

Locating the Explanatory Gap

Chapter 3

Introduction

In the last two chapters I have been attempting to establish the reasons for the phenomenologist's avowed opposition to naturalism. My aim in this chapter will be to connect a difficulty I raised for the naturalist in the previous chapter with a problem naturalists have identified for themselves. Naturalist theories of mind have run into what Levine (1993) calls "an explanatory gap". So far no naturalistic theory of mind has succeeded in securing agreement as to why we have the kinds of conscious experiences we do, or indeed any at all. Yet any satisfactory naturalistic theory of consciousness should give us answers to these two questions. There is then a gap in the naturalist's account of mind, a gap which must be closed if the naturalist is to lay claim to having succeeded in locating the mind in the natural world.

I will argue that the appearance of the explanatory gap is due an apparent failure on the part of naturalistic theories of mind to recognise the existence of facts of a certain kind. I shall argue drawing on Jackson's knowledge argument that there is a class of facts that can only be represented from a subject's point of view. I shall call these facts "subjective facts". It is subjective facts which appear to be missing from a naturalistic conception of reality. The arguments of the previous two chapters establish that phenomenologists are likewise committed to the existence of subjective facts. One of the arguments that the phenomenologist makes against naturalism claims that a naturalistic conception of reality must fail to include subjective facts. Thus it will turn out that the explanatory gap is located at one of the places where phenomenology attacks naturalism.

Section 1 offers some reasons for believing in the existence of an explanatory gap. I argue following Levine (2001) that functional and physical explanations of consciousness are significantly different from other successful cases of reductive explanation insofar as these explanations seem to provide at best what Levine calls "gappy identities". Many

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philosophers who are persuaded of the gap's existence have concluded that functional and physical explanations of mind cannot account for the nature of consciousness. They have tried to argue that the properties in virtue of which an experience seems or feels a certain way to a subject and functional/physical properties must be two distinct kinds of property. In section 2 I show how the arguments given in support of an explanatory gap do not support a metaphysical conclusion of this kind. They establish at most that functional and physical explanations fail to make intelligible to us the nature of consciousness.

I argue that this failure is an example of a wider failure of naturalistic explanations to make room for facts that can only be represented from a subject's point of view. It is facts of this kind that I will call "subjective facts". The fact that some entity is ready-to-hand (it is experienced as something to be used) is a subjective fact in this sense. It is a fact that can only be represented from the point of view of a subject with a particular understanding and know-how.

Section 3 returns to the arguments of the existential phenomenologists to fend off an objection to the account of the explanatory gap I have proposed. The objection claims that my account of the explanatory gap slides from a claim about different ways of representing facts to the conclusion that there are different facts represented. This is an objection we will have cause to return to a number of times in later chapters. I offer an initial response by appealing to Heidegger's account of being introduced in the previous chapter. According to Heidegger, our understanding of being literally shapes and constitutes the mode of being of the objects of our thoughts and experiences. If Heidegger is right, it will follow that a difference in understanding (or what I have been calling "representation") can bring with it a difference in the facts that are represented.¹

By the end of this section I will have presented an account of the explanatory gap which locates the gap just where existential phenomenology attacks naturalism. Given

¹ Chapter 4 will explore in more detail how this move works.

this result it will follow that one way to close the gap I have described would be to show that phenomenology can be naturalised. It is this project of naturalising phenomenology which I will take up in the remainder of the thesis. A naturalised phenomenology would not only show that the existential phenomenologist is mistaken about the limits of scientific understanding. It will also provide the materials for addressing the problem of the explanatory gap. For if I am right the explanatory gap is located just where the phenomenologist attacks naturalism.

I finish up this chapter by considering two further arguments which attempt to show that the explanatory gap is illusory. I shall argue that both arguments presuppose the existence of subjective facts. So far from revealing the gap to be an illusion, these arguments only confirm the existence of a gap of the kind I describe in this chapter.

1. The Explanatory Gap Introduced

A naturalistic theory of mind must find a place for consciousness in the natural world. This it will do by explaining how the conscious mind is constituted by the kinds of entities and properties identified by the theories of the natural sciences. Yet it remains deeply puzzling to us how these elements could coalesce so as to bring about anything like consciousness. As Colin McGinn has put it:

‘We know that brains are the *de facto* causal basis of consciousness, but we have, it seems, no understanding whatever of how this can be so. It strikes us as miraculous, eerie, even faintly comic. Somehow, we feel, the water of the physical brain is turned into the wine of consciousness, but we draw a total blank on the nature of this conversion.’ (1991, p1)

When a subject undergoes a sensory experience, and when she suffers a pain or enjoys a pleasure, there is something it is like for the subject to undergo this experience. Think of the difference between experiencing a wine that tastes sweet and experiencing a wine that

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tastes sour. The two wines differ in what they are like to experience: one tastes sour, the other sweet. Many of our experiences also have a qualitative feel to them. What it is like to undergo such an experience will be determined by what we feel at the time of the experience's occurrence. When we talk of a sensation being pleasant, painful or irritating, for instance, we are describing the way the sensations feels – it feels pleasurable, disturbing, annoying we say.

