

"Making Sense of Speakers".

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Gareth Alan Jenkins

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Abstract.

In chapter one it is argued that a theorist of creatures who think, have beliefs, talk, etc, about the world, is committed by his theory to the existence of thoughts, beliefs, utterances, etc, and the things those thoughts, beliefs, utterances, etc, are about. This claim is defended against three objections.

In the second chapter the role of semantic theories is investigated; a theorist, it is argued, is committed to a semantic theory by his descriptions of subjects as saying things. From this certain constraints on semantic theories are deduced.

Thirdly, a number of principles governing the description and explanation of the experiences and conduct of speakers are advanced. The objectivist character of these principles is clarified.

The principles are then deployed in the fourth chapter in an attack on scepticism about our knowledge of other minds, with particular reference to our knowledge of the perceptions of others. The attack contains an argument that tries to do what Wittgenstein's Private Language Argument tried to do.

The fifth chapter attempts to make some general points about the description and explanation of the experiences and conduct of speakers. It assigns a central role to perception and belief, and tries to show that the possibility of such explanations depends on there being such a thing as human nature, about which some general remarks are made.

In the final chapter the thesis returns to the problem of commitments, and disputes about commitments. The discussion leads into the subject of realism; some standard elucidations of what realism is are criticised, and a better account drawing on material from earlier chapters on the explanation of belief is begun.

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Preface.

Successive drafts of this thesis have had a succession of main aims. Originally it set out to show how a fairly rich picture of radical interpretation could make unattractive the various forms of subjectivism that have dominated moral philosophy for most of this century. The destination in ethics was then dropped as the thesis began to fall into two poorly connected halves.

That left the picture of radical interpretation, and a treatment of the problem of other minds that I hoped would help to fill in the details of the picture. That hope was disappointed; it now seems to me that the sceptic about other minds has a lot to learn from, and not much to teach someone who wants to know how radical interpretation works.

Though almost nothing has survived verbatim from the two or three first shots at this thesis, the concerns can still be recognised in the present version. An understanding of objectivity quite generally is sought for in an understanding of radical interpretation, where radical interpretation is what must be possible if scepticism about our knowledge of other minds is unjustifiable.

It would have made many things, not least this

Chapter One: The Objects of Thought

preface, easier to write if there had been some single question to which I could have eventually given a yes/no answer. But the thesis is rather less specific and single-minded than that, and consequently hard to follow; I can only request reading it, as it was written, as a rather meandering exploration of objectivity.

I have many debts to acknowledge. To conversations with friends, particularly Margie Drake-Brockman, Richard Hudd and Steve Williams, who have forced me to think much harder about the views defended in this thesis. To the writings of many philosophers, especially Wittgenstein, Austin and Gareth Evans. And to Mark Sainsbury who made innumerable careful criticisms of the last draft. But my greatest debts are to Tom Sorell whose endless patience with my views finally got me to do philosophy properly, and to David Wiggins for his writings and lectures and all the invaluable help he has given me with this thesis, so much so that only the lenience of copyright laws enables me to submit this work under my own name.

These friends have done their best for me, and I am sorry that the thesis is so little of what I would like it to be that they may feel their help has been spurned. I can only promise to try in the future for better things.

Chapter One. 'The Objects of Thought'.

One. Introduction.

The aim of this chapter is to start the description of the situation of the radical interpreter. Some first guidelines are pencilled in, and three lines for further discussion are introduced. The beginnings of these three discussions can be traced leading out of this and the next chapter into and beyond the rest of the thesis.

Two. First Outlines of the Theoretical Situation; the Theorist, his Subjects, and their Commitments.

Any theorist who believes his own theory is, by that token, committed to whatever entities that theory is committed to. To believe what modern physics tells us, for example, is to be committed to at least the existence of a number of atomic and sub-atomic particles.

The notion of commitment used here needs at least the following explanation. The theorist is committed to the truth of his rather than any rival theory. But our interest for most of this thesis will be in a narrower commitment; the theorist is committed to the existence of whatever entities are mentioned by the theory he believes.

Suppose now that the theorist is a psychologist or anthropologist (a philosopher even). He has a

number of living subjects of some species or other, and he is interested in describing and to some extent explaining the experiences and conduct of these creatures. If his subjects are people he may have a special interest in their beliefs and how they see the part of the world they live in. He will be interested, in that case, in what his subjects take the world to consist of, and what they believe about those constituents of the world.

It would be natural, and I think correct, to begin to represent the situation of the theorist as follows. Somehow or other (see later chapters) he comes by a description of the experiences and conduct of his subjects. In doing so he is likely (certainly advised) to attribute to them desires, needs, emotions, thoughts, feelings, perceptions, beliefs, and so on. If they speak a language he will attribute to them sayings, vows, and other writing- or speech-acts, understandings, and so on. These everyday psychological and linguistic phenomena are the objects of his first commitments ('first' merely in order of this exposition).

But there are more commitments that even such a description of such subjects will involve. Suppose the theorist describes some subject as believing that, for example, the moon is made of cheese. Since the moon is mentioned in the specification of what the subject believes, the subject is, if he has that belief, committed to the existence of the moon.

Further, if the theorist believes that his subject has this belief about the moon, he himself is committed to the existence of any entities mentioned in his theory, in this example the moon. For the moon is (if the subject is committed to its existence by believing that it is made of cheese) mentioned in the specification of what the subject is said to believe.

Thus it is natural to begin to describe the situation of the theorist of creatures who think, have beliefs, talk, etc, about the world, as being committed by his theory to the existence of thoughts, beliefs, etc, and the things those thoughts, beliefs, etc, are about.

There are, though, three (that I shall mention) apparent problems with this simple position. And the rest of this chapter and the next will try to go a little way to saying something by way of reply to them.

- (1) it may be said that from the beginning the dependance of thought and the rest on language must be acknowledged and made clear, and it is not in this outline.
- (2) it may be said that when the theorist claims that his subject believes that the moon is made of cheese, he (the theorist) does not mention and is not committed to the existence of the moon.
- (3) it may be said that it is not enough for a subject to be committed to the existence

of the moon that some theorist believes that that subject has some belief about the moon. For it is only if the theorist himself is committed by his belief about that subject to the existence of the moon that the subject is so committed too. But then there is a regress. For who is to theorise about the theorist and his commitments? And if someone were to what would that show?

Three. Some Theses About the Relation Between Thought and Language.

Thought and language are two of the things the beginnings of the description of whose mutual relations is one of the projects of this thesis. So if I argue against some views about the relation between thought and language this should not suggest that I do not believe there is any interesting relation to be described. To make one very weak claim towards some connection, it would be absurd to suppose that a creature incapable of understanding any language could have beliefs or thoughts about, for example, Freud's theory of dreams.

The objection I have in mind is concerned with the way I wrote in the outline in the last section as if thoughts and the rest can be attributed to creatures who may or may not speak any language. It is a popular view that thought depends on language, and a creature that speaks no language cannot still

have thoughts. There seem to be at least two possible elaborations of this claim, and it's worth distinguishing them.

First, it may be claimed that any theory that attributes thoughts to some creature must be committed to the existence of a theory of the language of the creature in question. It follows from the fact that this or that creature has some belief or thought, that it speaks a language.

Secondly, there is a stronger claim; any theory that attributes thoughts to some creature must contain a theory of the language of the creature in question. This claim comes very close to the idea criticised by Wittgenstein in the 'Investigations', that knowledge of a semantic theory plays an essential role in understanding a language.

These claims are probably both very nearly right. And it is something of a cliché now to say that you only know what a man's words mean when you know what he believes, and only know what he believes when you know what his words mean. But though this cliché and these claims point to something important that we shall have to capture later, taken strictly they are false, and should not guide the development of our description of the situation of the radical interpreter.

This is not the place to go into all the various arguments that have been used to try to establish these claims, nor am I the person to do it. The

arguments all face the following difficulty. It is, I submit, reasonable to suppose that creatures who are competent with no language can nonetheless entertain a range, however limited, of thoughts, desires and the rest. Doubts on this point can be calmed by observation. And arguments to the contrary must identify some relevant difference between non-linguistic creatures and competent speakers. But the only genuine difference is irrelevant; the second speak a language while the first do not.

There is a further difficulty. It is very hard to prevent arguments for the idea that creatures who speak no language cannot think at all from turning into an argument for the idea (which I shall pompously just dismiss as absurd) that even a speaker of a language cannot have a thought about some object unless he knows the name of the object (or, if not necessarily the name, some expression that refers to the object).

If these difficulties seem flimsy obstacles to the establishment of some profound truth I hope to get opponents on my side by incorporating in the course of later chapters their insights while avoiding what I take to be a mistake.

Four. Semantics for Propositional Attitudes.

This section is a defence of the idea, central to the simple outline given in Section Two, that in the sentence "X believes that the moon is made of cheese" the moon is mentioned.

This idea is intended to stand in contrast with Fregean theories according to which words in belief (and other psychological) contexts denote their usual senses, or themselves, or something other than their usual referents.

It may be enough merely to repeat an earlier sentence (altered a little I admit); if a subject is committed by some belief he has to the existence of the moon, then the moon must be mentioned in the specification of what he believes.

(In fact that's not quite right. For the existence of the moon may only be a condition of the existence of what is mentioned in the specification of his belief. Its existence is a condition, for example, of "the moon"'s having a sense. But this alternative looks as if it will make it impossible for creatures who speak no language to have beliefs, unless they can be committed somehow to the sense of "the moon").

The resolution of this dispute must be sought, if this is not convincing, in formal semantics. A number of issues raised now will be settled, if at all, only in the next chapter when we look at formal theories of language and their role in interpretation.

The semantics to be supplied perform three tasks. First, since this is a thesis that speaks a lot about propositional attitudes, they accomplish the first task of any such thesis - to supply semantics for the relevant area of discourse.

Secondly, they fill a gap in the literature, and set the standard for rival semantic proposals. Such semantics should have been proposed long ago, and I can only suppose that ungrounded gloom about the possibility of homophonic semantics for propositional attitudes has delayed it.

Thirdly, they provide a reply to the second apparent problem of Section Two. I shall try to show that no more needs to be said about "the moon" as it occurs in "X believes that the moon is made of cheese" than whatever needs to be said to explain what it means or does in "the moon is made of cheese". Given that, and that the moon is mentioned in "the moon is made of cheese", I think we can infer that the moon is mentioned in "X believes that the moon is made of cheese".

The semantics to be supplied meet Tarski's Convention T, and I shall assume that they are part of a larger theory done in the style of Tarski's original theory of truth. Further discussion of issues here occurs in the next chapter.

"X believes that" is a phrase that takes sentences to form sentences. It takes, for example, the sentence "the moon is made of cheese" to form another sentence "X believes that the moon is made of cheese". Suppose we have a language (a fragment of English) L_1 that contains among other things the sentence "the moon is made of cheese", and a theory Θ_1 of L_1 that meets Convention T. We add to L_1 the operator "X believes that" and wish to

supplement Θ_1 to cope with this addition.

We take our cue from the semantics for another sentential operator "it is not the case that". The usual semantics for this operator consist of the following axiom, or something like it;

$$(A.1) \quad (\forall p)(\text{"It is not the case that"}-p \text{ is true iff it is not the case that } p \text{ is true}).$$

I shall criticise this axiom in the next chapter. Here let me just introduce what seems to be a perfectly good alternative, one immune to the objection to be rehearsed later.

$$(A.2) \quad (\forall p)(\forall S)(\text{"It is not the case that"}-p \text{ is true iff } (\vdash_{\Theta_2} (p \text{ is true iff } S) \text{ \& it is not the }^2 \text{ case that } S)).$$

Θ_2 is the theory consisting of Θ_1 plus (A.2). And Θ_2 will meet Convention T for a language that comprises of L_1 and the operator "it is not the case that".

Analogously, to deal with L_2 (ie. the language consisting of L_1 plus the operator "X believes that") we add to Θ_1 the following axiom;

$$(A.3) \quad (\forall p)(\forall S)(\text{"X believes that"}-p \text{ is true iff } (\vdash_{\Theta_2} (p \text{ is true iff } S) \text{ \& den("X") believes that } S)).$$

Here Θ_2 is the theory consisting of Θ_1 plus (A.3). Again, Θ_2 will meet Convention T; we can prove, for example, given that den("X") is X and that \vdash_{Θ_2} ("the moon is made of cheese" is true iff the moon is made of cheese), the required theorem

The difficulty is a familiar one. A subject and a theorist can only have beliefs that involve the moon if the moon exists. People do not for this reason have beliefs about Zeus or Atlantis; these names, as Frege put it, only behave, or are used, as if they denoted something.

Perhaps this difficulty will become clearer if we try to solve it. It is not enough for some subject to be committed to the existence of Zeus that some theorist uses that name from stories to describe him as having some belief about Zeus. But it is both necessary and sufficient for some subject to be committed to the existence of the moon that any theorist who does his job properly describes him as having some belief about the moon.

To put the point another way, it is a sufficient condition of some subject's not being committed to the existence of an object that some theorist can describe that subject's beliefs without ever mentioning that object. This condition is also necessary.

The importance of this point, for the purposes of this thesis at least, cannot be overestimated. Just what the point is may still be obscure but perhaps it will be recognised in the claims of later chapters (especially Chapter Three).

My use of various words in this section has

that "X believes that the moon is made of cheese" is true iff X believes that the moon is made of cheese. (The proof is trivial.)

These semantics can easily be adapted to deal with propositional attitudes other than belief.

Pending the discovery of some flaw in these semantics, and the development of a decent alternative treatment (along Fregean lines, maybe) I conclude that the moon is mentioned in the assertion that X believes that the moon is made of cheese.

In that case both the theorist who believes that X believes that the moon is made of cheese, and the subject who has the belief attributed by the theorist, are committed to the existence of the moon.

Five. Some Remarks About Existence.

An oversimplification in the statement of the last paragraph should now be remedied, and the difficulty alleged by problem (3) of section two now dealt with.

If a theorist claims that a subject believes that the moon is made of cheese, he and the subject are only committed to the existence of the moon by that claim if the theorist is; only if, we might rather unhelpfully add, a theorist of the theorist (which is what I suppose I am) claims that the theorist believes his subject has this belief.

been guided by the principle that one cannot think about, talk about, have beliefs about, or be committed to the existence of what does not exist. This use is unnatural, and makes for a lot of difficulties in the construction of alternatives to natural use.

The principle is none the worse for that. But it would have aided expression and comprehension if there had gone before some semantic theory for non-denoting terms that made clear, consistently with the above principle, their role or function in psychological contexts. Such semantics, if the principle is correct and my use of psychological words in accordance with the principle as unnatural as I find it, can be supplied, though I have only the faintest inkling (conferred by lectures given by Gareth Evans) of how to supply them. I trust though that I shall in most of the remainder of the thesis be talking about things that do exist, and that the omission of semantics for non-denoting terms will not be responsible for too many future obscurities of thought or expression.

Chapter Two. 'Formal Theories of Language'.

One. Introduction.

This is a complicated chapter. Its purpose is to develop a little further our understanding of what it is for a theorist to be committed to the existence of various objects. This is done by bringing semantic theories into the picture.

Our attention will be turned to the problem of what it is for a semantic theory to be 'adequate'. Successive attempts to deal with this problem are prompted by a number of ideas about what semantic theories are.

At the same time, some complaints are made against two kinds of possible semantic theory, which I call 'translational' and 'list' theories. The inadequacies of these theories are deduced from our final account of what it is for a semantic theory to be 'adequate'.

Two. The Commitments of Theorist and Subjects;
First Improvements.

The theorist, we shall suppose, has arrived at a description of the experiences and conduct of his subjects. This description is given in his language (which, as before, we call L_2), a language with the resources to talk about things

in the world and the thoughts, beliefs, etc, that his subjects have about those things.

As we have said, the theorist is committed by his description to the existence of any objects mentioned in the description.

We introduce semantic theories into the picture with the following thought: semantics is the study of the relation between language and the world, and a semantic theory for a language must describe the relation between that language and the world. Further, if that language has the resources to speak about things in the world, it will be the first duty of a semantic theory for that language to describe those resources. It will do that by indicating what things the language is capable of speaking about.

If this much is true of semantic theories we can take our first step towards improving our understanding of commitment. We can say that the theorist is committed by his description to the existence of any objects mentioned in an adequate semantic theory of the language used to give the description.

