

Indexical reference and the ontology of belief¹

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According to the propositional view of belief, a belief situation involves a believer's standing in the relation of belief to a proposition. In this paper it is argued that the propositional view has unacceptable implications concerning the identity conditions of belief situations which involve beliefs with indexical contents, especially where such beliefs are held over a period of time during which background circumstances change. After a critical discussion of Perry's alternative to the propositional view a version of the so-called adverbial theory of belief, which accounts satisfactorily for the identity conditions of belief situations, is advanced. This theory, which avoids the standard objections to adverbialism, is defended against the charge that it cannot provide an account of the semantics of sentences attributing the same belief to two or more believers. In the course of this defence it is argued that the standard propositional account of such sentences is insensitive to everyday language.

S. Afr. J. Philos. 1982, 1: 65 – 74

Volgens die proposisionele beskouing van geloof, behels 'n geloof-situasie drie elemente: iemand wat glo; 'n (abstrakte) proposisie wat waar of onwaar is, bv. *dat sneeu wit is*; en die geloofsrelasie tussen die voorgemelde twee elemente. In hierdie artikel word betoog dat die proposisionele beskouing onaanvaarbare implikasies inhou m.b.t. die identiteitsvoorwaardes van geloofsituasies, en in die besonder, gevalle van geloof met 'n deiktiese inhoud, veral waar die agtergrondomstandighede binne die tydskuur van die geloofsituasie verander. Na 'n kritiese bespreking van die alternatiewe teorie van John Perry, word 'n vorm van die sogenoemde adverbiale teorie van geloof voorgestel. Hierdie teorie gee 'n bevredigende verklaring van die identiteitsvoorwaardes van geloofsituasies en vermy die gewone besware teen adverbialisme. Die teorie word verdedig teen die aanklag dat dit nie die semantiek van sinne soos bv.

Jack en Jill glo dieselfde ding kan verklaar nie. In die loop van hierdie verdediging word betoog dat die gewone proposisionele verklaring van sodanige sinne ongevoelig is vir alledaagse taalgebruik.

S.-Afr. Tydskr. Wysb. 1982, 1: 65 – 74

My chief concern in this paper is with the ontological structure of what I call *belief situations*. A belief situation is simply any *minimal* state of affairs which makes it true to say that something is believed. By a minimal state of affairs satisfying a condition *C* I mean one which satisfies *C* and which contains no proper part which also satisfies *C*. Thus Andy's believing that he himself is single is presumably a belief situation. But Andy's being in jail and believing that he himself is single is not, even though it involves a belief situation.

Two general features of my approach to the ontology of belief situations deserve to be mentioned at the outset. Firstly, I take indexicality seriously in the sense that I assume that indexicals — expressions such as 'I', 'now', 'here', and 'this', which change their reference according to time, place, speaker, and speaker's situation — cannot be eliminated from perspicuous expressions of belief, or, as I shall say, from belief *texts*. I shall not argue the point, as it seems to me to have been pretty well established in work by Burge, Perry, and especially Castañeda.² Secondly, I pay much attention to the dynamics of belief. Up till very recently standard practice has been to consider beliefs at a point in time, and to ignore questions concerning duration and change.³ I hope to show that this practice leads to serious error in the theory of belief.

1. The propositional view of belief

What is the ontological structure of belief situations? One fairly commonplace view, which I shall call the *propositional view*, goes like this. Every belief situation involves a *subject* and an *object* to which it is directly or indirectly related. The subject is a person, or some other being capable of believing. The object is a 'proposition'. According to the propositional view, any particular belief situations *s* and *s'* are distinct if and only if either

- (a) their subjects are distinct, or
- (b) their objects are distinct, or
- (c) the periods of time during which *s* and *s'* exist do not overlap and are not contiguous.

The relationship between subject and object in a belief situation differs according to different versions of the propositional view. But all versions of the view I am concerned with share the doctrines I have just stated.

An extreme propositionalist is one who claims that the relation between subject and object is exactly the same in all belief situations, and that the above doctrines together

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with this claim cover all that is essential to the structure of belief situations. Let us refer to the alleged relation as 'Bel'. For the extreme propositionalist, then, someone's being or not being related by *Bel* to a given proposition is simply a brute fact. I think of Castañeda as a paradigm extreme propositionalist.⁴

A moderate propositionalist may well accept that *Bel* relates subject and object in every belief situation. But if so, he insists that there is always some more basic fact *by virtue of which* someone is related by *Bel* to a proposition. He might, for example, claim that if *x* stands in the relation *Bel* to *p*, he does so only by virtue of his being in a certain type of mental *state* (that is, a belief state) which has a *content* which is intimately related to the proposition *p*. Then again, a moderate propositionalist might jettison *Bel* completely and settle for indirect relationships between subjects and objects through, for example, belief states and their contents.⁵ Either way, the moderate propositionalist is committed to the doctrine I have stated concerning the identity of belief situations.

Of course none of this tells us what propositions are. I'm afraid I can't be particularly helpful here as I find them very mysterious. It is obviously of no avail in the present context to say they are objects of belief, which is how I was introduced to them. But perhaps we will learn something about them as we proceed. For it is clear that certain constraints on what a proposition can be must follow from the propositional view.

In the meantime let me mention some things that are usually taken for granted and will be here. Propositions are not physical objects, or mental objects, or sentences, or sentence-in-contexts. They may, however, be 'expressed' by sentences or sentences-in-contexts. They must be intimately related to sentence meanings, as (non-ambiguous) indicative sentences involving no indexicality (and perhaps no proper names?⁶) apparently express the same proposition if they are synonymous. But propositions are not hypostatized sentence meanings⁷, as that would imply that a sentence involving indexicals expresses the same proposition in all contexts, which cannot be correct. It cannot be correct because the meanings of such sentences at any rate are not true or false *simpliciter*. *But propositions are*. Indeed, it is their truth or falsity which is held to account for the truth or falsity of the sentential utterances which express them and the beliefs of which they are objects. It is of the essence that a *proposition has exactly one truth value which does not change*. Thus, if proposition *p* is true and proposition *q* is false, then *p* and *q* cannot be the same proposition. Apart from being objects of belief, propositions are also objects of assertion, assumptions, and awareness, and yet other acts and attitudes. Thus we are told that Joe can assert a proposition which Mary assumes for the sake of an argument, which you are aware of but do not endorse, and which I believe. Finally, propositions are objective, mind-independent entities which are nonetheless mentally accessible to us. Someone who is not aware of a given proposition might, under certain favourable conditions, have been so. Propositions are part of our common world, or so it is usually assumed.

