

**A NATURALIZED THEORY OF IMMEDIATE JUSTIFICATION**

by

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## Summary

The starting point of the thesis is an acceptance of the principles of a moderately naturalized epistemology which allow for the traditional questions of epistemology, especially that of empirical justification, to be addressed in a recognizable way. It is argued that naturalism construed in this way is not compatible with scepticism regarding empirical knowledge, at least as far as the justification condition goes. Five general consequences of a moderately naturalistic position are deduced. It is shown how these general conclusions lead to a modest foundationalism, that is, they imply the corrigibility of all empirical beliefs and the basic status of some. The sensory character of basic beliefs is argued for, as is the claim that basic beliefs are not about the character of experience but about physical facts in the subject's immediate environment. The way in which an empirical belief is brought about (its 'dependence relations') is then examined. The important conclusion, for a theory of justification, to be drawn from this examination, is that sensory beliefs depend on no other beliefs but themselves for their empirical justification. This points to the fact that, if they are justified for their subjects, they must be self-evident and prima facie justified.

Before explicating the nature of prima facie justification, the general requirements for a satisfactory theory of epistemic justification are set out. Such a theory must account for the reasonableness of the agent in believing as she does; it must accommodate deontological aspects and explain how justified belief is distinguishable from unjustified belief; and it must provide some objective link between the justified belief and its likely truth. It is shown that the theory of prima facie justification of sensory beliefs which emerges from a naturalized epistemology, satisfies these requirements, and that a conception of prima facie justification which ignores naturalistic constraints cannot explain immediate justification.

# A NATURALIZED THEORY OF IMMEDIATE JUSTIFICATION

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## **CHAPTER 1 - The epistemological problem**

The question that this thesis addresses is the venerable problem of immediate justification: whether the beliefs about the world that we acquire in the course of sensory experience are justified or reasonable beliefs, and if so, how we are to recognize, understand and explicate that justification <sup>1</sup>.

### **1.1 The implications of naturalization for a theory of empirical justification**

The way in which an answer to the question of immediate empirical justification is arrived at here, is: firstly, to examine the concept of 'naturalized epistemology' as it has been defined in some recent debates and to sketch its general consequences for the answering of epistemological questions; secondly, to follow up the specific consequences of naturalization for a theory of perceptual belief; and lastly, to show that these two antecedents lead to a theory of prima facie justification for immediate beliefs. The argument-structure of the thesis is thus 'If a naturalized approach to epistemology (with all that entails) is accepted, and if one adopts the theory of perceptual belief that follows from it, then the justification proper to perceptual belief will be seen to be prima facie justification, marked by the belief's sensory character'.

In arguing for the first premiss, we need to distinguish the minimal or essential *conditions for* naturalization, from the *consequences of* naturalization for the theory of knowledge <sup>2</sup>. There has been a good deal of discussion and debate in the literature as to what exactly a naturalized epistemology might be <sup>3</sup>; agreement exists however that the impulse towards

naturalization is grounded at least partly in the desire to achieve for epistemological theories the same degree of pragmatic success, testability, general acceptance and predictive power which the theories of physical science enjoy.

This sweeping characterization of science needs a word or two of qualification. Not all sciences exhibit the desirable characteristics attributed above to 'science'; some sciences are more testable, successful, acceptable and predictively powerful than others. No epistemologist would want to construct theories on the model of a chancy science like meteorology, for example. There is, moreover, even among the 'hard' natural sciences, a notorious lack of success, certainty and consensus both at the very big end of the scale, (the nature and size of the cosmos, and related questions), and also at the very small end of the scale, (on the number, nature, history and function of sub-atomic particles).

The naturalistic epistemologist who sets up a scientific model of explanatory success, therefore, is thinking of 'science' in the sense in which classic Newtonian physics is paradigmatically a science. It deals with unproblematic and easily recognized objects whose properties and behaviour are explained and predicted with a satisfactory degree of exactitude by a network of theories. The theories are mutually supportive and confirmed by their explanatory and predictive successes. The naturalist, who hopes to achieve something of the same for epistemological theory, therefore embraces some degree of scientific empiricism in methodology. This position may be contrasted with that of the epistemologist with a Cartesian bent, who eschews empiricism in favour of pure reasoning as a method.

It is argued in Chapter 2 that this commitment amounts only to adopting a heuristic approach: the epistemologist sets out in the first place to *discover*, in the light of the available evidence, what knowledge, belief and justification *are*, and does not set out to *construct* definitions of what they *should be*. On the strength of the naturalistic epistemologist's heuristic method, the following principles (argued for and discussed at more length in Chapters 2 and 3) may be attributed to him, and acceptance of these would be enough to make a naturalized epistemologist of their holder:

(i) the attitude that epistemological definitions are to be arrived at primarily by observation and description rather than by prescription and stipulation;

(ii) a realistic, anti-sceptical tenet to the effect that we may suppose most of the mental states which are generally thought to be states of knowing, are in fact such; this means starting from the phenomena of knowledge rather than the definition of knowledge, as the Cartesian does;

(iii) the view that the material causal connections between the world and the epistemic agent (perceptual processes) have an important role to play in constituting knowledge and justification, and that the epistemologist must give them commensurate weight in her theories.

If these are the conditions for a naturalized epistemology, what are its consequences or effects? One general feature of any epistemology which is based on the above three assumptions, is that it tends to have an 'empiricist' or Lockean, rather than a 'rationalistic' character, in the sense in which Plato and Descartes are labelled 'rationalists'. Another general feature of any

epistemology which emphasizes material causal connections, is that its theory of justification tends to distinguish sensorily-acquired beliefs from reasoned beliefs, and is thus foundationalist rather than coherentist in form (which is not to say that non-naturalistic theories may not also be foundationalist in form). There are many, more particular consequences of naturalization for the specific questions of epistemology. In the following chapters, we shall examine only those consequences which are important for a theory of justification. They include:

- a thesis of *doxastic involuntarism* (supported by (iii) above) concerning sensory empirical beliefs, which means that epistemic agents have beliefs about their immediate environment thrust upon them, rather than choose which they shall hold. (That this fact nevertheless does not diminish the agent's epistemic responsibility will be argued for in a later chapter.) The implication of this for a definition of justification is that in appropriate circumstances, the belief carries its justification 'on the face of it' and appears self-evidently acceptable to the agent.

- an admission of the *corrigibility* of all beliefs; if one looks at actual beliefs as the naturalized epistemologist does, then the holders of such beliefs are ordinary fallible people and not ideally rational agents, and any single belief may prove to be false, even beliefs of the kind which make up knowledge states. This is in contrast with a Cartesian view on which to be justified is to be certain of the truth of what is known, and with a Platonic view on which corrigible belief (*doxa*) is not to be confused with the mental state which figures in knowing (*epistemé*). The naturalist holds that if agents are ever to be justified in their beliefs, and so also to achieve knowledge, then justification and truth must not be too closely identified. The theory of

prima facie justification allows for the ever-present possibility of error, via its defeasibility clause.

- an *enriched* view of beliefs and propositions, on which beliefs are more than just a positive attitude to a bare Fregean proposition. Beliefs are seen as complex psychological states in which causal dependence relations with the material world, as well as relations to other beliefs of the agent, are intrinsic (cf Chapter 5); their contents, that is, propositions, are seen as essentially perspectival, determined by context and, especially in the case of sensory beliefs, as including indexical elements. The implications of this for the concept of justification are that empirical justification is linear in structure. Many of a person's beliefs about the world depend for their justification on other beliefs, which may also in their turn depend on other beliefs of that person, but ultimately, justification stops in beliefs which are justified without depending on further beliefs of the agent, the so-called 'basic beliefs', which coincide with the class of sensory beliefs.

Against this background, there are two related questions which suggest themselves as obvious problems for the naturalistic epistemologist: (i) is a naturalist bound to hold a materialist theory of mind, as would seem likely, and if so, how can one avoid the ill effects of the reductionism involved? and (ii) can anyone successfully reconcile the empirical objectives of science and the conceptual goals of epistemology, or are they conflicting ends, success in one of which must militate against success in the other? These are important underlying issues which will come in for discussion, in one aspect or another, in other parts of the thesis, so it will be useful to give a preliminary indication of where I stand on them.