A naturalistic account of consciousness must account for these characteristics of conscious experience. It must explain how our experiences can present the world as seeming a certain way when we undergo a conscious perceptual experience. It must account for the fact that the different sensations we undergo each have their own distinctive qualitative feel. Following convention I will call those properties in virtue of which our experiences have a qualitative or phenomenal character “phenomenal properties”². I will call the type of consciousness in virtue of which there is something it is like to be a subject of an experience “phenomenal consciousness”.

The nature of phenomenal consciousness is an extant problem for naturalistic philosophy of mind. There is every reason to believe that the collaborative efforts of cognitive science, psychology and neurobiology will succeed in making intelligible the nature of the various cognitive capacities characteristic of conscious mental life. Yet we are long way from understanding the nature of phenomenal consciousness. Why does a particular sensory experience of mine manifest one set of phenomenal properties rather than another entirely different set of phenomenal properties? Why is there something rather than nothing that it is like for a subject to enjoy conscious experiences? Any naturalistic explanation ought to give us an answer to these questions, yet there is no widespread agreement as to how an answer to these questions might go.

² This chapter will not examine the metaphysics of phenomenal properties. In particular I will not consider whether phenomenal properties belong to experiences or to the objects of experience. I will discuss this question at the beginning of chapter 4.

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Take the first question I have just posed: why do my sensory experiences seem and feel to me the way they do rather than seeming or feeling entirely different? We can see that naturalistic accounts of the mind do not seem to return a satisfying answer to this question by reflecting on the classic inverted spectrum thought experiments. In these thought experiments we are asked to conceive of two physically and functionally identical subjects one of whom sees yellow things like daffodils and autumnal leaves that seem to her to be coloured yellow, while the other sees yellow things that seem to him to be coloured blue. The situation these thought experiments describe is one in which two subjects are physically and functionally identical, but the two subjects experience yellow things in different ways. Yellow things systematically seem to be blue to one subject, and yellow to the other. So it would seem our functional and physical explanations fail to explain a difference in the experiences our two subjects enjoy: they fail to explain, for instance, why yellow things should appear yellow rather than blue. This is a significant shortcoming in the kind of understanding a functional and physical explanation of phenomenal consciousness supplies.

More dramatically, many philosophers have claimed to be able to conceive of a world where “subjects” are functionally and physically identical to us, but enjoy nothing in the way of phenomenal consciousness. Chalmers (1996) calls worlds of this kind “zombie-worlds”. There is nothing at all that is like for the “subjects” inhabiting such a world to undergo sensory experiences. Nor does it feel anyway to them when they hurt themselves. Let us suppose we find the possibility of a zombie-world conceivable; then we must say that functional and physical explanations of mind leave it an open question whether phenomenal consciousness is present in a creature. Again this is something a satisfactory explanation of phenomenal consciousness ought to render inconceivable. To the extent that we find zombies conceivable, we will have to say that functional and physical explanations do not provide a satisfactory explanation of phenomenal consciousness.

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Consider a case of a successful reductive explanation, such as the much discussed identification of water with H₂O. Given a rich enough theory of H₂O molecules and their interaction we can understand everything we desire to understand about water and its behaviour. Moreover it is inconceivable to us that H₂O molecules could behave as our theory describes and not exhibit the kind of behaviours which we take to be definitive of water. The same does not seem to be true of phenomenal consciousness. Reductive explanations of phenomenal properties yield identities of phenomenal properties with functional or physical properties which leave plenty of room for us to wonder why our experiences should present the world as seeming a certain way, or even why our experiences should present the world as seeming anyway at all. These are questions that a satisfactory reductive explanation of consciousness ought to be able to answer. As Levine has pointed out, a reductive explanation of phenomenal consciousness should put us in a position to reason as follows:

‘Suppose creature *X* satisfies physical description *P*. I understand—from my physical theory of consciousness—what it is about instantiating *P* that is responsible for its being a conscious experience. So how could *X* occupy a state with those very features and yet *not* be having a conscious experience?’ (Levine, 2001: p80)

Functional and physical explanations of phenomenal properties supply what Levine calls “gappy identity statements”. Gappy identities differ from the kind of identities successful reductive explanations supply because they require further explanation. In the case of identities like “water = H₂O”, it is unintelligible for us to ask for explanations of these identities. Our theory of H₂O molecules and the way in which they interact suffices as an explanation of water and its properties. There are no further facts about water and its identity with H₂O that we do not learn from such a theory. Phenomenal properties are different. If we were to identify a phenomenal property *P* with some physical-functional state *Q*, it would be perfectly intelligible for us to ask for some

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explanation of why $P=Q$. It is perfectly intelligible for us to ask, for instance, why a visual experience of a red rose should also instantiate phenomenal properties of redness rather than some other type of phenomenal property or none whatsoever. A reductive explanation of phenomenal properties to physical-functional properties shouldn't leave room for such questions.

Why is it that functional and physical explanations of phenomenal properties differ from successful cases of reductive explanation like the reduction of water to H_2O ? In the case of water and H_2O a reductive explanation identifies for us the true nature of the stuff we call "water". It is tempting to say that we do not learn about the true nature of phenomenal properties from functional and physical explanations of mind because phenomenal properties and functional/physical properties are distinct kinds of properties.³ It makes sense for us to ask for some further explanation of why $P=Q$ should be true because P and Q are properties with distinct natures.