'Adequacy' is now the name of the problem. For our understanding of what semantic theories are limits us to this explanation of what it is for a semantic theory to be adequate;

(R.1): A semantic theory for a language L is adequate iff it mentions all the

things to which users of L are committed by their use of L.

And that, it hardly needs saying, reverses any advancement we may have thought we had made with our improved statement of what it is for a theorist to be committed to the existence of various objects.

Three. Two Sorts of Redundant Theories; and Two Preliminary Complaints Against Them.

What we need to do is to find a way of saying what semantic theories are that will let us replace (R.1). We will then have to try to show that any theory that meets the new requirement will also meet (R.1).

In this section I consider two kinds of semantic theory. The first, which I shall call a 'translational' theory, does not meet (R.1); and we will try to show later that a complaint we shall make against it is a serious complaint. The second I call 'list theories'; such theories do meet (R.1) but again we shall make a complaint against them whose seriousness will only emerge later.

A translational theory (as advertised and advocated by such people as Katz) is supposed to deliver, for each sentence of the language in question, a sentence with the same meaning. The most conspicuous feature of such a theory is that both sentences will be quoted, as in

(T.1): "La neige est blanche" means the same as "Snow is white".

The only entities mentioned in such theories are sentences, so they are not adequate by the lights of (R.1).

We might also point out that translational theories are vulnerable to a different complaint. Someone could know a translational theory for a language (French, in our example) and yet not thereby know what the sentences of that language meant. For he might not understand the translating language (English) either.

If we are to get any mileage from this complaint, by using it instead of (R.1) as an explanation of what it is for a semantic theory to be adequate, we need to understand why it is a complaint. We need to know (unless we just want to assert it) why an adequate semantic theory must be such that anyone who knows the theory will understand the language of which it is a theory.

We will arrive at some understanding of this in the fifth section. But the other task of the present section is only to make a complaint against 'list theories'.

Such theories consist of a list of statements, one for each sentence of the language, of the following sort;

(T.2): "La neige est blanche" means that snow is white,
 "L'herbe est vert" means that grass

is green,
etc.

In the end a list theory will, as required by (R.1), mention everything to which speakers of the language in question (French, again) are, by their use of the language, committed.

But no-one impressed with the work of Frege and Tarski who thought he detected something interesting in (R.1) will let list theories pass the test set by (R.1) without demur. What was meant by a theory that mentions the objects of users' commitments was a theory (in the style of Frege or Tarski) that contained such information as the following;

(T.3): "La neige" refers to snow,
"L'herbe" refers to grass,
etc.

Rather than try to modify (R.1) to exclude list theories, we shall look for a reason to ignore them. The reason will be this; they depend (in a way to be explained) on what I shall call 'Formal Theories', in the style of (T.3).

Suppose that someone were to say that list theories were the only kind of semantic theory that we can have. Then the question we should put to him is the following; 'By what principle is the set of sentences of a language whose meanings are listed by a list theory determined? If you were constructing a list theory, how would you know when to stop?'

The correct answer would be 'The set of sentences of a language is determined by a theory of meaning for the language. I come to the end of the list when I have given the meaning of each meaningful sentence of the language'. But this answer is no good to the list theorist, for he has no principled theory of meaning or way of deciding whether or not a sentence is meaningful.

The difficulty for the list theorist is aggravated by the fact, crucial to our discussion, that speakers can construct and understand new or original sentences, ones they have never heard before. So it will not do either for the list theorist merely to deal with each sentence as it is spoken by someone; his job, and his theory, will never be complete.

(It will be said that what is needed is a syntax. Rather than go off on a long and poorly informed digression, I shall simply assert that syntax just is semantics; the view, almost universal in Chomsky's heyday but now, I believe, almost defunct, that decisions about syntactic well-formedness can be made independantly of semantic considerations is testified against by every work of every syntactician. Well-formedness is just meaningfulness, and if it were not who would care about syntax? I shall retract this assertion when I see syntax done as an independant discipline.)

I shall give the discussion the push it needs

by concluding at a slightly premature stage that if a language is such that speakers of that language can construct and understand new and original sentences, then there must be some (formal) theory other than a list theory for that language. Further, this other theory will have what it takes to be a list theory, so we can ignore list theories for such languages.

Doubtless this is the place to say that such an other theory will be a formal theory in the mould of a Fregean or Tarskian theory of truth, or, if not that, will proceed by showing how the meanings of the sentences it counts as belonging to the language depend on the meanings of their words and the way those words are put together. Such an assertion seems to me unexceptionable, and I have no qualms about my use of this framework in the semantics for propositional attitudes of Chapter One; but it is of course provisional on the failure, in which I have every confidence, of opponents of Frege and Tarski to provide on paper a working alternative.

There is one minor contribution we can make to these technical matters on our way past. It is this; a formal theory, if it is to avoid the risk of triviality or ineffectiveness, should not

use the name of the language for which it purports to be a theory. The ease with which

(T.4): $(\forall p)(\text{if "p" is a sentence of L, then "p" means that p})$

seems to avoid the difficulties of list theories is wholly illusory. Equally, the essential (if implicit) reference to L in the standard axiom for negation must be replaced (as it is in (A.2) of Chapter One) by reference to the formal theory (for L).

Four. The Replacement of (R.1).

A semantic theory describes the relation between language and the world. This thought lies behind (R.1), and if we are to replace (R.1) we must replace this thought.

One attempt at replacement has already been criticised. This was the idea (to adapt it to our present purposes) that a semantic theory is what must exist if a creature has a thought. But we were not convinced that language is a condition of thought.

(The deficiencies of this idea are also deficiencies with rival semantic proposals to (A.3) of Chapter One. For example, if we doubt the suggestion that thought depends on language we will doubt that in

(A.4) $(\forall p)(\forall S)(\text{"X believes that"-p is true})$

iff (\vdash_{θ_2} (p is true iff S)
 & den("X") believes that
 "S" is true))

the condition is necessary. I doubt that it is sufficient either.)

We shall find our way to a replacement for (R.1) with the following strategy. Let us just say that a semantic theory is a theory of a language, and then allow some observations about language to illuminate what such a theory must be like.

I shall try to deduce some constraints on the adequacy of a semantic theory from the observation (which I shall treat as uncontroversial) that language is a means of communication. More precisely (though leaving out writing etc) speakers can use the words of their language to say things. The first thing we need is the connection between using words and saying something, given by the principle

(P.1) $(\forall p)(X \text{ says that } p \text{ iff}$
 $(\exists S)(\exists \theta)(\vdash_{\theta}(\neg)(S \text{ means that } p)$
 $\& X \text{ uses the words "S"))$.

It is a fact of considerable importance to us that language is a means of communication. Most of our interaction with other people is via language, and we are extremely fond of the idea that the interaction works. So if (P.1) captures something of that thought, then failure to capture that thing will be an inadequacy in any

semantic theory.

What would a theory Θ have to be like if (P.1) were true? The idea behind (P.1) is that if someone uses the words "S" (suppose he says "La neige est blanche") and thereby says that p (that snow is white) then "S" must mean that p. And the theorems of a theory for a language whose words people use to say things must be such that the sentence of the language mentioned by the theorem ("S") must be translated by the sentence used by the theorem to say what uses of the sentence mean.

For a language that is a means of communication, then, if (P.1) is true we can say

(R.2): A semantic theory for a language L is adequate iff it has as consequences, for each sentence of L and no others, a theorem of the form

"S".....p

such that "p" translates "S".

Five. The Replacement of (R.2), and Two Complaints Revisited.

We have got a replacement for (R.1) from our observation that language is a means of communication. Other and no doubt more interesting requirements can be derived from other and more interesting observations. For to account for the ways in which language can be a means

of communication is only one aim of semantic theories.

Eyebrows (even blood pressures) may have been raised earlier when I accorded similar treatments to negation and belief. It will be up to a complete semantic theory to account for the very different properties of these two operators. The extensionality of negation contexts will be a first problem. I only wish to point out that these problems are not problems for the theorist who confines himself to meeting (R.2), as I did.

Two tasks remain for this chapter. First, we shall tackle the problem that has exercised many philosophers for some time of replacing (R.2) by a constraint that does not use the concept of translation. Secondly we shall try to derive from within this framework our earlier complaints against translational and list theories.

If speakers use a language to say things, then there is a theory θ for L that meets (R.2), if (P.1) can be believed. So if a theorist describes speakers as saying things in some language L he commits himself to the existence of such a theory of L.

It would be nice simply to be able to say that a theory for a language L is adequate iff a theorist of L-speakers is committed by his description of those speakers to the existence

of that theory. (If they speak no language, he is of course committed to no such theory.)

The thought needs some work before it will be of any use to us. For as it stands the obvious line of development is to say that the theorist's description must be such that the theory of L to which he is thereby committed must be adequate by the standard of (R.1).

But it has an important point in its favour. For it has moved us from talking about the theory of L_2 (the theorist's language) to talking about the theory of the speakers' language, L. And to turn this to our advantage we need only find some way of saying what the theorist's description must be like if the theory of L to which he is thereby committed is to be adequate. We shall then find a way to return to talking about the theorist's language.

The main task is easily begun. We might begin it by observing that language is only a part, however central and important, of the world to which speakers respond and with which they involve themselves. Semantics, then, is only a part of a larger task of describing the whole variety of experiences and actions (linguistic and otherwise) of the speakers of L. And we should add, to try to rule out trivial descriptions, that the description must make sense of, illuminate or explain all these experiences and actions and what they have to do with language and the meanings of sentences.

The right question to press now is this; 'What is it for a description to make sense of, or explain or illuminate all these experiences and actions?' It would be nice if we could give necessary and sufficient conditions for ' S_1 makes sense of (explains, illuminates) S_2 ' where S_2 can be any sentence describing an experience or action. But this thesis will not go very far to supplying such conditions. It will be concerned, in later chapters, with a more informal provision of some details of what the description must be like. These details will be concerned with making unattractive the opinion, held by many, that the project of supplying such a description is just impossible.

But that is for later. Let us pause here to record our replacement, such as it is, for (R.2);

(R.3) A semantic theory for a language L is adequate iff a theorist of L -speakers is committed to that theory by a description of L -speakers that makes sense of, makes intelligible, or explains the total experiences and conduct of L -speakers.

I submit that it is a fairly interesting and substantial and open question whether or not a theory adequate by the lights of (R.3) is also adequate by the lights of (R.2) and therefore (R.1). And it seems to me that it will be. For there is no making sense of speakers without describing what those speakers say to each other, and then

(P.1) and the argument of the last section can be used to show that making sense of speakers commits the theorist to a theory of their language that will meet (R.2).

It is then a simple matter to show that such a theory will also meet (R.1). For since a theory that meets (R.2) must say, for each sentence of the language what that sentence means, it would not be possible to know the theory and yet be unable to understand the language of which it is a theory. Our complaint against the translational theories that fail (R.1) thus becomes the complaint that they do not perform the essential task of a semantic theory of explaining how language is a means of communication.

It is also a simple matter to return from talk of his subjects' language L to the theorist's language L_2 ; let L be L_2 , and therefore let the speakers of L include the theorist (theorising now about himself and other speakers of his language). The commitments of speakers and theorist now coincide, and these commitments, if L_2 is rich enough to perform the descriptive task in front of it, will be quite substantial.

I cannot quite calm the suspicion that a large circle has now been closed. But perhaps we can register the following improvement in our position. We began by talking about the

commitments that flow from a theorist's description of his subjects. Now we are looking rather at the commitments that flow from the semantic theory for the language used to give the description. The clarification of these commitments, insofar as clarification is even possible, rests with the description as before; but our interest in the description can now be for its own sake (and will be in subsequent chapters) and can be pursued obliviously of how the commitments that go with it are forced on the theorist. They can now be left until the end.

Finally, I offer what is only a sketch of a way to derive from (R.3) an understanding of the inadequacy of list theories. For simple languages there may be no inadequacy, but for a language like L_2 , reputedly rich enough to cope with all the contingencies of the description of human life, we can insist on the following.

Such languages must be able to describe new and unforeseen events. There is no way to provide in advance of experience a closed and manageable handful of formulae adequate to the task of reporting the experiences and conduct of people. Perhaps footballers really are always either over the moon or as sick as parrots; more likely, as the joke goes, it's not history that repeats itself but historians.

The task of a semantic theory, then, is to

describe a language capable of describing a world, and people in the world, subject to constant change and variety. Of course, alongside this continual change and need for new thoughts there must be, if a semantic theory is to stay true for any length of time, some constancy or regularity or familiarity.

But a list theory will always be on the move, if it to keep up with the constant novelty and invention of the descriptions of speakers. Only a formal theory will be able to rest on its laurels awarded by the world's constant features, to explain for some decent stint how speakers are able to contrive and understand sentences about the world's continual efforts to perplex, surprise and entertain them.

the experiences and conduct of his subjects. I shall propose two simple principles about explanations, but their import and utility may be obscure until we have looked at an example illustrating and partly defending those principles.

The principles are quite general; no restriction to the explanation of experience or conduct is intended.

Suppose, then, that the theorist is after an explanation of the fact that S. The best explanation, whether or not he knows what it is, will consist of a number of facts that explain

Chapter Three. 'Description and Explanation.'

One. Introduction.

The present chapter is aimed at making a few simple points about explanation in general. This will help us to understand what it is for a theorist's description of his subjects to make sense of their experiences and conduct. It will also prepare the ground for the discussion in the chapters that follow of the so-called 'Problem of Other Minds'.

Two. Some Principles of Explanation.

The theorist is engaged in describing, in as illuminating and explanatory a way as possible, the experiences and conduct of his subjects. I shall propose two simple principles about explanations, but their import and utility may be obscure until we have looked at an example illustrating and partly defending those principles.

The principles are quite general; no restriction to the explanation of experience or conduct is intended.

Suppose, then, that the theorist is after an explanation of the fact that S. The best explanation, whether or not he knows what it is, will consist of a number of facts that explain

why S. We are going to be interested in the relationship between the fact that S and these explanatory facts. A principle, derived from Harman, tells us that

(P.2): If the fact that p is an essential part of the best explanation of why S, then "p" is true iff "S" is true.

Clarification and defence of this, such as there will be in this thesis, is limited to the example to be given shortly. (But (P.2) should not need more than this; it is, I think, hardly more than an improvement on just saying that "p" explains "S" iff "S" confirms "p". Anyone suspicious of talk of facts here should translate into talk of sentences.)

We add a second principle that explains what it is for the fact that p to be an essential part of the best explanation of why S;

(P.3): The fact that p is an essential part of the best explanation of why S iff the best explanation cannot fix the sense of "S" without the help of the fact that p.

This is likely to be more obscure or implausible, but largely because it may be rather poorly stated. My hope is that it is quite trivial; the example that follows is meant to show that it is just that. (Some will find the appearance of the concept of meaning a sign that we are indeed

busy with trivia, undoing all the good work that (R.3)'s taking over from (R.2) represented.)

It may help, before we look at the example to try to fix the sense of "fix the sense" with the following thought. We can explain the meaning of a sentence by telling someone who does not know what it means the conditions under which it would be true. One way to do this would be to cite circumstances that would lead to, and explain, the truth of the sentence.

The example that follows has nothing much to do with experience or conduct, since focus on the principles is essential and liable to be blurred by anything more interesting.

Through the property of West Hill Golf Club in Surrey there runs a stream (treacherous only to golfers). The stream is, to give you a rough idea, a strange reddish-brown. And this colour was explained to me as discolouration of the stream by rust from the nails of an alarming number of coffins as it flows through the adjacent grounds of Brookwood cemetery.

Investigation could help to decide the truth of this speculation. For us its truth does not matter; we need note only two things.

First, it might be that the only thing within the ambit of the stream capable of turning that stream that reddish-brown is indeed rust from nails of the coffins. In that case the suggested explanation would be the best explanation (not

least because it would be the only possible explanation). And the fact that the stream is that colour would confirm that rust was getting into the water.

Secondly, it may be true but irrelevant that rust is getting into the stream. The amount might be so slight that discolouration due to rust alone might be undetectable. The relevant fact could be that the stream was loaded with brick dust, and in that case the remarks of the last paragraph will apply to this explanation instead.

