

On Identity Statements

*Against the ascriptional views**

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ABSTRACT

I argue against both relation-ascription views: the object-view, on which identity statements ascribe a relation borne by all objects to themselves, and the name-view, on which '*a is b*' says that the names '*a*' and '*b*' codesignate. In philosophy since Frege, the object- and name-views are usually treated as if they exhaust the field. I make a case for treating identity statements as being of their own logical form. My contention is that once we do this, no *analysis* is required.

I do not wish to insist that we stop saying that identity statements ascribe a relation. The point is that there is a *fundamental disanalogy* between identity statements and other two-termed statements, which we overlook to our peril. This will be seen to parallel the more recognized disanalogy between existence statements and other one-termed statements. *One* way of registering the fundamental disanalogy is to say that identity statements are not relational, but this is not essential. Following my negative arguments in section 2, I employ some simple diagrammatical models in section 3 to exhibit the fundamental disanalogy. In a final section, I respond to some possible objections which may be raised against this kind of approach.

ATTENTION! The case against the object-view is confused. Look out for a new version called 'On the Peculiarity of Identity Statements'. - T.H. 01/07/2011

Orientation

Frege began his paper 'On Sense and Reference', and with it the modern discussion of identity statements, thus: 'Equality¹ gives rise to challenging questions which are not altogether easy to answer. Is it a relation? A relation between objects, or between names or signs of objects?' In the arguments which follow, Frege seems to tacitly assume it must be a relation, exploring the two alternatives which then arise.²

I call these *the object-ascription view* and *the name-ascription view* - for short, the object-view and the name-view. The name-view is naturally coupled with the claim that identity statements are grammatically misleading (for not explicitly mentioning names).

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¹ Frege uses the same term, 'equality', both for mathematical equalities and identities. He uses '=' for 'is' when writing identity statements, presumably to avoid using 'is' both predicatively and for identity. This might seem like trading one ambiguity in for another. Of course, on Frege's view, mathematical equalities are a kind of identity statements. Since I do not wish to address or prejudge this question, when quoting Frege, I convert '=' back to 'is'. I also put quote marks around the schematic sentences.

² Frege is commonly interpreted as settling on a sophisticated object-ascription view, but this is controversial. I do not consider that exegetical question here.

In some versions, these views are intended to cover statements featuring referring terms other than proper names. Here I concentrate on the proper name case - that is, I treat the two relation-ascription views as concerning only that case.

In philosophy since Frege, the object- and name-views are usually treated as if they exhaust the field; we have (with a few exceptions) carried on under Frege's tacit assumption that identity statements ascribe a relation.

My view can be seen as a denial of this assumption. But this is not a thesis I wish to hold rigidly; it *need* not be harmful to call identity a relation. Quine, for example, writes in *Word and Object* (p. 116) that '[w]hat makes identity a relation, and "=" a relative term, is that "=" goes between distinct occurrences of singular terms'. I would not want to quarrel with this usage. My central point is that a relation-ascription view of identity leads to confusion because there is a fundamental disanalogy between identity statements and other two-termed statements, which modern philosophy - in calling them all relational, and bringing the same logical and semantic ideas to bear on them - has obscured. This will be seen to parallel the more recognized disanalogy between existence statements and other one-termed statements.

So, without getting caught up in arguments about how the word 'relation' ought to be used, here I wish to argue against the ascriptional views one at a time (section 2), and then make clear the fundamental disanalogy (section 3). Once we get used to the idea that identity statements are of a quite distinctive kind, they will no longer appear problematic or paradoxical. Despite not fitting the ascriptional model, they have a legitimate use, can be true and false, and can give information.

I am not the first to express dissatisfaction with both ascriptional views. My most notable predecessors are P.F. Strawson, David Wiggins (in an early paper) and Thomas V. Morris. (See bibliography.)

Strawson's contribution is tucked unassumingly into the middle of his least-read book. It is low on argument against the relational views, and the diagrammatic models he employs are merely described, not depicted, which makes his points less striking than they might have been. These models parallel ones I employ in section 3. Strawson uses dots for objects, where I use boxes. This makes it easier for me to develop the models a little further, and to make their results *stateable* as well as visible.³

Wiggins's early paper, in contrast to Strawson's discussion, is brimming with arguments against the relational views, but his proposed alternative is vague, unattractively similar to the name-view, and was not taken up again by Wiggins in any later work. Also, I think there are additional strong lines of attack available which Wiggins does not take or mention in the negative part of his article.