It is perhaps possible to continue in this vein, but it is not rewarding to do so.

One thing I am going to do in this paper is attempt to

embarrass the propositionalist. I will be supporting two relatively atheoretical claims about belief situations. These claims, if true, place the propositionalist in something of a predicament. My first claim can be accommodated by him, but only in a way which reduces the attractions of his view. In the case of the second claim the propositionalist's predicament should be unbearable. For given certain obvious facts, he simply cannot accommodate the claim.

When I am through with my attempt at undermining the propositional view of belief, I turn briefly to the somewhat more attractive alternative which has recently been advocated by John Perry⁸, and use my critique of his theory as a device for introducing and supporting the objectless account which I wish to advocate. I conclude by replying briefly to one likely objection to this account.

2. Terminological matters

Before getting on with the real work I need to introduce some technical terminology. But first, one ontological assumption and one disclaimer. The assumption is that every belief situation has a subject⁹. What I disclaim is any precise ontological significance to my use of the expressions 'belief', 'what is believed', and 'something that is believed'. With that in mind, let's turn to the technical jargon.

Belief situations *s* and *s'* are *full replicas* if they differ at most with respect to the times at which they exist. They are *part-replicas* if they differ at most with respect to both their subjects and the times at which they exist. Obviously if *s* and *s'* are identical they are full replicas, and if they are full replicas they are part-replicas. Conversely, if *s* and *s'* are part-replicas, then they are full replicas if their subjects are identical. And if they are full replicas, then they are identical if they exist at the same times.

This leaves open the question of what the duration of a belief situation is. A relatively innocuous principle settles the matter. If belief situations *s* and *s'* are full replicas, and *s* exists at *t*, and *s'* at *t'*, then *s* and *s'* are identical if and only if at every time between *t* and *t'* there exists a belief situation of which *s* and *s'* are full replicas. In other words, full replicas which are temporally continuous or contiguous are identical. If this were not correct we would either have to say that all our beliefs change continuously, or we would have the onus of showing that there is a non-arbitrary alternative to my principle which allows us to deny this. I can think of no such principle, and cannot accept the first alternative. In settling for my principle I do not mean to tread on the propositionalist's toes. Rather, I would like to treat it as implicit in his views.

If all this is in order, the problem of specifying identity conditions for belief situations reduces to that of specifying the conditions under which belief situations are part-replicas. It is clear that, on the propositional view, belief situations are part-replicas if and only if they have the same object.

My next and most important technical notion is that of a *text*¹⁰ of a belief situation at a time. Briefly, a sentence *P* is a text of a belief situation *s* at *t* if and only if *P*, as uttered by the subject of *s* at *t*, perspicuously and unambiguously expresses the content of something that he then believes by virtue of his being the subject of *s* (rather than of some other belief situation). I ought to add several qualifications

and caveats to this, but space does not permit it¹¹. It is worth remarking, though, that, other things equal, if at *t* belief situation *s* makes a present tense *oratio recta* belief report true, then the sentence quoted in that report is a text of *s* at *t*. Thus if *s* now makes it true to say

Henry believes 'I am a scholar'

then 'I am a scholar' is presumably a text of *s*.

My final technical notion is that of a pair of belief situations *agreeing in their texts*. *s* and *s'* agree in their texts just in case every text of *s* at some time during its existence is a text of *s'* at all times during its existence, and *vice versa*.

3. Two claims

I am going to assume that all belief situations have texts, even if only in some unknown or merely possible language. If you don't like the assumption, just think of my domain as restricted to belief situations that do have texts, or, if you like, texts in English. Nothing much here hinges on the line you take.

My first claim, then, is this:

Claim 1: If belief situations *s* and *s'* are part-replicas, then *s* and *s'* agree in their texts.

I believe that something very much like this lies at the bottom of Perry's interesting and stimulating critique of the propositional view¹². At any rate, I draw directly from Perry's work in attempting to make problems for the propositionalist on the basis of Claim 1.

My second claim is the converse of my first:

Claim 2: If belief situations *s* and *s'* agree in their texts, then *s* and *s'* are part-replicas.

This was also suggested to me by my reading of Perry's work. He would not, however, accept it without qualification.

Claims 1 and 2 seem to me quite obviously true. I see no cause to defend them in the absence of an attack. But that will come, from the quarter of the propositionalist. When it does, so will my defence, primarily in the form of replies to potential counterexamples to the claims.

4. Claim 1 and the propositional view

If any great philosopher can easily be cast in the role of a propositionalist, it is Frege. At least some of his views, as ordinarily understood, are incompatible with Claim 1.

Consider this well-known passage from 'The Thought':

If someone wants to say the same today as he expressed yesterday using the word 'today' he must replace this word with 'yesterday'. Although the Thought is the same its verbal expression must be different so that the sense, which would otherwise be affected by the different times of utterance, is readjusted. The case is the same with words like 'here' and 'there' (Frege, 1967:24).

Fregean Thoughts are propositions. Assume that at time *t* a person *x* believes the proposition *p*. Thus, at *t* there exists a belief situation *s* with subject *x* and object *p*. Assume also that the sentence *Q*, as uttered by *x* at *t*, expresses proposition *p*. I take it for granted that the propositionalist would say that *Q* is a text of *s* at *t*. But this, together with the views Frege apparently advocates in the above passage, allows for the possibility of part-replica belief situations disagreeing in their texts, which conflicts with Claim 1.

At some time on Tuesday Bill believes a proposition which is then expressed by the sentence

(i) It rained in Pietermaritzburg today.

He does not believe a proposition then expressed by the sentence

(ii) It rained in Pietermaritzburg yesterday.

At some time on Wednesday he believes a proposition then expressed by (ii), but does not believe a proposition then expressed by (i). Let's call the relevant belief situations '*s*' and '*s'*'. On Frege's view *s* and *s'* have the same object. Thus they are part-replicas, even though they disagree in their texts. Suppose *s* endures at least till the last moment of Tuesday and *s'* at least from the first moment of Wednesday. Then they are identical. But if, unhappily, Bill's watch is ten minutes fast, he ends up being the subject of three distinct, successive belief situations instead of one continuous belief situation. He believes a certain proposition till ten to twelve, another from then till midnight, and then the original again from immediately after midnight on. Strange.

