

Introduction

The attention that philosophers have lavished on propositional attitudes in the last hundred years has been thoroughly appropriate; there are few concepts whose explication would yield greater philosophical dividends than those of belief, desire and their content. In these opening pages I shall mention three concerns that make that true – namely, meaning, the mental, and truth.

MEANING

The theory of meaning is ostensibly about spoken and written language, and not thought or belief or intention. But it has become evident that it is not independent of the theory of propositional attitudes, or something closely related. The pragmatic concepts of a person's or population's language, or the reference of an expression as used by a person or population, will on any current account have something to do with belief. Beyond that there is a great diversity of theory. For some, meaning is a matter of the role of language in speech, while for others it is a property of language in thought. Among the former there are reductionists, who would explicate semantic concepts via propositional attitudes (e.g. Gricean intentions, beliefs, mutual knowledge), and anti-reductionists, whose position is that the concepts of belief and meaning play coordinate roles in rational psychology.

The account of chapter 9 accommodates both language of thought and communication-theoretic intuitions about semantic properties. And it is determinedly *reductionist* in two senses. First, the basis of all semantic properties is belief and desire; and thus it resembles Gricean reductionism: the meaning of linguistic items concerns the content of certain propositional attitudes. But the account is not exclusively communication-theoretic; for the theory of belief can serve as the basis of the semantic theory of "the language of thought" (rather the reverse of the usual view). Secondly, the account is reductionist in presupposing an explication of belief and desire themselves which does not rely on

UP I



propositions or semantic concepts. Propositional attitudes can then serve non-circularly as the basis of meaning.

That belief and desire and their content can be explicated without presupposing anything about natural-language semantics will, to many, be implausible; the idea runs the risk of suggesting a picture of thought without language, with language a mere vehicle of communication. Perhaps this will help: even if belief were a linguistic state, those properties of beliefs which constitute their propositional content can be reconstructed independently of their linguistic aspects, especially connections with spoken language. The theory of propositional attitudes abstracts from overt language or its inner connections. This may be too analytical for some tastes, not enough about what beliefs and desires are - viz. perhaps linguistic states. But how better to pursue that than by settling how any state, linguistic or non-linguistic, must relate to behavior and perception to be the belief that p or the desire that q?

The reduction of meaning to belief and intention would leave many questions in the theory of meaning untouched, e.g. about reference, the relation of meaning to verification and empirical content, equivalence in meaning, logical form, the nature of truth — all of which are as troublesome as ever. A principal complaint against the proposed reduction has been, I think, that it purports to answer such questions. So a Gricean theory may appear to be attempting to clarify equivalence in meaning in terms of equivalence of beliefs.

But of course the reduction doesn't answer the basic questions; rather it suggests what they are. Nor does it block progress on them, since nothing in the reduction suggests that propositional content is not in turn explicable. Some may have reasoned thus: "If semantical properties are explicable in terms of propositional attitudes, the latter must be non-linguistic, and therefore relations to propositions. But propositions hypostasize precisely what needs to be explicated, and so the reduction obscures the problematic concepts of the theory of meaning." But, as I shall argue, propositions are eliminable; their roles can be played by unproblematic entities. If we resist being mesmerized by propositions and concentrate on propositional attitudes, sensible reconstructions are forthcoming, with no implication that we are platonic intellects whose mental lives consist in grasping essences. This all implies that much of the "theory of meaning" has not been about meaning but about the content of propositional attitudes.



THE NATURE OF THE MENTAL

An obvious incentive for an explication of propositional attitudes is to meet Brentano's claim that the intentionality of a mental state precludes its being physical, something those physicalists who think there are beliefs and desires must dispute. But that requires explicating propositional attitude-ascriptions so that they are satisfiable by purely physical systems, entirely by virtue of physical properties.

TRUTH AND CORRESPONDENCE

Realism in epistemology and metaphysics presupposes that thoughts or sentences have objective properties that determinately constitute their truth conditions. This is why, despite Quine's naturalism and antireductionism about the interpretation of scientific theories, his overall framework can seem anti-realist. For Quine's attack on the naturalistic acceptability of semantic properties, including *inter*linguistic truth conditions and reference, attacks the objective basis of truth as correspondence. The *intra*linguistic truth predicate, the disquotation device, preserves nothing about the contingent representational properties of language or thought. Much of the interest in causal theories of reference is due to their pointing the way back towards a correspondence of thought and the world. But reference is not enough; some naturalistic account of the truth conditions of beliefs and utterances is required to re-establish correspondence on a firm footing.