Morris can be seen as elaborating on the work of Strawson. He sees his task not as finding better objections to the dominant view (the object-view), but rather to show that there is a decent alternative. His proposed alternative, however, is presented as a kind of analysis. The result has struck many as inadequate, facing published objections which

³ I developed these models independently, being struck in the process by their power and naturalness.

have apparently gone unanswered. What I have to say, though in some respects similar, will be *much* less loaded (I think) with unclear or objectionable claims and aspects of presentation. This will be seen when I come to address possible objections to my approach, in section 4.

In general, there are two major pitfalls for this kind of approach which no one has yet succeeded in avoiding: the great unclarity of what it means to *deny* the object-view, and the urge to provide an alternative, non-ascriptional analysis of identity statements. I avoid the first pitfall, since I do not insist that the object-view is *false* - only that it does not explicate the meaning of identity statements. I avoid the second pitfall by maintaining that no analysis of identity statements is required, and that we should question and resist the urge to provide one. It may seem like, if we turn away from the ascriptional views, we are left with a gap in our accounts, but I think this is an illusion. Giving identity statements full recognition as a logical form in themselves makes their meaning transparent, and we no longer need any 'theory of identity'. We just move from a cruder to a more nuanced view of an important aspect of the logic of our language. I think those who desire a theory (analysis) of identity have fallen under the spell, so common in philosophy, of trying to force a kind of statement into an unsuitable mould. My method is to study identity statements *on their own terms* - to see how they work and *that* they work, without trying to assimilate them with other types of statements. The urge to say something more must be checked by the fact that nothing more needs saying.

This isn't as radical or novel as it perhaps sounds. Since Kant, for instance, it has become a commonplace in philosophy that 'exists' is not a predicate, existence not a property, and that existence statements do not ascribe a property to objects.⁴ To suppose otherwise engenders confusion, and by carrying on in this way we do better. So here we have a successful case of a non-ascriptional view of a kind of statement. It would be pretentious and misleading to call this 'a theory of existence'; I think we should let identity statements enjoy the same kind of understanding.

2. Against the relational views

Let us begin with the object-view. This view is contemporary philosophical orthodoxy. It says that every object bears a relation to itself, identity, that this relation holds only between objects and themselves, and that what identity statements do is ascribe this relation.

The central objection to this, as an account of the meaning of identity statements, is given by Frege in his landmark discussion. He begins with the observation that identity statements of the form '*a* is *a*' are trivial and *a priori*, whereas statements of the form '*a* is *b*', I quote, 'often contain very valuable extensions of our knowledge and cannot always be established *a priori*'. 'Now,' Frege says,

if we were to regard equality as a relation between that which the names '*a*' and '*b*' designate, it would seem - that '*a* is *b*' could not differ from '*a* is

⁴ This has been reinforced by our interpretations of modern logic, in which all names must refer, thereby rendering questions of particular existence external to the system.

a' (i.e. provided '*a* is *b*' is true). A relation would thereby be expressed of a thing to itself, and indeed one in which each thing stands to itself but to no other thing.

This is the famous problem of Hesperus and Phosphorus, the problem of informative identities.

The raising of this problem constitutes Frege's initial argument against the object-view. I think it is a good argument. Many obviously do not take it this way, however, since the object-view is nowadays commonly spoken of by philosophers as though it is obviously right. What has happened might become clearer if we see what Frege goes on to say. But first, let me repeat that I think this simple argument gives us every reason to reject the object-view as an account of the meaning of identity statements.

Frege, for now going with the thrust of the above argument, immediately raises the alternative of name-ascription: 'What is intended to be said by "*a* is *b*" seems to be that the signs or names "*a*" and "*b*" designate the same thing, so that those signs themselves would be under discussion; a relation between them would be asserted.' But then he gives some kind of argument to show that this is will not work either. Here it is in full:

But this relation would hold between the names or signs only in so far as they named or designated. It would be mediated by the connexion of each of the two signs with the same designated thing. But this is arbitrary. Nobody can be forbidden to use any arbitrarily producible event or object as a sign for something. In that case the sentence '*a* is *b*' would no longer refer to the subject matter, but only to its mode of designation; we would express no proper knowledge by its means. But in many cases this is just what we want to do.

This argument seems to constitute Frege's reason for abandoning the name-view (which he did in fact hold at one time). The first two sentences seem quite clear, and correct. But then: 'But this is arbitrary.' That is, '[t]he connexion of each of the two signs with the same designated thing' is arbitrary.