Focus on the case in which Bill's watch, internal or external, is fast. Surely the Fregean is at least partly right about what goes on here. Bill's beliefs change when it's midnight according to the watch. But do we have to know how accurate the watch is to know that? When the watch says twelve, Bill cheers up. He cheers up for a reason. He has always believed that any day on which it rains is a bad day to the very end. We explain his new and happy disposition in terms of his beliefs. Our explanation has point because his disposition changes *with* his beliefs. But would our explanation be wrong if Bill's watch were right? Of course not. The change in Bill underlying the advent of his cheer happens at twelve or ten-to, but it happens all the same. Frege, by my lights, is wrong. And thus ends one potential counterexample to Claim 1.

This should not, incidentally, be taken as suggesting that it is improper or false to deny that Bill changed his mind between Tuesday and Wednesday, or to say that what he believed on Wednesday *is the same as* what he believed on Tuesday. If one changes one's beliefs in order to ensure that one's new beliefs have the same truth values as the old, one does not change one's mind. Same-belief attributions, on the other hand, are vague, and can accommodate a variety of very different sorts of circumstances. This should become evident from my final section.

But let us return to Frege. The general doctrine that *seems* to underly his remarks about 'today' and 'yesterday', and 'here' and 'there', is that the contribution which an indexical makes to the proposition expressed by a sentence in a context depends solely on the denotation of the indexical in that context. Frege does not adopt this doctrine in its full generality. He thinks the first person singular is special; that it is just impossible for you to express the proposition I express when I utter a sentence containing 'I'¹³. But that is by the way.

The point is that any version of the propositional view which incorporates the doctrine must be wrong. Bill's beliefs should convince us of that. Those who remain unpersuaded may succumb to a further example¹⁴. It is possible at one time for an agent to be the subject of a belief situation which has as a text the sentence

(iii) His pants are on fire

without being the subject of a belief situation with the text

(iv) My pants are on fire

even if 'he' as uttered by the agent in the appropriate con-

text happens to denote the agent; for example, if the agent is unknowingly observing a mirror image of himself. On the doctrine we are considering, this is impossible given the propositional view, since (iii) and (iv) would then express the same proposition.

The doctrine must go. But what alternative can the propositionalist offer? Not that the contribution which an indexical makes to the proposition expressed by a sentence depends solely on the meaning of the indexical. For that would involve propositions changing their truth values according to context and time, which is ruled out *ex hypothesi*.

The only alternative I know of that has been worked out in detail is due to Castañeda¹⁵.

According to Castañeda's view, the propositional correlate of a singular term is an *individual guise*.¹⁶ Individual guises are structured Meinongian objects composed of sets of properties which are 'individuated' by an 'individuating operator'. The form of a perspicuous designation of a guise is ' $c\{P_1, \dots, P_n\}$ '. ' c ' here stands for the individuating operator, which makes the guise an individual guise, and ' P_1, \dots, P_n ' stand for the properties in its core. Every perspicuous guise designation in which all the property terms have reference denotes an actual, but not necessarily an existing, guise. (The realm of being, for Castañeda, is not exhausted by the realm of existence.) Guises containing distinct properties in their cores are distinct.

Examples of individual guises are THE ROUND SQUARE, THE GOLDEN MOUNTAIN, and THE AUTHOR OF *WORD AND OBJECT*. Ordinary objects are not guises but systems of mutually 'consubstantiated' guises. A guise exists if and only if it is consubstantiated with another guise. Thus only guises which are guises or ordinary objects exist. THE AUTHOR OF *WORD AND OBJECT*, for example, is an existent guise which is consubstantiated with THE AUTHOR OF *FROM A LOGICAL POINT OF VIEW* as well as with THE AUTHOR OF *WORD AND OBJECT WHO DISAPPROVES OF QUANTIFIED MODAL LOGIC*, and so on. But these guises themselves are not identical. THE ROUND SQUARE and, to the best of our knowledge, THE GOLDEN MOUNTAIN, are not consubstantiated with anything, and so do not exist.

Some guises, unlike those mentioned so far, allegedly contain indexical or perspectival, properties in their cores. Such are the propositional correlates of indexicals. One can apparently mention perspectival properties by using such expressions as 'the property of being me', 'the property of being here', and so on. Which property one succeeds in mentioning by using such an expression depends on who one is, the place, the time, and other features of the context of utterance. Unless x is me and x is here, x cannot, according to Castañeda, mention the properties I would now refer to with the expressions 'the property of being me' and 'the property of being here' by using the same expressions. For Castañeda, moreover, no one can mention the property I have of being me by saying 'the property of being you' or 'the property of being him'. Nor can one mention the property of being here by saying 'the property of being there'. (For Castañeda, in fact, someone who is not identical to me and is not here cannot mention these properties at all except in an indirect, or *oblique*, way.

This will be clarified later.)

Since guises are distinct if they have distinct properties in their cores, it follows from the above that no one can refer to the guise corresponding to my use of 'I' by saying 'you' or 'him' even if all the corresponding guises are consubstantiated. This would be the case if, to use ordinary philosophical parlance, the indexicals concerned were coreferential. Nor can anyone mention the guise corresponding to my present use of 'here' by saying 'there'. For the guises I and HERE are simply those which contain the perspectival properties of being me and of being here in their cores.

This is one part of the story: Coreferentiality of indexicals in contexts is not a sufficient condition for the identity of their guise correlates. Another part is that it *is* a necessary condition. Thus the guise corresponding to 'today' as uttered by me now is not identical to the guise corresponding to 'today' as uttered by me yesterday. Without this, the doctrine of guises would be incompatible with the propositional view, since it would allow for the possibility of propositions changing their truth values.

Finally, among the indexical guises are demonstrative guises such as might be mentioned by, for example, an utterance of the demonstrative 'that'. There are apparently very limited circumstances, if any, in which distinct persons can mention the same guise by saying 'that'. Even if, as we might say, they have the same thing in mind, and have qualitatively identical perceptions of it, it does not follow that they mention the same guise. For the guise each mentions is an item in his own perceptual field. Their guises may be consubstantiated. But if their perceptual fields are distinct, the guises exist in completely separate spaces, and so cannot be identical.¹⁷

That is the substance of Castañeda's doctrine as I understand it. Its application to our test case is clear. Bill's beliefs change when his watch says twelve whether it is accurate or not. He stops believing a certain proposition p which has as a constituent the guise which he could have mentioned a little earlier by saying 'today'. And he starts believing a proposition differing from p only in so far as it has in the place of that guise a guise which he can now mention by saying 'yesterday'. A parallel story can be told about the fellow with the burning pants.