This is not to deny that there can be a substantive account of truth without propositional attitudes. For sentential attitudes, which on some accounts are introduced independently of propositional attitudes, may suffice. But for reasons that emerge in 7.7, taking propositional attitudes as the bearers of truth yields the most rounded accommodation of classical intuitions, for it accounts both for substantive correspondence intuitions and for certain strong redundancy intuitions. On other accounts those two functions are allotted to distinct devices, one intralinguistic, 'true', and the other interlinguistic, 'true in L'.

THE EARMARKS OF PROPOSITIONAL ATTITUDES

Much of the animus against intensionalism, and enthusiasm for reference over meaning, was due not just to the ontological dubiousness of intensions, but also to the idea that no scientific good sense can be



made of states with the classical earmarks of propositional attitudes. It will be useful at the outset to list those features.

First, propositional attitudes are *intentional*: no extensional equivalence of s and s' is sufficient for $\lceil x \rceil$ believes that s' and $\lceil x \rceil$ believes that s' to ascribe the same belief.

Secondly, beliefs have evidential independence of content, which can be explained by contrast with the Quinean theory. From the evident observation that beliefs do not epistemically "face reality one by one", that is, that we take into account potentially everything else we believe in arriving at a particular judgment, Quine takes the further step, in effect, of identifying the content or meaning of s, for person x, with s's evidential connections — its conditioned connections in x to other sentences and to sensory stimuli. Classically, however, propositional content is individuated independently of such evidential connections. While determining a belief's truth requires taking into account other propositions, under what circumstances it corresponds to reality is independent of what counts as evidence for it.

Thirdly, beliefs, individuated intentionally, are interpersonally ascribable; there is such a thing as *intersubjective synonymy*. This is not independent of the last feature, since it implies it; for, as no two persons ever are in precisely the same evidential situation, if content were a matter of evidential connections no two persons would ever have the same belief. But this is nevertheless a distinct feature, since it implies that there is an objective criterion for interpersonal synonymy.

My account will be *holistic*, in that the content of a belief is a matter of its functional role in a system of beliefs and desires. Now functional role is relative to a given system of generalizations connecting inner states, input and output. If those generalizations that define the functional roles of beliefs and desires can apply equally to two persons, independently of their evidential connections, then that holism of content is quite different from the Quinean holism.

Fourthly, beliefs and desires are true and false, fulfilled and unfulfilled. The truth conditions of a belief are linked to the first three features – i.e. intentionality, evidential independence and interpersonal ascribability.

Fifthly, beliefs and desires are not as such necessarily linguistic states – i.e. states which involve relations to sentences of a public language. It must be emphasized that this is quite compatible with explicating 'x believes that s' as asserting a relation to a sentence of the ascriber's language. (Thus the following is not a good argument:



beliefs are not linguistic states as such; belief-ascriptions are relational; therefore belief-ascriptions assert relations to something non-linguistic – e.g. propositions.)

Now this fifth condition is independent of the first four. For some theories of propositional attitudes attribute to them the first four features but also make them linguistic. The epitome is Carnap's theory, that belief is a disposition to assert a sentence, and that we describe the belief by producing a sentence of ours as being intensionally isomorphic to that sentence. (On Carnap's theory the possibility of interpersonal synonymy is simply taken for granted.) So we may think of the version on which beliefs are not necessarily linguistic as the pure classical theory.

I shall be attempting to show that these five features, or close reconstructions of them can be exemplified within a naturalistic framework without propositions or irreducibly intensional properties. Quine's demand for an eliminative explication of intensionality is not too strong. For any theory that would fully vindicate propositions, by showing their use to be appropriate in psychology, would thereby, by accounting for the physical bases of these five features, show how to eliminate propositions from psychology while preserving intentionality.



1

Propositional attitudes in the theory of mind

The principal concerns of this book are in the foundations of "the theory of meaning" – questions about the contents of beliefs, about truth conditions, and about linguistic meaning. Evidently a theory of belief must raise issues in the philosophy of mind, about the general status of ascriptions of mental states, about their physicalist reduction, and about the explication of the sentences that ascribe them. In this chapter I present a case for a theory that is realist about beliefs and their content (i.e. not instrumentalist), and that is functionalist, physicalist and reductionist.