Certainly, you will have two connexions between name and object, and both will of course be arbitrary (in the sense that all such connexions are). But why does Frege conclude that we could therefore express no 'proper knowledge' this way? Can't you make one arbitrary connexion with '*a*', another with '*b*' and then learn - attain proper knowledge - that these connexions are to the same object? Frege seems to have overlooked the fact that once you establish two connexions, though they may be arbitrary, it is *no longer* arbitrary, no longer a matter of decision, whether they are to the same object or not. That is already determined, and you may not know which way.

Frege's claim that if the name-ascription view were right, 'the sentence "*a* is *b*" would no longer refer to the subject matter, but only to its mode of designation', while suggestive, is also without force. For what *is* the subject matter, here? The object - or objects, if the identity is false - designated by '*a*' and '*b*', or '*a*' and '*b*' themselves? The only way Frege's point has a chance of being right is if we assume the former, for '*a*' and '*b*' themselves *are*

plainly referred to on the name-ascription view. But to assume *that* is to beg the question against the present view!

Even if we do assume that the subject matter of identity statements is the object(s), Frege's charge - that this subject-matter goes un-referred-to - still doesn't stick; in the statement that '*a*' and '*b*' refer to the same object, the assumed subject matter *is* referred to, namely as 'the same object'. In fact, moving from the object- to the name-ascription view *widens* the terms of reference of an identity statement: instead of being about a single object bearing a relation to itself, identity becomes a matter involving that object, two designators, and the connexions between them and it. To anticipate a little, one real problem with the name-view is not that it makes identity a matter *only* of names - it does not - but rather that it implies that identity statements refer to names at all.

We have now seen Frege offer one good objection to the object-view and one bad objection to the name-view. Nevertheless, the main effect of his arguments has been a widespread adoption of the object-view. One reason for this, I think, is that the argument against the name-view, even though it is a bad argument, gets us thinking along lines such that we (correctly) intuit that the view is wrong. (This will become clearer later in this section when I offer what I take to be good arguments against that view.) With no alternative in sight, we are pushed back towards to the object-view, forced to look for some way for it to overcome the problem of informative identity.

The first thing to note is that whatever strategy the proponent of the object-view employs, they cannot explain the potential informativeness of '*a is b*'-statements, in contrast to their '*a is a*' counterparts, by appealing to any difference in what these statements *say*. Of course, on this view, *false* identity statements will mean something different from any '*a is a*' statement, but all true identities will be alike in ascribing a relation holding between an object and itself. Thus 'Hesperus is Phosphorus' ascribes the same relation to the same object (and itself, if you like) as 'Hesperus is Hesperus'. The object-view's defender must account for the difference in informativeness in some further way - their account of what identity statements express does not do the job by itself.

The customary way this is done - inspired by, but perhaps not due to, Frege - involves, roughly, admitting that the statements say the same thing, but in a different way. Names are associated with senses, or modes of presentation, and the potential difference of sense between two names in an informative identity serves to differentiate these from the '*a is a*' case.

But: 'Hesperus is Hesperus' is bound to say something trivial, therefore if 'Hesperus is Phosphorus' says the same thing, albeit in a different way, we seem forced to conclude that what *it* says is trivial, yet expressed in a way that makes it informative. Either that, or that 'Hesperus is Hesperus' manages to express something substantial in such a way as to make it trivial.⁵

To avoid this unwelcome consequence, the defender of the object-view could admit that

⁵ This is *not* analogous to the way a Babylonian may find 'Hesperus is visible in the evening' informative, while not 'Phosphorus is visible in the evening': *these* two sentences are both capable of being informative, and if they do express the same proposition in some sense, then that proposition is certainly substantial.

their relation-ascription account does *not* give the full meaning, or content, of identity statements, and that the senses (or modes of presentation) need to be part of that story as well. But then their main claim, that identities ascribe a relation holding between the referent(s) of their terms, starts to look pretty useless as a *theory*. Rather than explaining the meaning and function of identity statements, it just becomes, at best, 'something you can say'. (And that's *my* position.) If the proponent of the object-view is still to have something worth saying, they need to tell some story on which identity statements *crucially* ascribe the identity relation, but also 'do other stuff'. I would suggest that in any reasonable story, the 'other stuff' would do most of the work, and the object-view's core claim would be an idle cog.