So Castañeda's doctrines secure the results we are after. And I cannot prove them wrong. But they involve commitment to an extremely rich ontology, which many (myself included) find unattractive. And even aside from that, I am not at all happy with them. Part of my difficulty lies in the notion of a perspectival property, which I do not fully understand. As I use the word 'property', a thing has the properties it has independently of the position from which we view it. This is not to deny that there are indexical *predicates* which apply or fail to apply to a thing, perhaps at a single time, according to the situation of the speaker. But there is no need to posit perspectival properties to account for that. Consider the sentence.

A sheet of paper is in front of me now which is true as uttered by me at the time of writing. The reason it is true on my views is *not*, as Castañeda would have it, that some sheet of paper has the *property of being in front of me now*, but, because Pendlebury happened to be facing a sheet of paper at a certain time. That relationship between person and paper is one that anyone can

describe as easily as I, even if he does not share my perspective of it.

Given the role of perspectival properties in Castañeda's account of the guises supposedly involved in indexical beliefs, my puzzlement about perspectival properties applies equally to those guises. This problem goes beyond that of making intuitive sense of the basic notion of a guise.

A further difficulty with Castañeda's doctrines is that they exclude a large and important class of propositions from the commonly accessible realm. According to his view, I cannot now, for example, *directly* believe or even be *directly* aware of the proposition which is supposedly the object of the first belief situation involving Bill. I can be aware of it *obliquely* by, for example, being aware of the proposition I now supposedly express by uttering the sentence

(v) On Thursday Bill truly believed that it rained that day,

where 'that day' is used as a quasi-indicator for 'today'. (A quasi-indicator is simply an *oratio obliqua* proxy for an *oratio recta* indexical¹⁸.) Similarly, according to Castañeda, I can believe Bill's proposition only by believing something like (v), that is, by believing *another* proposition of which Bill's is a constituent, and which implies Bill's to be true. And — to explain an earlier remark — the only way I could now mention the guise Bill would refer to by uttering the indexical 'today' at the time of his belief, would be by using a quasi-indexical such as 'that day' as it occurs in (v). The only way to mention such a guise, in short, is through reference to the mental life of someone to whom it is directly accessible. The same goes for perspectival properties.

Castañeda's doctrines, then, involve a commitment to propositions which do not *in their own right* belong to a commonly accessible world. Such propositions may nonetheless be constituents of other propositions which *do* belong to a common world, and indeed, constituents which have independent being. This seems to me to be somewhat problematic. Given that an object is located within a certain space, it goes without saying that all of its independently existing parts are also located within that space. It is not at all clear how belonging to a realm can be different from being located in a space in this respect.

Even aside from this point, propositions of limited accessibility lack appeal. My response to theories incorporating them is that of Perry (1979a:16):

I have no knock-down arguments against such propositions or the metaphysical schemes that find room for them. But I believe only in a common actual world. And I do not think the phenomenon of essential indexicality forces me to abandon this view.

My way of handling indexical belief is different from that of Perry (whose theory of belief will be discussed in Section 6), but both approaches show that it is indeed possible to do without propositions, properties, and individuals of limited accessibility.

Are there alternatives to Castañeda's doctrines, then, that allow us to reconcile Claim 1 with the propositional view? No doubt. But it is clear that any alternative must also commit us to propositions of limited accessibility. For the minimum which is required for the reconciliation is that a pair of sentential utterances do not express the same propo-

sition unless they have the same truth value *and* the sentences uttered have the same meaning. If the requirement is satisfied, you cannot use *oratio recta* to express a proposition I might express by uttering a sentence of the form 'I am *F*' if I am the only person who happens to be *F*. So my central complaint against Castañeda applies to any version of the propositional view which is compatible with Claim 1.

5. Claim 2 and the propositional view

At every moment between ten and midnight last night Mary was the subject of a belief situation with the text

I am in the Municipality of Pietermaritzburg, and no other text which does not automatically follow from this. Suppose she had no other beliefs. Did her beliefs change between ten and twelve? How many times? The obvious answer is: Not once.

But hang on. Mary spent those hours driving around with wily Pete. And unbeknown to her, he crossed the municipal border seventeen times. Now, how many times did her beliefs change? Seventeen? No. Not once. Just as Claim 2 would have us believe.

But if you want to be a consistent propositionalist you had better say seventeen. What she believed between ten and quarter-past was true. What she believed between quarter-past and twenty-past was false. And so on. Propositions do not change their truth values. So she must have believed first one proposition, then another, then the original again. And so on, through seventeen changes. Even if she was fully conscious of her beliefs but not of any change in them. Even if her behavioural dispositions were constant.

The propositionalist should provide an account of his strange answer to our question. Such an account might go like this. We agree that what Mary believed at ten-fourteen is true and what she believed at ten-sixteen is not. Hence by the indiscernibility of identicals her belief at ten-fourteen is distinct from her belief at ten-sixteen.

This is surely inadequate. The propositionalist's argument presupposes that the ordinary language claims

(vi) What Mary believed at ten-fourteen is true,
(vii) What Mary believed at ten-sixteen is not true, perspicuously represent the states of affairs which make them true in the sense that their grammatical subjects are singular terms having reference to entities in the world, and that their grammatical predicates ascribe incompatible features to those entities. But what reason is there for saying that (vi) and (vii) perspicuously represent the relevant states of affairs other than that, so construed, they beg the question in favour of the propositional view?

I myself find (vi) and (vii) to be rather stilted English by comparison with

(viii) What Mary believed was true at ten-fourteen,
(ix) What Mary believed was not true at ten-sixteen, which are presumably made true by the very same states of affairs as (vi) and (vii). But if we treat (viii) and (ix) as perspicuously representing those states of affairs in the sense described above, the indiscernibility of identicals fails to yield the propositionalist's conclusions.

It must be granted, though, that (viii) and (ix) are not very attractive English. Far better are

(x) What Mary believed at ten-fourteen was true,
(xi) What Mary believed at ten-sixteen was not true.