The arguments I have given so far do not seem to me to license a *metaphysical* conclusion along these lines. So far the reasons I have given in support of the claim that there is an explanatory gap has been based on our being able to conceive of certain kinds of situations in which two individuals share the same physical and functional properties but differ in the kind of consciousness they enjoy. Cases of this kind license at *most* the conclusion that our functional-physical explanations of phenomenal consciousness do not deliver the kind of knowledge of the nature of phenomenal properties we are seeking. Functional-physical explanations of phenomenal consciousness leave open possibilities that a satisfying reductive explanation ought to rule out. It is one thing to agree that our existing explanatory strategies fail to do what they set out do, and quite another to conclude from this failure that phenomenal properties are *sui generis*. Conceivability arguments of the kind outlined above do not support the latter conclusion.

³ This is the conclusion reached by Levine (2001, ch.3, see in particular pp.86-92). It is also the conclusion that Chalmers (1996, ch.4) and Jackson (1982 & 1986) defend. I will discuss the arguments of these philosophers later in sections 4 & 5.

Chalmers (1996) has tried to persuade us otherwise. He uses a version of two-dimensional semantics to argue from the conceivability of zombie worlds to the metaphysical conclusion that phenomenal properties are distinct from functional/physical properties.⁴ I will briefly explain why I take Chalmers' argument to fail before presenting my own account of the explanatory gap.

2. Chalmers on Conceivability and Possibility

Two-dimensional semantics as it is understood by Chalmers tells us that every term has two kinds of meaning. The first kind of meaning Chalmers calls a term's "primary intension". It can be understood as a function which determines a term's extension or fixes a term's reference at a world considered as the actual world. The second kind of meaning Chalmers calls a term's "secondary intension. It picks out a term's reference at worlds considered as counterfactual.

Chalmers goes on to argue that when we say a statement s is possible, the truth of what we have said is a function of s 's primary and secondary intension. Given a description of a world w , knowledge of a statement s 's primary intension will tell us whether s is true at w , when w is considered as the actual world. In a similar fashion, knowledge of a statement's secondary intension will tell us whether s is true at a world when w is taken to be a counterfactual world. Chalmers wants to deny that there are any conceivable worlds which are impossible. Where we find a description of a world which we think is conceivable but which is in fact impossible, we are merely mistaken about the conceivability of the world, perhaps because we have misdescribed the world or perhaps because we haven't conceived of any world whatsoever. For Chalmers then, whenever we can truly conceive of a world at which a statement is true, the statement in question

⁴ The idea behind two-dimensional semantics is implicit in Kripke (1980), and is developed by Stalnaker (1978); Davies & Humberstone (1980) and Chalmers (1996) among others.

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describes a situation that is a genuine metaphysical possibility, a situation that could have obtained.

If Chalmers could establish something to the effect that every situation of which we can truly conceive is a metaphysically possible situation, he will have shown that zombie worlds are metaphysically possible. We have seen above that we seem to be able to conceive of a world where the functional and physical facts are just like our own world but where subjects enjoy nothing in the way of conscious experiences. If when we conceive of zombie worlds we are *truly* conceiving of such worlds, we can conclude that zombie worlds are possible. We can conclude that fixing the functional and physical facts at a world doesn't suffice to fix the phenomenal facts at this world.

The obvious response to Chalmers is to ask how we *know* that when we entertain the possibility of zombie worlds we are not mistaken in thinking that we have truly conceived of a world. Chalmers is likely to reply that knowing a statement's primary intension enables us to know *a priori* whether a statement is true at a world. What we do is take a set of descriptions of a world and consider whether the statement in question would be true if these descriptions were descriptions of the actual world. In the case of zombie-worlds, we suppose that we have a complete functional and physical description of a world. Then we consider whether such a world could be a world where it is true that subjects do not enjoy anything in the way of conscious experiences. Each of us knows what it means to say a subject enjoys conscious experiences. So we can use our knowledge of what statements of this kind mean to determine whether there could be a world physically and functionally just like our own where subjects are not phenomenally conscious.

The move Chalmers makes from conceivability to possibility depends on whether one is willing to concede that knowing a statement *s*'s meaning and knowing a set of descriptions of a world *w* will enable one to know *a priori* whether *s* is true at *w*. One might agree that a statement's primary intension determines for any given world

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considered as actual, whether the statement is true at the world. One might nevertheless deny that a sentence's primary intension is something to which one has epistemic access. To continue with the example of the term "water" it might be denied that when one uses the term "water" to successfully refer to water one must know that "water" refers to the watery stuff. One might have no such knowledge but still use the term competently. A speaker might exhibit competence with the term just by using it to successfully refer to water. On this view of primary intensions a speaker needn't have epistemic access to a term's primary intension in order to know a term's meaning. In particular s/he needn't be able to say what a term T would be used to refer to in hypothetical situations considered as actual.⁵

Let us apply this worry to the case of zombie-worlds. We have just seen how one can be a competent user of a term without knowing the primary intension for a term. Suppose this is right. Then it will follow that one cannot know that one has truly conceived of a zombie world just by understanding the descriptions of such a world and understanding the meaning of a sentence attributing phenomenally conscious experiences to a subject. One can understand sentences attributing phenomenally conscious experiences by knowing what we are referring to when we talk about phenomenally conscious mental states. Having this kind of understanding will not tell one whether one is entertaining a genuinely conceivable situation when one conceives of a zombie world. Yet it is only if one knows that one has truly conceived of a zombie world that one can say that zombie-worlds are possible. Since one cannot know that one has truly conceived of a zombie-world when one entertains statements which describe zombie-worlds, one cannot know that zombie-worlds are genuinely possible.