## 1.2 Two underlying themes

The following two issues have not been dealt with explicitly anywhere else in the thesis, and it seems advisable therefore to make clear at this initial stage, why they have been treated as they have.

### 1.2.1 *Materialism as the naturalized epistemologist's theory of mind*

I shall argue in this section that the naturalistic epistemologist's theory of mind is bound to be a materialist one, but that the acknowledged difficulties of reductionism which such a theory entails, are not a serious handicap in the present context, for various reasons which will be explained. The sort of materialism adopted in this thesis offers specific advantages for solving the problem under consideration, that of the justification of immediate empirical beliefs.

It is a truism to say that epistemology studies the status of, and the criteria for, knowledge claims, and the necessary and sufficient conditions for knowledge. One characteristic project of the epistemologist is the definition of justification, another, the explication of the relations between belief and knowledge. On a naturalistic view, this kind of project is best carried out by close study of the *mental state* of knowing or believing that something is the case. It seems likely then, that the naturalistic epistemologist will have some underlying theory of mind, and though it may not be explicit, it will have an influence on how the epistemological issues are tackled.

Given that naturalistic epistemology is methodologically an empirical, heuristic exercise, it follows that within it, mental states will be conceived

as accessible in some way to empirical observation by a third party who is not the subject of the state, like any of the observable phenomena that science concerns itself with. It seems likely therefore, that the naturalistic epistemologist is going to have some kind of materialist theory of mind.

It appears that while a materialistic theory of mind is a necessary condition of naturalistic epistemology, it is not a sufficient condition for it. If a naturalistic epistemology implies heuristic principles (in a sense to be discussed in Chapter 2), then it implies some kind of a materialistic theory of mind. It does not follow that everyone who holds some kind of materialistic theory of mind, however, is committed to a naturalistic epistemology. In the first place, the materialist philosopher of mind might choose to deny altogether that knowledge is best analysed through the mental state of knowing, preferring to see it as a body of consistent and true propositions.

In the second place, it is possible to concede that knowledge is essentially tied to mental states, and furthermore, to hold that mental states are physically instantiated, and yet at the same time deny the naturalist's claim that epistemic states and properties are best approached via their physical instantiations. That is, it is possible to hold out for the autonomy of mental states from, and their irreducibility to, physical states, thus by implication, accusing the naturalist of reductionism.

The anti-reductive position insists on the sui generis nature of mental states, and their distinctness from the physical brain states which instantiate them. The anti-reductivist has two kinds of argument to back this position: the arguments against reductionism and the arguments for the autonomy of psychological phenomena.

Reductionism of the psychological to the physical has two aspects. Ontological reductionism holds that a mental state like a belief, is really just a certain brain state and that what we loosely or mistakenly think of as the belief's properties are really relations, powers (causal efficacy, especially) and properties of the brain state. Semantic reductionism holds that any sentence which makes reference to a mental state or property is really just a sentence about physical facts under a special aspect, and that consequently, it may be translated without loss or change of meaning, (and *salve veritate* if it is a statement), into a sentence which mentions only physical states or properties.

However, the reductionist position is difficult to maintain. There are notorious problems inherent in saying that beliefs, wishes and all the other familiar mental states, are *nothing but* configurations of neurons in the brain (central state materialism), or characteristic behaviour (logical behaviourism). One of these problems is that, by Leibniz's law of identity, we are obliged then to say that beliefs have the properties of brain states and actions, and this leads to absurdities like 'My belief that  $2 + 2 = 4$ , is composed of neuronal tissue' and 'Her belief took place in the passage at six o'clock'.

Attributing mental predicates to material states seems no less ridiculous. It is difficult to understand how neurons or actions might *represent* things other than themselves, as mental states do; physical things or states do not, qua physical things or states, have the property of intentionality that mental states invariably do. Then there is the difficulty of attributing consciousness to matter. Problems like these provide a wealth of anti-reductionist argument.

The anti-reductionism arguments often take the form of a *reductio ad absurdum*. The pro-autonomy arguments are more positive. One of them is the argument from variable instantiation. If mental states and physical states could be invariably correlated on a one-to-one basis, there might be a case for saying that mental properties could be understood in terms of physical properties. But the fact is that 'any given mental state is likely to have "multiple physical realizations" over distinct physical structures' (Kim, 1984:173), so that the physical co-extension of a given psychological property will at best be a set of states expressed in a long disjunction. This militates against any simple identification of a psychological state with a physical state, at least at a general or type-type level, and this in its turn means there can be no explanation of the psychological in terms of the material. Ontological reduction at a type-level, and explanatory reduction are thus both incorrect.

Another means used by non-reductive materialists for preserving the autonomy of the mental, is defining the relationship between mental states and their physical instantiations as a very special sort of relationship. Searle (1981) for instance, holds that mental states are special properties of 'brain stuff'. Though they are ontologically *realized* in neurological configurations, Searle thinks this is an insignificant contingency having no implications for the essential character and features of mental states. He opts (1984) for a macro-property / micro-property model in terms of which mental states 'emerge from' the neuronal micro-structures of the brain, and are not identical with them.

Davidson's position (1980:107-109), 'anomalous monism', sees a mental state

as 'supervening' on a complex array of causally-linked physical states, but not being completely determined by it; relations to other mental states also determine it, as do normative factors like the wishes and values of the subject. Mental states are thus not subject to the general causal laws which govern physical regularities, nor are there any psychophysical laws which link the two nomologically across categories.

In the face of these arguments, we may well ask if the naturalistic epistemologist, who after all only wants to use some kind of empirical methodology, is really committed to reductionism? It seems so, because naturalism cannot avoid its materialistic commitments, and materialism cannot avoid its reductive implications. There is not space in this introductory survey to give the arguments by which this last point is established, but the interested reader is referred to Kim (1989) who, in a Presidential Address to the Central Division of the APA entitled 'The myth of non-reductive materialism', showed that none of the non-reductive materialist theories of mind really succeeds in preserving mental states as *sui generis* entities with properties and causal powers in their own right. There is at present, Kim holds, no clear way of being a non-reductive materialist, that is, of holding that mental states and properties are realized in physical states but are not reducible to them.

But there are ways of taking the sting out of reductionism. In the present context, limited as it is to the issue of immediate empirical justification, we do not have to address the issue of wholesale reduction of the mental to the physical, and secondly, we can insist on not underestimating the complexity and range of properties which a physical state may have.

On the first score, we may concede that unresolved difficulties exist in establishing a general principle of explanatory reduction of the mental to the physical, and yet argue for the special case of epistemological definition which is the burden of this thesis. The mental states in which the epistemologist is interested are limited to beliefs, and here we are concerned with only empirical beliefs, and sensory empirical beliefs moreover, so that the links between mental and physical are a lot stronger and more obvious than in the case of say, wishes or intentions.

We can at least venture to say that the *typical* immediate empirical belief ('Here is an apple') supervenes on a physical state which centres on a neurological or brain state, which is the result of interaction with some part of material reality, typically including an apple, and which has the potential to cause a characteristic range of actions in certain contexts. Given this theory of mind, it is reasonable to think that the question of the justification of sensory beliefs, the question, that is, of what makes such a belief epistemically excellent, can be addressed in terms of empirically determinable input and output conditions.

Secondly, the naturalistic epistemologist can mitigate the ill-effects of reductionism by the sort of materialism chosen. There are many interpretations of a broadly materialistic position, ranging from 'central state materialism', which identifies mental states with brain states alone, to 'logical behaviourism', which interprets mental states in terms of the kinds of behaviour typically associated with them. The empirical observation criterion does not commit the naturalistic epistemologist to any one specific materialist theory of mind. The anti-reductionist move is to identify mental states not with *only* brain states or with *only* behaviour, but with *both*, that

is, with the material complex involving the whole person in a given situation.