But even if these are treated as perspicuous representations of the states of affairs which make them true (the very same states of affairs we have been dealing with all along), (x) and (xi) fail to imply that Mary had distinct beliefs. They fail to imply this just because the 'was' in (x) refers to a different time than the 'was' in (xi)¹⁹

Let's have our propositionalist try a slightly different tack. Mary, we agree, believes truly, then falsely, then truly, and so on. Suppose we are told nothing else that does not follow from that, not even what I told you at the outset. We still know that there is change going on. And surely, the argument runs, we know that Mary is changing, and what is changing about her is her beliefs.

It ain't necessarily so. We might *guess* it's her beliefs. But when the facts of the case are in, we see that it's her *location*. At any rate, that's all we need to suppose is changing in order to account for the (superveniently) changing truth values.

Change the example, and we see that it's possible for Mary to believe first truly and then falsely without *any* real change in Mary at all. Just have her believe that Joe is in Canada for a period during which he in fact takes a flight from Montreal to New York. The only change this commits us to in Mary is of the same order as her becoming an ancestor of yet another person centuries after her death. Such changes are not really changes *in* or *of* our subject. In a word, they are of the species *Cambridge*²⁰

Claim 2, then, can withstand the attack implicit in the propositionalist's understanding of what goes on with Mary. I ought to argue that it does not succumb to examples involving more than one believer.

Consider Harry and Henry. Each is the subject of a belief situation which has as a text the sentence

(xii) My wife is over six foot six,

and no other texts which do not automatically follow from this. Harry's wife is six foot ten and Henry's only five foot four. So Harry believes truly and Henry falsely. Thus, in terms of the propositional view, Harry and Henry believe different propositions, and our belief situations are therefore not part-replicas. But in terms of Claim 2, they *are* part-replicas.

I will not rehearse or reply to the propositionalist's arguments for his view, since these arguments and my replies can easily be gleaned from my discussion of the belief situation involving Mary. It is, however, worth giving two positive reasons for saying that our belief situations are part-replicas.

The first, which is not conclusive, is that the two belief situations play the same roles in explaining the behaviour of Harry and Henry. When booking seats for the opera for their wives, both insist on something on the aisle. When on holiday with their families, both enquire about bed lengths before taking a room in a hotel. And so on. Of course their behaviour is not always parallel when the height of their wives is at issue, but that is surely due to beliefs, desires, and opportunities they do not share, not to the beliefs we know of.

My second reason for saying that our belief situations are part-replicas is, I think, compelling. Assume that Harry's and Henry's circumstances are reversed as far as is compatible with their retaining the beliefs we are considering. Give each the other's looks, his background, his desires, his mental life, his wife and family, his other

beliefs, and so on. But keep the beliefs in question constant. Now does Harry-transformed have *all* the beliefs of the original Henry? And does Henry-transformed have all the beliefs of the original Harry? The answer is surely 'Yes'. If this is correct, then our belief situations are part-replicas, which is just as Claim 2 would have it.

6. Perry's account of belief

The view Perry has recently advocated²¹ is something like the version of moderate propositionalism I sketched in Section 1. Every belief situation involves a subject's being in a mental state, and being related to an object of belief by virtue of the belief state he is in. What Perry takes issue with is the view that belief situations are part-replicas if they have a common object. In his own terms, it is possible to believe a given belief object in one way, and yet not to believe the very same object in another way. Using the language with which I saddled our moderate propositionalist, one believes the same object in different ways if the belief states by virtue of which one believes it have different contents.

This is fair to Perry only if we understand the locution 'have the same content' to mean something like 'are the same state' in the sense that you and I can be in the same state. It's probably best to scrap the word 'content' altogether and settle for classifying mental states and acts in terms of their *kind* and specific *character*.

We are interested in states of the kind Belief. For Perry, we 'index' or individuate the characters of such states by sentences. What this means, I assume, is that the states of the subjects in belief situations *s* and *s'* are character-equivalent if and only if *s* and *s'* agree in their texts. Belief states are what we appeal to in explaining behaviour in terms of belief, and character-equivalent states play the same role in such explanations. On Perry's view, the character of a belief state does not in general determine the object of belief. Nor can the character of the state be inferred from the object. But the character of a state together with a time and the circumstances of the agent in that state *do* determine the object of belief. In a slogan: Character plus context yields object.²²

Perry regards the nature of objects of belief as something of an open question, so does not commit himself to a detailed theory about them. He does talk of them as being '*de re* propositions', which are structured entities composed of *n*-place propositional functions and *n*-tuples of individuals. I think this is unfortunate, but it doesn't matter here. The important point is this: Assume that sentences *P* and *Q* differ at most in the singular terms they contain, and that in context *C* the referent of any singular term in *P* is the same as the referent in context *C'* of the corresponding term in *Q*. Then there is some one *de re* proposition or object of belief which is represented both by *P* in context *C* and by *Q* in context *C'*. This at any rate is supposed to hold when the singular terms are indexicals. In favourable circumstances it is thus possible for you to express the *de re* proposition represented by the sentence

I am speaking,

as uttered by me now, by saying

He is/was speaking.

For Perry, the object of a belief situation at a time *t* is simply the *de re* proposition represented by its text as uttered by the belief subject at *t*.

That's the theory. Two things about it are of special note. Firstly, it individuates belief situations finely enough to accommodate Claim 1. For whenever belief situations fail to be part-replicas because they disagree in their texts, it ensures that the characters of the states involved are different.

Secondly, it individuates belief situations too finely to accommodate Claim 2. For it allows a pair of belief situations to agree in their texts and yet not to have the same object, and thus not to be part-replicas. Thus, although our Mary's belief state does not change according to Perry the object of her belief does. Where I want part-replicas, Perry offers character-equivalent belief states instead. That's better than nothing, but it is not good enough.