Chalmers' move from conceivability to possibility has been shown to be dependent on a particular take on the question of what it is know the meaning of a statement. Reject

⁵ Levine (2001, ch.2) describes a theory of primary intensions along these lines. He refers us to Dretske (1981) and Fodor (1990) for an account of the external reference determining relation.

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this account of meaning and Chalmers is deprived of his conclusion that zombie-worlds are genuinely possible. I shall take conceivability arguments of the kind Chalmers employs to license the epistemic conclusion that functional and physical explanations do not give us the right kind of understanding of the nature of consciousness. If they did, we would not be able to conceive of the kinds of possibilities which we in fact do seem to be able to conceive of. This account of what we are doing when we entertain the possibility of zombie-worlds leaves it open that we might only *seem* to be conceiving of such worlds, in which case we will have to say that zombie-worlds are not possible after all. The question of whether or not we mistakenly think we are conceiving of a world when we entertain a possibility is one that we cannot answer a priori. The answer to this question will only emerge through a posteriori investigation.

In the next section I will offer a different explanation for the gap's existence which doesn't attempt to derive a metaphysical conclusion from considerations of what we find conceivable. My diagnosis of the gap will draw on the phenomenologist's critique of naturalism as it was presented in the previous chapters. Phenomenologists claim that the mode of understanding the scientist operates with will fail to incorporate our ordinary, pre-theoretical modes of engaging with the world. I will begin by connecting this claim with Jackson's much discussed knowledge argument which purports to show there are some facts which we cannot learn from science. I will argue that Jackson's argument fails to establish any metaphysical conclusion to this effect. Where Jackson's argument fails, the argument of the phenomenologists succeeds. Phenomenologists argue for the same conclusion as Jackson, but their argument has a potential metaphysical bite which is missing from the Jackson knowledge argument, or at least so I shall argue across the next two sections.

3. The Knowledge Argument and Subjective Facts

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Jackson's knowledge argument invites us to imagine Mary, a colour scientist confined to a black and white room for the duration of her life.⁶ The only coloured objects Mary has ever seen are things coloured black and white. Mary has made use of her time to learn all the facts there are to know concerning the visual apparatus, colour vision and the neurobiology that supports our colour experiences. Jackson also supposes that Mary has acquired complete knowledge of the physical facts. Despite being in possession of all this knowledge still, so the Jackson intuition goes, there is something she doesn't know. She doesn't know what coloured things look like to those who have experienced them. We can see this by reflecting on what would take place in Mary if she were to escape the black-and-white room. Surely Mary would learn something new when she encountered colours other than black and white for the first time. She would learn something she didn't know before even though she knew all the microphysical facts there are to know. Before her escape she knew a lot that was not common knowledge: she knew all one could know about colour vision and its neurobiological realisers. However it seems to be equally true that many of us knew facts she didn't. What she didn't know was what coloured things look like to those of us who have experienced them.⁷ She couldn't gain this knowledge until she experienced colours for herself.

Jackson used to also hold that the knowledge argument established the falsity of physicalism.⁸ Numerous philosophers have since pointed out that no such conclusion is warranted.⁹ All the knowledge argument really establishes is that there are some facts that we cannot *know* just by knowing those facts that can be given a microphysical *description*. It doesn't follow that those facts which cannot be given a microphysical description are not microphysical facts. Perhaps there are some microphysical facts that

⁶ See Jackson (1982 & 1986/1997).

⁷ See Jackson 1986/1997: §1 for this characterisation of Mary's ignorance.

⁸ He no longer holds this view, see Jackson (1995).

⁹ For a useful overview of the literature the knowledge argument has spawned, see Van Gulick (1993)

we cannot learn about by reading books. It wouldn't follow that those facts are not microphysical facts.¹⁰

The conclusion I want to take from the knowledge argument is that some facts are subjective facts.¹¹ I will call facts which can only be represented from a particular subject's point of view "subjective facts". By a "fact" I mean the object of propositional knowledge.¹² The claim that some facts are subjective facts is the claim that there are some facts which can only be represented from a particular subject's point of view.

Being sighted for example enables one to represent certain facts, permanently closed-off to those without sight. There are certain facts that a sighted person can represent from that a blind person cannot. Almost certainly the converse also holds. The facts in question are ones that no amount of *knowledge* of microphysical facts could impart. They are facts that can only be known from the point of view of creatures that have, or have had, certain experiences.¹³ While Mary remains locked up in the black and white room she is in the same position as a person suffering from an extreme variety of colour blindness who can experience only shades of black and white. There are facts her situation prevents her from representing just as a person suffering from this extreme form of colour-blindness would be prevented by his condition from representing certain facts – facts about what a range of colours look like. Moreover knowledge of these facts cannot be imparted through a complete physical description of reality, but only by having experiences of the relevant kind for oneself.