(There are other cases; there might be no rust at all in the stream, or the colour might be due to half rust and half brick dust, etc. These cases add nothing to our discussion.)

The second point is the more important of the two. There could be rust in the stream yet this fact be irrelevant to explaining that colour, or of no help in saying what colour the stream is. It will be irrelevant, according to (P.3), just in case it contributes nothing to our understanding of the colour of the stream. (That a stream is contaminated by minute quantities of rust does not suggest that it is a reddish-brown.) Only the best explanation correctly fixes the sense of "The stream is reddish-brown", and this can't be done in the second case without the help of the fact that the stream is full of brick dust.

Perhaps the principles will still feel wrong,

but I suspect that so far this example shows nothing so clearly as that the elucidation of truisms can be very laborious. (I apologise for any uncertainty that may remain about the meaning of (P.2) or (P.3), and request understanding them in the way nearest to tautology.)

Let us now suppose that the explanation of the colour of the stream is a matter of some interest and controversy. Let us also suppose that the stream is more precisely described as being the colour of a stream contaminated by a substantial amount of rust. Rival theorists are agreed that this is as good a description as any, but they propose different explanations of the colour that we shall divide into three categories;

- (1) substantial amounts of rust are getting into the stream (from the cemetery)
- (2) substantial amounts of iron oxide are getting into the stream (from the cemetery)
- (3) brick dust/blood/paint/some red chemical other than rust/etc is getting into the stream (from somewhere).

If it is clear that only one of these explanations can fix the sense of "the stream is the reddish-brown of a stream contaminated by substantial amounts of rust" then the controversy will be over before it has started. (But I have chosen what seem to be plausible alternatives; pollution by cobalt salts would not be plausible since this explanation would suggest that the stream was

blue, and would not fix the sense of "S".)

If, on the other hand, all these explanations are capable of correctly fixing the sense of the precise description of the colour of the stream, then the issue will turn to which of them is true. And we will have a number of equally good ways of describing the colour of the stream; the stream will be the reddish-brown of a stream contaminated by

- (1) substantial amounts of rust
- (2) substantial amounts of iron oxide
- (3) this or that amount of brick dust/blood/paint/etc.

In general, given a description of some phenomenon, it will always be the first problem for explanations of category (3) to show that they can correctly fix the sense of the description. In the case of explanations of category (3) this will involve showing that (in our case) the colour of a stream with rust in it is the same as the colour of a stream with brick dust (blood, etc) in it. In the case of explanations of category (2) it will have to be shown that those explanations really are of category (2) not (3); in our case this will mean showing that rust just is iron oxide.

The significance of all this may be in its infancy. We shall begin to see it more clearly when we look at a more interesting case. This will allow us to consider the possibility that

the original description of what has to be explained has no clear sense. The absurdity of supposing that there is no such thing as rust prevents continuation with the present example.

Three. An Example Involving Aesthetic Beliefs.

Suppose that someone, looking at a painting, comes by the belief that the painting is visibly beautiful. We shall suppose that this is outstandingly the unique best description of his belief.

Explanations of the belief fall into three categories, as before;

- (1) the painting is visibly beautiful
- (2) the painting is visibly highly commendable
(or choose your own synonym for "beautiful")
- (3) the painting is realistic/colourful/by Titian/of a nude/large/religious/etc and he likes/is moved by/has been conditioned to prefer/associates with his mother/etc realistic/colourful/etc paintings.

Explanations like (1) have often been regarded with suspicion. So-called 'values' have been denounced as nothing more than a matter of taste or opinion, or conditioning; and those suspicious of (1) have sought to replace its occurrences everywhere by an explanation in the mould of (3).

On the success of such exceptionless replacement of (1) depends the idea that there are no 'values' of which we are aware; the idea, that is, that either there are no such values or even if there

are we do not know them.

But that success itself depends on the ability of explanations in the mould of (3) to correctly fix the sense of claims such as "He believes that the painting is beautiful". For only if explanations such as (3) can explain such beliefs properly can we entertain the idea that the beauty of things plays no role in our beliefs, and is not needed to explain those beliefs.

Two things must be made clear. First, the options in (3) are not reductions of (1). They are not equivalent to each other nor are they equivalent to (1); as anyone who knows what beauty is knows, a realistic painting that people like need not be a beautiful painting, and vice versa. And, of course, those who defend the idea that we are not aware of beauty had better steer clear of equating beauty with such properties as the property of being realistic and liked by people (for this is not what beauty is, and it is a property that we clearly are aware of).

Secondly, it won't help a defender of the objectivity of beauty to pretend that explanations like those in (3) cannot fix properly the senses of descriptions of our aesthetic beliefs (or whatever such explanations rival with (1) to explain). For it's clear that people do sometimes come by such beliefs about beauty precisely for the rather poor reasons that (3) begins to list.

But there is a question that the objectivist can press on his opponents, and it is one that I think they cannot answer. The objectivist's own answer will lead us towards a new principle to add to (P.2) and (P.3).

The question the objectivist must ask those suspicious of (1) is this; 'What, on your view, ensures that, or explains why explanations such as those of (3) do really fix properly the senses of our beliefs about beauty? And what, on your view, would be wrong with explaining someone's belief that a painting was beautiful by saying (for instance) that it portrayed, in a corner of the canvass, an object whose name rhymes with the name of something he had for lunch?'

The subjectivist is here asked for a way of determining what explanations can fix the senses of our beliefs about beauty; and he is asked to make it clear that those explanations will really fix those senses.

I doubt that any answer is available. We can see this by looking at the objectivist answer, and seeing what room there might be for an alternative. The objectivist answer is most clearly stated in two parts;

- (i) people have a number of reactions to the beauty of things that are beautiful
- (ii) an explanation "p" of someone's belief that an object X is beautiful correctly fixes the sense of the belief iff it explains reactions of that person that

would (otherwise) be explained by the fact that X is beautiful.

It would be interesting to go into what the reactions that (i) tries to delimit would be. Our best clues are from (3); they plausibly include, if the examples of (3) are decent alternatives to (1), such reactions as liking the object, being moved by it, preferring it to others, associating it with things held dear, and so on. And beauty, we can say, just is the property that some objects have to evoke such reactions.

It is crucial to the objectivism of the answer just given that characterising these reactions uses, and cannot do without using the concept of beauty. Or rather, it's crucial that specifying what explanations can be said to fix the senses of beliefs about beauty must use the concept of beauty.

The answer just given has the additional virtue that it makes clear why the explanations so delimited do really explain our beliefs. We can say that someone who thinks that an object is beautiful does so because he reacts (and, if he knows what beauty is, knows that he has reacted) to that object in a way that he would react to a beautiful object. The object to which he reacts in this way need not be beautiful if plausible alternatives from (3) are available, which they may not always be.

How could this objectivism be avoided?

A subjectivist must find a way to replace all references to beauty in (i) and (ii), much as he replaces (1) by (3). But what, if not the concept of beauty, could he use? And what, if not the concept of beauty, is to guide this replacement? What would be wrong with replacing "the fact that X is beautiful" in (ii) with "the fact that X depicts something whose name rhymes with 'veal'"?

That this problem crops up in the same form for the subjectivist shows that the objectivist's answer is a good one, for an objectivist's purposes anyway. There seem to be two alternatives for the subjectivist. He can either use some concept, inspired by (3) that he considers equivalent to beauty, about which he is prepared to be an objectivist, or he can say that any replacement for the references to beauty in (i) and (ii) will be as good as any other replacement.

The first of these is clearly no good to a subjectivist. The second shows that there is no such thing as beauty, but in a rather unexpected way.

If it doesn't matter which of a number of different concepts you use to explain what counts as having a belief that something is beautiful, this can only be because the concept of beauty is obscure to the point of being vacuous. For "beautiful" would mean anything you care to think of; it will be no surprise then to find that we

are never aware of beauty if there is nothing in the least determinate for us to be aware of.

It may (just conceivably) be that "beautiful" is a vacuous word. But anyone who doubts that what someone had for lunch could have much to do with what things he finds beautiful will doubt that there is no principle behind what can and what cannot count as an explanation of someone's belief about beauty.

Our conclusion mirrors, and helps to clarify the rationale for the principle of Chapter One that one cannot think, have beliefs, etc (in the strict sense in which belief and thought etc are things that have a certain sort of explanation which we are now looking at and trying to formulate principles about) about what does not exist. A general principle, that makes this reasonably clear, can be added to our first two principles;

(P.4): If "S" has a clear sense, then an explanation "p" of A's belief that S correctly fixes the sense of that belief iff it explains reactions he has which are reactions that would be explained by the fact that S if A perceived that S.

It may be obscure, now that this principle has been made general, what these reactions are meant to be. Clarification in particular cases will come from explanations, insofar as we can think of them, from category (3). And to the extent that we feel that membership of that category is governed by something (the meaning of "S") we can be assured that there are such reactions

to be clarified. For if there were no such reactions then I doubt that there could be such a thing as the belief that S; it is only if the fact that S engages with us somehow, or impinges on us with detectable significance, that there can be such a thing as the belief that S. (Writers on the role of causality in belief have given these points a clarity that may be lacking here; further remarks on the subject occur later in the thesis.)

Four. Two Remarks on the Possibility of Knowledge.

(P.4) is intended to encourage a mild optimism about the possibility of knowledge. Where there is a belief there must be the possibility of seeing whether or not the belief is true, unless something prevents perception. I shall make one remark to further egg on this optimism, and one that will prevent it from going too far.

It is easy to find some alternative to the fact that S when we are looking for an explanation of some belief, my belief, for example, that there is a typewriter before my eyes. Other people are better than I am at thinking up such alternatives. It is even easier to imagine that there is no end to the checking of these alternatives, for each alternative has itself a number of possible explanations, and so on.

The first remark is this. What counts as relevant to the explanation of some phenomenon cannot be the states of the whole world since its beginning. To dig up the origins of some state

of affairs of which I claim present awareness must be in the rather short run to change the subject. Disputes are certainly settled only by looking beyond the point of disagreement to connected issues, but to follow these connections too far is to lose sight of the starting point and the reason for the excursion. And if someone continues to disagree no matter what relevant facts are put before him, and continues to point to things further and further from the issue and to pretend that nothing relevant has yet been shown to him, we can only suppose that he holds his first thought above what can be learned from careful attention to detail.

In one way then we can say that controversy that is properly chaired could always be settled, and agreement reached. But if one had to have one's philosophy in a sentence of comprehensible length it would be hard to beat the thought that the world may be deeper than investigation; a man cannot expect to be always able to check the truth or falsity of a claim he chooses to check (starting with no more than his understanding of that claim). And there is no argument that has ever worked to show that the world is only as deep as a man's arm is long and cannot escape his grasp.

It always needs arguing, in the face of the optimism that the first remark above was meant to encourage, that this or that sentence is one

whose truth we cannot know. Heisenberg and others are responsible for arguments that have persuaded people of unknowability in physics, arithmetic, and perhaps elsewhere. On a more provincial and personal level we must also mention the limitations of being men and living now; much of the past is beyond our recovery, and most places in the universe will have to wait for others to examine. Even such mundane factors as boredom must affect our chances of, for example, counting up all the ants in the world. Perhaps, too, the diversity of what is needed to appreciate Mozart, on the one hand, and the Sex Pistols on the other, is more than any man could compress into a single skull, so that the conjunction of their virtues must be beyond any man's verification.

These last two paragraphs comprise the second remark of this section. And we shall return to these issues armed with what we shall learn from our discussion of our knowledge of other people, and attempt to use these flimsy instruments in a more precise statement of this second remark.

I have made the remark now for two reasons. First, it includes the claim that it must be the sceptic about the possibility of some piece of knowledge who must confront the naive optimism we spawned by the first remark with an argument against that possibility.

More importantly, it warns us against hoping for too much from the argument against the sceptic

about other minds. The argument will consist mainly of applications of the principles of this chapter to the sceptic's claims. Some progress with the project of improving and adding to these principles, thereby improving our account of (R.3) and commitment, will be made. But at no point should we expect our project of describing people and their place in the world to enable us to argue that scepticism is wrong because there is nothing we cannot know.

With these thoughts in mind let us turn to scepticism about other minds, and the impossibility that has been alleged so often of even starting the project required by (R.3) whose guiding principles we have begun to clarify in this chapter.

repeating Wittgenstein's words could both manifest and convey an understanding of the problem. The oversimplicity and apparent disdain for the work of Wittgenstein of what follows should be seen as my attempt to avoid these obstacles.

I shall concentrate on one sceptical claim, the claim that only A can know what colour things seem to him. This example has all the features of standard sceptical examples rolled into one. It has the additional feature that Wittgenstein said little or nothing about it. But its difficulties are, I think, difficulties with any sceptical claim.

Chapter Four. 'Other Minds: Part One.'

One. Introduction.

The treatment of the problem of our knowledge of other minds will be in two parts. The first part, which occupies this chapter, will be a sustained and all-out attack on scepticism. In the next chapter we will try to demonstrate some of the insights that sceptics have expressed so badly, and try to fill in some gaps that will be left in the present chapter.

Any writer in this area faces two main obstacles to clarity; the immense complexity of the problem, and the temptation to write as if repeating Wittgenstein's words could both manifest and convey an understanding of the problem. The oversimplicity and apparent disdain for the work of Wittgenstein of what follows should be seen as my attempt to avoid these obstacles.

I shall concentrate on one sceptical claim, the claim that only A can know what colour things seem to him. This example has all the all the features of standard sceptical examples rolled into one. It has the additional feature that Wittgenstein said little or nothing about it. But its difficulties are, I think, difficulties with any sceptical claim.

But the argument is still, I'm afraid, long and quite complicated. A brief explanation now of its main points may make its digestion easier.

The main plot, so to speak, is the trouble that the results of Chapter Three can make for scepticism about other minds. The sub-plot is the beginning of an understanding of a fifth principle which will play an important role in subsequent chapters. The argument attempts to show:

- (i) the sceptic cannot explain B's belief that A is in some mental state (section 3),
- (ii) B does not need to have or feel A's mental state in order to have knowledge that A is in that mental state (section 4),
- (iii) B can infer, with or without further information, on the basis of A's actions or behaviour, that A is in that mental state (section 5),
- (iv) The fifth principle, which equates what things are like with the beliefs that those things have the essential property of being able, under various conditions, to prompt or help to prompt (section 6),
- (v) the explanation of A's knowledge of his mental state contains (almost) all that is needed to explain B's knowledge that A is in that mental state (section 6).

The important claims here are (i) and (v), and they rest on the principles of the last chapter and (P.5) of the present chapter.

Section seven tries to connect earlier claims with something it calls 'human nature', in preparation

for Chapter Five. It also provides an attack on the sceptic's idea that we would never notice if our colour perceptions were the wrong way round, as the sceptic thinks they might well be.

It is not seriously anticipated that this chapter will do what even Wittgenstein could not quite manage and rid the world once and for all of the agitated spectre of the sceptic about our knowledge of other minds. For the sceptic only understands confusion and believes whatever it suits him to believe; and there is not, I hope, much confusion in this chapter, nor much it will suit a sceptic to believe.

The role of this chapter in the thesis is the discovery of (P.5) and some arguments in which it plays a role, and the hint to be taken later from section seven that human nature comes into the business of explanation and description. A sceptic may find more food for thought in the next chapter, when things resembling his claims are incorporated into the developing picture of interpretation; these claims cannot revive scepticism, nor will there be much argument that they cannot.

(Finally, two warnings about slack terminology. First, 'scepticism' is usually short for 'scepticism about our knowledge of other minds', and secondly 'mental state' is short for 'mental state/event/process/etc'.)

Two. The Form of Sceptical Claims.

Scepticism about other minds must be set in contrast with scepticism in general. For there might be something to be said for some form of general scepticism, but there is, I think, nothing to be said for the doctrine I shall identify as scepticism about other minds.

According to the strongest general scepticism we cannot know anything;

(S.1): $(\forall S)(\forall A)(\text{it is not possible that } A \text{ knows that } S)$.

There are two weaker forms of general scepticism;

(S.2): $(\exists S)(\forall A)(\text{it is not possible that } A \text{ knows that } S)$

and, weaker still,

(S.3): $(\forall A)(\text{it is not possible that } (\exists S)(A \text{ knows that } S))$.