This results in a variety of functionalism according to which a mental state may be identified by identifying a tripartite physical state, consisting of a set of causal inputs, (from both external stimuli and existing brain states), the brain state they result in, in a particular individual, and the behavioural outputs or effects which that brain state is likely to cause in certain conditions. This implies that mental states and, for our specific purposes, empirical beliefs, are realized in a complex physical array defined by a set of causal relations. As a theory of mind, it is a materialistic functionalism which does not allow the identification of a belief *with* its correlative brain state, narrowly and solipsistically conceived as something 'inside the head', but rather suggests that the belief be identified *by* identifying the determining conditions of a certain brain state <sup>4</sup>. It is similar to the Davidsonian position referred to above (1980:107-119).

This is an approach which has merits for epistemology. The epistemological properties of any particular empirical belief, its justificatory status for instance, are to be found in these input and output conditions (as will be argued in detail in Chapter 5). As a theory of mind, it offers scope for the kind of psychological naturalization outlined by Kornblith (1987) and Kitcher (1983), in terms of which a belief is to be conceived as a state with properties and a character extending beyond a contextless proposition held true by the subject. Up till now (as noted earlier) there has been a tendency within epistemology to conceive of a belief as nothing more than an attitude, positive or negative, to a proposition, or perhaps an attitude of holding true a positive or negative proposition. A belief's history, the situation and identity of the subject of the state, had nothing to do with *what* belief it was; the

character of the belief-state was exhausted by its propositional content.

That content, moreover, was conceived in a strictly truth-conditional way, so that Joe's belief 'I am about to be run over by a truck' and an observer's belief 'Joe is about to be run over by a truck', were said to be the same belief. (An argument for their distinct identity is presented in Chapter 5.) On this view, the justification of a belief state consists in the relations of its content to other propositions held true by the subject. It is, in Kornblith's phrase (1987:117), the 'arguments-on-paper' thesis of justification. However, this is a position which, in spite of long trying, has never yielded a satisfactory definition of justification. A main theme of this thesis is its 'anti-propositionalism', which holds that there is more to belief and justification than propositions narrowly construed, and their relations, and that what more there is, is epistemologically significant.

### *1.2.2 The place of naturalism in epistemology*

The overriding goal of this thesis is to answer one of the traditional questions of epistemology - what is the nature of immediate justification? - in an empirical way, and to accommodate the advantages and explicate the consequences of naturalism while addressing the acknowledged concerns of epistemology within its established terms of reference. This may require a synthesis of interests which pull in rather different directions and of methodological commitments which may seem at first to be exclusive of each other. The problems of reducing mental states and properties to physical states and properties were discussed briefly in the previous section; the following tensions, or opposition of interests, are manifestations of the underlying issue of reductionism.

Though there is some overlapping, three main issues may be distinguished on which the naturalist seems to be introducing radical changes into epistemology: the issues of whether mental states are to be intensionally or extensionally defined, whether the epistemologist is concerned exclusively with factual or conceptual questions, and of whether his theories are primarily descriptive of reality or prescriptive of an idealized model of knowing. We should note that it is difficult to draw these distinctions with any degree of clarity or generality, and that what we are after is a rough characterization of the naturalistic epistemologist's position vis á vis an epistemologist who rejects it.

Epistemologists have tended to assume that mental states, especially beliefs, must be identified by their intensional content, that the epistemologist gives prescriptive answers to conceptual questions, using the powers of reason on a priori knowledge of the concepts involved. A naturalistic epistemologist assumes that beliefs can be identified by their observable extensional relations (input and especially output), that the epistemologist cannot ignore the generally agreed or newly discovered facts in the field and consider only the entrenched or implicit concepts, and that in the theorizing process, describing is at least as important as prescribing.

In the following chapters, a great deal will be said, implicitly or explicitly, on these and related issues, but at this introductory stage, it may be helpful briefly to set out how the reconciliation will be attempted, in these three areas where it is most needed.

A preliminary note: since a reconciliation of divergent interests, the

synthesis of methodological assumptions, and an accommodation of different points of view within one theoretical framework, is being attempted, it hardly needs saying that no extreme positions can be adopted. This means that a thoroughly Cartesian epistemology, with its unattainable ideals of certainty and truth, cannot be contemplated, and, what is perhaps more tempting, a radically naturalized epistemology, like the project which Quine sketches in 'Epistemology naturalized' (1969:69-90), and 'The nature of natural knowledge' (1975:67-81), must also be rejected.

Let us turn then to the question of whether beliefs are best identified intensionally or extensionally. An 'intensional identity criterion' is a means of identifying a belief by its content, by the proposition which the subject of the belief state immediately recognizes as what she believes. Two important things about a belief on this view are that it is a *conscious* state, and that it has *intentional* or representational content. The further assumption has been that the belief state is intuitively and incorrigibly accessible to its subject in a way not available to observers, who may infer to it only by analogy with their own experiences of belief states. Since it is not equally accessible to all, the belief state is not an extensional or material state.

Statements of a belief on this view, also have non-extensional properties. For instance, 'Sue believes that the Vatican is in Natal', is not truth-functional - the whole statement may be true even though the Vatican is not truly in Natal - nor can we substitute co-extensive terms *salve veritate* into it - the first statement may be true while 'Sue believes the Eternal City is in Natal' may be false. Statements about straightforward material facts, empirically observable, do not have these features; if it is true that the Vatican is in Natal, and 'Vatican' and 'the Eternal City' are co-referring terms, then it is

true that the Eternal City is in Natal.

The intensional identity criterion is basic to epistemological questions as we know them, (we could hardly talk about individual beliefs if we were not able to refer to them by 'name', i.e., content) and it is not necessary to give it up altogether in order to make beliefs empirically accessible. There is a satisfactory balancing of intensional and extensional elements in the definition of belief in the functionalistic theory of mind outlined in the last section, the theory we shall be using in the rest of this thesis. It is especially the inputs to a belief state from the subject's other mental states, which are determinative of its intensional identity criterion. So, if Sue had had the active belief that the Vatican is also known as the Eternal City, then her belief about its location could have correctly been expressed as either 'The Vatican is in Natal' or as 'The Eternal City is in Natal'.

It is possible to refer to, to classify and to individuate beliefs on the strength of their contents, while inferring to their existence and contents on the evidence of their input and output relations. A belief's behavioural output, which is empirically observable, is especially useful. For instance, if we see Joe scrutinizing a banana, peeling it and eating it, we are generally entitled to ascribe to him the belief that 'This thing is edible'. The framework for belief ascription in this case, is the same as that used by Davidson in his deployment of the idea of 'interpretation' of behaviour as a means of gaining access to mental states, more discussion of which is given in the next chapter. In this way, the proposition which forms the content of the belief is both defined and enriched by being placed in a web of contextual relations.

The second issue on which the naturalist might be accused of going too far, is

whether epistemology is primarily a factual or a conceptual enterprise, to be pursued by heuristic methods or by armchair reasoning, and resulting in theories and definitions which are known a posteriori or recognized a priori to be true. The solution here it seems is to realize that this is not an either / or option; acceptance of one of the apparent alternatives does not necessitate rejection of the other. Both are necessary, and related, features of epistemological methodology, the only question being one of emphasis. This issue is closely related to the description / prescription question (ut infra), so we need say no more about it than that while the position being adopted here aims to accommodate both sides of the coin, when it comes to the question of priority, the emphasis falls on heuristic methods. The naturalistic epistemologist concentrates on the generally agreed facts of knowledge, and makes claims which may be checked against experience and which, when true, are known a posteriori.

Lastly, there is the descriptive / prescriptive question. In any epistemological theory, what are or should be the relative weights of straightforward observation and objective recording of the data, of the kind that the scientist strives for, on the one hand, and the idealized definitions of knowledge, certainty, justification, etc., that the epistemologist has traditionally worked with, on the other?

There are of course prescriptive elements in science, just as there are empirical and heuristic elements in traditional epistemology, so that once again it is a question of priority or emphasis rather than a clear-cut exclusion of one or the other. Moreover, it is impossible to say which is logically or chronologically prior in any theoretical activity - do we observe instances of X and on the basis of the empirical evidence, derive our concept

of X's? Or do we have a concept of X's on the basis of which we identify X's for observation?<sup>5</sup> These questions are discussed in more detail in Chapter 3.