I.I THE BELIEF-DESIRE THEORY

Behaviorists had two tendencies in explicating belief: on one, the criterion of belief is linguistic behavior — what is or would be said; on the other, what matters is general behavior, the real test of belief being action and not avowal. The other particular philosophical questions a theorist was facing tended to determine the approach. The avowal theory was attractive for the analysis of intentionality and opaque contexts, the action-oriented theory for the analysis of acceptance, or subjective probability in decision theory, or sincere assertion. But both theories collapse for the same reason: what a person would do or say depends not merely on what he believes, but also on his desires and aims. The point is quite conclusive, for desire raises the reverse problem: what a person does or says indicates what he wants or aims at only given what he believes.

But the reduction of behaviorism to a vicious circle has been fruitful. For it has suggested accounting for belief and desire in terms of their *joint role* in predicting and explaining behavior. That joint role can be represented, in one form of a person x's reasons for an action A, as follows:



- x desires that q;
- x believes that if p then x's doing A will lead to q;
- x believes that p.

Now, not every such combination leads to deciding to do A, because the desire may be overriden by another. But every account of an agent's reasons involves something like it; moreover, it shows how any belief that p and desire that q can lead to action by way of a conditional instrumental belief. This explanatory dovetailing of belief and desire evidently is no accident.

A revised behaviorist idea now might occur to one; namely, that it is those belief-desire combinations that are the relevant dispositions to behavior. But the idea is singularly unproductive. It yields no explication of belief- or desire-ascriptions separately, and we do manage them in partial ignorance of a person's other attitudes. Moreover, to have such a combination of attitudes is not *eo ipso* to be disposed to do A, again because of overriding desires. (Perhaps in some sense of 'disposition', 'tendency', or 'inclination' that combination is usually sufficient for a "disposition", etc. to do A. That concept, however, would have to be accounted for, not in terms of straightforward behaviorist counterfactuals, but within the context of some functional system.)

What then might the joint explanatory role of beliefs and desires amount to? Presumably it is our mastery of some system or theory that accounts for our understanding attitude-ascriptions, one that incorporates the explanatory pattern referred to two paragraphs ago. Although the answer to the following question is obvious, perhaps it is not a bad way to launch our investigation. Could our mastery of that pattern alone, as a general theory of behavior, account for our understanding attitude-sentences? Does it exhaust the relevant theoretical roles of belief and desire? Of course the answer is no; for no belief or desire is thereby distinguished from any other belief or desire. And evidently our mastery of attitude-ascriptions must lie in part in our understanding the difference between the beliefs that Edward is eating an avocado and that Jane is dancing the bossa nova.

So the theory, whatever it is, must appropriately distinguish distinct beliefs and desires — must imply something different about the belief that p and about the belief that q for all distinct p and q. If a theory lacked that property, our mastery of it could not possibly explain our mastery of 'x believes that p'. This point has not been prominent in recent discussion of belief as a theoretical concept. Even given the global



indeterminacy of a system of ascribing beliefs and desires, within the system something must individuate distinct beliefs. Thus however arbitrary the choice of a translation scheme might be, its whole point is to generate a useful difference between 'means s_1 ' and 'means s_2 '. So with belief. This point may be lost in discussions of general constraints like the Principle of Charity, which enjoins us to maximize truth and plausibility in ascribing beliefs. Such principles (for an important discussion of which see Davidson, 1972, and Lewis, 1972) do not as such contribute to the intrasystematic individuation of content. If attitude-ascriptions are explainable in terms of their role in some theory, something far more specific has to be introduced.

The thought naturally occurs that some special relation between beliefs and *linguistic* behavior, which is not via the practical syllogism, may individuate beliefs. While the practical syllogism relation between a belief and an action equally holds between any other belief and that same action, perhaps an independent relation which obtains between each belief and a certain utterance-type and between no other belief and that utterance-type, can be counted as fundamental. That would then individuate the contents of beliefs and desires, while their role in the practical syllogism makes them "beliefs" and "desires".

Now I do not doubt that there is an important relation that obtains, for a given person, between each belief and some utterance-type and no other belief and that utterance-type (except when the latter is ambiguous). But I do doubt that it can usefully be introduced as part of the foundational theory of belief. One such relation is specified in 9.1, but it requires an independent theory of belief. The idea is that a certain utterance-type, or internal linguistic state, can have a functional role for a certain person which makes it the belief that p. But the account of that functional role presupposes a theory that generates independently a unique systematic role for the belief that p.