So much against the object-view. We have now reached the dialectical point at which the name-view looks most attractive. It has been out of favour largely for the wrong reasons, and could seem like a neglected, promising alternative. Indeed, it has been defended as such. Here are four objections to it.

The Circularity Objection

The name-view says that '*a* is *b*' means 'the names '*a*' and '*b*' designate the same object', but the phrase 'same object' here just re-invokes the concept of identity. Therefore the analysis does not explicate the concept of identity. (Call this 'the Simple Version'.)

This well-known objection has been elaborated upon, notably by Wiggins in his paper 'Identity-Statements'. In this elaborate version, 'the names "*a*" and "*b*" designate the same object' gets explicated as 'the designatum of "*a*" is the designatum of "*b*"', and this in turn is subjected to analysis according to the name-view, thus we get a regress. But this elaboration is (a) unclear about why 'the names "*a*" and "*b*" designate the same object' has to, or ought to be, reformulated, and (b) inapplicable for us, because the reformulation involves definite descriptions, and we are considering the name-view narrowly construed as concerning only the proper name case, thus blocking the regress.

Sticking, then, to the Simple Version: it appears that the claim made by the name-view cannot provide a reductive explanation of identity.⁶ But perhaps it need not: perhaps it could nevertheless be true, and shed some light on statements of the form '*a* is *b*' - e.g. that they concern names. To show that this is not how things are, we have three more objections.

The Logical Objection

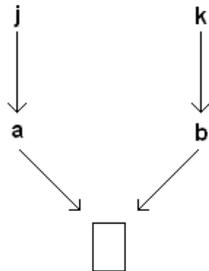
The adoption of the name-view would necessitate a complication of logical theory, if the latter is to retain its power. I think this complication plainly seems like it should be avoidable. That a complication would be necessary has been appreciated by authors discussing Frege's views, and Wittgenstein's early work⁷, but the point remains absent from many discussions which deal directly with the name-view. Here is a simple way to

⁶ Theoretically, the proponent of the name-view might avoid this conclusion by regarding codesignation as an indefinable relation. I know of no philosopher who has seriously defended this ad hoc maneuver, however.

⁷ For example Roger White, in his interesting paper 'Wittgenstein on Identity' (see bibliography).

see it:

Imagine a yellow piece of paper with two names, '*a*' and '*b*'. The name '*a*' itself has a name, '*j*', and likewise the name '*b*' is called '*k*'. With arrows representing reference relations, this situation can be represented with the following simple diagram:



If someone knows that *a* (the piece of paper) is yellow, and that *a* is *b*, they are in a position to infer that *b* is yellow. Now, in ordinary logical theory, this argument is straightforwardly valid. In simple notation:

Ya
 a=b
 ∴ Yb

This is a very direct inference, an exemplar of a logical principle often called 'The Indiscernibility of Identicals' (though strictly not the same kind of thing as Leibniz's metaphysical principle). Indeed, the above three lines could be interpreted schematically as an expression of this principle. Crucial to its application is the fact that the name in the first premise re-appears in the second.

But if we accept the name-view of identity, this will no longer be the case. Remember, on the name-view, '*a* is *b*' has a misleading surface structure; what it really says is that two particular names codesignate. So the second premise must be reformulated, employing a relational term for codesignation (instead of '='), and *names of the names* '*a*' and '*b*'. We have already given '*a*' and '*b*' names, namely '*j*' and '*k*', and we will use '*C*' for the codesignation relation. Thus re-formulated to accord with the name-view, our argument becomes:

Ya
 Cjk
 ∴ Yb

Now, how is the conclusion to follow?

The first statement says that some object is yellow, and the second says that two names codesignate. For the conclusion to follow, additional premises stating what the names designate are required, as well as a new, more complicated, logical principle to replace the Indiscernibility of Identicals. Another route, which would avoid the first step at least, might be to introduce a quotational apparatus, so instead of '*j*' and '*k*' as names of '*a*' and '*b*', we would have the syntactically complex "'*a*'" and "'*b*'", or something similar.

In addition to making inference rules more complicated, adoption of the name-view also widens the terms of reference of statements and arguments, apparently unnecessarily. In ordinary logic, in a domain containing only pieces of paper, our inference to the yellowness of *b* goes through. For the inference to go through with the name-view of identity, the domain needs to contain names as well as pieces of paper. More acutely, names will need to become involved even for many statements which do not - even to the holder of the name-view, I would think - seem to have anything to do with names. Indeed, in all cases where current logic uses the identity sign, even between variables. For example, to say that *a* and only *a* is yellow (that *a* is *the* yellow thing). In standard logic:

$$Ya \wedge (\forall x)(Yx \supset x=a)$$

a is yellow and everything which is yellow is *a*.