¹⁰ This is the conclusion that Lewis (1990) argues for. I shall discuss Lewis' response to the knowledge argument at the end of this chapter.

¹¹ Mellor (1992-3 and (1988 essays 1 & 2) disagrees as does Moore (1997, ch.3). I shall discuss Mellor and Moore's arguments in some detail later in chapter 6.

¹² An issue remains about how to individuate facts. Should we individuate facts finely and claim that corresponding to every representation that counts as knowledge there is a distinct fact? Should we individuate facts coarsely at the level of reference and claim that we can refer to one and the same fact in different ways? Some philosophers have tried to argue against subjective facts by taking the latter option (e.g Loar (1997); Perry (2001)). These philosophers argue that there are indeed some facts that can only be represented from a point of view but these facts are not distinct facts from those that we learn about from science. I shall return to their arguments later in the chapter.

¹³ Note, this is a claim only about the epistemic access we have to certain facts. It doesn't follow that the facts in question are not microphysical facts. At most it follows that they are not the kinds of facts that can be given a microphysical description.

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Thus construed the knowledge argument is in agreement with a point we saw the existential phenomenologist insist upon in the last chapter. According to the existential phenomenologist the theoretical understanding of the scientist is just one of many modes of understanding available to human beings. The existential phenomenologist claims that there are all kinds of facts in addition to those that science describes. More specifically there are facts which can only be represented from the point of view of a subject who understands the world operatively through his dealings with it.

The phenomenologist goes on to argue that naturalists give a false priority to our scientific mode of understanding. The scientist purports to give us access to a reality as it is independent of our non-scientific concerns and interests. The result is that she ignores all the ways in which the reality we experience depends on us and our subjective and personal concerns and interests. To the extent that naturalists take their conception of reality from science, the phenomenologist thinks a naturalistic conception of reality will also leave out a significant class of facts. The naturalist will fail to account for the relation we take up to entities when we understand them in terms of our non-scientific interests and concerns.

The knowledge argument and the argument I have just sketched from phenomenology both claim that there is something important missing from scientific explanations of consciousness. What is missing from these explanations is any account of subjective facts. Arguments for an explanatory gap normally proceed by attempting to demonstrate that functional and physical explanations of mind fail to explain why things seem and the feel the way they do to us. When a subject knows what it is like to undergo an experience he knows something that can only be represented from his own point of view. According to the phenomenologist the difficulty naturalism encounters in explaining phenomenal properties is an instance of a wider problem endemic to naturalism. We might say that facts about what it is like to undergo an experience are a species of fact belonging to the genus of subjective facts. According to the phenomenologist, it is *qua* subjective fact that

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the facts about what it is like to undergo a conscious experience cause a problem for naturalism. It is facts that can only be represented from a subject's point of view which it is claimed a naturalist must leave out from their conception of reality.

Now it might reasonably be objected that an argument for an explanatory gap along these lines illegitimately slides from a claim about there being different ways of representing facts, different modes of understanding, to claiming that there are different facts which are represented or accessed. The knowledge argument may give us grounds for believing that there is knowledge that can be achieved only by undergoing experiences for oneself. What it doesn't establish is the existence of some properties or entities over and above those we learn of from science.¹⁴ It doesn't establish that the facts which can only be known by undergoing certain experiences have as their constituents, elements we do not learn about from science. This conclusion would only follow if we assume that corresponding to every distinct way we have of gaining knowledge of the facts there are distinct properties and entities that are known. But making a distinction between ways of accessing the facts and the properties and entities we thereby gain access to, precludes us from having to grant such an assumption.¹⁵

The phenomenologist does indeed infer the existence of distinct facts from a difference in ways of accessing facts, a difference in what I have been calling "modes of understanding". For according to the existential phenomenologist being and our understanding of being stand in a relation of reciprocal dependence: different ways of understanding one and the same entity entail correspondingly different ways of being for an entity, and differences in an entity's being entail differences in our understanding of that entity.

¹⁴ Crane (2001) agrees; he tells us that the fact there is knowledge "only available from certain perspectives does not entail that there are some further non-physical/non-objective objects and properties involved in these situations" (*ibid.*, 80).

¹⁵ Here I am rehearsing a point insisted on variously by Peacocke (1989); Moore (1997: ch.3); Mellor (1992) and Perry (2001, ch.5). Perry calls the assumption I have just described "the subject-matter assumption".

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According to the existential phenomenologist, it is the naturalist who is making a mistake when she fails to recognise that the objects of our experience have distinct ways of being. What we don't gain access to through our scientific understanding, he claims, is all of the ways in which an entity's being is dependent on our non-scientific modes of understanding. Our scientific modes of understanding give us access to a reality understood according to our scientific theories but what we cannot learn about from science is a reality as it is ordinarily experienced by us before we undertake any scientific explanation. In the next section I will use the latter point to offer an account of the explanatory gap.

