the semantics of simpler sentences. As an example, consider

33. Everything is such that if Charley believes that it is true, then it is true.

If 'it is true' in 33 is viewed as a quantificational prosentence rather than a combination of quantificational pronoun and truth predicate, there should be no temptation to think of English sentences like 33 as analogous to first-order quantifications with individual variables ranging over propositions. It is more nearly analogous to the propositional quantification of a Ramsey language, with variables in the grammatical category of sentences. Of course it still might happen that a semantical treatment of 33 somehow requires appeal to a domain of propositions, but we rather like the prospects of a semantics that construes 33 as, in effect, a substitutional quantification, where the truth of 33 is equivalent to the truth of all its substitution-instances ('If Charley believes that snow is white then snow is white', etc.). So if reference to propositions doesn't happen at the level of singular belief sentences, there is no reason to think commitment to propositions somehow emerges for the first time at the level of generalizations like 33.

While we take it to be a merit of the prosentential theory that it renders unnecessary the postulation of propositions for one of the usual reasons, we should point out that some abstract entities may need to be introduced somewhere along the line – not to account for the truth predicate, but to account for general language usage. For example, we wonder if it will be possible to provide a general theory of the anaphora relation without employing the notion of a propositional content. According to us, when somebody says 'Snow is white' and you say 'That's true', your utterance gets its *content*, its *meaning* from its anaphoric antecedent. We leave open the question of whether that rough- and-ready characterization of what

is going on in such cases can be made precise and comprehensive without appeal to some reification of the content or meaning of utterances. In such a case we would claim an illuminating relocation of the problem of propositions.

4.5. *Semantic Ascent and All That*

Quine 1970 has argued that a truth predicate is needed to obtain generality:

We can generalize on 'Tom is mortal', 'Dick is mortal', and so on without talking of truth or of sentences; we can say 'All men are mortal'. ... When on the other hand we want to generalize on 'Tom is mortal or Tom is not mortal', 'Snow is white or snow is not white', and so on, we ascend to talk of truth and of sentences....

Quine is right about this. We use the truth predicate to generalize, as in 'For every proposition, either it is true or it is not true'. But we disagree that such generalization requires reference to, or quantification over sentences or propositions, or that it involves a characterizing or property-ascribing use of the truth predicate. We think 'it is true' functions as a quantificational pro-sentence. We can tell because the generalization is available already in the truth-predicate-free fragment English* as 'For every proposition, either it is true or it-is-not-true-that it is true'. In this generalization 'is true' has a double role: first, it (or some cousin) appears to be needed in order to form a connective 'it-is-not-true-that' which can exhibit the common form of those sentences on which Quine wishes to generalize, and second 'it is true' functions as a quantificational pro-sentence, anaphorising to the quantificational expression 'for every proposition'. So we thoroughly agree with Quine that in English the word 'true' (or some cousin) is required for generalizing, and the pro-sentential theory explains why; but we do not think there is anything going on here that should be called semantic ascent.

A related point. Field 1972 suggests that the 'original purpose' of the notion of truth

was to aid us in utilizing the utterances of others in drawing conclusions about the world. ... In order to make such inferences, we have to have a pretty good grasp of (i) the circumstances under which what another says is likely to be true, and (ii) how to get from a belief in the truth of what he says to a belief about the extra-linguistic world.

Again we agree. But again none of this demands an ascriptive use of 'is true'. Suppose we decide that Charley's assertion that there was a foot of snow in Alabama is true, and we infer that there was a foot of snow in

Alabama. And for simplicity, suppose our grounds for thinking Charley is telling the truth is that everything Charley asserts under conditions *C* is true, and these conditions obtain. It might seem that we have here a paradigm of semantic *descent*, a ‘trans-level’ inference from the *truth* of the proposition that there was a foot of snow in Alabama, or the truth of the sentence ‘There was a foot of snow in Alabama’, to the conclusion that there was a foot of snow in Alabama. For instance we might inspect the preliminary reasoning

- 34. That there was a foot of snow in Alabama was asserted by Charley in conditions *C*.
- 35. Every proposition is such that if Charley asserts it in conditions *C*, then it is true.
- 36. That there was a foot of snow in Alabama is true

and figure it was a valid bit of argument because the expression ‘that there was a foot of snow in Alabama’ in 34 and 36 works like a canonical name for a proposition, while 35 has the force of quantification over propositions, with the ‘it’ functioning as a quantificational pronoun. Once we take this line, the further move from 36 to a non-semantic remark about snow in Alabama obviously has to be licensed by some principle that says you’re entitled to assert that it possesses truth.