We will have to look at the sorts of arguments that could be used to show each of these claims. Our first purpose is to look at (S.2), and merely to comment that it is rather unlikely that there could be an argument to show that, for example, $(\forall A)(\text{it is not possible that } A \text{ knows that Julius Caesar was in pain at } t)$ because, even if no one else did, Caesar knew he was in pain at t . And, if I know what I feel, and what I think, and so on, there could not be a decent argument to show that these are things that cannot be known.

Scepticism about other minds is therefore put in a rather difficult position. For mental states are things we do have knowledge of; they are obvious counterexamples to (S.1), and not examples of (S.2), just as obviously.

The sceptic about other minds therefore claims something extremely bizarre;

(S.4): $(\exists S)(\exists A)(A \text{ knows that } S,$
 $\quad \quad \quad \& (\forall B)(\text{necessarily if } B \text{ knows}$
 $\quad \quad \quad \text{that } S \text{ then } B=A)).$

The bizarreness of this will now emerge.

Three. The Objectivity of the Mental.

Suppose that A is looking at a tomato, and that B believes, rightly or wrongly, that the tomato looks red to A. Some will ask 'How could he possibly know that the tomato looks red to A? Surely only A can know that.'

I am going to look at what would happen if we thought that B could not know this. The sceptical claim, and the argument against it, exactly matches the argument of the previous chapter against the claim that we cannot know that a painting is beautiful.

Explanations of B's belief, if they are to dodge calling the belief knowledge, must avoid all mention of the fact that the tomato looks red to A. And the problem, as before, is that we need some kind of guarantee that these explanations

correctly fix the sense of B's belief. The possible explanations offered by the sceptic must have something in common, in virtue of which they can all be relied on to get the sense of the belief right. And, according to (P.4)

If "S" has a clear sense, then an explanation "p" of A's belief that S correctly fixes the sense of the belief iff it explains reactions he has which are reactions that would be explained by the fact that S if A perceived that S.

In the case of A's belief, even a sceptic will say, there is no problem. A is obviously aware of the fact that the tomato looks red to him; he reacts to that fact in ways we need not here try to spell out.

But in the case of B's belief, the sceptic will say, there is a problem. For B cannot have A's awareness; he cannot have reactions that are typically explained by the fact that the tomato looks red to A. If this were right, and I shall argue that it is not right, then nothing could count as an explanation of B's belief. That, admittedly, is just what some sceptics have thought all along.

But there is here a double oddity. First, the sceptic can offer no explanation of B's belief to which he can add a guarantee that it will fix the sense of that belief correctly. Secondly, as I shall now try to show, there is something strange in the idea that a fact (that the tomato looks red to A) can prompt reactions in A but cannot in B.

Four. Beliefs about Mental States.

I have, I think, delayed as long as possible the provision of some explanation of what the reactions alluded to by (P.4) are supposed to be. To clear this up a little, and to make one point about the difference between A's reaction to his perception and B's reaction to that same perception, is the aim of this section.

If some fact or state of affairs is to explain someone's belief, there must be some causal link between that fact (and others perhaps) and the formation of the belief. Anything on that chain I call a reaction; we are most interested in the reactions of A and B, ie reactions that occur after the causal chain has entered the body of A or B, and of those reactions we are interested above all in the beliefs formed by A and B.

Reactions prior to the formation of the belief can be picked out, as suggested in Chapter Three, by considering other ways in which the belief can be prompted, that is, other possible explanations of the belief. If A could be stimulated to his belief by, not a tomato but electrodes in the eye or brain, this may lead us to think that prior reactions in the chain that ends in the belief could include electrical activity in the nerves of the eye and brain.

We shall not say much about such prior reactions,

but concentrate on the two most important reactions, namely A's belief that he (A) has a perception of a tomato that is, or looks red, and B's belief that A has a perception of a tomato that is, or looks red. Both these beliefs, I would say, are perfectly explicable reactions to the fact that A has a certain perception.

But the sceptic thinks that only A can have such an explicable reaction to his perception. For only A can be aware of the perception; for B to be aware of A's perception would be for B to be (impossibly) A. His reason is this; to be aware of a mental state is just to have it, or to feel it, which B cannot do.

It is hard to make this sceptical confusion sound plausible. It is also hard to do better than merely deny it with the assertion that B can be aware of A's mental state.

Let's look at B's belief. B claims to know, somehow or other, that the tomato looks red to A. And let's make one remark about the prior reactions in the chain that lead up to this belief; whatever they are they cannot lead B to think that the mental state of which they make him aware is one of his (B's) own mental states. So there is the following clear contrast between A's and B's knowledge of A's mental state; A is aware of it in a way that makes it clear to him that it is his perception, but B is aware of it in a way that makes it clear that it is someone else's perception.

And we can explain this contrast, and why the sceptic's confusion is a confusion, quite easily.

From A's mental state a chain of reactions leads to the formation of B's belief. Somewhere on this chain, I shall argue, there must be an action, or movement, or sign of life of, by or in A.

The contrast is explained as follows. A mental state of which one can have awareness without a crucial factor in the production of the awareness being an action can only be, and can be taken to be one of one's own mental states. But B is not led to think the state he is aware of is one of his own, because it is something in someone else that prompts that awareness; he knows A is in pain because he sees or hears A cry out in pain.

This contrast between mental states that are B's and those that are not, and B's ability to draw this contrast for himself in the right place, are things that must be described at the start of any enquiry such as that of the present chapter. The sceptic's confused belief that to be aware of a mental state is to have it makes such descriptions impossible to even begin.

B does not know of A's mental state in the way that he knows of his own, because it is something that A does that provides this knowledge. This should not prevent us from saying that he knows of A's mental state in some other way, and that the differences between these two ways of being

aware of mental states is crucial to B's ability to distinguish, among the states of which he is aware, those that are his and those that are someone else's.

If B has knowledge of someone else's mental state, I claimed, somewhere in the production of that knowledge must be involved some action of, or sign of life in that person. If this needs defence perhaps the following thought will serve; but for such action or movement or sign of life B could have no reason to think that the other person was even alive, or the owner of mental states at all.

Five. Interlude; Inferences from Behaviour.

Sceptics who have emphasised the different ways in which I am aware of my own mental states and those of others, have added to this contrast the thought that I cannot know from his actions alone that A is in this or that mental state. Something is right in this thought, but I shall concentrate now on what is wrong with it.

It would be a way of knowing that A is in pain (I change the example for convenience and vividness) to see that A was sobbing in pain, or crying out in agony. "Sobbing in pain" would be a description of the behaviour that B sees; and seeing A sobbing in pain he is made aware of A's pain, or the fact that A is in pain (and not he (B) himself).

A sceptic may doubt two things, (at least); first

that "sobbing in pain" is a viable and meaningful and bona fide description of behaviour, or second that B can distinguish sobbing in pain from mere sobbing.

Two points can be made in reply. First, even is (unbelievably) we cannot see when someone is sobbing in pain (not merely sobbing for all we know) we can, for all the sceptic has said, know that he is sobbing. So we can tell that he is unhappy; and surely this unhappiness is a mental state, not our own, of which we have knowledge. The difficulty with pain, whatever it is supposed by the sceptic to be, is not a general difficulty. And if there were a general difficulty then we would be unable to distinguish living people from dead, motionless corpses.

Secondly, we must ask the sceptic to characterise the range of things he thinks we can know about other people and to explain the point of this characterisation and what the things so characterised have in common that shows why we can only know these things.

The first point will suffice for our project of destroying scepticism. About the second I only note that this characterisation cannot use the terms we normally use, for if the sceptic is right they will not have any clear sense. It seems to me that the sceptic cannot even get started on this characterisation without these words; there is no interesting line to be drawn without them between unhappiness and pain, or even between states of consciousness and other states of things.

Six. What Mental States are Like, and Why
B Can Know All that A Knows About A's Perceptions.

This is an extremely long section, and one full of difficult arguments whose destinations may be obscure long after their arrival. I shall quickly endeavour to describe the ground that is to be covered before setting out, so that some feeling of progress and discovery may, however artificially, be induced from time to time.

The first thing we shall do is to explain what it is for something to look a particular way. This will be encapsulated in the promised new principle (P.5).

We shall then look at explanations of A's beliefs about what his perceptions are like, how they look or seem to him. A simple and rather deceptive explanation will be given for our example of the tomato that looks red to A.

Next we shall argue that if there is anything in this simple explanation there must be another explanation in a more natural and familiar style, and we will eventually give an example of such an explanation too. This more natural explanation explains why the first explanation is able to explain what it tries to explain.

Finally, we argue that the materials of the natural explanation of A's knowledge of his perception are all we need for a similar explanation of B's knowledge of A's perception. Sceptical doubts about this are then shown to involve the

usual defect that the sceptic cannot, saying what he does, explain anything. With that much by way of prediction, let us begin, as predicted, with the looks of things.

We are supposing that A is looking at a tomato that looks red to him. Something about the tomato causes him to have a perception of it, which then prompts him to various beliefs, such as that the tomato looks red.

The locution 'It looks red to him' needs some explaining. Two points in particular demand our attention.

First, there is a use of 'looks' in which something may look red to A although he does not believe it is red. It may make this clearer to distinguish the two uses or senses of 'looks'; 'It looks red to me' can mean either

(1.a) I reckon it's red, or

(1.b) it has a reddish look about it (resembles in appearance things that are red).

Something may look (1.b) but not (1.a) red to A even though he does not believe it is red.

Secondly, the natural reaction to something that looks red is to believe it is red. Only knowledge of present misleading perceptual conditions can dispose of this belief in favour of a belief to the effect that it looks red (1.b) but is in fact orange. And such improvements on natural beliefs are a condition of there being (1.b) locutions at all.

Let us make the situation clearer. Suppose that

the tomato A is looking at is not quite ripe, but is a sort of orange colour. But because of the lighting conditions at the time it looks red.

If it looks red, someone who is unaware of the lighting conditions will believe it is red; and if he says "It looks red to me" that will be a use of 'looks' like (1.a). The other use, where the simple belief is not present, may be made by someone who is aware of the lighting conditions; "It looks red" then means something like that it has, in these lighting conditions, the property of red things to produce the belief that it is red (in the unwary).

I shall say that A's first reaction is to believe that the tomato is red, but his second (prompted by his knowledge of the lighting and so on) is to believe that it is orange and lit in a way that prompts the belief that it is red. Of course, if A has his wits about him the first belief may never actually cross his mind.

Why is this story about one belief after the other worth telling? It permits a simple account of the connection between (1.a) and (1.b); more importantly it leads us in the direction of a principle that I shall state and then try to clarify.

The principle is concerned with answers to questions such as 'What are orange tomatoes like?' or, better though much more clumsy 'What is it

like for "The tomato is orange" to be true?'. And the answer in this case is that orange tomatoes essentially have the property of being able, under various conditions, to prompt or help to prompt various beliefs such as the ones we have discussed. In general

(P.5): What it is like for "S" to be true, that is, what reactions under what conditions the fact that S is capable of prompting or helping to prompt, is (are) essential to "S"'s having the sense it has.

Three cautions should be noted before we go on. There is no restriction here either to facts about people and their mental states or to any other selection of facts about the world. Nor is it entailed by (P.5) that anyone in a mental state must be prompted to all the beliefs that the fact that he is in that mental state must be capable of prompting. Nor is it entailed that the beliefs can only be prompted in the person whose mental state is doing the prompting; quite the reverse, for as we shall soon see, if a state can prompt a belief in A it can (by more or less devious means) also prompt that belief in B. It is not true, as (S.4) would require, that for B to have these beliefs is for B to (impossibly) be A.

Let us concentrate on A's perception and the beliefs that the perception prompts in him. These beliefs are, in our story, first the belief that

the perception is a perception of a tomato that is red, and secondly the belief that the perception is a perception of a tomato that is orange but looks red (ie prompts the belief that it is red) because it is lit in misleading light.

How are we to explain these beliefs? One way would be to say, much as (P.5) would say, that it's essential to the truth of "A's perception is a perception of a tomato that is orange but looks red because it is lit in a misleading way" (which is the best description of A's perception) that

(1) the perception looks like (ie is capable of helping to prompt the belief that it is) a perception of a tomato that is red, and also looks like a perception of an orange tomato that looks red because of the way it is lit.

There is nothing wrong with this explanation. But it leans on the possibility of a more interesting which we shall supply shortly. This more interesting explanation will be of a quite familiar kind and more natural than (1). But for those who will try to trace what they consider to be subsequent errors in the argument to this point, I offer an explanation of why (1) depends on the possibility of this other natural explanation.

The perception may, as (1) rightly says, be capable of helping to prompt A's beliefs. But for A to actually get as far as believing that his

perception is of a red tomato (his first belief) he must be prepared to believe that there is a red tomato that is responsible for the perception. And to get as far as believing that the perception is of an orange tomato that looks red A must be prepared to believe that the lighting conditions are misleading.

(It might be added that A must also be prepared, in both cases, to believe that his perceptual system is normal, that he sees red things as red. If he did not believe this he would not know what his first belief should be; 'the perception is of a tomato that is red/green/or what?'. But we do not need this unnecessarily complicating addition.)

How are we to explain these further beliefs that A must have? For the perception can only prompt A to his first and second beliefs about the perception if he has, or is prompted to these further beliefs.

It may well be, and I daresay usually will be that the perception prompts these further beliefs too. It's often on the basis of the perception that we believe that there is a tomato responsible for the perception. But what account can we give of how the perception prompts this belief, and with it prompts A's first belief? How, in the more interesting case, does his perception prompt in A the belief that the lighting conditions are misleading? Where does A get his second belief from?

The explanation of the second belief must involve

further perceptions. Let us suppose that A also examines the tomato in normal light; his first belief will then be that the tomato is orange, and he may consider taking on the second belief that the tomato is red but looks orange because of the lighting conditions. (This belief would be false, of course, and we shall suppose he does not take up its offer.)

If we can explain his second belief in the misleading case, and his not believing in the normal lighting case that the tomato is red but looks orange, we must use such facts as these;

- (2) orange things look orange in lighting conditions C_1 (normal light),
- (3) orange things look red in lighting conditions C_2 ,
- (4) there are no lighting conditions in which red things look orange.

The so-called 'fact (4)' may well be false. If it were true it would explain, given the various ways the tomato looks to A (ie red at one time and orange at another), why A believes that the tomato is orange and turns down the second belief in the normal lighting case.

But even if (4) is false, it is easy to add to (2) to (4), and to describe further investigations that A might perform to discover the real colour of the tomato. A sample of something white would do the trick very quickly.

An analogy with a clearer example may help.

Someone looking at a coin may arrive first (in our story) at the belief that it is elliptical, and that his perception is a perception of an ellipse, then at the belief that it is circular but viewed from an angle, and his perception is of a circle from an angle. Facts, analogous to (2) to (4) about how the apparent shapes of circles depend upon their real shape and the perspective of the observer will be involved in the explanation of the beliefs he has about his perception and, more importantly, the beliefs he has about the object that it is a perception of.

The point of all this may be fading, but let us see if we can now claim that facts such as (2) to (4) are indispensable to the explanation of how A's perceptions prompt him to the beliefs about objects and lighting conditions and so on that he must be prompted to if the perception is to prompt him to his first and second beliefs about the perception.

(Someone might say that, rather than take on his first belief, A could believe instead that his perception is one that looks like (ie is capable of prompting the belief that it is) a perception of a tomato that is red. I would ask 'Why does A believe this? Why does he think that the perception can prompt this belief if he is not ready to think that the belief could be supported? And what does he think could support it if not

facts like (2) to (4)?'.)

I've been trying to show that the explanation by (1) of A's beliefs depends on the possibility of a more natural explanation. The argument has been difficult; it has claimed that if there are beliefs about perceptions that (1) can explain, then there must be facts like (2) to (4) that can explain the perceptions in a way that explains how those perceptions prompt the beliefs (ie. how (1) explains the beliefs).

Let's look at this natural explanation. In the case of A's second belief it will be very complex, involving several perceptions and beliefs and many inferences and facts like (2) to (4). So we will just look at the explanation of A's first belief that his perception is of a tomato that is red. This belief is false, but the explanation is quite simple.