7. A better alternative

We retain what is appealing about Perry's theory and avoid the problems I see in it by adopting a theory which leaves no room for objects of belief, but which is otherwise substantially like Perry's. In a slogan, the move I am making is to replace Perry's 'ways of believing' (*de re*) proposition' with 'ways of believing' *simpliciter*. This is somewhat misleading, but it is correct in suggesting that my account of belief is, as philosophers say, an 'adverbial' account.²³

To believe is to be in a belief state. (A belief state, of course, is a modification of a believer, not an independently existing thing to which he stands in some relation.) To believe in one 'way' rather than another is for one's belief state to be of one character rather than another. This very statement brings out what is misleading about the above slogan. For as we would not ordinarily say that waltzing is a way of dancing, so too we would not ordinarily say that being in a belief state of a certain character is a way of believing. Amongst the ways of dancing are *quickly*, *professionally*, and *jerkily*, but *not waltzingly*. Amongst the ways of believing are *confidently*, *consciously*, and, perhaps, *occurently*, but *not (it-is-raining)-ly*. Waltzing is a *kind* of dancing. Believing that it is raining is a kind of believing. Better yet, a belief state whose character can be given by the sentence 'It is raining' is a belief state of a certain specific kind.

The linguistic point I am making is simple enough, but failure to appreciate it can spell trouble for the adverbialist. For those amongst the uninitiated who do appreciate the point will balk at an adverbial theory which obscures it, and even perhaps reject the theory outright when a minor repair might have gained their sympathy or allegiance.

What is essential to adverbial theories of mind is (a) that they deny that a mental act or state consists in a subject's being related to an object, and (b) that they classify mental acts and states, not according to their general kinds (henceforth 'genera') and particular alleged objects, but according to their genera (such as Belief and Desire) and their specific modifications. 'Modification' as it occurs here covers not only what we would ordinarily call ways of being in mental states or of suffering mental acts, but also the characters of those states or acts. The latter modifications are, of course, the most important for the adverbialist to come to grips with. For it is just these modifications which play the same basic role in his theory as objects of mental acts and states do elsewhere.

None of this tells us why adverbialism is rightly so-called,

if indeed it is. The present application of the term is to some extent a result of historical accident. But it also has point, and the point, it seems to me, is this. The kind of expression that we generally use to attribute a mental act or state to someone is a complex verb-phrase (VP). When we say, for example, that

(xiii) Joe [_{vp} believes that it is raining],

it is the VP which characterizes the mental state which we are attributing to Joe. The VP as a whole characterizes Joe as being in a mental state of a certain specific kind (henceforth 'species'), where the species of a mental state or act is determined by its genus and the modifications which constitute its specific character (the *differentiae* of the species). Now the VP in (xiii) has two major components — the verb 'believes', and the sentential complement 'that it is raining'. According to the sort of adverbialism I am advocating, the verb picks out the genus of the state (not a relation), and the complement picks out the modifications which are the *differentiae* of its species (not a proposition). The semantic function of the complement in the VP is exactly analogous to that of 'rational' in 'rational animal'. The complement functions as a modifier, and, in particular, as a modifier of a *verb*. It is therefore not entirely inappropriate to think of it as a special kind of adverb *at the semantic level*.

There is no suggestion here that we ought to 'adverbialize' belief sentences, rewriting (xiii), for example, as

Joe believes (it-is-raining)-ly.

Although doing this sort of thing may on occasion be of heuristic value, it can also be misleading. Adverbialization of belief sentences is, moreover, theoretically pointless unless it is accompanied by a semantic account of the class of adverbs it introduces. But syntactic adverbialization together with such a semantics is theoretically superfluous. For as the above analysis of (xiii) illustrates, we are able to treat the function of the sentential complement in a basic belief sentence as 'adverbial' in an appropriate semantic sense without explicit adverbialization.

The word 'basic' as it occurs here is of the first importance. For I am not at all committed to the view that *every* belief sentence does no more or less than attribute a belief state of a certain species to someone (or something). On the contrary, I deny that the sort of analysis I give of (xiii) applies without qualification to every belief sentence of the same syntactic form. Those to which it does apply are, in terms of the account I am advocating, the basic belief sentences. A full-blooded semantics of belief sentences based on an adverbial theory of belief situations would formalize the above account of (xiii) and generalize it to cover all basic belief sentences. It would then build on the results to provide an account of non-basic belief sentences (such as, for example, '*de re*' belief sentences). There is clearly no room here for even a rough sketch of such a semantics.²⁴

A belief situation, then, involves a subject's being in a mental state of a species falling under the genus Belief. The situation lasts as long as the subject is in a mental state of that species without interruption. The character of the state, which is constituted by the *differentiae* of its species, is intimately connected with the texts of the belief situation in the way I have indicated: Belief situations agree in their texts if and only if the states they involve are character-equivalent. This connection arises just because

the character of the state *determines* the texts of the situation.

We do not know enough about the psychology of belief and the semantics of natural language to say precisely how character determines text. But I ought to put some cards on the table.

To do so it is convenient to shift to conscious episodes of thinking (*thinking that*). I take it for granted that an act of thinking has a character, and can be character-equivalent to a belief state. Right now I consciously think I am under six foot tall. I have believed it for years. That belief state is character-equivalent to my act of thinking. I have no interesting answer to the question of what makes it so, but I assume that its being so is independent of linguistic considerations. (This is not to deny that there are things I could not think or believe if I did not understand a language, or even the particular languages I know.)

I am committed to an intimate relationship between sentence meanings and characters of acts of thinking. To utter a sentence candidly is to think out loud. Thinking without speaking is *like* uttering a sentence inside the head.²⁵ Not that there is a sentence in 'Mentalese' that is so uttered. Rather, a complex, structured act consisting of, for example, an act of reference and an act of predication, is suffered. The fiction of a sentence in Mentalese is merely a useful device for highlighting the structural aspects of acts of thinking.

In the sense in which different subjects can perform the same act, I think of sentences, that is, sentence types rather than tokens, as representing acts of thinking. Representing here is not designating. It is more a matter of being correlated with or subordinated to. Which act of thinking a sentence represents depends on the mental acts which are represented by its constituents (at some level of analysis) and the mode of their composition. The sentence 'I am eating', for example, may simplistically be thought of as representing the appropriate act of thinking because 'I' represents the act of first person reference, '. . . am eating' the act of predicating eating, and their concatenation the mode in which these acts are combined in the act of thinking. No doubt it's more complex than that, but I just want to convey the general idea.

The attraction of this view for present purposes is that it provides a natural account of what it is for a sentence *P* to be a text of an episode of thinking *e*. For *P* is a text of *e* if and only if it represents the act involved in *e*. Given an account of character-equivalence between belief states and acts of thinking, this will automatically yield a substantial account of what it is for a sentence to be a text of a belief situation, and thus for belief states to be character-equivalent.