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The existential phenomenologist claims that subjective facts are extra facts over and above those that science gives us knowledge of. They claim that there are facts which our scientific theories must leave out. The existential phenomenologist's reasoning can be reconstructed along the following lines:

- (1) Science gives us an objective understanding of the world, an understanding of the world that is independent of any particular subject's point of view.
 - (2) There are facts the representation of which essentially involves us and our peculiarly human and subjective concerns and interests. I have called this class of facts "subjective facts".
 - (3) The class of scientific facts – the facts we can learn from science – doesn't include the class of subjective facts.
- (CON) Science doesn't give us knowledge of subjective facts

Since naturalism takes science to be the measure of what there is, it will follow from this argument that naturalism can make no room for subjective facts. Phenomenology tells us that there are subjective facts. It follows that there is a gap in the naturalist's account of

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the mind; what is missing from a naturalistic account of mind is any account of how there can be facts that essentially involve subjects of experience.

In the remainder of this section I will return to existential phenomenology in order to explain how they are committed to premises (2) and (3). My objective will be to argue that it is subjective facts as the existential phenomenologists describe them which are responsible for the existence of the explanatory gap. It will follow that one way to close the gap would be to use the descriptions of subjective facts existential phenomenology supplies as the basis for constructing a scientific account of consciousness. To show that this is possible would be tantamount to falsifying premises (1) and (3). Premise (1) would be shown to be false since room would have been made within science for facts the obtaining of which depend on subjects of experience. Such a conclusion would also falsify premise (3) by showing that the class of scientific facts can after all include the class of subjective facts.

A good deal of work will need to be done before we can achieve either of these results. First I must show how the explanatory gap is located at a place where existential phenomenology attacks naturalism. Otherwise the objection which I sketched at the end of the last section will stand undefeated, and it will not have been shown that there is a *metaphysical* gap in the naturalist's theory of mind. This objection agreed that there are facts that can only be known by taking up a particular point of view, but denied that these are additional facts over and above those that we learn about from science.

The existential phenomenologist's commitment to subjective facts follows from the claim that when we are acting skillfully we simply experience what needs to be done without giving the matter any deliberation. We experience things we are dealing with as having a significance which points, or directs us towards certain ways of acting, in much the same way as we experience a prescriptive utterance as bearing a meaning that calls for a certain course of action from us. We don't experience the significance that attaches to

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the objects of our dealings as something we have projected or superimposed onto these objects. Rather things are experienced by us as already having meaning or significance.

The existential phenomenologist will claim that the possibilities for action that a thing affords us make a contribution towards defining that thing's identity, making it the entity that it is. In describing what a hammer is, for instance, we cannot simply mention the materials from which it is made. We also need to mention how hammers are normally used. To say how hammers are normally used will require us to make mention of the purposes for which hammers are employed and the roles of the persons that use hammers such as carpenters and craftpersons.

Suppose we grant that the possibilities for action that an entity affords partially define an entity's identity, contributing towards making an entity what it is. It will follow that what it is for an entity to exist is for it to find a place in the kind of existence we have as persons. The things we experience which serve a function for us will on this account have an identity bound up with us, and the kinds of lives we lead. If we wanted to explain to a visitor from Alpha Centauri what an entity was, we would have to impart to this visitor knowledge of the place the entity has in our lives. We would have to explain the function the entity serves for us, and this would ultimately require us to make mention of some of the ways in which we human beings live. This is something the alien could come to grasp only by coming to understand how we live and the practices in which we engage.

So the existential phenomenologist is committed to the existence of subjective facts by taking the entities we experience to have an identity defined by the possibilities for action they afford us. To make sense of these possibilities for action we must make reference to persons and their projects, desires and aspirations. We must understand the purposes for which a person acts; something that cannot be understood except by making mention of our particular concerns and interests. There are subjective facts then because the objects of our experience have as part of their very identity a meaning or significance which derives from our concerns and interests. One can know what it is we experience only by

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coming to share an understanding of our purposes, desires and aspirations. It is only by coming to understand our practices and how we live our lives that one will understand what it is we experience.

I have characterised the claim that there is an explanatory gap as the claim that a scientific account of the mind will not supply us with knowledge of subjective facts. I said that there is something we will not learn about from a complete scientific account of mind. An objection was raised that an explanatory gap will only exist if there is some entity or property that our scientific account of the mind is failing to explain. We are in a position now to see that according to the existential phenomenologist there are indeed objects and properties that will be missing from a conception of reality formed from science. These are the objects we ordinarily experience whose identity is bound up with our existence as persons. Such objects must be missing from a naturalistic account of reality because science gives us an account of reality as it is independent of us and our particular concerns and interests. What our scientific theories seem not explain is a reality as it is ordinarily experienced by us. Reality as it is ordinarily experienced is, as we have just seen, dependent on us and the purposes for which we act.

The explanatory gap has traditionally been presented as arising because naturalism fails to explain why our experiences feel and seem to us the way they do. It might seem that the problem I have just raised has little or nothing to do with the problem of the explanatory gap. Such a conclusion would be a mistake. Phenomenal properties are introduced as properties which make an experience seem or feel a certain way to its subject. As such they are properties the instantiation of which are dependent on subjects of experience. It is their dependence on us and our peculiar ways of responding to the world which makes it so difficult to see how room could be found for such properties in a scientific account of reality. It is difficult to see how these properties could be integrated into a scientific account of reality because we think of such an account of reality as describing a world that is there anyway independent of us and our ways of

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experiencing it. Yet phenomenal properties were introduced to characterise the ways in which we experience reality. Descriptions of how reality is independent of our experiences look destined to leave out that which we want explained.