We need only say the following; the tomato is orange, the lighting conditions are C_2 and, according to (3), orange things look red in C_2 (that is, orange things in C_2 prompt the belief that they are red). So A believes the tomato is red; he therefore believes his perception is of a tomato that is red.

I want now to argue that such explanations of A's beliefs contain almost all we need to explain B's corresponding belief. We will return to the more complex case, but at least B's belief here (that A's perception is of a tomato that is orange but looks red to A) will be true.

How does B arrive at knowledge of A's mental state? If he is to know that it is A's, not his own, or anyone else's, A must, we have argued in section four, do something. It's no good A just sitting there like a man looking at a tomato that looks red to him, for B might not even be able to tell that A was aware of the tomato (rather than, say, wondering what to do about supper). A must do for his perception of the tomato what crying out does for pain; he must give a sign that he has it. Let us suppose, then, that he reaches for the tomato, and that B then knows at least that A has seen the tomato. (If this gesture does not sound unambiguous, we might suppose that A begins to sketch the tomato, or something.)

Now all that B needs, it seems to me, to know that A's perception is a perception of a tomato that is orange but looks red because it is lit by conditions C_2 , is the belief that the lighting conditions are C_2 , that the tomato is orange (which B can work out just as well as A), and the fact (that will be part of the explanation of B's knowledge that the tomato is orange) that

- (3) orange things look red in lighting conditions C_2 .

B can come to know that A's perception is one of an orange tomato that looks red because it is lit in a misleading way.

B will not really go through anything that could be called ratiocination here. The conclusion

we draw is not that B can infer these things about A's perception (though he can if he needs to) but that whatever is needed to explain A's knowledge of his perception is enough to explain B's knowledge too (or nearly enough; we skip the point that A's action is involved in B's knowledge). Thus if some mental state can prompt reactions in A that we can explain it can also (via some action of A's) prompt the same reactions in B and we can explain these reactions too.

We will consider sceptical replies to this shortly. Let us first summarise what the argument has tried to show, and what, if this one fails, a better argument will have to show.

It's essential to a thing's being orange that it looks various colours under various lighting conditions. It's essential, that is, to a thing's being orange that there are facts like (2) to (4). For that reason, it's essential to the explanation of A's belief that his perception is of a thing that is orange (but looks red, perhaps) that such things as (2) to (4) are true. But if such things are true then B can know that A's perception is of something of which (3) is true, and can know (if he knows that much and that the lighting conditions are C_2) how the thing looks to A. For (3) says that

(3) orange things look red in lighting conditions C_2 ,

and, so to speak, if it looks red then it looks red to A like the rest of us.

This long argument, in its summary form, can be collapsed even further. And the effect may be to make what was wrong with scepticism obscure, inasmuch as it can suddenly seem completely and dreadfully absurd. We could argue as follows; what is involved in "orange" having a sense, as it must if A is to have his knowledge of his mental state, is for there to be facts like (2) to (4). But if there were no explanation of B's beliefs about A's mental state there could not be such facts as (2) to (4), and "orange", or some word in the specification of what B believes A believes, would have no sense.

A sceptic, tiresomely inventive, will not be lost for long to reply to this argument. 'It is only essential to explanation and the sense of "orange" in these beliefs that such things as

(3') orange things look red to A in lighting conditions C_2

are true. This explains A's belief, but B can only know that

(3'') orange things look red to B in lighting conditions C_2 .

(3') cannot enter into the explanation of B's beliefs.' But this is, as usual, a very bad reply.

Suppose an object looks red to B. The only way we could explain this without agreeing to (3'), as using (3) would make us do, would be if it's quite possible that things that look red to B

look green (or blue, or yellow) to A. I shall discuss this possibility in the last section. It seems to me that something like it could be possible, but that we could easily know if A did see things this way, and if he did he would have to have a very strange perceptual mechanism. So let us suppose, until the last section, that A and B both have normal mechanisms.

How could the sceptic explain something's looking red to B? There are various possibilities;

the object is red and red things look red to B in lighting conditions C_1 ,

the object is orange and orange things look red to B in lighting conditions C_2 ,

the object is yellow and yellow things look red to B in lighting conditions C_3 ,

etc.

But, as always, the question is 'What do these explanation have in common that guarantees that they can all explain the object's looking red to B? What would be wrong with explaining its looking red to B by saying it was square and square things look red to B?'

I predict that this guarantee, when the sceptic finally gets down to providing it, will also guarantee that that A will see the object as red. That is, unless the guarantee makes reference to some relevant feature of B, essential to seeing this object as red, that A lacks. But we are supposing they both have normal perceptual systems.

Let us look at the answer I would give to

this question. The conditions set out by each of the foregoing alternative explanations are such that under those conditions it is always light of a particular colour, namely red light, that is reflected by the object. If this guarantees that the object looks red to B, which it does guarantee, then it will guarantee that the same object under the same conditions will look red to A (modulo variations in perceptual mechanism).

More than a perceptual mechanism is involved in having beliefs about one's perceptions, but these point can be left aside, unless the sceptic can find a way to make them work for him (and I do not see how he could).

One thing must be noted to avoid the impression that the argument has not moved forwards. We were arguing that if a mental state can produce a reaction in A then it can produce (via some action of A's) the same reaction in B. We are now arguing that if something in the world, not one of his own mental states, can produce a reaction in B (via a perception), it can, and will under the same conditions, produce that reaction in A. (The complications of 'privileged access' to one's own mental states do not arise here).

For it turns out that what mental states are like depends in part on how the world is. And we should hardly be surprised to find a sceptic, claiming in defence of his scepticism that the reactions of observers to the world can vary for no reason between them without limit, at a complete

loss to identify the things in the world that explain, or are responsible for those reactions.

Seven. Two Ideas Behind Scepticism.

In this last section I shall look at why it may have seemed that for all we know some of us could see things that look red to us (ie, as a rule, red things) as green, or any other colour you care to think of. There seem to me to be two thoughts that can be blamed for this fantasy.

First, it may have seemed that it would be easy to map the spectrum, divided into the bands as we divide it, onto itself so that the divisions but not the colours corresponded;

	(nm.) 400		500		600		700
I.	v i o l i t	i n d i c e	b l u e	g r e e n	y e l l o w	o r a n g e	r e d
II.	y e l l o w	o r a n g e	r e d	v i o l e t	i n d i g o	b l u e	g r e e n

There are two major difficulties with what seems so simple. First, wavelengths in the ultraviolet region of the spectrum (down to about 350 nm) are normally filtered out by the refracting media of

the eye, but at sufficiently intense levels can be perceived, as blue-violet. But someone with spectrum II would be surprised to find, not the usual vague boundary between violet and blue but a sudden change from violet to yellow. He might also wonder what these violet specimens were doing at the end of the spectrum instead of in the middle with the others.

It would not be much good to widen the range of the 'violet' of I and the 'yellow' of II. For the extra violets are, at standard intensities, invisible, but how could the extra yellows of II be invisible (yellow being such a clear and bright colour) and what would someone who had spectrum II think of these invisible violets in the middle of his spectrum where spectrum I has yellows?

The difficulty depends on two things. We are least sensitive to colours on the edge of the visible spectrum (obviously enough). And any such mapping as that from I to II will create clear discontinuities in II that are not present in I, as the vagueness of colour words amply shows.

Perhaps someone who had spectrum II would be highly sensitive to colours in the middle of II. But what would it be like to find dark and gloomy colours like violet bright and clear, and to find orange a dim and obscure colour (added by Newton to the spectrum only to make up the number of major colours to seven)?

There is a second difficulty. How could spectrum II accommodate the subdivisions within major colours of spectrum I? For we distinguish several kinds of red within the broad and natural major division; scarlet, crimson, vermillion, magenta, cerise, and so on. But (to exaggerate the exegetical point beyond strict accuracy) there are no subdivisions in the green band.

So how could someone colour in the area marked 'green' of spectrum II, using the one and only green that there is in spectrum I and yet make clear the distinctions drawn within the area of spectrum I marked 'red'? And which red would he use for the single colour called, in spectrum II 'red'?

It is tempting to invent new greens, and to say that as some people are red-green colourblind, so someone who had spectrum II would be scarlet-etc-cerise colourblind, and we, who have spectrum I are blind to various shades of green discriminated by those who have spectrum II.

But there are no such various shades of green (in our exaggeration). And the image of colourblindness must not be allowed to confuse us into thinking that there are.

For to be colourblind is, in most cases, for one or more of the three kinds of cone receptors of the retina not to work (eg, the red receptors). Colourblind people are not sensitive to certain kinds of light, much as we are not sensitive to

X-rays. But we are sensitive to green light; so what are the missing or inactive receptors that are meant to allow us to distinguish the new greens supposed to be? What kind of light would they be sensitive to that we are not sensitive to already?

It may be that some nimble surgeon could so interfere with someone's eyesight that that patient emerged from treatment with a bizarre spectrum. The surgeon might connect the red cones of the retina to nerves intended for blue cones, the green cones to the red nerves and finally the blue cones to the green nerves. The patient's resulting spectrum would not be II, but a spectrum that would share the difficulties of II; he would be sensitive to colours on the edge of his spectrum and have gaps in the middle, and he would be unable to make discriminations he used to find clear (differently coloured objects, some cerise, some crimson, etc, would all look the same) and he would never find uses for those old clear discriminations (grass might seem to him to keep changing between various reds, but he would know that it was really always the same, or nearly the same green). It would be the easiest thing in the world to find out that his spectrum was not our spectrum I.

I conclude that these reversed spectra do not

fulfil their sceptical mission of confining B to (3''). But even if they did the argument of section six would stand; nothing could explain the way things look to B without going into detail about how those things look (and thus look to A). This argument is not damaged by the fact that such bizarre reversed spectra may be possible, for the conditions of reversal (which will depend on the nature of perception and of the eye in particular) will be part of the explanation of reversed perceptions; such an explanation will not apply to B or to anyone with normal eyes.

It may be admitted that the facts we have said can explain perception can be relativised to kinds of perceptual system. Thus we might have

(2') orange things look orange in C_1 to people with perceptual mechanism P_1

(2'') orange things look blue in C_1 to people with perceptual mechanism P_2

(5'') indigo things look orange in C_1 to people with perceptual system P_2

etc, etc.

But we ask again what do the various explanations of something's looking orange to someone have in common? If nothing, then "orange" has no clear sense, so they must have something in common. If our surgeon story can be believed it will be something like this; under each of the conditions under which an explanation explains something's looking orange, a certain type of nerve from the retina is being activated (in one case by orange receptors, in others by

blue receptors). There is nothing in this relativisation for the sceptic to get excited about; we are just getting to understand better the conditions under which an object looks orange to someone.

For most of us it is orange things that usually look orange; we have normal eyesight, called 'P₁' in the relativised explanations. We know we have normal eyesight because of the things we say about how things seem to us. ('Normal' here can be explained either in neurophysiological terms or in terms of how things look to people with such perceptual mechanisms.)

Reluctance to accept these points may stem from the errors of a second thought that has fanned the flames of scepticism. The thought is hard to put properly, but it is roughly the idea that someone who has, from birth, seen things the wrong way round will not notice anything odd. (For he will never have known anything else; red grass would be common, sunsets everyday.)

Let us widen the scope of this thought. For my own instinct is to say that bright red grass would be a rather unpleasant sight all the time, and the sickly pale green faces of women, the sinister blue of daffodils, the inescapable tormenting yellow of the sky, the indigo earth and orange sea (all reminiscent, as I write, of the hallucinatory scene in Munch's painting 'The Scream') would make the world seem a quite uninhabitable nightmare. And, more generally, to see good as bad but still

prefer bad, or to see love as hate but to yearn for and to freely dispense hatred, to to see cats as dogs but still keep a cat to scare off burglars, would be to be unimaginably mad.

Why should these more general points be less plausible than the colour case? Perhaps it is easy to imagine how one could get used to colours that initially seemed ugly (black skin must be a case of this, and perhaps some of my examples would be pleasant rather than nightmarish). Or one could be bribed to put up with the way things look.

I have two points to make. It seems unlikely to me that none of these things would not seem ugly to the man who saw them coloured so strangely. Colour has a lot to do with attraction. Secondly, even if some force could be brought to bear to make a man put up with what he saw, and to show no sign that his spectrum was unusual, the natural reactions of disgust, or whatever, would return as soon as the force was released.

Certainly it's no good saying that the man with the reversed spectrum would never notice anything odd; that is just to deny that anyone (even he) could ever know that he had a reversed spectrum. We do not, as the sceptic secretly thinks, arrive in the world ready for anything, without prejudice or expectation and prepared to embrace whatever aspiration comes first to mind. Could we seriously expect to get away with saying that people

who have always lived in conditions of scarcity and degradation might still notice nothing funny but be quite content and used to those conditions for the simple reason that they have never known anything else? Our interest is in how the world really is, never mind how it seems, and in the endless problems of reconciling our limited versatility with that world and its disappointments as childhood becomes a thing of our past. (And we would mind very much if such reconciliation were to be as far beyond us as I suspect it would be if we thought things were as the man with the reversed spectrum would, for a time, think they were.)

Something, then, in human nature would prevent poker-faced uniformly normal behaviour in the man with the reversed spectrum. Our system of colour classifications are made by and for people with natural tendencies to divide the spectrum into a few major groups of colours, people who also have particular interests in some finer discriminations, and, most importantly, dispositions to find some colours bright and cheerful and others dull and gloomy. If colours were not all these things to us we would have little or no interest in having concepts of colours. If we could not be brought to care about colour then perhaps we could not ever bring ourselves to know that someone had a reversed spectrum; but this is not the sceptic's point, and it is perhaps irrelevant anyway, as we care quite a lot about colour (enough to fight about the perception of colour, for a start).

Chapter Five. 'Other Minds; Part Two'.

One. Introduction.

After the complexities of the last chapter, it will be a relief now to return to some simpler thoughts and generalisations about the description and explanation of the experiences and conduct of speakers.

I shall try to use some of the points made in the last chapter to fill in some of the details of our account of what it is to make sense of speakers. This will advance the project, which I may have given the impression had been abandoned, of making (R.3), and our ideas about commitment clearer.

We will also look at our principles of explanation in action in the hardest case; explaining, in detail that was blurred a little when we looked at this case in the last chapter, one man's beliefs about another man's mental states. This will lead us to reply to one sceptical argument that we did not examine in the last chapter; the argument that a theorist cannot know, among possible explanations of his subjects' experiences and conduct, which one is right. We shall concede something to this argument that will be important in the final chapter when we go back to (R.3) and the commitments of subject and theorist.

Two. The Reactions that Prompt Beliefs; Some Generalisations and Another Case in Detail.

I am going to deploy some of the points made in the last chapter to my own purpose, which is the sketching of a framework for the philosophy of mind rather than the refutation (as the last chapter was intended to be) of the view that there could be no such thing.

Principles (P.4) and (P.5) were concerned with the explanation of beliefs. And we shall now begin to make the picture of the explanation of beliefs a little clearer.

That a tomato is orange may explain someone's perception of the tomato, and also explain the beliefs that the perception may prompt in him. In general something in the world explains a perception, which in turn explains beliefs. ('Perception' here include the work of all five senses, and others if there are others responsible for our beliefs.)

In any given case we will have reactions explained by the fact that p. in accordance with (P.4). And those reactions will be essentially capable, as (P.5) applies to them as much as it applies to any other thing, of prompting the belief that S. Thus we have, as we argued in section six of the last chapter

- (1) A's perception prompts his belief, as (P.5) claims, and the fact that p can (and we shall suppose has done so) prompt the belief, as (P.5) also claims.

- (2) The fact that p explains A's belief by explaining his perception (and other reactions, perhaps) as (P.4) claims.

There are, as we argued, two explanations of A's belief; he believes that S because he has some reaction (a perception), and, if there is an explanation of this sort, that appeals to (P.5), there must be an explanation in the more natural style of (P.4) to the effect that A believes that S because of the fact that p (and has a perception which, because it is explained by the fact that p will be such that, as (P.5) claims, can prompt the belief that S).

We can, then, explain A's belief as a reaction of the sort specified by (P.5) to some fact, either a perception A has, or something about the world to which he has reacted with the belief. But it's important that the perception, the world, and the belief are connected as (P.4) can connect them if by 'reactions' we do not just mean beliefs.