If what this says is to remain logically expressible, it would have to be replaced by something like:

$$Ya \wedge (\forall x)[(\exists y)(xDy \wedge Yy) \supset xDa]$$

a is yellow and everything which designates something which is yellow designates *a*.

Another response to this is to simply strip logic of '=' and everything that comes with it. But if logic loses its power to encode information like the above, it no longer provides any account of inferences like '*a* is the only yellow thing, therefore *a* is yellow'. But these seem as logical and subject-neutral as any.

The Language-Independence Objection

This objection is bound up with an issue touched on in the previous one - that we apparently use identity statements to say many things which have nothing to do with names. Statements of codesignation and genuine identity statements can come apart, so the former cannot be a correct analysis of the latter. I will show this in two ways: one involving the distant past, and one involving counterfactual situations.

First, consider the situation in our solar system, 5 million years ago. The names 'Hesperus' and 'Phosphorus' were not then being used to refer to Venus. So, 5 million years ago, 'Hesperus' and 'Phosphorus' did not codesignate. But it seems wrong to say that Hesperus was not Phosphorus then.

This version of the language-independence objection is quite well known. It may be thought that it can be avoided by saying that identity/codesignation statements are in a certain sense tenseless, or always present-tense, or something along those lines. I don't, for my part, see how that could plausibly be maintained, but for this reason perhaps the following 'counterfactual' approach is stronger:

Consider these imperatives:

(1) Imagine that 'Barack Obama' codesignates with 'Mick Jagger'.

(2) Imagine that Barack Obama is Mick Jagger.

You can comply with (1) *without* complying with (2): you could imagine that the current U.S. president has always been called something else, say 'John Obama', and that Mick Jagger has long been known by two names, 'Mick Jagger' and 'Barack Obama'. Or you could imagine that there is some third person with two names - one shared with the president, one with the musician. If any of these imaginings were actually the case, 'Barack Obama is Mick Jagger' might be true. But at least one of those names would then have a different referent from what we actually suppose it to have. We in the real world can't correctly describe these imaginings as of situations in which Barack Obama is Mick Jagger. In sum: we can imagine codesignation without identity.

We can also imagine identity without codesignation: We can imagine 'Bob Dylan' and 'Robert Zimmerman' not codesignating - that the singer Robert Zimmerman took a different stage-name, and someone else was called 'Bob Dylan'. That is, we can imagine Bob Dylan not being called 'Bob Dylan', but still being Robert Zimmerman. (Or Zimmerman not being called 'Dylan', but still being Dylan.)

Note that considerations analogous to these hold against a name-view about existence statements. 'Barack Obama exists' does not mean 'The name "Barack Obama" designates': Barack Obama could have had a different name. Also, he might never have been born, and someone else may have been called 'Barack Obama'. (More generally: Things exist. This general truism does *not* amount to the claim that names designate.) And of course, a name-view about ordinary predications also faces such problems: The truth of the sentence 'John is tall' may show us that the name 'John' refers to someone tall, but the sentence *says* no such thing.

The Mystification Objection

What exactly does the name-view state? Does it say that a statement of the form '*a* is *b*':

- means the same as "*a*" codesignates with "*b*"
- has no clear meaning
- means nothing, or
- will be false for ascribing a non-genuine relation?

These all seem like holdable views, but all are alike, I want to say, in making a mystery (at best) out of current linguistic practise involving identity statements.

Take the first brand, the meaning-equivalence claim. The problem then is: How could it have come about that the '*a* is *b*' form is used in our language to mean that a codesignation relation obtains between two names? Ordinarily, we use names to say something about the objects they refer to, not the names themselves. And this is no simple use-mention confusion: we cannot, of course, say that we really mean "*a*" is "*b*". If the name-view as meaning-equivalence is right, it states a linguistic fact which would appear to defy (and yet call for) explanation. And the puzzle cannot be confined to the basic form of identity statements. Here are two further puzzles:

'Clark Kent has a secret, namely that he is Superman.' What does this say? Clark Kent's secret does not seem to be about two names codesignating - and if it is, then how does *that* sentence manage to say so?!