There is a caveat to be entered against the question of whether prescription or description is the proper method for the naturalistic epistemologist. This is a self-reflexive question which can be asked of any answer we give to the question itself, and of the answer we give to that question, and so on ad infinitum. In discussing the methods of science or epistemology we either have to ask: 'What *are* the current practices - describing or prescribing?', and answer by describing current epistemological practice as it actually is. Or we have to ask: 'What *should* these practices be?', and answer by prescribing what they would be in an ideal world. Choosing between these two possibilities would seem to be begging the question.

It does not help to seek criteria for proper meta-theoretical discussion, because this amounts to the same thing - we may enquire about what meta-theoretical practice *actually is* or what it *should be*, and so on, again, ad infinitum.

This inability to pose or answer the question in a way which does not pre-empt the issue suggests that no single unequivocal answer can be forthcoming and that prescription and description, at all the levels of theorizing, are inextricably linked. What remains for the would-be naturalistic epistemologist is to understand the roles and relation of these two functions in scientific methodology and to extrapolate this understanding to the domain of epistemology. And as will be made clear in the next chapter, the naturalist will tend to give more emphasis to description than to

prescription. The best rationale for adopting a descriptively-weighted methodology lies in the adequacy of the definitions it produces, just as the ultimate proof of the naturalistic pudding must be the success or otherwise of naturalistic epistemological theories.

It is a goal of this thesis to make plain how a theory of justification emerges from a study of the facts and nature of empirical belief, seen against the background of an empirical view of the place of the epistemic agent in the natural world. All we need for the naturalized definition of justification is thus a careful empirical study of how we do in fact believe <sup>6</sup>.

### **1.3 A traditional epistemological question in a naturalized setting**

The issue that concerns us here is that of empirical justification, and specifically, the justification of sensory beliefs. It is a question that has occupied philosophers since Plato, and it does not have to change its form when asked within a contemporary naturalistic framework; we may still ask and hope to answer the traditional questions 'What, if anything, makes it *reasonable* for a person to believe the contents of sensory experiences?'; 'Does the subject of a justified belief have cognitive access to whatever it is that justifies the belief?'.

According to the answer that ultimately results from the conciliatory naturalistic approach outlined in 1.1, 1.2 and 1.3, epistemic agents *are* reasonable in believing the evidence of their senses. It will be argued in following chapters that the generally reliable nature of the sensory mechanisms warrants the beliefs they produce as objectively likely to be true, and that the believer's reasonableness in holding such beliefs rests on

three factors: (i) sensory contents are automatically acceptable and prima facie justified for their subject (ii) they are warranted by the general reliability of the sensory mechanisms, and (iii) prima facie justification is always defeasible; when undefeated, it licenses a truth=claim for the belief in question.

The main features of the justification which emerges are:

- **prima facie**, that is, it is immediately evident to the epistemic agent, from the sensory character of an immediate belief and not on the evidence of other beliefs, that it is reasonable to hold;
- **defeasible**, that is, the justification which is evident at first blush may prove to be misleading, and insufficient to warrant holding the belief; this is a consequence of the naturalistic admission of fallibility on the part of real rational agents;
- **internalistic**, that is, that feature of the belief that marks it as likely to be true, its sensory character, is accessible to the holder of the belief, so that the holder knows when a belief is justified and when it is not;
- **deontological**, that is, the holder of the belief has a duty to ensure that the belief is not held in the absence of internal marks of justification or in the presence of countervailing beliefs;
- **doxastic**, that is, we do not need to look for the justification of a particular sensory belief outside the circle of the agent's own belief-set, in things like intersubjective agreement;

- **basic**, that is, the sensory beliefs which have this kind of justification are self-evident, and do not depend on any further beliefs of the agent for their empirical justification.

Each of these features will be individually explicated and argued for in the course of the thesis, and it will, I hope, be shown that in spite of what may initially seem to be difficulties and inconsistencies (e.g., are epistemic agents in any sense conscious of the reliability of their perceptual processes? how can epistemic justification be effective if it is defeasible? can a belief be justified if it is held involuntarily? how can justification be doxastic and basic at the same time?), all the above six features of sensory justification are not only just logically compatible, but regularly occur, within one belief state.

#### **1.4 Brief synopsis of the thesis**

In order to show all of this, the course that the following chapters follow is one of a gradually sharpening focus on the subject of empirical justification. In Chapter 2, after a survey of the literature to get some idea of the ways in which naturalized epistemology is actually practised, a radically naturalized position is rejected because it makes the subject unrecognizable as epistemology. The three minimal conditions for a naturalistic epistemology listed above, which allow for the traditional questions to be addressed in the usual terms, are spelled out. The claim is made, and argued for, that naturalism construed in this way is not compatible with a commitment to scepticism regarding empirical knowledge, at least as far as the justification condition goes.

In Chapter 3, five general consequences of a naturalistic position are drawn out of the discussion. It is shown how these general conclusions lead to a modest foundationalism, that is, their implications of the corrigibility of all empirical beliefs and of basic status for some, are spelled out.

The view of empirical belief in general, and of sensory belief in particular, that emerges from this naturalistic background, is the topic of Chapter 4. The terms 'sensory', 'immediate', 'experiential' and 'basic' are all used of empirical beliefs about the subject's immediate environment; typical examples are the belief that there is a red ball on the grass in front of the perceiver (a visual belief), and that there is a mosquito in the vicinity of the perceiver's head (auditory belief). Particular attention is given to the question of whether we can attribute sensory character to beliefs qua beliefs, and it is concluded that this is possible.

The way in which an empirical belief is brought about (its 'dependence relations') is then examined, in Chapter 5. The important conclusion, for a theory of justification, to be drawn from this examination, is that sensory beliefs depend on no other beliefs but themselves for their *empirical* justification (a term defined in the course of discussion). This points to the fact that, if they are justified for their subjects, they must be self-evident and *prima facie* justified.

Before an exposition of the nature and implications of *prima facie* justification, the general requirements for a satisfactory theory of epistemic justification are set out, in Chapter 6. Such a theory must account for the *reasonableness* of the agent in believing as she does (and this is taken to be

the core of any notion of justification); it must accommodate deontological aspects and explain how justified belief is distinguishable from unjustified belief; and it must provide some objective link between the justified belief and its likely truth.

In Chapter 7, it is shown how the theory of prima facie justification of sensory beliefs which emerges from the naturalistic conception of empirical belief, satisfies these requirements. An argument is offered for the conclusion that the agent is reasonable in accepting sensory contents; his epistemic duties consist in being alive to the corrigibility of his experiential beliefs in general and remaining sensitive to the evidence; and the warrant of the belief, that is, its objective likelihood of truth, rests on both the reliable perceptual mechanisms by which it is acquired, and the confirmation it gets from being defeasible and undefeated.

Chapter 8 compares and evaluates two different views of the nature of prima facie justification, one which relies on purely internal and non-naturalistic criteria and one which anchors prima facie justification in the reliable sensory means of production of immediate belief. There are problems for the non-naturalistic view which the second view avoids.

The last aspect of immediate empirical justification to be discussed is defeasibility, in Chapter 9. The problem of whether a belief can be effectively justified if its truth status is in doubt, as it must be if the belief is corrigible, is addressed, as is the question of whether, on this view of prima facie justification, any sensory belief at all could be unjustified. It is concluded that neither of these is an insurmountable problem for the theory in question.

Finally, in Chapter 10, a summary review of the main themes, and the conclusions they lead to for a theory of *prima facie* justification of immediate empirical belief, is undertaken.

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### Notes to Chapter 1

1. The discussion in this thesis never leaves the field of *empirical belief* (a term defined in Ch. 4), and if the terms 'belief', 'justification' and 'knowledge' are used occasionally without qualification, it should be remembered that only *empirical* belief, justification and knowledge are at issue here.

2. The traditional three-condition definition of knowledge in terms of justification, truth and belief is the assumed background to this thesis. It has been suggested by some (see Pappas and Swain, 1978:11-40) that the challenge to this definition offered by Gettier's counter-examples (1963) means that it must be discarded. The more conservative view is preferred here, viz., that what Gettier has shown is that a better understanding of the relations among the three conditions, and a better definition of the justification condition in particular, is required. Gettier counterexamples do not necessitate, nor even imply the desirability of, the rejection of the tripartite framework of traditional epistemology.