For if, by 'reactions' in (P.4), we just meant beliefs, then (P.4) would be rather unilluminating. It would come to little more than the claim that the fact that p can fix the sense of A's belief that S iff the fact that p explains (what is typically explained by the fact that S when A perceives that S) the belief that S. But reactions are not just beliefs, and the most interesting applications of (P.4) are when the belief that S is not knowledge but is explained by reactions

other than the perception that S.

Reactions importantly include perceptions. And where there is a belief there must have been a perception; the reactions in (P.4) could not be just beliefs. Why do I say this? Surely the old empiricist maxim that there's nothing in the mind that didn't get in through the senses can't still be taken seriously?

The point may by now be familiar and tiring to recite. But if (P.4) was as trivial as the version in the last but one paragraph we would be stuck. For the only explanation we could give of what rival explanations of the belief have in common, in virtue of which common property they can each fix the sense of the belief would be this; they have the common property that they all correctly fix the sense of the belief that S.

On the other hand, if there are reactions other than beliefs, and the explanations of particular beliefs can be unified by something other than their mere claim to explain that belief, then those reactions must include perceptions. The first reaction on any chain that leads to the formation of a belief is a perception (which may have its present effect on belief only through beliefs it has prompted at some earlier time, or through memory). For all chains, if our argument that there will always be what we called the more natural explanation of the belief is right, start in the world, and must enter the consciousness of the subject in perception.

The theorist's description of his subjects must, therefore, at least explain the perceptions of his subjects in a way that explains their beliefs. (P.4) and (P.5) are intended to go a little way to elucidating what it is for the theorist's description to do this.

But there is a difficulty here that we must now go into. And perhaps this difficulty should have been looked into sooner, as it seems to be a problem for (P.5), and may have cast doubt on that principle and the results that we obtained with its help.

The difficulty is this. Suppose a man comes to believe his wife is having an affair, because one day he sees a bottle of new perfume on her shelf. If this is the explanation of his belief then so be it; but it has been a constant tactic of ours to claim that not just anything can count as an explanation of a belief. The explanations must all have something in common.

But what does this explanation have in common with other explanations of beliefs about the affairs of wives? Only this; that she is having an affair would explain the new perfume, his perception and his belief. But the purchase of new perfume is, regrettably perhaps, and despite what advertisers would have us think, no guarantee of participation in an affair; it's hardly essential to there being new perfume on the shelf that this belief can

thereby be prompted.

Equally, and for the same reasons, what the explanation has in common with others is not enough to explain why the perception of the perfume can prompt the belief. But it does, we are supposing, prompt it, if only because no other explanation of the perfume occurs to the husband.

The moral we must draw from this is as follows. First, there may be explanation of beliefs that are the best explanations but still not very good explanations; they may be unable to fix the sense of the belief. Secondly, therefore, if anything fixes the sense of the belief it must be what the belief explains rather than what explains it. (I have in mind the husband's subsequent jealous behaviour.)

To have one's beliefs prompted by the facts, and in accordance with (P.5), is to be more rational than any of us are very often; (P.5), of course, can't be faulted just because we sometimes jump blindly and without reason to beliefs for which we can only offer paltry explanations in which how the world was plays little or no explanatory role.

I want to claim that there are cases like this and that they pose a problem for the theorist. For how is he to guess what belief a man has grabbed from glancing at a bottle of new perfume? For a jealous belief involves much more than the belief that your wife has bought some perfume; you have

to be prepared to believe many other things about her, and there is no good explanation of how the bottle of perfume can be held responsible for these further beliefs. A theorist who wants to claim that his description explains better than **any** other the experiences and conduct of his subjects will have to look elsewhere for support for his claim that the husband has a jealous belief.

That the theorist must look at the behaviour of his subjects should come as no surprise, nor should it involve us in discussions we would not otherwise have had to bother with. For we argued in section four of the last chapter that (even where there is a good explanation of A's belief) an essential role in the production of the belief of the theorist about A is played by one or more of A's actions. But in that section we said very little about how A's actions play this role, so we shall now try to deal with this problem.

We will look closely at the chain that leads from a mental state of A's to B's belief that A is in that mental state. Two links on the chain will be crucial. First, there is A's action, and secondly there is B's perception (which will be at least a perception that A has done what he has done, and may be, and I shall argue will be a perception that A is in that mental state). Both these things are reactions to the fact that A is in the mental state.

Thus, in (P.4) we suppose that "A sees a tomato that looks red to him" has a sense. So an explanation

"p" of B's belief that A sees a tomato that looks red to him (A) correctly fixes the sense of B's belief iff it explains reactions he has which are reactions that would be explained by the fact that A sees a tomato that looks red to him if B perceived that A saw a tomato that looked red to him (A).

What are these reactions? Most important among them is B's perception, and we note two things about that perception. First, it must be that the perception explains B's belief, and secondly, it must be that some action by A explains the perception. These two explanations can be in the style of (P.5); roughly, they will be

First; it's essential to B's perception being that perception that it can prompt in B the belief he has,

Second; it's essential to A's action being that action that it can prompt in B the perception he has.

There will, I think, be a third explanation in the style of (P.5);

Third; it's essential to A's mental state being that mental state that it can prompt in A the action he does.

The need for this may be clear, but if not will now be made clear. The argument resembles an argument from section six of the last chapter.

Suppose that B's belief is that A is sketching the tomato. If he is prepared to believe this on the evidence of what he sees, he must be prepared to believe that A has seen the tomato.

So what will be the explanation of B's belief that makes it clear why B is prompted by his perception to these beliefs? Clearly it will be something like this; B has the belief because, among other things no doubt, A has seen the tomato (and is now sketching it).

That A has seen the tomato explains a number of things; that he is now sketching it, that B sees him sketching it, and that B believes that he has seen it and is now sketching it. This natural explanation explains why the three (P.5)-type explanations do really explain what they say they do.

The present example may be the least suggestive example we could have used. But a couple of more general remarks may still be possible without too much further illustration.

Whenever B believes that A has done some action, he must be prepared to believe something about A's mental state; he must be prepared to attribute at least the intention to do the action, and more than that some perceptions or concerns or decisions that prompted the action. Just what these mental states will be will depend on what B is prepared to believe about the action; to take one case, if he believes that A is sobbing he will believe that A is unhappy, but if he realises or sees that the sobbing is sobbing in pain, he will believe that A is (unhappy because he is) in pain.

There is no expectation that B will always be

able to see straight off exactly what A is doing. Suppose that A is just standing by the sea and thinking about various things. B will not be able to see from A's action of standing around just what it is that A is thinking about, though the chances are quite good that he will see that A is thinking about something even if he does not know what.

To make this clearer; an action of A's may not immediately prompt all the beliefs in B that it is capable of prompting. Further, and even more obviously, there may be many actions that can look much the same, that can, in other words, start off by prompting much the same beliefs.

(Here we have a contrast between A's knowledge of his mental state and B's; for surely mental states, especially thoughts, are easier to distinguish than the actions they prompt by which others may know them.)

In most cases the action that A can perform that will make his mental state clearest will be (insofar as he knows what mental state it is) to tell B. This will, if he understands it, prompt B to further beliefs about the mental state that he had until then identified only hazily. And in this case, as in all cases where B comes to see what mental state A is in, the mental state explains the action (the telling), B's perception and B's belief about A's mental state.

(One point may be worth making to prevent these remarks from inspiring a resurgence of scepticism.

It may be possible, in many cases, for A to keep his mental states a secret if he wants to. We are inclined to say that B cannot know what A's mental state is unless A tells him. The point we should observe is that we should not say

- (1) if A has not at time t told B what mental state he is in, then it's not the case that B can at time t know what mental state A is in.

For it's only true that he does not at time t know what mental state A is in; he can at time t know if A can at time t (or later) tell him. So we should rather say

- (2) it can't be the case that A has not at time t told B what mental state he is in yet B knows at time t what mental state A is in.

(2) is, but (1) is not consistent with the denial of (S.4).)

Before we go more deeply into this explanation of B's belief, the role of the action of A in it, and the things that must be true if there is to be such an explanation of the belief, let us pause to rid ourselves of some popular misconceptions about what is involved in this explanation.

Three. Interlude; The Argument from Analogy.

Many philosophers have been so frightened by scepticism that they have proposed that we know about the mental states of others by an argument along the following lines. (There is, I think,

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something in this idea which we shall try to make clear later; for the moment I concentrate, as so often, on what is wrong with the idea.)

- (1) A is doing something
- (2) Whenever I do that it is because I am in mental state M
- (3) From (2) it follows that whenever A does what he is doing he is in mental state M
- (4) Therefore, from (1) and (2) it follows that A is in mental state M.

An example may make us see something badly wrong with this;

- (1) A is giving someone a present
- (2) Whenever I give someone a present it is because I think that they are going to give me an even better present back
- (3) From (2) it follows that whenever A gives someone a present it is because he thinks they are going to give him an even better present back
- (4) Therefore, from (1) and (2) it follows that A thinks they are going to give him an even bigger present back.

Two things must be noted. First, (2) in no way entails (3); the falsity of (3) is not ruled out by the truth of (2).

Secondly, if we try to make the argument valid (or more like a valid argument) by adding such premisses as

- (1') A is just as selfish as I am
- we can always get away with an equivalent premiss

like

(1'') A is as selfish as it's possible for
someone to be

and have no need of (2) at all. That is, in any
valid argument from (1) to some conclusion about
A's mental state there will be no need for (2).

The failure of the argument from analogy is
inevitable, given its mission. For it was somehow
meant to show that we can know, on the basis of
what sceptics said we can know, things that
sceptics said we cannot know; and if the sceptic
has not made a total mess of saying what he thinks
we can know about other people, the argument is
not going to be valid.

And it's to the credit of sceptics that they
have never been very impressed with the argument
from analogy. Indeed they've been impressed with
something that is very hard to reconcile with
the argument.

We have already mentioned this point, but we
can mention it again. It is very hard, in many
cases, to see straight off what mental state a man
is in; in some cases it may be impossible (in
those cases where I need him to tell me about his
mental state). But, if the argument from analogy
was any good we would expect to be able in any
given case to see straight off what mental state
the man is in.

In some of these cases he may be unable to
explain what his mental state is, for he may not

know what it is ('Is it love or lust, is it hunger or an ulcer? What was that curious feeling? etc'). And even if he can explain it I may not be sure that I completely understand, or may be wrong if I am sure. There is really not much room for these points in the thoughts that inspired the argument from analogy.

Nor, I think, is there much room for the sorts of explanation we are inclined to give of these points. What we are inclined to say is this; it is often essential to grasping what mental state someone is in that you have had the same sort of experience yourself. Unless you've been in a war you don't know what it's like, unless you've smoked marijuana or been a parent yourself, spent a long period out of work, actually listened to some Stockhausen, you will not have much idea what others' experiences of these things are like.

Let us not get tangled up in scepticism again. We have said all that will be said about it. What is right, if anything, in the above sort of explanation is not the idea that to know what pain is like you must feel pain. It was the whole point of the last chapter to point out that this is false.

What strikes me as right is a double thought, the first half trivial. Firstly, it may be that someone can for whatever reason be very obstinate about something, or refuse to believe that, say, war is anything but a holiday. Descriptions of moulding bodies in trenches will have no effect

on him, and maybe the only way to get such a person to know what war is like is to drop him in the middle of the nearest one. Obstinance, however, is not a problem for the theses I defend about the objectivity of the mental.

More importantly, it seems right to say that something must take the place of experience of a war if a theorist cannot get himself to one and still wants to know what it is like. He must be somehow brought to know what experience of war itself would otherwise tell him. He must, that is, come to have the beliefs (and feelings) prompted by participation in a war. To bring him to this point by verbal explanation may be very hard (and to the extent that no one is up to doing it he will have to get into a war); it is clearly not enough to say "It was horrible" no matter how much feeling one may put into this sentence. There is more to war than being in some heartfelt but unspecified way horrible, and anyone who took himself to have grasped from that short sentence what war is like will be mistaken. It cannot be seen straight off from this what war is like; nor should we be encouraged to the thought that it can by any such irrelevant facts as that

(2') Whenever I say that something is horrible it is because it reminds me of the smell of Mr. Kipling's Apple Pies.

The accidental truth of (2') would be no defence against the sceptic saying 'conclude what you like

from your argument from analogy, but there's no hiding the fact that for all you know your subject could be in any one of an enormous range of mental states'.

What we should have instead of (2') is something like this;

(2'') Whenever I say that something is horrible there will be some explanation of that utterance; and any explanation will have in common with all the others some property that makes it clear why it is an explanation of the utterance. Such a common property will be connected with what it is for "X" is horrible" to have the sense it has.

Two things should be clear. Being horrible has not got much to do with being able to remind people of the smell of apple pies, so (2') is not an instance of (2''). Even if (2') were true it would be an accident that it was true.

Further, (2'') is nothing more than an instance of a more general claim that whenever anyone says that something is horrible there will be a number of possible explanations of a certain sort. We can, in a way, argue by analogy from (2'').

In the case of sayings that something is horrible we cannot see straight off why the subject has said that thing. The sceptic will encourage us to think that in any given case there will be many possible explanations (and that we cannot know which is right). In the case of a man sobbing with

the pain of a broken arm this encouragement is rather misguided; but the identification of his sobbing as sobbing with the pain of a broken arm may just about be controversial or at least a little hard to see straight off. What was wrong with the argument from analogy was that it tried to get from what can be seen straight off to everything else, and that it used completely spurious means to do so. But we must note that there is nothing wrong when the argument is conducted along the lines of (2''); if something could explain a mental state or action of mine, it could also explain that mental state or action in others.

Four. Explaining Actions, and Some Remarks About Human Nature.

The position from which we start this section has been prepared by the two previous sections. A brief summary may be in order.

A's mental state can prompt B's belief that A is in that mental state via an action by A and a perception of B. B's perception is, we shall begin by saying, of A's action; and, depending on what B sees in the action, he can come to see something about A's mental state. (If, for example, he sees that A is sobbing, he will see that A is unhappy; if he sees that A is sobbing in pain, he will see that A is in pain.) There will be several

true descriptions of A's action (eg, sobbing, sobbing in pain, etc); some of them B will be able to see straight off as applying to the action. And, for most if not all of those descriptions, there will be several possible explanations of the action under that description. So B will not very often be able to see straight off what mental state A is in. (Sceptical remarks about the eternal possibility of pretence and the varieties of deception and mistake may make this more plausible than a quick glance around everyday life could do.)

So our problem is simple; how, if the argument from analogy does not work, can B know what mental state A is in if he cannot see it straight off? A's action may look like the gesture of a man in pain, or the struggle of a man who wants to put up a tent in a high wind, but is it really? (What is B to think of his own perception of this opaque event?)

We have, in fact, already solved this problem. For it arose earlier in the following disguise; A cannot see straight off what he is looking at, for what it is could be, as far as first glances can reveal, an orange tomato in a strange light, or a red tomato, or a number of other imaginative confusing alternative possibilities. The tomato may look like a red tomato but is it really?

Let us recall our solution to the difficulty of the tomato. We suggested that A would need to

take some further observations, but that when he had done so we could explain his eventual decision about the colour of the tomato by citing those observations and a number of facts (facts (2) to (4) of the last chapter) about how things of this or that colour look in this or that kind of light. These facts, which are instances of (P.5), are things that must be true if colour words are to have distinguishable senses.

We should expect the same solution to apply to our present problem of A's mental state. B will have to take some further observations, and we can explain his eventual decision about A's mental state by citing those observations and various facts about how people in this or that mental state look under this or that condition. These facts will be things that must be true if terms for mental states are to have clear senses.

It will be worth mentioning a few of these familiar and uncontroversial facts; I choose the easiest example, of pain. These facts will be along the lines of

- (1) That X is in pain can prompt the belief that X is in pain (and the belief that X is pretending to be in pain, etc)
- (2) That X is in pain but is being brave about it can prompt the belief that X is in pain but is being brave about it (and the belief that X is not in pain, etc)
- (3) That X is pretending to be in pain can prompt the belief that X is pretending to

be in pain (and the belief that X is in pain, etc)

etc, etc.