There is however something right about this objection that the existential phenomenologist is no longer talking about the same problem. For the existential phenomenologist doesn't introduce anything akin to phenomenal properties to explain why our experiences feel and seem the way they do. According to the existential phenomenologist our experiences seem and feel the way they do because of our self-understanding. The objects of our experiences have an identity, they claim, that can only be understood by making reference to the projects, desires and aspirations in terms of which we make sense of our actions. Our affective responses to the world are likewise dependent on our self-understanding in the sense that a difference in the sense a person makes of his feelings can suffice to bring about a different feeling in a person.¹⁶

There is an explanatory gap then, not so much because a naturalistic theory of the mind fails to find room for phenomenal properties but instead because naturalistic accounts of the mind have so far failed to admit subjective facts. The existential phenomenologist describes facts that essentially involve subjects of experience. Phenomenal properties also essentially involve subjects of experience. These properties are introduced to explain what it is like for a *subject* to be in a sensory or affective state. It is the subject-involving nature of these properties which I take to account for the gap's existence.

¹⁶ For further discussion of this point see chapter 2, pp. 11-13 and Taylor (1985, essays 2 & 4). Perhaps it will be objected that pains, itches and tickles and the like aren't dependent in this way on our understanding. Yet there is of course something it is like for a subject to experience a pain, an itch or tickle. Phenomenal properties are introduced to capture the properties in virtue of which an experience is like something for a subject. It is these properties which we don't seem to learn the nature of from functional-physical explanations. In chapter 4 I will argue that we don't need to introduce phenomenal properties to explain what it is like to undergo experiences of this kind. We can explain the sensory qualities of these experiences in terms of representational properties. Still I think there is an explanatory gap. There is an explanatory gap, I am arguing, because naturalists have traditionally not acknowledged the existence of subjective facts.

I shall argue that the existential phenomenologist is right to characterise the objects we ordinarily experience as dependent on us and our modes of understanding. Chapters 4 & 5 will develop further the thesis that there are subjective facts, and that it is these that the naturalist must make room for if she is to close the explanatory gap. I will finish up the chapter by considering two deflationary responses to arguments which purport to establish the existence of an explanatory gap. I have been supposing that the knowledge argument establishes the existence of subjective facts but this is just what these two responses deny. I shall argue that far from showing that subjective facts do not exist, both responses presuppose the existence of such facts.

5. Deflating the Knowledge Argument

The previous section argued that there is an explanatory gap because functional-physical explanations of consciousness do not admit the existence of subjective facts. Most philosophers of mind deny the existence of subjective facts. Consider for instance the ability hypothesis. In response to the knowledge argument proponents of the ability hypothesis claim that there are no new facts that Mary learns when she leaves the black and white room. What she learns are certain abilities. She can, for instance, now recognise, remember and imagine experiences of colour. However, these abilities do not bring with them knowledge of any new facts. To think otherwise, so it is argued, is to confuse propositional and practical knowledge or knowledge-how and knowledge-that.¹⁷ If there are no new facts that Mary learns we cannot say that there are some facts that can only be represented through having certain experiences or by coming to share a certain self-understanding. We cannot say that there are facts that essentially involve subjects of experience.

¹⁷ This response to the knowledge argument has been defended by Lewis (1990), Nemirow (1990) and Mellor (1992-3).

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There is no doubt that Mary does acquire these abilities, but I shall argue these abilities largely consist in knowledge of subjective facts.¹⁸ Mary does acquire the ability to recognise things of a certain colour, an ability she previously lacked while in the black and white room. But this is an ability she can acquire only because she now knows what red things look like. In order to know what red things look like, Mary must represent red things from her own point of view. The ability to recognise things that look red is an ability Mary can acquire only if she represents a fact which can only be represented from her point of view, as happens when she has an experience of a red thing herself. It follows that Mary can recognise red things only by having knowledge of a subjective fact.

I will run an argument along the same lines for the other abilities attributed to Mary. I accept that when Mary sees a thing that is coloured red for the first time she acquires the ability to remember seeing red things. Once again I insist she can acquire this ability only because she knows what red things look like. What she can remember (more or less indistinctly) is what it was like for her when she saw a red thing. She comes to know what it is like to experience a red thing only by seeing a red thing for herself. Thus once again we find that the ability to remember seeing coloured things rests on her having represented a fact from her own point of view. We have described an ability which depends on her knowledge of a subjective fact.

I will also willingly concede that once Mary has had a reddish experience she might be in a position to imagine red things in their absence. Again I will insist this is an ability she has because she has represented a fact that can only be represented from a point of view she shares with subjects like her in certain relevant respects. Each of the cognitive capacities to which the ability hypothesis appeals, requires Mary to have acquired knowledge of a subjective fact. Far from establishing that we do not need to believe in the existence of subjective facts, the ability hypothesis provides us with a further reason to

¹⁸ Loar (1997); Papineau (2003, ch.2) and Crane (2001) all agree, though the arguments they each offer for this conclusion differ from my own.