But we think the logic of the situation is better represented by the following pattern of reasoning:

- 34'. Charley asserted in conditions *C* that there was a foot of snow in Alabama.
- 35'. Every proposition is such that if Charley asserted in conditions *C* that it is true, then it is true.

- 36'. There was a foot of snow in Alabama.

‘It is true’ in 35’ functions as a quantificational presentence, bound by the initial ‘every proposition is such that’. The reasoning is valid because something like universal instantiation on 35’ is valid, yielding ‘If Charley asserted in condition *C* that there was a foot of snow in Alabama, then there was a foot of snow in Alabama’. From this and 34’ we detach 36’. It does not seem to us that either of these moves qualifies as a trans-level inference in any philosophically exciting sense.

4.6. *Physicalism*

Field 1973 has suggested that Tarski's attempts to define truth predicates for various languages were motivated at least in part by a desire to promote physicalism, the metascientific principle that says every phenomenon in the world is a physical phenomenon, explicable, in principle, wholly in terms of physics (if not *our* physics, then a more sophisticated analogue which would still involve no primitive concepts that strike us as intuitively 'nonphysical', like *pain* or *gene*). Despite the claimed successes of the physicalist program represented by claimed 'reduction' of a wide range of biological phenomena to physical phenomena, and of chemical phenomena to physical phenomena, certain types of facts, or putative facts, have proved especially bothersome. Mental facts have received the most attention from physicalistically oriented philosophers, but semantical facts are no less problematic (the two classes may intersect in the case of 'thinkings' and the like). Among the recalcitrant semantical facts are facts about truth. It is easy to believe that there are in the world such facts, or states of affairs, as *it being true that snow is white*, or *John's having just said something true*, or '*Snow is white*' *being true*, just as there are such facts as *snow being white* and *John's having just felt a pain*. After all, we often say that something or other somebody has just said is true, and we know what we are talking about. What could be more obvious than that people sometimes say things that are true? And what could be more obvious than that when we say 'That's true' in response to Charley's remark that snow is white, we are reporting (and correctly reporting) that a certain state of affairs obtains – the state of affairs *that snow is white being true*? That there are such states of affairs in the world is a pretheoretical datum provided by the most elementary reflection on what we say and what, intuitively, we are right in saying. But how can these semantical states of affairs, involving the *truth* of statements, be understood, explained, predicted in terms of physics? What kind of *physical* fact is the fact that some statement of other is a *true* one?

As Field points out, the physicalist can take either of two approaches. He can admit that there really are such facts in the world and show how they are, despite appearances, really physical facts. Or he can deny that there really are such facts, he can treat them the way he would treat such putative facts as *Martha the Witch having cast a spell on Charley*. Tarski,

according to Field was attracted to the first approach. A physicalist armed with the prosentence account of truth can try the second. He can insist that when we think we are (correctly) reporting the existence of one of these mysterious facts we are just buying in on a bad semantics for our truth talk. We are supposing, for instance, that the reply 'That's true' to the remark that snow is white serves to report that the statement that snow is white is a true one, and thus serves to report a fact of the form: such-and-such being true. But that is not the semantical role of 'That's true'. The only fact reported by 'That's true' in this context is the fact of snow being white, and that is no special headache for the physicalist.

Of course philosophers can come along and invent a property of 'truth' that can be ascribed to sentences or statements, and they can stipulate that certain forms of words (like 'That statement is true') are to have the technical use of making such ascriptions. They can construct philosophical theories which by design permit us to ascribe this property of truth to things, and thereby report the existence of facts like '*Snow is white*' being true, where this is explicitly technical, non-ordinary discourse. How the physicalist deals with these putative semantical facts depends on the details of the philosophical theory postulating such facts.