So much for the substance of the view of belief I am advocating. You don't have to buy all of it. For even if my vague suggestions about language are rejected, what remains of the view nicely accommodates Claims 1 and 2, which is what I was chiefly after.

8. An objection: 'Quantification over beliefs'

Many will no doubt object strongly to my account of belief on the ground that objects of belief are needed to make sense of certain sorts of belief sentences. They will mention examples employing locutions like

x and *y* share a belief,

There is something which *x* and *y* believe,

Something which *x* believes is true,

and so on, and claim that all these involve straightforward quantification over objects of belief. I here restrict my attention to locutions such as the first two, and refer to instances of them as 'same belief attributions'.

There is a problem with the view that same belief attributions involve straightforward quantification over objects of belief. For no matter what you take objects of belief to be, it is possible to find everyday same belief attributions which could clearly be true even though their truth is ruled out by the sort of objects of belief you choose for their quantifiers to range over.

If your objects of belief are propositions which are individuated finely enough to accommodate Claim 1, consider the following argument:

(xiv) On Tuesday Bill believed that it would rain today,
On Wednesday Fred believed that it would rain today,

Therefore: There is something that Bill believed on Tuesday and Fred believed on Wednesday.

This is surely valid. Hence any circumstances making the premises true makes the conclusion true. But both premises of (xiv) must be read *de re* with respect to 'today'²⁶ And there need be no single proposition of the appropriate sort which both Bill and Fred believed in order for the premises to be true. If Bill's belief text was

It will rain in two day's time,

and Fred's was

It will rain tomorrow,

then the premises of (xiv) are true even though there is no one proposition of the appropriate sort which both believed. But even if there is no one proposition which both believed, the conclusion is true if the premises are. So the truth of the conclusion cannot be explained by saying that it involves straightforward quantification over fine-grained propositions.

If each of your objects of belief has just one truth value, reflect on the following sentences:

(xv) The two of them share at least one belief: that the other is a scoundrel.

(xvi) There is one belief to which each of them holds firmly: that he is the taller of the two.

(xvii) There is something that every member of the Springbok rugby team believes, namely that he himself weighs more than 70 kilos.

(xviii) There is something that John believed on Thursday and Bill believed on Friday, namely that it would rain the next day.

Prima facie each of (xv)-(xviii) could be true.²⁷ Each contains an assertion that two or more persons share a belief, and supplies a ground for that assertion. In every case the ground is adequate. But in every case one of the subjects might believe falsely even though the other, or others, believe truly. If that's so, they do not believe the same belief objects of the appropriate sort.

If, finally, you decide in response to sentences such as (xv)-(xviii) that objects of belief are not absolutely truth-valued, and that they stand in a 1-1 correspondence to my belief state characters, you are stymied by the validity of the argument concerning Bill and Fred, since the premises

of that argument can be true even if Bill and Fred are not in character-equivalent states.

These considerations do not show that any theory which posits objects of belief cannot be reconciled with our intuitive judgments about the truth of same belief attributions. They *do* show that the argument *from* same belief attributions *to* objects of belief is totally inadequate.

I turn, finally, to my own problem, which is to reconcile our talk of shared beliefs with my objectless account. All I can offer here is a very rough sketch. Same belief attributions, like assertions that two or more things are the same colour, are similarity claims. But not any old similarity between a pair of belief situations is sufficient to justify one in asserting that the subjects have the same belief. It all depends on the point of the discussion.

Suppose we are concerned with the *behaviour* of a pair of agents, but are not interested in whether they believe truly or falsely. We then say that they share a belief if they are in belief states which play very similar roles in explaining their behaviour. This does not mean that saying they share a belief commits us to their behaving similarly *whenever* the relevant belief states go towards explaining the behaviour. It means only that they *would* behave similarly if the other explanatory factors (such as their desires, circumstances, and other beliefs) were similar.

Character-equivalence of a pair of belief states is clearly sufficient to warrant a same belief attribution in a psychological discussion. But for reasons I cannot pursue here, I don't think it is necessary. I can't tell you briefly what is necessary except by saying something like: sufficient similarity in respects relevant to what is being explained.

If we are not concerned with behaviour, but with whether our subjects believe *truly* or *falsely*, character-equivalence of their belief states, or character-similarity of the kind relevant in a psychological discussion, will frequently *not* warrant a same belief attribution. What is required when truth is at issue is at least that, given the contexts of their believings at the relevant times, their beliefs must have the same truth and falsity conditions.

The qualifier about contexts is meant merely to bring in enough to, so to speak, fix the reference of the subject's terms. The need for the qualifier is most evident when there is indexical reference. But its point is not merely to handle indexicality. It is also needed to handle belief texts containing proper names, some predicates, and no doubt much else. It should let in enough, for example, to determine which *George* Joe means; or what, for Bill, counts as *a car like Henry's*. It is not meant to do any more than this sort of thing, and does not in general let in true or false making facts.

I have given a necessary but not a sufficient condition for same belief attributions to be warranted when truth, not behaviour, is at issue: same truth and falsity conditions. Exactly what is sufficient I cannot say here. But it must be enough to allow for the possibility of logically equivalent beliefs being different. I believe that something like a degree of structural similarity between the belief states involved is required, but leave this question open.

This is all I can say here about same belief attributions. I have not given a full theory about them. I have only tried to show that they do not require objects of belief and, in-

deed, that explaining them in terms of such objects cannot be as easy a task as is often supposed.