My reason for denying a connection between belief and linguistic behavior that individuates content is elementary. If the behavior is described purely syntactically, the connection is not interlinguistically or even generally interpersonally ascribable; for sentences are connected with different beliefs for speakers of different languages or idiolects. If the behavior is described semantically, say as 'utterance of a sentence that means p', something either inside or outside the theory must distinguish 'means p' and 'means q'. If it is inside the theory our problem remains; if outside, the theory does not fully account for the content of beliefs, for its principal source would lie elsewhere.



Thus it seems the only salient relation our commonsense theory implies between x's belief that p and the sentence that expresses that belief in x's idiolect is the one generated by the practical syllogism: x's uttering s could be explained in terms of x's desire to communicate p, and x's belief that uttering s will secure that result. But that relation could obtain between any other belief and the utterance of s, and so our commonsense theory relates linguistic behavior to belief in the manner of behavior in general.

Systematic connections between beliefs, desires, and behavior do not then account for content on their own. It seems we must at least turn to connections with perception. What these connections are and how they contribute to the individuation of content is discussed in chapter 4. Let me simply register here the relevance of *input* generalizations connecting perceptual circumstances and some beliefs. Finally, there are also a priori rationality constraints that operate together with the input generalizations to secure the distinctness of distinct beliefs (cf. 4.5 and 4.7). The hypothesis is that our mastery of attitude-ascriptions involves a certain theory that consists at least in:

- (a) input generalizations relating perceptual circumstances to beliefs.
 - (b) internal constraints of rationality on beliefs, and
 - (c) output generalizations relating beliefs and desires to actions.

1.2 INTERPRETATIONS OF THE BELIEF-DESIRE THEORY

To say that our mastery of a certain theory explains our understanding attitude-ascriptions is hardly enough; for that raises the general question of theory interpretation. It is far from obvious that there is a unique correct device of theory interpretation, of explaining the meaning of the theoretical terms of T in terms of their occurrence in T. For theories are artifacts, constructed for purposes that differ in ways that affect their interpretation. Some theories perhaps should be taken instrumentally, e.g. parts of economics: while others, say in cognitive psychology, may best be interpreted in a realist vein. The literature suggests three schemes for interpreting attitude-ascriptions — namely, instrumentalism, functionalism, and a certain sort of anti-reductionism. While the first and third of these unfortunately are not often distinguished, they ought to be.

Perhaps there is a unique best kind of realist interpretation of a theory, but that isn't obvious. Functional interpretation may not be appropriate for theories that are not functional in the sense of chapter 3, e.g. theories in physics.



The instrumentalist account treats the belief-desire system simply as a device for systematizing perceptual-behavioral facts. Attitude-ascriptions would not then have truth conditions; they would be evaluated purely in terms of their contributions to the systematizing effort. Later I offer reasons for looking for a realist interpretation; but notice that if one accepted both the Brentanian thesis of the incompatibility of the existence of intentional states and physicalism, and physicalism, the only sense to be made of attitude-ascriptions would be instrumentalist.

Functional theories are theories of how states of an individual are related to each other, to input and to output, causally, transitionally, and so on. So to interpret the system of beliefs and desires as a functional theory is to explicate an ascription of an attitude to x in terms of x's being in a state that realizes a functional role associated by the system with that form of ascription. A functionalist interpretation is a realist interpretation: the theoretical terms of a functionally interpreted theory denote (in the cases that normally interest us) internal states of the individual. These are either non-functional states that realize the functional roles, or the functional states themselves, according to how one sets up the interpretation.

A functional interpretation of a theory is explicative: it assigns to each sentence containing a theoretical term of the theory an equivalent sentence, free of theoretical terms, that somehow captures a functional role. And indeed it seems to me (quite at variance with the intuitions of many, I think) that any plausible account of the belief-desire theory that is both realist and physicalist will generate an explicative treatment. Consider the denotational scheme of realist theory interpretation suggested by Putnam (1975). In psychological theories, the only plausible denotations for theoretical terms, as Putnam has pointed out, are functional states. Now, what is the criterion of denotation? The most natural suggestion is that the theoretical terms of psychology denote those functional states which would explain the success of the theory. But they, it would seem, are the states determined by those interconnections in the organism which mirror the connections that the theory generates among its terms. For, if there is no approximately similar system in the organism, why say that those terms denote any functional states at all? The upshot is that one can read off the criterion of denotation of the theory's terms from the theory itself, and that means that functional theories have explicative truth conditions, of the kind described in chapter 3 or 4.3. A