Perhaps the theory will provide an explicit, stipulative definition of its truth property in nonsemantical terms. For example, the theory might include a Tarskian definition of a truth predicate for some fragment of a natural language, yielding a nonsemantical equivalent of the truth predicate that functions as a stipulative *definiens*, not just as an extensional equivalent for a truth predicate understood as expressing some antecedently grasped 'pretheoretic' concept of truth. In that case the physicalist might well agree that statements of the theory ascribing truth to things do indeed report facts that really are in the world, but not mysterious irreducibly semantical facts.

Or perhaps the theory won't provide an easy way of eliminating 'is true' in favor of nonsemantical stuff, perhaps the truth-ascriptions that can be expressed in the theory's language will be reports of semantical facts that are prima facie nonphysical, with no obvious way to explicate them physically. In that case the physicalist can ask what it is that this theory accomplishes that could not be accomplished by a theory that uses a more physicalistically respectable truth predicate. If the theory does serve some purpose that is important enough and that could not be served if the

truth predicate were explicitly defined in nonsemantical terms, then the physicalist had better start to worry. But it is hard to see what this purpose could be, since if the prosentence account is right, a philosophical theory cannot have as its purpose characterizing a predicate that expresses an ordinary truth property – a property we ascribe to things in the course of ordinary truth talk – because there is no such property. But if the theory in question is not uniquely qualified to do some reasonably important job, then the physicalist can simply tell these theorists not to bother him with their theory, which is, presumably, what he would tell a witchcraft theorist or any other proponent of a theory that insists the world is full of spooky facts that would (or might well) remain physicalistically recalcitrant if they were countenanced at all.

Physicalism can serve in this way as a guide to theory building and theory selection. But if it were really true that we find ourselves confronted by truth-facts prior to any relevant theory building at all, as it is claimed we find ourselves confronted by the facts of pain and itches, then this maneuver would not be available to the physicalist. By the lights of the prosentence account, though, truth-facts simply are not just sitting there staring at us out of our ordinary, nonphilosophical discourse about truth. We can theorize that there are such facts in the world, but if these alleged facts, as we conceive them, are not physicalistically respectable, then our theorizing had better achieve a great deal that is important and not to be achieved otherwise, or the physicalist has a right to claim that our alleged truth-facts are alleged and nothing more.

So the prosentential account of truth may be ammunition for a physicalist who worries about the reduction or ‘elimination’ of semantical facts. Of course it will leave him with the problem of facts about referring, facts about synonymy, and whatever other semantical facts there may be in the world, or that may have been thought to be in the world. But it is a start.

4.7. *Correspondence Theories*

The prosentence account of truth forces (at least) a more complicated motivation for such philosophical enterprises as correspondence theories of truth. Correspondence theorists generally take it as noncontroversial that there are sentences (or statements, or propositions) which have the property of being true. They view the truth of sentences as resting upon some set of language-world relations which need to be spelled out, but

they start with the datum that, e.g., 'Snow is white' has the property of truth, and has it because snow *is* white, and there is some kind of connection between the sentence and the fact of snow being white (or between the sentence and *something* else in the world having to do with snow and the whiteness thereof). But if the presentence theory is right, semantical reflection on truth talk should not cause us to think that there are sentences or statements which exemplify a property of 'truth'. Perhaps there are language-world relations of various kinds; perhaps 'Snow is white' does somehow picture the fact of snow being white, but on our account it is just a confusion to suppose that this has anything to do with some truth *property*.

Of course we can construct a semantical theory which introduces a property 'truth' which is had by 'Snow is white' just when snow is white, and which connects this property in the usual ways with relations like reference and satisfaction. But we cannot suppose that the *interest* of such a theory lies in the fact that it captures a property that we knew beforehand was exemplified by 'Snow is white' just when snow is white, and which shows us how the having of that property by sentences depends upon referential and other sorts of connections between the sentence's parts and things extralinguistic. Its interest cannot lie there, because before we construct the theory we precisely do not know that there is a property of truth that some sentences have. We may believe it, but we believe it because we believe that the subject-predicate form of 'That is true' and its kin bespeaks property ascription rather than (as the presentence account would have it) just grammatical convenience. We must find subtler ways to show that our correspondence theory is interesting, which is fine, because the reasons such theories are interesting are, in fact, as subtle as reasons can get.