3. Quine's work in general, and his essays 'Epistemology naturalized' (1969) and 'The nature of natural knowledge' (1975) make the case for a radically

scientific epistemology. Other discussions of the issues involved are to be found in Duran 1988, Haack 1975, Haldane 1989, Kim 1988, Kitcher 1983, Kornblith 1982 and 1987, Sanford 1988, Shimony and Nails 1987, Siegel 1984, Sosa 1983, Stroud 1984, and Thompson 1981. See also Synthese Vol. 64, Nos. 1 and 2 on 'Naturalistic epistemology'. Almeder's recent work (1990, 1993, 1994) is a sustained assessment of the arguments that have occurred in the literature for and against naturalization; as such, it constitutes a progressive definition by elimination of what the conditions for a properly naturalized epistemology are.

4. Block (1980: 174 - 181) gives a definitive analysis of different types of functionalism and shows how they are all similar in taking physical inputs, relations to other mental states, and behavioural outputs as the definitive properties of any particular mental state. In Block's terms, the theory of mind from which we shall work in this thesis is that of a 'materialist functional specifier', with this difference: that the relations of a mental state M to other mental states of its subject, are taken as input conditions of M.

5. For an analysis of the root of this seeming impasse, see Rescher's discussion (1980: 10-15) of the sceptical problem of the 'diallelus' or 'problem of the criterion': in any theorizing process, stipulation is necessary in order to identify objects for observation, and observation is necessary in order to have some idea of what to define.

6. This is what Kornblith (1987:9) refers to as 'antiskepticism and ballpark psychologism' in naturalized epistemology: 'the processes by which we arrive at beliefs are at least roughly like the processes by which we ought to arrive at our beliefs; the one set of processes is in the same ballpark as the other.'

## **Chapter 2 - A sensibly naturalized epistemology<sup>1</sup>**

What I shall try to do in this chapter, is firstly, to set out the kind of methodology which will secure for epistemology the advantages of science without giving up too much that is distinctively epistemological; secondly, to argue against any form of *radical* naturalization, like that which Quine (1960) recommends, and Churchland (1979) practises; thirdly, to trace the anti-sceptical implications of the mild form of naturalization being argued for in this thesis.

### **2.1 The minimal conditions for naturalization**

#### *2.1.1 A scientific basis for epistemology*

It seems reasonable to suppose that the first duty of the epistemologist must be to the subject itself and its sui generis subject matter. Nevertheless, some kind of empirical methodology in epistemology remains an attractive option, as it has always been since Locke's 'historical, plain method' (1964:64) and Hume's 'attempt to introduce the experimental method of reasoning into moral subjects' (1978:xi). The changing perceptions we have of science in general, and the developments that take place both in the scientific enterprise and in our understanding of it, open up new possibilities for understanding what knowledge is, and how it is that people have it.

There has, for instance, been a fair amount of attention recently paid to the relation of normative and descriptive elements in scientific theorizing, and this is an illuminating background against which to consider epistemological methodology <sup>2</sup>. It affords us a new perspective on the sceptic's position

concerning our knowledge of the external world. The sceptical conclusion depends essentially on a stipulation, or prescription, of conditions for knowledge that cannot possibly be satisfied, and this is demonstrably at odds with the practices of science. Scepticism and naturalism are thus to some degree incompatible, it would appear, and if this is indeed the case, then the arguments that there are for a naturalized epistemology, might at the same time be deployed as anti-sceptical arguments. This issue is taken up in section 2.3.

The aims of this section are, firstly, to show that there is a soft form of naturalized epistemology which is very plausible, and very hard to argue against; indeed, it would seem to have the support of anyone who has even a slight appreciation of science or empirical realism; and secondly, to show how, within this model of naturalized epistemology, there is a heuristic requirement that places realistic constraints on the construction and testing of theories and definitions.

We need to consider what is useful in scientific methodology for the pursuit of epistemology, in order to set the minimum requirements for naturalization in a way that will not do violence to the traditional projects of the epistemologist. Almeder (1990: 263) distinguishes three forms of naturalized epistemology: the Quinean 'replacement thesis', the 'transformation thesis' of someone like Goldman (1986), and a third form, which 'simply insists that the method of the natural sciences is the only method for acquiring a proper understanding of the nature of the physical universe'. It is a modified version of this third form that I am advocating here. Its effectiveness as a grounding principle for a naturalized study of *knowledge* depends in the first place on tying knowledge into 'the physical universe', and in the second place, on

explicating the relations between epistemology and science.

(i) Here is one way (in rough outline) in which the first requirement might be satisfied, that is, one way in which the mental state of knowing might be shown to fit into the domain of science.

Of all the different mental states, knowing is the one which seems most amenable to scientific investigation. It is the only one with a guaranteed extension. S (the epistemic agent) may think that p is the case, may wish it, fear it, even believe it with conviction, and yet p may not be the case. But if S knows that p, then p must be the case. Whatever 'p' expresses must be a fact.

Further, the requirement that for S to know p, S must be justified in holding p true, is often taken to imply that there must be some kind of nomological connection between the fact of p and the belief that p. It is not quite a simple causal relation; Goldman's suggestion that it might be (1967) raises the difficulties of how a fact (and not a thing) might have causal efficacy, how we might then have beliefs about future facts (*backward* causation?), and what might be at the causal end of general beliefs like 'All men are mortal' (see Dancy, 1985:33-34). But the relation between knowing-that-p and p is at least of the same general kind as a causal relation; both are relations of dependence or supervenience of the second term (effect, mental state) upon the first (cause, physical configuration which includes the fact known). Their similarity is shown by the fact that both relations may be defined in terms of a pair of subjunctive or counterfactual conditional statements. *Ordinary cause* : (i) If C were the case, then E would follow, and (ii) If C were not the case, then E would not follow. *The psychophysical relation in knowing* : (i) If p were the case, then S would believe that p, and (ii) If p were not the case,

then S would not believe that p. Nozick (1981) makes use of this latter pair of conditionals in his analysis of knowing as 'tracking truth'. Their similarity to the causal case suggests that the epistemologist may be concerned with the same general kind of relation as the scientist is.

When the kind of knowledge under discussion is empirical knowledge, then the claim that knowledge is tied in this way to the physical world, becomes even stronger. It would seem that the necessary extension of the contents of knowledge provides grounds for a scientific investigation of the phenomenon; or at least it suggests that states of knowing are terms of the same kind of relationship that governs the physical causal network which is the domain of science.

In explicating the relations between science and epistemology, it becomes evident that there are other reasons (at least the following three) why science, and especially natural science, should be of such interest to the epistemologist.

(ii) The object of epistemology is knowledge, and science broadly construed *is* knowledge. At any one moment, it represents the best theories and judgements that the collective efforts of humanity have up till then been able to produce, the 'best knowledge of the day'. Within this body of knowledge, the theories of natural science enjoy a certain priority for the epistemologist concerned with empirical knowledge. Such theories do not of course make up all of knowledge. There are fields outside natural science, like the social sciences, which lay claim to true theories and established facts of their own, comprising bodies of knowledge other than the physical, so that it would be a very narrow positivism which identified all knowledge with physical science.

But the structures, methods, theoretical devices and subject material of natural science, since they produce empirical knowledge, are of primary concern to the epistemologist working in that field. It may reasonably be asserted that natural science is all the *empirical* knowledge there is. This involves seeing ordinary bits of empirical knowledge at a humble level, things like 'The bread rolls are stale', as scientific in character and continuous with knowledge of more elevated and esoteric facts, like 'The DNA molecule is helical', and in an important sense, they are plainly of a kind: both claims ascribe a material property to a class of physical things.

Furthermore, the ways in which these claims are arrived at and grounded, though they differ in degree of complexity, are the same in kind. The methodological principles which the epistemologist adumbrates in studying the practices of natural science, are thus relevant *mutatis mutandis*, to every case of an empirical knowledge claim (see (iv) below for more detailed discussion of this point).

(iii) From the fact that natural science is all the empirical knowledge that there is, comes the further claim that it has a special importance in relation to all other kinds of knowledge. To claim knowledge of something - anything at all, whether it be God, a quark, oppression, the tooth-mouse or paranoia - is to claim to have observed or experienced, either the thing itself or its physical effects. We either experience things directly through our senses or we are apprised of their existence through experience of distinctive causal regularities in the material world which can only be explained by positing the object of the knowledge claim.