This is the first part of the story. Next we need various facts to help us sort out, among the various possibilities that arise when B is prompted to the belief that A is in pain, which of them is true. We need, in that case, some facts about how A's mental state will look in, as it were, different lights; (I express these very roughly, and rather out of the general mould of the presentation of these facts)

(4) If X is brave, he will not be worried about having to go to the dentist, or travelling by air, etc

(5) If X is a con-man, he will run off when he sees a policeman, he will make feeble excuses to avoid going to a hospital, etc

etc, etc.

Finally, those such facts as (1) to (5) may be able to explain B's eventual belief that A really is in pain, other facts can help, and may be easier to use;

(6) If X is in pain there will be some reason (physical or medical) why he is in pain

(7) If X is brave there will be some reason (say, psychoanalytic) why he is brave

(8) If X is a con-man, there will be some reason (socio-historical...) why he is a con-man

etc, etc.

These things can fix the sense of A's mental

just as well as can the things the mental state explains. Where the theorist finds the explanation of A's mental state insufficient to fix the sense of the description of the state, he can fix it from the other end by looking at the beliefs that the state can (via action) prompt; and vice versa, when he find the actions inconclusive he may be able to fix the sense of the description of the mental state by looking at the causal origins of that state.

Most descriptions of mental states are of the form "X ϕ 's that p"; it will be a condition of that description having a sense both that there are facts that are conditions of " ϕ " having a sense, and that there are facts that are conditions of "p" having a sense. Consider the description "X feels that he is in pain because his arm is broken"; it's essential to this description having a sense that when it is true various beliefs can be (via action, or 'directly') prompted. Among those beliefs will (in most cases) be the belief that X's arm is broken. So, as usual, that X's arm is broken will explain why his mental state is capable of prompting the beliefs it does prompt; to put it briefly, the broken arm prompts them (via X's feeling that he is in pain because his arm is broken). But then "X's arm is broken" must have a sense and fall under (P.5) as much as the description of X's feeling falls under (P.5).

Much more could be said to fill out in more detail the nature and circumstances, and the things that are involved in our knowledge of other minds. I am just going to concentrate on the one claim that I have been trying to make convincing; the claim that the truth of facts like (1) to (8) are conditions of our descriptions of mental states having the senses they have. (There must also be truths like (2) to (4) of the previous chapter, but we shall now leave these aside.)

(1) to (8) are a tiny part of a very rudimentary description of human nature. I shall defend this in a moment, but if it is true then we can say that our descriptions of mental states only have a sense if there is such a thing as human nature.

What must a description of human nature do? A few obvious requirements can be loosely put as follows. It must say something about how people react to the world, with thoughts, feelings, action and so on that depend upon the particular situation they take themselves to be in. It must enable us to see those reactions in more interesting and revealing ways than we may have done at first sight. And it must connect where possible these reactions with, for want of a better word, the constitution of people.

An analogy may do for these hazy requirements what more careful expression should really be given the task of doing. A description of the nature of gold must describe the reactions of gold to its

immediate environment (light, acids, heat, etc), and must enable us to see those reactions in more interesting ways than first sight can see them. (So the reactions are described in terms of the states of the outer electron shells of gold atoms, the Pauli exclusion principle, and so on.) Finally it must connect those reactions with the (atomic) constitution of gold.

Let us continue with this analogy for a little longer. There are compounds that look like gold and in many ways behave like gold, that are not gold. (Some tests, such as dissolution in Aqua Regia, give them away.) A description of the natures of these other compounds would describe the similarities of first sight in more interesting ways that would differ from the rediscussions of those reactions in the case of gold itself.

Our ideas about the nature of things such as gold both approximates to and depends on the true account of the nature of gold. For it is the nature of gold that gives samples of gold their properties, both the simple properties that first sight can detect and the deeper properties for which much investigation may be needed. Had gold no such nature, we could neither redescribe the obvious properties in less obvious ways, nor even find a principled way to distinguish gold from other similar materials. To put it Locke's way, if gold has a nominal essence it must have a real essence.

The rudimentary description of human nature stands in need of a deeper account, one by which we can redescribe the mental life of persons in more interesting ways. We do not have much idea how to do this, though many have tried; there are theories that would redescribe all our life as pursuit of a few basic drives, or as a conflict between the death-wish and the obsessions of the subconscious. Such theories are, to put it mildly, over-simple; but they give expression to the belief that must be right that, since we can extrapolate from given experience of people's reactions in certain situations to an understanding of new reactions in significantly different situations, something more general than the piecemeal account of human nature begun by (1) to (8) must be possible. Were there no such deeper account we could neither get very far with trying to redescribe the face values of what people are like, nor would there be any principled way of distinguishing people from other objects whose animations resemble those of people. As with gold, if people have a nominal essence, they must have a real essence (whose description will be a task for the biological sciences).

I do not intend to reveal the shallowness of my own understanding of human nature by trying to set out a deeper account than (1) to (8) could be a significant part of. I shall just make a couple of remarks about the account as I suppose it will in

the end start to be clear.

First, our present ideas about human nature, which may contain (1) to (8) and some rather deeper ideas than those, both approximate to and depend on the true account of human nature. For it is human nature as it interacts with the world that gives rise to the properties we observe in people and our speculations about human nature. So, to the extent that we can make sense of other people, that is, to the extent that our descriptions of their mental states have a sense, there must be something we can call human nature that explains our understandings and beliefs.

Secondly, I myself see no reason to expect that a theorist in possession of the true and deep account of human nature will be able to eliminate all uncertainty from his theorising about people. If a sceptic wants to put this point by saying that complete knowledge of another person is impossible, that will be a rather confusing way to say something quite simple.

The simple point is not just that knowledge of other people must be a product of what the deep account of human nature comes up with when it is fed a body of data too enormous for actual practise to handle. For even if this were true it would not be the point; and I doubt that a man's entire history will be relevant even to the nuances of the description of his present mental states. (It will clearly be part of the deeper account to make more precise

our present ideas about what in a man's biography will be relevant to his present states, to pick out, in other words, the salient features of our daily fantastically detailed experience.)

The point is rather this. To expect the account of human nature to be able to describe our lives and conduct in ways that make none of them exceptions to every rule is to be too hopeful (or, perhaps, too pessimistic). Some con-men do not run when they see a policeman. There may be a reason for this, such as this con-man's arrogance or cool head, but surely there need not be any very good explanation of why he stands there. Perhaps running just does not occur to him; as it were, the rational process misses a beat, as it does when we are weak-willed or leap to distant conclusions, or whatever. There could be no fitting such exceptions to the rules under different rules that would make them the norm rather than the exception; rationality is not something we cannot occasionally abandon or be deserted by.

It is not, in this case, the sense of our description of the con-man's action that is uncertain. We are not, for example, caught between saying that he is just standing there or saying that he is in some sense running on the spot. But I have chosen a clear case; in most cases where there is some uncertainty we will be unsure of the rationality and the description of the action or mental state.

That thoughts and actions can exemplify a less than perfect rationality makes this uncertainty possible. For rival theories of human nature will describe these thoughts and actions differently from time to time; and I doubt that there could be any way to assess or decide between these rival theories.

Clearly a theory that made us out to be too irrational too often would not do justice to the facts. But no theory of human nature could describe our experiences and conduct in a way that made rationality inescapable; the ideals of theory construction do not yield a unique solution to the problem of describing our experiences and conduct.

Here we arrive at a thought that may have motivated scepticism. Rather than show it does not support (S.4) by looking at further premisses, I shall attempt one clear statement of the thought, whose independence from (S.4) may be clear. Though there is such a thing as human nature, and though our descriptions of mental states do therefore have clear senses in the vast majority of cases and lend themselves to the construction of a theory of human nature, in some cases the descriptions may have no clear sense. There will in such cases be no fact of the matter whether or not the description applies; human nature itself will in places fall under no clear description. At these points it is the very facts that give our words their senses that are the subject of controversy

for which there is no remedy.

(This is an indeterminacy thesis of the kind advanced by Quine. The indeterminacy I allege, though, is nowhere near as drastic as that which Quine claimed to have detected; mine just pours a little cool water on over-enthusiastic objectivists.)

I end this long exploration of the problems of describing and explaining the experiences and conduct of speakers with an improved version of (R.3). (As always, past and even future points must be allowed to adjust the senses of the slack expressions that follow.)

(R.3) Improved;

A semantic theory Θ for a language L is adequate iff a theorist of L-speakers is committed to Θ by a description of L-speakers which is such that

(i) D describes the total experiences and conduct of L-speakers in the light of a theory H of human nature and a theory W of how the world as it engages with human nature was, and

(ii) H and W are governed by (P.4) and (P.5), and

(iii) there is no D' that describes the total experiences and conduct of L-speakers in the light of rival theories H' and W' significantly better than D, and which is such that a theorist would be committed by D' to a semantic theory Θ' that was significantly different from Θ .

In the last chapter we will look at how further elucidation of our commitments should proceed.

Chapter Six. 'Realism'.One. Introduction.

In this last chapter we will look over the progress, such as it is, that we have made with our understanding of commitment. Further extension of the project of describing those commitments will not be actually undertaken; I shall just say a few things about how the project is to be continued.

Two. The Commitments of Subject and Theorist;
A Summary and Restatement.

A theorist is committed to the existence of any object mentioned in an adequate semantic theory of a language L_2 , where L_2 is a language rich enough to be able to describe the experiences and conduct of speakers, and where what it is for a semantic theory for such a language to be adequate is given by (R.3) Improved.

We are only committed to a semantic theory for a language if that language can be used to say things (see Chapter Two). But a language can only be used to say things if the words of the language have senses; only if, we argued, there are a number of facts about human nature and how the world, as it impinges on human nature, is.

Further, if the language is to be capable of

describing and explaining the experiences and conduct of speakers, it must be able to describe those things in the rich way that shows how human nature interacts with the world. It must, therefore, have the resources to state a theory of human nature and a theory of how the world is as it engages with human nature (theories governed by (P.5) and (P.4)) where those theories together enable description and explanation of the experiences and conduct of speakers that is as good as possible.

These summary remarks are intended as a rather inexplicit argument for the conclusion that the semantic theory for the language of the theorist must mention all the things that engage with human nature in the production of experience and conduct. In other words

(R.1) Improved;

A semantic theory for a language L is adequate iff there is some description D of L-speakers which is such that

(i) D describes the total experiences and conduct of L-speakers in the light of a theory H of human nature and a theory W of how the world as it engages with human nature was, and

(ii) H and W are governed by (P.4) and (P.5), and

(iii) there is no D' that describes the experiences and conduct of L-speakers in the light of rival theories H' and W' significantly better than D

and the semantic theory for L mentions

all the things mentioned by H and W.

(No doubt there are problems with this, not least that on the face of it false theories, or even theories having no pretence to be semantic theories could be called adequate by this new requirement. So even (R.1) Improved could stand some improvement; but I am only concerned with the insight that (R.1) Improved, as it stands, manages to express.)

It is clear that further elucidation of our commitments will consist in nothing less than coming up with a theory of human nature and a theory of how the world is as it interacts with human nature. That might have been expected; those not expecting it may be disappointed that no question has been begged yet. I am not going to embark on the further elucidation of our commitments; I shall only deploy some points from previous chapters to make a few remarks about how such elucidation must proceed.

Three. How Not to Believe in an Object.

We must expect that rival theories of human nature and the relevant world will disagree over what objects there are. It should not be forgotten that some theorists have played with the idea that there are not any objects at all, just a whirling of inexplicable ideas and impressions. What sort of thing can settle such disputes?

Suppose that one theorist believes in ghosts, and another does not think that there are such

things. Problems arise for both sides.

For the theorist who does not believe in ghosts there is the problem of **explaining** what his opponent is prepared to describe as beliefs and thoughts and remarks about ghosts. For if ghosts do not exist then there cannot be beliefs or thoughts about ghosts; some other description and explanation of what look like beliefs and thoughts must be given.

I have already said that I do not really know what such an alternative description could be like. But there must be alternatives to the simple idea that whatever men have invented or dreamed or hallucinated must exist; it is my hope that ghosts are a good counterexample to this idea.

In his lectures, Gareth Evans developed a formal theory to account for such 'beliefs' by comparing them to make-believe, or pretence, and formulated a number of rules governing games of make-believe. The properties of the 'objects' of the game are results of stipulations that the rules capture. (And I'm sure it's a good point for Evans' theory that the ideas of pretence and agreement to sustain illusion arise so often in the accounts given by sceptics about our knowledge of other minds of our apparent communications.)

Something like Evans' theory must be applied by the theorist who does not believe in ghosts. He must attempt, without making essential use of the word "ghost" (which has no strict sense) to explain experiences and conduct that might be easiest to

understand in terms of ghosts, perceptions of ghosts, and so on; and it will be a substantial thesis that he will have to defend that his account is not significantly worse than the account that 'speaks of' ghosts.

For the theorist who does believe in ghosts there is a different problem. He must give some account of what it is that explanations of beliefs about ghosts have in common. This account will have to put a few cards on the table about what ghosts are like; that is, what the various kinds of ghost have in common, and what beliefs under what conditions they are essentially capable of prompting. Those who doubt that there are ghosts doubt exactly that there could be any such account.

It would be nice to be able to say something general about what would be wrong with the account. That would take us into many areas that are way beyond the scope of this thesis. A couple of timid and uncertain remarks will have to do what more careful thought would do much better.

First, it is unlikely that the account would be very rich. The properties assigned to ghosts are hardly more than those attributed to them by people who have claimed to see them. They are white and cloudy, perhaps they make witnesses think of dead people. What is missing is what we have in the case of natural objects, namely the prospect of a deep understanding of the nature of ghosts in virtue of which they have these

properties. The colour and behaviour of gold is due to its constitution, and the colour and behaviour can be redescribed by a theory of the constitution of gold. In the case of ghosts no such theory is forthcoming; the whiteness of ghosts is nothing to do with the reflection of light (since they can shine in the darkest rooms) or even luminosity (since the whiteness does not fade). The whole idea that there is something there for us to investigate is dubious.

Secondly, though connectedly, there does not seem to be anything like the possibility of perceptual mistakes in the case of ghosts. Their shape (and whatever other properties they are meant to have) is not something people are said to be wrong about. A tall ghost one night can be short the next; if one seems to walk through a wall then it does. Nothing constrains what ghosts can and cannot do in a way that would ever lead us to say that this ghost could not really have done what it seemed to do. The contrast between what we believe or feel like believing about the ghost and what is actually true of it is not a contrast there is any way to draw. It is exactly as if the whole thing was a dream or a figment of someone's imagination in which he decides what is true of his ghost and that's that. There is no such thing as showing him evidence to the contrary; nothing is there to correct what would be mistakes.

These remarks gesture towards the need for an explanation of the relationship between our ordinary and incomplete and clumsy beliefs about objects and the scientific theories that set out to account for the world of which they are all a part. Those who believe in ghosts hover themselves between saying that science is irrelevant to the study of ghosts, and saying that one day science will advance to the point of understanding what ghosts are. The first of these alternatives seems to me much the worse of the two; for though, even if there are ghosts, we may not care much about what science has to say about them (any more than we are really interested in the nerves and so forth that conduct pain), science must have its say if ghosts are part of the world studied by science. The second alternative is, as far as I know, just unsupported optimism produced by the belief in ghosts and a proper appreciation of the consequential right of science to investigate them.

Suppressing gasps at oversimplification, let us describe controversy about existence as controversy about whether particular beliefs are akin to a game played, or a pretence or illusion sustained for some purpose, or whether those beliefs are prompted by things in the world whose scientific credentials may be pending.

One point is worth noting, and it will bring us to the problems with which the last sections will

deal. If I describe someone's belief in a ghost as a kind of pretence, there is no suggestion that he will be aware of the pretence, or that the pretence was at any time deliberate or explicit. It is just the fact that illusions are a bit like reality, and these pretences are at first sight, even to the pretender, just like real beliefs, that makes it so hard to restrict use of the word 'belief' to things that really exist. For no doubt I myself use the word for things that do not really exist; to have a word without this defect would be to have a word based on a distinction we do not always know how to draw, namely the distinction between things that do and things that do not exist. In as much as we can draw the distinction we use it to avoid beliefs at all; for example, I avoid having beliefs about ghosts.

That is, even if it seemed to me that I had beliefs about ghosts, it would not follow from that that there are ghosts, or even that I have beliefs about ghosts. I might discover that the whole thing had been a game, like the game that begins with Santa Claus' sooty footprints by the fireplace but with the difference that no-one knew it was only a game.