It is interesting to speculate why traditional philosophizing about the relation between language and the world has so often taken the form of developing theories of truth. It may well be that language-world relations of various kinds need to be invoked in order to explain such phenomena as the learnability of language, the public character of language, the fact that judgments expressed in language can be confirmed and disconfirmed by observation of extralinguistic things and happenings, and so on. So why are philosophers' theories about the relation of words to reality usually (though not always) concerned with laying the groundwork for an account

of how statements come to be true? Why is *truth* the constant theme of philosophical semantics?

We have already hinted at one answer, or one part of an answer. To wit, if you think you're ascribing a property to a sentence or statement or whatever anytime you say 'That's true', and you have a little healthy philosophical curiosity, you'll want to know what this characteristic 'truth' is. And a theory about how language connects with the world might strike you as just what's needed. But although that helps explain why people may have thought there was sense to the question "When, in general, are statements characterized by truth?" it does not help explain why so many people have thought this the central question about language-world relations. Our guess is that the main reason why a concern with language-world relations generally goes hand in hand with a concern about truth and falsehood is that our language simply doesn't let us formulate certain philosophical questions about language and reality except by using 'is true' or a cognate. For instance: it might be plausible to suppose (*prima facie*, anyway) that there is a certain relation that obtains between the sentence 'Snow is white' and the world when snow is white, and it is plausible to suppose that this relation would prove, upon inspection, to be of considerable philosophical interest. It is plausible to suppose this for all sorts of reasons – it is the fact of snow being white that must be observed in order to confirm directly what is expressed by 'snow is white', drawing a language-learner's attention to white snow and proclaiming 'snow is white' (in the right context) can contribute to the pupil's competence at using the words 'Snow is white' correctly (i.e., the way we all use them). 'Snow is white' (by the lights of the traditional truth-is-a-real-predicate view) is true exactly when snow is white, and so on. In short, a philosopher might want to ask the question

What relation obtains between 'snow is white' and the world when snow is white?

for any one or more of a variety of reasons. Most of these reasons will remain in force even if the philosopher in question has been persuaded by our prosentential theory and rejects the view that there is a property of truth that 'Snow is white' exemplifies when snow is white. But suppose this philosopher wants to *generalize* his question, which he will certainly want to do if he's any good. There is only one way he can formulate the

appropriate generalization in English, namely

What relation obtains between a sentence and the world when
it is true?

Recall Quine's observation that 'is true' enables us to frame generalizations of this kind (and recall that we agree). The point is that the interesting general question about sentences and reality simply *cannot* be phrased in English, without the use of a (not necessarily separable) truth predicate. So it is perfectly understandable that the problem of how language connects with the world generally gets run together with some problem or other about truth. And if somebody believes that 'is true' invariably plays a property-ascribing role, it is understandable that this person will also believe that general questions about language and reality, like "What relation obtains between a sentence and the world when it is true?" are questions about the conditions under which the 'property of truth' is exemplified. We, of course, draw the line at this point. We cannot formulate certain general questions about language and reality without resorting to truth talk because we speak English. But we take 'is true' in such generalizations to be a fragment of a quantificational prosentence, not an independently meaningful, property-expressing predicate. So we are not tempted to understand the question "What relation obtains between a sentence and the world when it is true?" as tantamount to the question "What is truth?" In fact we think this last question is incoherent if it presupposes that there is a characteristic 'truth' familiar to us all. Of course taken another way, as a metalinguistic question about the role of 'true' in our talk, we find the question "What is truth?" perfectly sensible, and we have proposed an answer. Unhappily, most people haven't understood the question that way.

4.8. *Technical Uses of 'True'*

The preceding sections indicate some connections between the prosentential theory and certain technical or theoretical uses of 'true' by philosophers, but we wish to emphasize that we have by no means tried to explain all such uses. In particular, the prosentential theory highlights the predicate's ordinary and hence nonmetalinguistic uses, whereas many technical philosophers think of themselves as using the predicate metalinguistically. Can the prosentential theory be extended to cover these technical uses?