Either way, it is the physical world which is both the origin of and the ground for knowledge claims of all kinds. It is the epistemologist's task to investigate the origin and ground of knowledge and in consequence, even though the generalizations of epistemology are not substantively the same as those of science, the subject matter and methods of empirical science have a special significance in the epistemological context.

(iv) This principle of the material grounds of all knowledge, gives us one last possible reason for a naturalistic epistemology. Epistemology is itself engaged in a quest *for* knowledge. The matter is complicated by the fact that the inquiry is into the subject of knowledge, the mental state of knowing both in the individual and in the aggregate, and into features of it like acceptance, justification, evidence and truth. Nevertheless, from the fact that the epistemologist hopes to arrive at knowledge *about* his subject, hopes to understand, define, explain and predict it, it follows that he is bound to follow at least some of the procedures essential to any rational inquiry. Granted the analytic statement that science (including both the natural and the social sciences), represents the best knowledge of the day, it follows that scientific methods (whether of the natural or social sciences) are likely to embody our best methods of acquiring knowledge, and successfully coming to understand, define, explain and predict phenomena.

When the phenomena in question are those of the material world, and the knowledge is empirical knowledge, then it is the methods of the natural sciences which provide a model for the epistemologist. Having knowledge of, or understanding, a mental state like knowing, no less nor more than having knowledge of a physical state like AIDS or electricity, is a matter of trying out hypotheses against the instances we have of it (a procedure to be discussed at more length in 2.1.2 below).

To sum up, we have at least four reasons for wanting close relations between epistemology and science, especially between the study of empirical knowledge and natural science: (i) knowing is the one mental state whose content is also, necessarily, objective fact, in the domain of science; (ii) science is knowledge and thus the object of the epistemologist's study; (iii) physical science explains the causal regularities in the material world which are the basis of all claims to knowledge; (iv) in so far as the epistemologist seeks to know her subject, she follows the method of science.

On this view, epistemology stands in a dual relationship to science. In so far as the subject matter of epistemology is knowledge (*scientias*), the epistemologist as methodologist stands on the meta-level, in judgement on science and its practices, theories, etc. In so far as the methods and aims of epistemology are scientific in character, and in so far as what it produces adds to the body of knowledge, it is on a par with the other special sciences. It differs from them in that it has a self-critical and self-regulating function, and engages in self-reflexive study.

The four points listed in summary above have been put in a general way, as definitive in an unqualified way of the relations between epistemology and natural science, and a case could indeed be made, with more extensive argument, for that position. But the more limited claim which issues from the foregoing discussion, viz., that in the context of empirical knowledge, the epistemologist will be especially interested in natural science, is all that is necessary for the purposes of this thesis.

The four statements above are interwoven in a way that makes their

separation difficult. The last two points are especially closely connected. Explaining causal regularities in the material world *is* the method of science, and, as we shall argue, the method of any kind of theorizing which would claim relevance to, or applicability in, the actual world. Let us look more closely at this process of explanation.

### 2.1.2 *Prescriptivism and descriptivism*

We need to notice, first of all, that we are talking about prescription as an activity on the part of the theorist rather than about prescriptivity as a property of the concepts being defined. Characteristically epistemological concepts are essentially normative and evaluative concepts: 'true' is applicable to beliefs which appear to meet certain standards of accuracy; 'justified' is used of beliefs where the holder has met certain standards of reasonableness for supposing the content true; 'certain' marks a commendable property in a belief, and so forth. It is not the concepts themselves that are at issue here, but rather the method of defining them, or of giving the conditions for their proper application.

The question that concerns us is whether, in listing the standards to be met for justification, an epistemological theory should proceed from observations of actual cases of justified beliefs, the more the better, or whether it should proceed from some antecedent desiderata for justification, known a priori, in the light of which there may be no actual cases of justification at all.

In the context of a naturalized epistemology, the methodological contrast is sometimes made in terms of the descriptivism of the natural sciences versus epistemological prescriptivism and normativity (Kornblith, 1987:1 - 3; Kim,

1988:381 - 383, 397 - 400), and while this certainly reflects a real difference between the two, it is not an absolute distinction. There is no neat or easy way of separating them along these lines. Science is not entirely devoid of idealized models, like the classical gas laws for instance, which real gases follow only roughly, with contingent deviations, though nearly enough to be said to exemplify them; while some traditional theories of knowledge, for example, those of the empiricists Locke and Hume, have a strongly descriptive bent.

We may then ask whether the epistemologist is to confine himself to statements of observed fact and merely describe, as accurately as is possible for the general case, what are acknowledged by the epistemic community at large to be actual instances of justified belief and knowledge; or whether he is rather to stipulate an ideal of justification, which may have the sceptical result that no instances of it are possible. The issue is whether it is possible or sensible to fix the criteria for justification, and so too for knowledge, in a way that does not go beyond what actually obtains, or could obtain, in the case of ordinary people.

Following the practices of science, the naturalistic epistemologist will prefer to take the generally agreed facts of empirical belief and justification as subject matter. It may be said to be an axiom of the whole enterprise of naturalistic epistemology (and as such not *provable* within the system) that people do have knowledge of the world, that is, they have justified true empirical beliefs. At least many, and arguably a majority, of those psychological states which are generally thought to be states of knowing, or justified belief, are in fact such. The sceptic starts with an idea of knowledge and justification of a kind attainable only by an infallible and

omniscient epistemic agent, and then finds that real people are not capable of such states; the naturalistic epistemologist on the other hand, starts by assuming that ordinary agents do know, and are justified in believing, at least some of the things they think they know and are justified in believing. The definition of a justified belief for the naturalistic epistemologist is not based on a transcendental ideal, but on the normal, average type of belief (or believer).

Moreover, if the naturalistic epistemologist takes the norm to be an average belief derived from the aggregate of all the empirical beliefs of all normal rational agents, then it can be shown that the normal belief is a justified belief and most likely true. It is of course quite normal for an individual agent to believe falsely or unjustifiedly in any one single case, perhaps even to have many false and unjustified beliefs, but when a doxastic set is judged, on the best epistemological criteria available, to contain significantly more false beliefs than true ones, or unjustified beliefs than justified ones, then it is classified as abnormal. By definition then, the normal, average belief is a probably true, and a justified belief, and the naturalistic epistemologist engages in just the modest task of describing that standard.

This is not to say that science is devoid of any prescription. It is true that science has, historically, been thought of as purely descriptive. Even more than human science, *natural* science with its goal of arriving at an accurate and exhaustive picture of the world, is characterized by the objective and consciously non-evaluative stance that its practitioners adopt. They seek to observe a reality free of subjective idiosyncrasies, and to this end, specify their subject matter as the causal properties of matter, these being empirically determined for all observers in a broadly uniform way which is

further standardized by scientific conventions. However, the goal of a completely asubjective science is not achievable; there are, necessarily, prescriptive aspects to science as well.

The process of theorizing in any field consists in constructing a systematic framework for a mass of disorderly data, the data then being interpreted as conforming with the hypothetical ideals which theory requires. A fair degree of divergence between the actual data and the theory which explains them, and which they in turn instantiate, can be tolerated, a good example of this being the idealized gas laws. Scientific theory is thus not an unalloyed description of an independent material reality, recorded by the perfectly neutral observer. On Popper's hypothetico-deductive model (1980), scientific method is not that different from the philosophical and it is a matter for ongoing consideration by both scientist and philosopher, how description and prescription might be related.

One respect in which epistemology can benefit from the scientific model, especially one like Popper's, is that it dispels the allure of the impossibly strict truth and certainty conditions which have characterized the history of epistemology. Science is a hypothetical enterprise, a matter of setting up tentative theories which may always be disproved by fresh evidence, and which never attain more than a high degree of confirmation. Absolute truth of any theory or definition is beyond demonstration, though we may be entitled, for practical purposes, to assume it when certain conditions of confirmation and consistency have been fulfilled. The ever-present possibility of defeat of a theory, definition or single knowledge claim, however, with which the scientist works, is a salutary consideration for the epistemologist, and one moreover, which must be included in substantive epistemological theory.