Notes

1. Earlier versions of this paper were read to the Philosophy Colloquium at Illinois State University in May 1979, and at the January 1981 Congress of the Philosophical Society of Southern Africa. I am grateful to my audiences on these occasions for useful questions and comments. I owe special thanks to Hector-Neri Castañeda, Romane Clark, Reinhardt Grossman, and John Perry for their detailed and helpful comments on yet earlier drafts. Because of limitations of space, the present version fails to take many of these comments into account. I do, however, respond to them in Part I of Pendlebury, 1980, which deals in very much greater depth with the issues raised here.
2. See Burge, 1977 (where indexical beliefs are referred to as '*de re* beliefs'), Perry, 1979a, and Castañeda 1966, 1967, and 1977.
3. Recent work which pays attention to the dynamics of belief includes Perry, 1979a and 1979b, and Lewis, 1979.
4. Castañeda refers to the object of a belief situation as a 'propositional guise'. In his terminology, a proposition is a system of mutually 'conflated' propositional guises. Distinct guises of the same proposition differ only in revealing different aspects of the logical form of the proposition. These subtleties do not affect anything I say in this paper. Castañeda surely does qualify as an extreme propositionalist if we treat his propositional guises as propositions. For, on his view, all belief situations involve a simple relation holding between a subject and a propositional guise. This includes belief situations which he regards as 'purely modal', for these are simply situations in which the subject is related to a 'zero-guise', i.e. a propositional guise which reveals nothing of the complexity of the logical form of the proposition. We are, moreover, entitled to treat Castañeda's propositional guises as propositions (in my sense), since they share all the characteristics that will be at issue here. See Castañeda, 1974 and 1977 for a full development of his position, and especially 1977: 327–336 on propositions, propositional guises, and the ontological structure of belief situations.
5. This version of moderate propositionism is very similar to that advocated by Grossman, for whom a belief situation involves a subject suffering an act of belief which has, as a *property*, a content which 'intends' a proposition or state of affairs, the object of the belief. No further relation such as *Bel* holds between subject and object. See Grossman, 1965 for a detailed development of the view.
6. In Castañeda, 1979 it is argued that proper names are 'propositionally opaque'. What this means is roughly that a proper name does not reveal the corresponding component in the proposition which, for the speaker, the sentence containing that name expresses. Thus, the speaker may not communicate the exact proposition he is thinking, but only one sufficiently like it for his purposes.
7. Some are inclined to use the term 'proposition' for sentence meanings. See e.g. Lemmon, 1971. I have no objection to this usage, but am simply not concerned here with propositions *qua* sentence meanings.
8. See especially Perry, 1979a, also Perry, 1977 and 1979b.
9. This has not always been taken for granted. See e.g. Russell, 1956: 305–306 and Bergman, 1960: 6.
10. My notion of a belief text is very similar, but not identical, to the notion of the text of an awareness in Bergman, 1960: 7–8.
11. See, however, Pendlebury, 1980: 10–13, 60–68.
12. See Perry, 1979a.
13. See Frege, 1967: 25–26.
14. This example is borrowed from Kaplan, 1977:64. Cases of this general kind were first introduced in the philosophical literature in Castañeda, 1966.
15. See especially Castañeda, 1974 and 1977. I ignore many of the subtleties of Castañeda's theory in the sketch which follows.
16. I here ignore Castañeda's distinction between propositions and propositional guises (see note 4).
17. Castañeda has confirmed this claim (personal communication). From the claim it seems to follow that no two people can confront one and the same demonstrative guise, since for perceptual field to be the same they must apparently be the same through and through. Yet Castañeda claims (personal communication) that I am in my perceptual field and you are in yours. Each of us is at the 'origin'

- of his own field. So it seems to follow that no two persons can have the same perceptual field.
18. See Castañeda, 1966 and 1967 for the pioneering studies of quasi-indicators.
 19. Castañeda claims (personal communication) that such considerations fail to undermine the propositionalist's argument from the identity of undiscernibles since the subjects of (vi) and (vii) refer to different sorts of entities than the subjects of (viii) and (ix), and the subjects of (x) and (xi). This suggests that (vi) is not made true by the same state of affairs as (viii) or (x), and that (vii) is not made true by the same state of affairs as (ix) and (xi). While that is not something I can disprove, I simply cannot bring myself to believe it. Nor do I see any attraction whatever in the proliferation of entities answering to descriptions of the form 'What . . . believed (. . .)'.
20. To be more precise, I should say that they are *mere* Cambridge changes. An object suffers a Cambridge change if a description which once applied to it ceases to do so (or *vice versa*) regardless of whether or not the object undergoes a real change. See Geach, 1969, especially p. 71–72.
 21. See Perry, 1979a and 1979b. I have also made use of an earlier version of Perry, 1979a and have had the benefit of discussing Perry's views with him. I sometimes depart from Perry's own terminology.
 22. This is an adaptation of Kaplan's 'Character plus context yields content' ('Content' is Kaplan's equivalent of Perry's 'object'). For Kaplan (see Kaplan 1977, especially IV), character pertains to sentence types rather than mental states and acts. The character of a sentence is its meaning. Content pertains to utterances of sentences. The content of a sentence in a context is roughly 'what it says' in that context. No harm can result from applying Kaplan's principle directly to belief states and their objects here since, for Perry, characters of belief states are intimately connected with the meanings of sentence types. Note that the application of the word 'character' to mental acts and states is mine rather than Perry's.
 23. Adverbial accounts of belief are advocated in, for example, Kitley 1964, Aune, 1967a, and Sellars, 1968. On adverbial theories of sensation and perception (which are somewhat more common than adverbial theories of belief), see, for example, Chisholm 1957, Cornman, 1975, and Sellars, 1975. For an adverbial treatment of propositions, see Aune 1967b. The *locus classicus* of adverbial theories of mind is Ducasse, 1951. Adverbialism is criticized in, for example, Jackson, 1975 and 1977. Many of the standard criticisms of adverbialism obviously fail to apply the account of belief sketched here. This account, it should be noted, is similar in several but not all respects to Armstrong's (1973) account, Bergman's (1960) account of awareness, and Sellars's account of thinking (see, for example, Sellars, 1956, 1967, and 1969). For an alternative account of belief which is able to accommodate Claims 1 and 2, see Lewis, 1979.
 24. Such a semantics is, however, developed in some detail in Part II of Pendlebury, 1980.
 25. Analogical accounts of thinking of roughly this form are developed in Geach 1957, § 17–21, and by Sellars (see references in note 23).
 26. Although I expect that my meaning will be clear, I do not like this way of putting the matter, mainly because I think the *de re-de dicto* distinction is far from exhaustive. For now the important point is that in (xiv) 'today' is, so to speak, the speaker's term (i.e. my term) rather than either Bill's or Fred's.
 27. The importance of such sentences as (xv)–(xviii) first occurred to me as a result of my reading of Geach, 1972. One possible reaction to such sentences is to deny flatly that they could be true. But this reaction is, so far as I can tell, restricted to philosophers whose theoretical views on belief make it difficult to accommodate the possible truth of the sentences. I have tried similar sentences on numerous non-philosophers, and all have agreed that they could be true. Sentences (xv) and (xvi) are due to F. Roger Higgins.
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