Lois Lane may truly say 'Clark Kent is Superman; he told me directly', if he said to her - in his Clark Kent guise - 'I am Superman'. Now we seem to be in the position of having to interpret this too as meaning that 'Clark Kent' codesignates with 'Superman'. (And remember that Clark Kent, in his office clothes, could inform someone else with the sentence 'I am Superman', and this person needn't know that there is any name other than 'Superman' involved. They may just conclude that Superman sometimes wears office attire and glasses.)

How about the second version, on which '*a* is *b*'-statements don't have a clear meaning? If this version is to be distinct from the previous, on which '*a* is *b*'-statements have a 'hidden' meaning, it would seem to imply that these statements cannot say anything clearly, and should be replaced by codesignation statements. But if *that's* right, we've got some explaining to do. Namely, of how people manage in so many cases to feel sure that they are clearly conveying information, very often with palpable practical upshot, when they are not. The same consideration holds for the remaining two views, on which instances of '*a* is *b*' are all meaningless and all false respectively.

One final possibility, or pseudo-possibility, should be mentioned: that the name-view says merely that:

- '*a* is *b*' is true iff '*a*' and '*b*' codesignate.

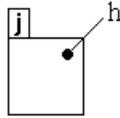
This sentence is naturally understood as invoking a conception of truth-conditions which is not the most common one in philosophy. Roughly speaking, the most common conception calls for a condition satisfied by all worlds in which things are as they are actually (in this world) said to be by the relevant sentence. The conception relevant here, on the other hand, calls for a condition satisfied by all worlds in which the sentence exists, says the same thing as it says in this world, and says something true.

All parties can accept the above claim understood according to the latter conception, since the claim does not then imply that identity statements are relational statements which ascribe a relation of codesignation. The above claim is consistent with that view, but also with the object-view and with my view. I am even happy to accept that the above claim may be instructive with respect to the meaning of identity statements, so long as the claim is understood correctly (i.e. according to the appropriate conception of truth-conditions).

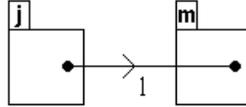
3.The fundamental disanalogy

To exhibit the fundamental disanalogy between identities and relational statements (or between identities and *other* relational statements, should you prefer), we shall employ the following non-lexical means of representation: Boxes are to represent objects, dots to represent instantiation of either properties or places in relations ascribable to the objects,

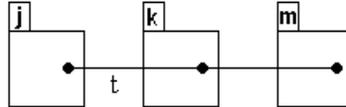
lines to label the properties or indicate the relations, and arrows to show the direction of the relations. Thus, corresponding to 'John is happy' is this graph:



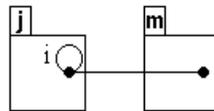
'John loves Mary':



'John told Kang about Mary':



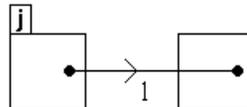
'John introduced himself to Mary':



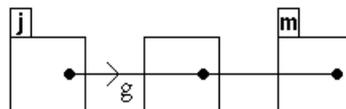
(The letters here can be thought of as abbreviations for 'John', 'happy' etc., or autonomous signs which stand for individuals, properties and relations. For relations of more than two places, we adopt the convention of placing the relation's label next to the first connecting line, in the process rendering the arrow superfluous. For reflexive connections, as in the last example, a loop - a curved connecting line - is drawn.)

These graphs could be used to make assertions, like their corresponding sentences. In this use, we call them 'graph-propositions'. They could also be used to model a set of beliefs, or a base of knowledge, about some domain. In this use, we shall call them 'belief-maps'. Representations very much like belief-maps are used in many areas of activity - detective work, software development, genealogy, business management, and magazine reportage about romantic interconnections between celebrities, to name a few.

We will only need to consider very simple uses of this form of representation, but note that there are further possibilities than those illustrated above. For example, we could use this graph-proposition for 'John loves someone':



And this one for 'John gave something to Mary':



(Or we might prefer to omit the unlabeled boxes, just leaving a dot.)

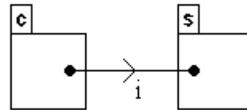
A graph-proposition can be seen as a partial specification of, or constraint on, a belief-map. This is obviously true for the last two examples, but no less true for the others. Accordingly, we observe the following principle:

Incorporation principle: If a graph-proposition is accepted, and a belief-map modified accordingly, the graph-proposition will be incorporated in the result.⁸

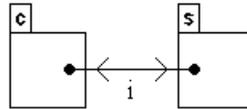
We can imagine graph-propositions being used in tandem with belief-maps. Each person might maintain a belief-map about some area - and if someone asserts a graph-proposition, and they come to accept it, they then modify their belief-map to incorporate it, often in the process making many alterations to the map. And this is how it is in word-language. When someone asserts a proposition, and you come to believe it, you will often, in the process, also change your attitude to countless other propositions.