If the epistemologist takes up a minimally naturalized perspective, then she will see mental states of knowing as arising within, and at the instance of, the causal order, as having therefore the character of brute fact and her methodology will be heuristic, or investigative; she will set out to *discover* the nature of knowledge. She will differ from the sceptic in allowing that epistemic agents do actually have beliefs which achieve a satisfactory measure of justification, and that such beliefs may also on occasion be true, and so constitute knowledge. Definition and the setting up of criteria will also be important for her; she will want to give description and prescription an equal role.

Thagard (1989: 491) sees this as a new development: 'Perhaps it would be useful to coin a new term to describe an approach that is intended to be both descriptive and prescriptive. I shall say that a model is *biscriptive* if it describes how people make inferences in accord with the best practices compatible with their cognitive capacities. Unlike a purely prescriptive approach, a biscriptive approach does not offer a theory of God's cognitive performance, but is intimately related to actual human performance. Unlike a purely descriptive approach, biscriptive models can be used to criticize and improve human performance.' The epistemologist may choose to say 'Here is something which is agreed on all hands to be a justified belief. What conditions can we observe in this case that are shared by all and only other cases recognized as justified beliefs?' Or he may choose to ask: 'When I identify something as a justified belief, what criteria am I applying? What conditions must be present in objective reality before we are satisfied of the presence of a justified belief?'

The two questions are inextricably linked. To ask which is prior or more important, or even to conceive the two approaches as separable in practice, is to fall into the sceptical impasse of dilemmas or the problem of the criterion. This is a sceptical argument which applies quite generally to any field of study: without a satisfactory definition of the objects of study, they cannot be identified and the field cannot be delimited; on the other hand, without some recognizable subject matter, no definitions can be arrived at<sup>3</sup>.

A naturalistic epistemology will not avoid the setting up of stipulative definitions, as unscientific. All that naturalism does require is that the epistemologist allow that those definitions have real instances. The naturalistic definition of knowledge and justification must firstly be such as not only to allow the subsumption of actual cases of belief under it (which means that no sceptical ideals of absolute certainties or unrealizably perfect beliefs will be acceptable), but also such as to characterize the broad cross section of what is recognizable as and agreed to be knowledge and justified belief.

The naturalistic epistemologist will maintain that the question 'What is knowledge?' and all the distinctively epistemological questions like 'What is justified belief?', are to be answered with reference to the actual (rather than possible) mental states of real (rather than ideal) epistemic agents. The assumption is that how we *ought* to believe and to arrive at our beliefs cannot be very different from how we *do* in fact believe and arrive at our beliefs. Our epistemic capabilities, like all our other capabilities, are fixed by nature; the 'ideal' is to be conceived of as a realistic norm. The model of empirical belief, far from being an unattainable ideal, is simply the average belief, belief free of too great a degree of discrepancy or deviation, which by

definition includes the majority of what are commonly thought of as beliefs. The desideratum here is to say as accurately as possible what justified beliefs are in fact like.

This first requirement of naturalistic epistemological definition may be thought of as its descriptive task. A second requirement on such definition is that it must also help to demarcate the class of justified beliefs and be of use in problematic or borderline cases. It must provide some sort of decision procedure against which ascriptions of knowledge and justification can be verified, the desideratum here being that the definition say what justified beliefs *should* look like. This may be called its prescriptive task. The important thing about these two requirements is the order of their priority. In a naturalistic epistemology, it is the descriptive interest which is of first importance. This is in line with principles (iii) and (iv) in section 2.1.1, which require that any theory or definition which seeks to be of some relevance in the actual world must be grounded in instances from the actual world.

Of course to assume that we do in fact have knowledge, justified true beliefs about the world, is to beg the question against the sceptic. But if the foregoing arguments have any force, then this basic assumption is justified in the light of the methodological requirements of epistemological naturalism, and is acceptable to the degree that a naturalistic theory satisfactorily defines the concept of knowledge and explains epistemological phenomena.

## **2.2 Why radical naturalization is unacceptable**

### *2.2.1 Rejection of the 'replacement thesis'*

The charge has often been made that in the process of naturalization, at least in the thorough naturalization recommended by people like Quine (1960) and practised by people like Churchland (1979), the matter and method of the discipline is so changed as to be unrecognizable as that of epistemology, and then there is good reason to think that the subject itself has changed. Extreme naturalization would allow the epistemologist only to practise one or more of the established natural sciences, like neurophysiology or biochemistry, and not to engage in epistemology as anyone would recognize it. However, any model of a discipline which changes it into something else, is not a model *of that discipline*. If it is a naturalized *epistemology* we are after, then the character of epistemological concepts and issues (their intentionality and normativity especially) must somehow be reconciled with the scientific method.

Kornblith (1987:3) refers to radical Quinean naturalism as 'the replacement thesis', since it advocates 'the view that epistemological questions may be replaced by psychological questions', doing away with anything we would recognize as epistemology in the process. After the abandonment of the traditional terminology and concepts of epistemology 'what remains is a descriptive empirical theory of human cognition which, if Quine has his way, will be entirely devoid of the notion of justification or any other valuational concept' (Kim, 1988:397); indeed, the phrase 'human cognition' might well be put in quotes. And Chisholm, a proponent of a materialistic definition of justification like reliabilism, remarks (1988: 285): 'Some of those authors who profess to view knowledge and epistemic justification "externally" are not concerned ... with the analysis of any ordinary concept of knowledge or of epistemic justification. Therefore their enterprise, whatever it may be, is

not that of traditional theory of knowledge.'

If the whole 'enterprise' has been replaced, the subject is no longer epistemology. We may conclude from these quotations that the concern that epistemology may be unrecognizably altered by naturalization, is a wide-spread one. It is moreover expressive of the wish to maintain the essential character of the discipline as it is presently, and has traditionally been, known and practised.

It was Quine who gave the term 'naturalized epistemology' the wide currency which it now enjoys, and his conception is often taken as paradigmatic of the new enterprise. In his extremely materialistic naturalism, the subject matter of psychological states is replaced by that of physical states. A short quote is revealing. Commenting on Davidson's paper 'Belief and the basis of meaning', Quine writes that he is 'puzzled over Davidson's doctrine of the irreducibility of the mental'. Although he (Quine) agrees with Brentano on the 'irreducibility of intentional discourse to proper scientific discourse', where Brentano thought this showed the need for a special 'science of intention', Quine thought '*so much the worse for intentions*' (1974:329, my italics).

Again, on the central issue of how to identify a sensory belief, Quine has this to say (1969:84): 'One effect of seeing epistemology in a psychological setting is that it resolves a stubborn old enigma of epistemological priority. Our retinas are irradiated in two dimensions, yet we see things as three-dimensional without conscious inference. Which is to count as observation - the unconscious two-dimensional reception or the conscious three-dimensional apprehension? In the old epistemological context the conscious form had priority, for we were out to justify our knowledge of the

external world by rational reconstruction. What to count as observation now can be settled in terms of the stimulation of sensory receptors, *let consciousness fall where it may* ' (my italics). So whether neuronal activity is accompanied by the subject's consciousness of some content is, in Quine's opinion, irrelevant to the epistemologist. Questions of justification according to this view are neurophysiological questions, and reasonableness on the internal perspective simply disappears.

In Quine's view, all the justification that there is for our theories and beliefs about the world is to be found in patterns of sensory stimulation which are not available as such to the subject of the belief state; the fact that the first-person perspective is thus excluded is of cardinal importance for any epistemological theory, especially of justification. Davidson (1988:2) writes that Quine has 'tied meaning and content to the firings of sensory nerves', which 'comes about as close as science allows to the end product, presumably a brain state or change, and yet remains reassuringly physical and publicly observable, at least in principle'.

It is Quine's view of a belief as drawing all its significance from its associated physical state, *qua extended and publicly observable* physical state rather than *qua subjectively experienced and conscious* physical state, that results in the disappearance of any recognizable epistemological concepts and their replacement by those of the established sciences. While the supervenience of psychological states upon their physical bases is not denied, the special nature of those physical states must not be lost sight of. They are physical states which include a cortex with properties of consciousness, intentionality (content), and often phenomenological 'feel'.