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insist on the existence of these kinds of facts. It shows us that what we need to explain is the existence of facts that can only be represented from a point of view. For each of the abilities to which it appeals rests on our subject representing a fact that can only be represented from his or her point of view.

The ability hypothesis might deprive the knowledge argument of the conclusion that phenomenal properties are metaphysically basic. It might show that we can explain those properties that make an experience like something for a subject in terms of cognitive capacities.¹⁹ However it achieves this success at the cost of buying the existence of subjective facts. If the phenomenologist is right, it is subjective facts that are metaphysically and explanatorily basic. Thus, the ability hypothesis succeeds in closing one ontological gap only to open up another.

The second response to the knowledge argument I want to briefly consider again tries to argue that Mary doesn't learn any new non-physical facts. It says that she simply learns to think about the same microphysical facts in a new way. Proponents of this response argue that there are two kinds of concepts which we might call "material concepts" and "phenomenal concepts".²⁰ Material concepts are concepts we employ in thinking and making statements about entities and properties in the natural world. Phenomenal concepts are concepts we employ in thinking about our experiences and their qualities. The latter are not concepts we employ in thinking about entities and properties in the natural world but concepts we employ when we think about what it is like to have an experience.

When Mary is locked up in the room she can think about colour by employing her material concepts, the concepts she has acquired through her extensive learning. When she leaves the room and has an experience of redness for the first time she acquires a new concept, a concept she can use to think about what it is like to see something red. She can

¹⁹ See Loar (1997: 607-8) and Tye (2000: ch.1) for an argument that the ability hypothesis fails to achieve even this moderate success.

²⁰ This is Papineau's distinction, see his (2003, ch.2).

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employ this concept in introspection when she is having an experience of something red. She can think to herself “Ah, so this is what it is like to see something red”. She can also employ this concept in imagination, as when she brings to mind the image of something red in its absence. In both cases we are describing a change that takes place in Mary’s understanding. She acquires what Papineau describes as a ‘grasp of the redness of red experiences’ (Papineau, 2003: 53)

Mary, it is claimed, doesn’t learn any new facts. All she acquires is the concepts needed to think about the facts she already knew²¹ but in a new way. When we employ a phenomenal concept to think about some experience, this concept picks out its referent directly. Thus the facts our phenomenal concepts pick out are the very same facts as our material concepts pick out. There is no need to introduce any new facts.

Let us concede the last point, and agree that the facts our phenomenal concepts pick out might be the very same facts as those our material concepts pick out. Does it follow that the knowledge argument gives us no reason for believing in the existence of subjective facts? I don’t think so.

In chapter 2 it was argued that whenever we represent an entity we are drawing on a background or operative understanding which enables us to understand this entity as the entity it is. This claim formed a central part of the case that was made for what I am calling subjective facts. If every representation derives its intelligibility from our background understanding, this will be equally true of the representations we produce of our own minds. We don’t avoid an appeal to subjective facts by arguing that what Mary acquires is a different way of conceiving of facts she already knew. For we still need to account for the new way of conceiving of facts she acquires. Admittedly it is not clear how our phenomenal concepts could derive their intelligibility from our being-in-the-world. I leave this as a problem to be resolved another. The point for now is simply that

²¹ See Loar (1997: §1) for a defence of this claim, and Levine (2001: 84-6) for an argument that the mode of presentation for phenomenal concepts may be thicker than Loar had reckoned.

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we do not avoid an appeal to subjective facts by appealing to differences in representational abilities. It has been argued that any representational ability derives its intentionality from our ways of existing. Hence whenever we posit a representational ability we are also admitting into our ontology a realm of irreducibly subjective facts.

There is another difficulty for theories which try to dissolve the explanatory gap by appeal to phenomenal concepts. Proponents of these theories argue that phenomenal concepts are recognitional concepts.²² The recognitional concepts in question are not triggered by any amount of knowledge of microphysical facts. They are triggered only by an occurrence of an experience with the phenomenal quality one is recognising. Phenomenal concepts have as their extension subjective facts. Maybe the very same facts are picked out by our material concepts. The problem the explanatory gap raises is just how this can be true.

Our material concepts do not make intelligible to us how the facts our material concepts describe can also be subjective facts. Any explanation of what Mary learns which tries to explain away her knowledge by appeal to phenomenal concepts will leave us just as much in the dark about subjective facts as when we started. An account of phenomenal concepts will tell us about how we think about our experiences in introspection and in imagination. It won't explain what it is to have experiences or what it is about an experience that makes it like something to have for a subject. It is the latter questions which we want an account of subjective facts to explain.

I conclude that two of the most influential responses to the knowledge argument fail to establish that subjective facts do not exist. An explanatory gap exists because physical-functional explanations of the conscious mind do not explain subjective facts. Phenomenologists say that naturalists cannot explain subjective facts. If the gap is to be closed it will only be by showing that phenomenologists are mistaken. The gap will be closed by showing that naturalists do have the ontological resources to account for

²² See for instance Loar (1997, §2) and Papineau (2003, ch.4).

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subjective facts. The next two chapters will examine in more detail what phenomenologists have to say about the nature of subjective facts.