We don't know much about this. Sometimes theory precedes usage: those who have been brought up on a particular theory, say Tarski 1936, or who have figured one out for themselves, may actually decide to use the truth predicate in accordance with that theory, no matter what happens in fluent English. (After all it is hardly surprising that one should, when provided with a predicate, find some characterizing use for it.) And if a certain technical use originates from a theory, there is no reason *a priori* why the prosentential theory should cover it. But we leave open, or at least for another occasion, the question of just what such a theoretically based truth property could be, and how it might be related to the ordinary – i.e., prosentential – uses of 'true'. We do, however, hope that those which are in the spirit of ordinary usage will be accommodated in the prosentential theory.

4.9. *Redundancy*

Is it a consequence of the prosentential theory that truth is redundant? We divide the question.

In the first place, we certainly do think that all uses of 'true' in English except in the connectives and prosentences of English* are redundant; that is simply an alternative statement of our thesis that English can be translated into English* without significant residue. We noted in §2.6, however, that though redundant, a separable predicate is of enormous convenience.

The second and more interesting question is whether 'true' is redundant in English* itself. Recalling the special nature of English*, this amounts to asking for the result of subtracting from English* on the one hand its prosentences and on the other its connectives such as 'it is not true that' (and any equivalent like 'it is not the case that' which logicians often invoke partly to conceal from themselves, we think, that there is truth talk lurking). To answer these questions we need to talk a bit more about the functions of prosentences and connectives in English* – and hence in English.

First prosentences. From the literature on pronouns one gathers that it might plausibly be argued that pronouns of laziness can be eliminated in 'the deep structure' – though (a) not without introducing ambiguities, as we mentioned, and though (b) also not without pragmatic loss, and though (c) the evidence is in any event far from conclusive. But let us put the

laziness cases to one side; the literature certainly suggests that it is extremely doubtful that quantificational pronouns can be similarly eliminated. This suggests, we suppose, that quantificational pronouns give us ways of saying certain things in English which we'd not otherwise be able to say. But notice that the new things we can say with quantificational pronouns and cannot say without them are new in a special sense: they are not *topically* new, allowing us now to discuss new topics; nor *ascriptively* new, affording us new noncomposite properties or relations, nor *categorically* new, giving us a brand new conceptual framework within which to work. Rather, the newness of the things we can say is like that of the things we can say with 'or' that we cannot say without 'or'; let us say that the newness is *logical*.

Our suggestion is that quantificational prosentences are in this respect like quantificational pronouns: they are absolutely irredundant in English*, allowing us to say things we could not say without them, but the irredundancy is logical, like that of 'or'. And to turn the coin over, they are (contrary to those who view truth as a characteristic) topically, categorically, and – especially – ascriptively redundant.

Now for the role of 'true' in forming connectives. We argued above, we think conclusively, that if we are to have quantificational prosentences, then we must have these connectives. But we also conjectured that they are independently irredundant, though we now add that the irredundancy is logical rather than any of the other sorts. Remember the example we used in §2.5: meaning by the 'contradictory' of a sentence one which has exactly the opposite truth-conditions, we conjectured that there are in English sentences for which one cannot find a contradictory without using a connective such as 'it is not true that'.

These remarks are of course sketchy, and deserve expansion, but the upshot is clear: 'true' is far from redundant, but its role in English is logical rather than ascriptive.

Frege 1918–19:

It is also worthy of notice that the sentence "I smell the scent of violets" has the same content as the sentence "it is true that I smell the scent of violets." So it seems, then, that nothing is added to the thought by my ascribing to it the property of truth. And yet is it not a great result when the scientist, after much hesitation and careful inquiry, can finally say "what I supposed it true"? The meaning of the word 'true' seems to be altogether unique. May we not be dealing here with something which cannot, in the

ordinary sense, be called a quality at all? In spite of this doubt I want first to express myself in accordance with ordinary usage, as if truth were a quality, until something more to the point is found.

Our aim has been to provide 'something more to the point'.

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