In asserting a sentence, one as it were says: 'Whatever you do, assent to this.' This is particularly clear with propositions we accept with some difficulty. You can't just accept a proposition by itself and leave everything as it is; you must *accommodate* it. This accommodation corresponds to the full incorporation of a graph-proposition. The asserter of a graph-proposition is saying: 'Whatever you do, make part of your belief-map look like this.'

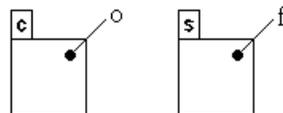
Now we are in a position to consider the following question: What might be a suitable graph-propositional correlate to an identity statement, for example 'Clark Kent is Superman'? Well, what would the dominant view (the object-view) suggest? Presumably, since identity statements ascribe a relation on this view, a connecting line will be involved. Modelling 'Clark Kent is Superman' on 'John loves Mary', we get:



Or, building the symmetry of identity statements into the graph-proposition:

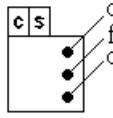


But these cannot be suitable correlates, for they would not satisfy the incorporation principle. We can see this by asking: What kind of changes might one make to a belief-map upon accepting an identity statement, given in words? Suppose Lois Lane, prior to accepting the identity, believed that Clark Kent worked in an office, and that a separate individual, Superman, fought crime. So her belief-map would incorporate:

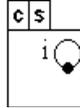


Upon accepting that Clark Kent is Superman, we can imagine Lois Lane accommodating this by, among other things, supposing that this individual - Clark Kent, Superman - changes clothes in phone-booths when no one is looking. Her resulting belief-map thus would not incorporate the suggested correlates. Rather, she would change it to look like this:

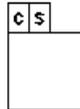
⁸ It would also be possible to make a 'negative' use of graph-propositions, which could be signified by a special symbol, akin to a sentential operator. In this case a *non-incorporation* principle would hold.



where 'c' stands for something like 'changes clothes in phone-booths'. Thus if we still want to represent Clark Kent's being Superman using a relation line, without flouting the incorporation principle, we should have to have:



But this loop could have no significance, for everything is identical to itself. We could put it in every box. Since this device could serve no purpose, let us forbid it. Omitting it, we get:



Or simply:



And thus we have arrived at a suitable graph-propositional correlate to 'Clark Kent is Superman', satisfying the incorporation principle.

(Note the similarity with 'Clark Kent is Superman', if we consider 'is' as a kind of connector and separator here - not so different from its use in 'Clark Kent is smart' - rather than standing for a relation.⁹)

The fundamental disanalogy between identities and relational statements can now be stated in this way: an identity statement's graph-propositional correlate is of a completely different form from that of a relational statement.

Another interesting feature of the technique of graph-propositions is that there is no correlate to trivial identities, or at least not of the same form as informative identities. I.e., a belief-map would not contain something like:



Or at least this could serve no purpose. We are therefore free to forbid it (as we did with 'identity loops' above). Now, the above, as a graph-proposition, does not satisfy the incorporation principle. All we have left to opt for as a correlate to '*a is a*' is:



And this is not of the same form as a correlate to a potentially informative identity. Thus no 'problem of informative identity' arises for graph-propositions.

⁹ This conception is expressed in a footnote in Wertheimer (1998): 'The 'is' of both identity and predication is a semantically empty functional expression ordering pairs of terms to form sentences.' Note that it is no objection to this to point out that '*a is b*' is equivalent to '*a is identical to b*', '*a is the same object as b*', and numerous other expressions. After all, '*a is red*' is equivalent to '*a possesses the property of being red*' as well.

This shows us that there is no problem for word-language either, seen clearly. We are led astray by the formal similarity between identities and relational statements in our language, and by the highly various and complicated use we make of these forms. We do, for instance, sometimes utter repetitive identities. We might say 'John is... John' to indicate that he is a quite singular person, or perhaps suggesting that one can't say much about John without being impolite, as we might do equally well with: 'What can I say?'. We might say 'a deal's a deal', to show that we intend to keep a deal, or to appeal to someone to keep their end. These uses go with characteristic gestures and tones of voice. Also, we have the dictum that 'every thing is what it is, and not another thing', which somehow manages to be a useful reminder in philosophy. It should be clear, however, that none of these uses plays anything like the role that 'Clark Kent is Superman' might play for Lois Lane. It is *that* kind of use which is explicated with the technique of graph-propositions.