As a theorist engaged in the construction of a theory of human nature and a theory of how the relevant world is, I must observe a number of cautions. These cautions are the subject of the last sections that follow; they are my attempt to

elucidate, with the help of points made in previous chapters, what it is to be a realist. I shall begin by looking at two standard accounts that I find unhelpful; then I shall begin my own account and suggest how it is to be continued.

Four. Traditional Accounts of Realism.

The title of this section might give the idea that I am going to start digging up a lot of historical figures and their views of the world. There would be plenty of material; the distinction between illusion or appearance and reality has been much sought after. Frustration and the difficulties of drawing the distinction properly have led some to deny the existence of reality, and others to deny that there are appearances. Others have drawn the distinction in roughly the right place but with hopeless materials.

I shall just look quickly at two fairly modern accounts of what realism is. One we have already mentioned; as it is usually stated it is that the (real) world may be such that sentences about it may be true (or false) independantly of our ability to verify (or falsify) that sentence. The second account is roughly this; to be a realist about X (eg, cats, blueness, numbers, necessity, etc) is to use the word "X" in explanations of beliefs about X's.

Neither of these accounts strike me as being

very helpful. And I shall quickly try to say why; the points I shall make are not intended to deny the claims they make, but to help us find where to look for a better understanding of realism.

About the first account, which has been the pivot of most recent realist-antirealist debates, there are several points to make.

First, it's notable that the best cases of undecidability are in science and mathematics; areas where undecidability has nothing to do with human nature and our limited endowment of capacities to check things and everything to do with conceptual limits and matters of principle. The discoveries of Heisenberg and whoever it was that proved the undecidability in Peano arithmetic of Goldbach's conjecture must be taken as discoveries about the fundamental particles of physics and about the objects of mathematics. Even if we are sensible and avoid the nonsenses of hidden variables in physics or platonic entities in mathematics, we are hardly giving up realism in these fields; rather we are just discovering what realism comes down to in these cases.

Secondly, the other cases of undecidability, such as sentences about the irrecoverable past, which have everything to do with human nature and our limits, are likewise irrelevant to the fact that we are realists about the past. Suppose there was a complete record of the past; would this make us worry that there was nothing we could not know

about the past? And why should the fact that there are some things we cannot know about the past make us any more realist than we would otherwise be about those things?

As I say, I am not denying that there are things that we here and now cannot know. But if there were not what difference would it make? Suppose a decent theory of meaning could be built on the basic notion of verifiability or justified assertion; surely both these ideas already have the idea of reality in them. (To verify something is to verify something about the world; what, if anything, justifies an assertion, is how the world is; knowledge is knowledge of the world; and so on.)

The last, and I think most pertinent criticism of our first account is that it offers no prospect of an elucidation of the distinction between appearance and reality. Looking just at things we can know, we always find this distinction to be drawn. A tomato can look orange, a stick in water can look bent, and so on; and if arguments from previous chapters were to be repeated here, we would recall that it's essential to "the tomato is orange"'s having a sense that there are various facts that can explain our knowledge that the tomato is orange. What, if anything, goes wrong with our investigations is only that we may be unable to take all the necessary observations. But otherwise we can draw the distinction between appearance and reality in the right place. Where we cannot complete a particular

investigation we will not be able to draw this distinction; but surely this inability is just the opposite of what the realist is concerned with though he must acknowledge it where necessary.

In short, the contrast between truths that can and truths that cannot obtain independantly of our capacities for knowledge is nothing to do with the contrast between appearance and reality. For where there is the first contrast we are unable to draw the second; and where there is not the first we can still, and are most interested to draw the second.

The second account has been less discussed. Again, I do not wish to argue against it, but to say that this too is a poor elucidation of what realism is.

The remarks have already been made, but we shall make them again in a clearer fashion than before. First, and a little impertinently, it is not necessary to belief in, say, rust, to use the word "rust" in explanations of beliefs about rust. "Iron oxide" will do just as well. I make this point only because replies to it smuggle in the idea of realism; it will be said that rust and iron oxide are the same thing and can prompt the same beliefs. And if we ask why 'both' rust and iron oxide (the evening star and the morning star, etc) prompt the same beliefs, the answer must be that we have discovered that they are the same. But surely the ideas of 'thing', and of discovery,

are going to be much more useful in an account of realism than some remark about using a word again.

The second remark may make this even clearer. As we have noted it is not enough to use a word again in the explanation of what may or may not really be beliefs to guarantee that there is something of which you speak and about which you defend unspecified realist theses. To explain a child's belief about Santa Claus by saying that Santa drank the milk or left the footprints is neither to explain a belief nor to be involved in any realist theses 'about Santa Claus'. There are no theses to be held about things that do not exist.

And this leads us to repeat an earlier criticism again. It may well be that ghosts do not exist. My pretending to say or believe things about ghosts is no obstruction to this possibility. So how, again, are we to draw the contrast between appearance and reality? It certainly may seem to me that I'm saying and believing things about ghosts but am I really? Am I really using a word with any meaning when I explain someone's belief (if it is a belief) by saying "There was a ghost there"?

The moral I draw is that the account of what realism is, or what it is to be a realist, must be drawn from within. If I want to be a realist, there must be something I can do and know I'm doing; it should even be possible to be a realist about ghosts,

as many people still are. An account of realism that does not both enable people to see a point in being realists (or antirealists) and enable them to know that they are on the side they want to be on, is not a distinction that accounts for the vehemence with which disputes between the two sides have raged. But the first 'traditional account' is not one there is often any point in looking at, for realism and antirealism coincide; and the second account does not often permit people to know whether or not they are being realists about what they want to be realists about.

Five. Being a Realist.

Let us look at a simple case. Suppose I have a perception I'm inclined to describe as a perception of a red tomato. I'm prompted by something to the belief that there is a red tomato.

It must be philosophy's most well-worn point that there can be several explanations of this belief. It may look to me like there's a red tomato but there may not be. There is a difference between appearance and reality.

To be a realist is first and foremost to accept this. It is to accept that the world is not whatever one feels like saying it is.

Secondly, I am not forced to classify all my perceptions as mere appearances. Investigation can settle the matter for me. For even if there is not a red tomato there, something is

responsible for my mental state, and, whatever it is, it is there for me to scrutinise and to prompt me to less impulsive beliefs than the one that first crossed my mind.

If the tomato is really there, then a number of facts that give the word "tomato" a sense will be involved in explaining how I come to know that. If it's not there then I must be guided by my understanding of the alternative possibilities to a proper knowledge of what I see.

To be a realist is, secondly, to believe that the words we use have their roots in facts about the world that engages with human nature. And it is to believe that those facts are such that the investigation of the world as it engages with us is possible.

People who seriously believe in ghosts are realists in these first two ways. They do not hold that any old perception can be a perception of a ghost however much the observer insists it was. For they hold that there are facts about ghosts and that we can know about them (if "ghost" means anything this must be right). Ghosts are, of course, nervous and elusive, but there is meant to be the possibility of an investigation that would settle whether or not something was a ghost. White linen flapping on a line is definitely not a ghost, though we may be unsure exactly what a ghost is or how to establish that we have seen a genuine ghost.

Let us pause to make a couple of clarificatory points. First, the things I say are part of what it is to be a realist about something are quite consistent. There is no need for someone who accepts that there will always be alternative explanations of a more or less bizarre sort to the one he thinks of first to go on to doubt that he can ever know which of them is true. Quite the reverse; if we have an interest in the difference between appearance and reality the distinction must be one that we believe can be drawn where we can see it.

Phenomenalist accounts of the world suffer from the defect that they do not make room for the possibility of investigation. Truths about the world are meant to be expressible entirely in terms of the things that we can see straight off (that this object is or looks blue/square/etc). Beliefs enriched by theory play no role in description of the world. But it's central to the realism I would describe that there can be more to be said about an object than the first thing that leaps to mind; there is no reason to expect that an observer will be prompted to every possible belief by what he sees. (Nor is there any support for the idea that what we do not know about or notice cannot be part of our experience; as Michael Frayn observed, it's no good keeping yourself in deliberate ignorance of such things as mortgages and impregnation in the hope that if you don't know what these things

are they won't or can't happen to you.)

Secondly, it will be noticed that the points now being assembled into a description of realism are all stolen from our account of the explanation of belief. It may be a surprise to discover that realism is slowly and in a rather underhand manner being equated with rationality in belief; and the development of this thought into the claim that it is possible to be realist about ghosts but not for long may be predicted. Actually I am not going to supply that development.

The difficulty we now find ourselves in is that what we said about the explanation of belief is going to run out quite soon, and our description of realism is going to run dry. I add just two further points.

First, in a way in which this thesis has done little or nothing to explain, the senses of words depend on the possibility of rich theories of the phenomena they describe. We have noted two cases of this; the conditions under which a thing looks red have in common something best explained in terms of the kind of light reflected under the various conditions that rival to explain an object's looking red; and, the possibility of a principled way of distinguishing gold from other apparently similar substances depends on the possibility of redescribing the behaviour of gold in scientific terms. Such scientific theories may play no role in the explanations themselves of belief; but the

possibility of such explanations depends on the possibility of such theories.

Secondly, as we have tried to make clear (at the end of the last chapter) there is no real expectation that indeterminacy can be avoided. There is no sure-fire way to get from the beliefs that leap to mind to a unique richer description of the phenomena. This observation, now dimly invoked, is responsible for the insertion of the phrase 'up to a point' in the account of realism that follows.

To be a realist is to accept that

- (i) there will always be at least two possible explanations of a belief, at least one of which will not count that belief as knowledge
- (ii) it is always, up to a point, possible to check by investigation the truth or falsity of the belief
- (iii) it is very rare that an experience will prompt straight off all the beliefs it is capable of prompting
- (iv) where there is something that can be known by observation there is something that science will say about the same object or event or phenomenon.

As I have said, a better understanding of how beliefs can be explained will improve and extend this list. When we understand as well as we can what realism is, we can set out, as realists, to discover the objects to which we are committed by the theory of human nature and the theory of the world as it

engages with human nature.

It is not envisaged that this project can be carried very far by men sitting in armchairs or typing away at tables. The investigations involved in the verification of beliefs is not in any large part likely to be a conceptual investigation. To some extent it may be; and even where it is not it may be that philosophy has a contribution to make. But thought is never a substitute for experience, and those interested in truth and knowledge and the rest will in the end have to make do with the philosophy of the day and deploy it as best it can be deployed in the processing of experience. Some revision of that philosophy will probably be inevitable, but only dissatisfaction with realism could make this prospect something to worry about.

Notes and References.

Preface. Works that have exerted a fairly continuous influence on the thesis should be mentioned first. They are McDowell (38), from whom I take the phrase 'making sense of speakers', Wiggins (60) to (63), Evans (15) and (16) and Wittgenstein (65) to (67).

Chapter One.

1; On commitment generally, see Quine (50) and (51).

2; The thought and language controversy; the position I attack is sometimes known as the Whorf-Sapir hypothesis. See Whorf (68) and Davidson (7) in which the 'cliche' is noted. On my side see Wittgenstein (65) and Cromer in Foss (20).

3; The problems of intensional contexts have been widely and unsatisfactorily treated. Generally, see Frege (21) and Dummett (13) Ch.5, Quine (52), Davidson (10) and Wallace (56). For a theory in the Fregean tradition that does not work, see Kaplan (31). For complications with Quine's and Davidson's theory, see Hornsby (29) and Loar (37); finally McDowell (41) for the force of the bewitchment produced by the problems of opacity.

For the ideas behind a correct account, see Evans (16) and (17). Those worried by all the substitutional quantifiers in my semantics should see Kripke (36).

4; For some help with problems of non-denoting terms, see notes to Chapter Six.

Chapter Two.

1; The idea, eventually dropped, behind (R.1) comes from the first sentence of McDowell (38).

2; On radical interpretation, see McDowell (38) and (39), the introduction to Evans and McDowell (19), Wiggins

(61) to (63), and McGinn (44), Grandy (22) and Evans (16) on the Principle of Charity. The original sources are Quine (50) Ch. 2, and Davidson (6).

3; For translational theories, see Katz (32). For objections to translational and list theories, see Evans (15) and the introduction to Evans and McDowell (19).

4; Formal theories are to be found in Tarski (55), Frege (21); for the application of these theories see Davidson (5), McDowell (55) and Evans (19) section one. Criticisms occur in Dummett (13)'s chapter on defining truth, and (14) and Kripke (36).

5; The syntacticians I have in mind can be found in Seuren (53), Davidson and Harman (11) and Steinberg and Jacobovits (54). The claim that syntax is an independent discipline was made most strongly by Chomsky (4) part one.

6; The idea for the method by which constraints on semantic theories are derived comes from Wiggins (63).

7; It is just worth pointing out that the references to theorems in the axioms of the first two chapters are to theorems, and not just any logical consequence of a theory is a theorem (see (R.2)). This not only prevents unhelpful objections; it answers the difficulty posed by Foster and Loar (see introduction to Evans and McDowell (19)). For a language with intensional operators that had Foster-type 'theorems' as theorems would contain false consequences.

8; On the place of a theory of truth in semantics, and other ingredients of a semantic theory, see Wiggins (64) and Evans (17).

Chapter Three.

1; On explanation, and the paradoxes of confirmation, see Hempel (27). Harman's article, from which (P.2) derives, is (24); the ideas here are developed further in Harman (25).

2; The subjectivism to which the example of section three is addressed is criticised by Warnock (59), Kolnai (34), and Wiggins (62). The argument of this section is my attempt to understand Wiggins' claim that "The possibility does not exist for the theorist to stand back from the language of his subjects". I am indebted here to Wiggins' lectures.

3; Readers may agree with me that (P.4) is not quite right. (Some difficulties are located in Chapter Five, section two.) The principle works much better for explanations of knowledge than explanations of belief. But the shortcomings of this principle do not affect the arguments that depend on it, which are concerned with knowledge.

Chapter Four.

1; The literature on these subjects is large and uniformly poor. For a selection of confusing and unconvincing articles, see Pitcher (47), Jones (30), Klemke (33), Chappell (3) and Gustafson (23). Modern treatments are hardly better; see Blackburn (2) and, as good as anything but still with some mistakes Hopkins (28).

Original sources are Wittgenstein (65) to (67) and Austin's brilliant (1); these works are exempt from the despair evoked by the selections above.

2; On colour, see Harrison (26) and any decent encyclopaedia (turn to 'Colour').

3; The basis for the analysis of 'looks' in section six is Austin's treatment in (1) and Wittgenstein's discussion of 'seeing as' in (65).

Chapter Five.

1; On causal theories of perception and action see Davidson (8) and (9), Peacocke (45). (Also Wiggins on weakness of will, Aristotelian Society 1979, and Hornsby 'Actions', RKP 1980.)

2; The treatments of gold and human nature derive

from Putnam (49) and Kripke (35); see especially Wiggins (60) Chapters three and six, especially longer note 6.36.

3; Quine's indeterminacy thesis can be found in Quine (50) ch. 2, and (51); the reply is made by Evans (15).

Chapter Six.

1; Until Evans' theory of vacuous names is published we will have to make do with some of the papers that he drew on in the construction of the theory, in particular Walton (57) and (58).

2; On the connections between beliefs and science see Wiggins (60) chapters three to five, and Wiggins (62) section IX.

3; The first traditional account of realism is largely due to Dummett (14) and (13); it has been contested by McDowell (39) and (42) and (38) and McGinn (43) that this kind of antirealism will not stand up. See also Wiggins (63). The second so-called traditional account is Peacocke's (46). Much more interesting are Austin's remarks in (1).

4; The account given of realism would be much better for incorporating Evans' points about the understanding of demonstratives, in his lectures. (I do not have my notes on those lectures to hand.) For the moment, see Evans (16) and Walton (57) and (58); compare, for example, the elucidation of realism with Walton's remark "It is not understood (in a game of mud-pies) that if a glob is 40% clay then make-believedly a pie is 40% clay" etc, Walton (57) p.11.

5; Self-styled realists should observe that even if they are right that this or that belief is just part of a game or pretence, the game or pretence is not necessarily pointless or without value. See Walton (57) section VI; fiction is important too. (Though I would not want this point used to defend any parts of this thesis.)

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