'*a* is *b*'-statements can embody empirical information in *that* way, while '*a* is *a*'-statements never find any such use. To say to Lois Lane 'Clark Kent is Superman' is to say something completely different from anything 'Clark Kent is Clark Kent' might mean, and this is reflected in the technique of graph-propositions. We can say that both ascribe the relation of identity, but that doesn't explicate their meaning. They are different sentences with different uses and different meanings.

4. Possible objections answered

Objection 1: Standard logic treats identity as a relation. What are you going to do about that?

Reply: Axioms and rules of inference involving '=' can remain as they are, but we should understand this symbol as being fundamentally different from (other) relational terms. To some extent, we already do: '=' is distinguished by being treated as a logical constant. To take the separation further, the grammars of logical languages could treat '=' as the sole member of its own category of expression, but this amendment would not change which formulae get recognized as grammatical.

The main thing which needs rethinking is the standard model-theoretic semantics for '='. Roughly speaking, instead of saying that a certain relation holds between all objects and themselves only, and that an ordered pair $\langle o_1, o_2 \rangle$ satisfies ' $x = y$ ' iff o_1 bears this relation to o_2 , we could leave out any talk of this relation, and just say an ordered pair $\langle o_1, o_2 \rangle$ satisfies ' $x = y$ ' iff o_1 is o_2 , i.e., iff the ordered pair is repetitive. This appears no less rigorous than the common procedure (which to my mind has, by comparison, the aspect of a logical trick).

Objection 2: You give no account of what happens when someone accepts an identity and then changes their mind.¹⁰

Reply: That is true, but no such account was needed for our task - to break the grip of the way of thinking which made a relational view of identity statements look inevitable. And

¹⁰ This objection is made in Noonan (1986) to the Strawson-Morris approach..

what has been said here hardly blocks the way to understanding mind-changing; if Lois Lane accepted but then changed her mind about Clark Kent being Superman, she would adjust her belief-map to be like it was before, but perhaps with added information about having been misled, certain misleading appearances, etc. That we can do such things is certainly a remarkable fact of nature. It arguably requires a certain amount of meta-modelling.

I, of course, have no special duty to explain this. But it may be helpful to note that if two names '*a*' and '*b*' are used interchangeably by all competent speakers, the denial of '*a* is *b*' would have no clear meaning for them. Identity statements, and denials thereof, have their characteristic uses in quite particular circumstances. Secondly, one can imagine a possible extension of the technique of graph-propositions where, when merging two labeled boxes in accommodating an identity, one retains them as separate boxes which come to represent something like aspects, and are placed inside a single object-box.

Objection 3: What you say about graph-propositional correlates may be well and good, but you have made no contribution to the question of what identity statements *say*.¹¹

Reply: If knowing what a statement says consists in understanding its meaning and use, then graph-propositions *can* contribute to this. But they are no part of any project to *say*, definitively, what identity statements say. This sort of philosophical task is stranger, I think, than is commonly perceived.

Let us stop to reflect on the practice of asking and answering the question of what something says, apart from any 'specialized' philosophical instances. Consider these cases:

- Asking what is said by a sentence of a foreign language.
- Hearing of an inscription on the inside of an urn - asking what it says.
- Explaining, precisely, the conventional meaning of 'The average man has 1.4 children.'
- Rendering, e.g., 'insouciance was ubiquitous' in more common language.
- Replacing an unnecessarily long and involved sentence with a better-constructed one.
- Summing up what is said in an article, book, speech etc.

'Clark Kent is Superman', however, appears to be about the plainest, simplest expression (in English) of what it says. I would suggest that any philosophical puzzlement about such sentences is *not* to be alleviated by a theory of what identity statements say, but by recognizing that they are logically and semantically *sui generis*. ('Saying what identity statements say' should be compared with 'saying what subject-predicate statements say' - not, for example, 'saying what velocity statements say'.)

¹¹ An objection to Morris like this one (but not in terms of graph-propositions) appears in Newman (1992), except he also suggests that perhaps Morris thinks that identity statements say nothing. Obviously, that isn't my view.

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