Several arguments will be offered in ensuing chapters to the effect that including the first-person perspective on neurophysiological states is essential for maintaining the epistemological enterprise's character. Quine could remain naturalistic and be a better epistemologist, Davidson believes (op. cit.), by allowing the dependence of beliefs upon their physical bases within the natural causal order, and yet not investing these bases with 'prime epistemological significance' (ibid.:2). Such a shift of emphasis would save Quine from an absolute reduction of the epistemological in favour of the physical, and save epistemology from replacement by neurophysiology.

Let us look at how the Quinean programme is implemented in two actual cases: the work of an eliminative materialist like Paul Churchland and an evolutionary epistemologist like Campbell.

### *2.2.2 Criticism of two applications of the replacement thesis*

Firstly, the eliminative materialist Churchland is one who advocates, like Quine, and moreover practises, a thoroughly scientific approach in his work, favouring especially the vocabulary and theories of cognitive science, e.g., 1979: Chapter 5. After discussing how descriptive (naturalistic) epistemology is distinguishable from normative epistemology, and pointing out that there is a need for the latter enterprise as well, ('our concern here, after all, is with the ideal rather than the real' [ibid.:122]), he criticizes the mainstream of epistemology for assuming that 'the current state of 'an epistemic engine' (that is, the rational agent) is relevantly and adequately represented by a set of sentences or propositions' and 'that the epistemic system is subject to inputs, also representable by sentences' (ibid.:125).

This criticism is acceptable to a point, and reminiscent of the Kornblith/Kitcher complaint that traditional epistemology is too concerned with propositions. But where they advise that it should instead be concerned with investigating psychological states, Churchland is critical of the propositional focus because it is not mechanistic enough, and in consequence is inadequate to the evaluative task of saying wherein epistemic virtue consists. He recommends in its place, not a greater sensitivity to psychological complexity, but an approach 'inextricably bound up with a deeper conception of ourselves as provided by some science of epistemic engines generally' (ibid.:142).

In the rough outline that Churchland provides of such a conception, however, there is a marked absence of any distinctively psychological concept. The programme that he sketches is aimed at defining concepts of epistemic excellence that would apply equally well to a sophisticated computer as a person. Notably, belief is defined in purely extensional terms, with no mention of the characteristic mental attributes which accompany belief states. This makes any ascription of justification (the traditional, Socratic notion of justification as internal reasonableness, which is basic to epistemology) to a belief, extremely problematic.

Secondly, let us consider the evolutionary epistemologist. A different kind of naturalization to Churchland's is evident in the work of someone like Donald Campbell, the evolutionary psychologist who is nevertheless classed as a naturalistic epistemologist by many (with contributions to Naturalistic epistemology [Shimony and Nails, eds., 1987] and Naturalizing epistemology [Kornblith, ed., 1987]) but who would not qualify as an epistemologist on the 'recognizability criterion' suggested above. At his hands, questions of

justification become questions of what neurological mechanisms are involved in the passage from immediate sensation to awareness of an object, or of what can be inferred from the observable physical properties of 'neurological embodiments of belief' (part of the title of the article in Shimony and Nails), or of what biological processes promote survival of the species. Whatever justification turns out to be in these contexts, it is not the reasonableness of the person holding the belief, a concept which is basic to epistemology proper. Furthermore, on an evolutionary outlook, truth as an epistemological property of empirical beliefs, is to be valued solely for its role in promoting the continued survival of the individual in his environment.

Consistently with his scientism, Campbell explicitly disavows the usual frame of reference of epistemology, for instance, that the study is limited to human subjects: 'here, knowing in science is introduced in continuity with those modes of knowing on the part of organisms described by biologists and psychologists' (1987 (a):81), with the implication that 'epistemology' is to be extended to all forms of life. He is aware of what the consequences for epistemology will be: 'The traditional terms "epistemology" and "philosophy of science" are not quite right for many of the exciting current developments that go by these names ... science today (is) the main arena in which descriptive-epistemological issues get argued' (1987 (b): 165-166).

To further illustrate the gulf between epistemology and any radically naturalistic sort of project, let us consider a central concept in epistemology, truth, and its transmutation at the hands of the evolutionary 'epistemologist', who like Quine, advocates a thorough replacement of epistemology by science, biology in this case. Truth becomes, in Kantian terms, a hypothetical rather than a categorical imperative.

Truth, it is widely agreed by all, is the greatest virtue in a belief and the ultimate epistemic value. Absolute truth would characterize the perfectly rational doxastic set of an ideal (omniscient and infallible) epistemic agent; the belief sets of real agents are epistemically good in so far as they approach this ideal, in so far as the belief sets are more rather than less true. Other possible properties of a belief, besides truth, especially the justificatory ones like groundedness, trustworthiness, evidence and obviousness, are judged epistemically excellent in so far as they guarantee a belief's truth, or increase its likelihood of being true. These other epistemic virtues in a belief are thus instrumental in securing truth, and are virtuous in so far as they serve their function. The epistemologist and the evolutionist would be in agreement on the hierarchy of epistemic values thus far.

The epistemologist, however, has always viewed truth as an ultimate value, whose goodness or virtue cannot be explained by reference to anything else. It is not an instrument serving any higher purpose. It is thus not justificatory in character itself, that is, it does not warrant the epistemic status of the belief it accrues to, in the light of any further values. For the epistemologist, there is simply no answer to the question of *why* a belief should be true rather than false, or why the epistemic agent should aim at truth in believing, and not falsity.

In terms of the Kantian imperatives, the command of reason that one ought to believe truly, is unconditional; like any categorical imperative, it is 'objectively necessary in itself apart from its relation to a further end' (Kant, trs. Paton, 1964: 82). It is simply in the nature of belief that when we believe, we strive to believe truly. The governing vision of man here is of a

creature who is essentially and peculiarly rational, in a way which distinguishes him from the rest of the natural order, and of belief as essentially representational and truth-aspirant.

By contrast, for the naturalistic evolutionist, the truth of a belief is good only because it is 'adaptive'. As such, truth is not a categorical but a hypothetical imperative; if we believe truly, then we adapt to the environment and survive better. Truth for the evolutionist is not the highest value, as it is for the epistemologist. Truth has its place somewhat lower than that in the hierarchy of values in general, in which, as it must be for any animal, survival of the individual and the species is the top priority. Truth in a belief is good because, and only because, it enables the individual (and so also the species) to deal more successfully with its environment, to promote its continued existence. It is in this way that truth becomes a hypothetical and not a categorical imperative: one ought to believe truly, not in an unqualified way, but because one lasts longer that way.

The project of the epistemologist is to define man the knower, whereas that of the evolutionist is the description of man as just one of the species in the natural order. Within this framework, the hierarchy of values for all species is fixed by nature, survival being at the top and truth in a belief being a hypothetical imperative for any kind of organism no less than for man. It is not man's specially rational character that makes the striving for truth an absolute duty for him; like any other creature, he seeks truth in order to survive.

Nor is the intentional character of belief important or interesting to the evolutionist. If it were to transpire, in some just-conceivable epistemic

community, that false empirical beliefs had a property - call it Magooth<sup>4</sup> - which enabled their holders to cope more successfully with the environment than a true belief did, then a Magoo belief would be preferable to a true belief.

The sense in which truth is an 'imperative' for a person on this naturalistic conception is lacking in the moral or deontological force which the categorical imperative has. The concept of justification as reasonableness which lies at the heart of epistemology includes a measure of deontological weight. It is a measure of just how thoroughly a radical naturalism can disrupt the scheme of things epistemological, that it should dispense with any distinctive notions of the duties of the knower.

### **2.3 The anti-sceptical implications of naturalization**

The conclusion to be drawn from the discussion above is that the terminology, concepts and issues of mainstream epistemology should be taken up in any naturalistic epistemology. The question may then well be asked: 'But how does naturalistic epistemology differ from the usual project then, if at all?' The answer, in a word, is 'anti-scepticism'. Traditional epistemology, whether it was of the Cartesian rationalistic variety, or of the Lockean empirical kind, was an attempt to answer the problems posed by impossibly demanding truth and certainty conditions. Current epistemologists like Chisholm and Moser, who set themselves the task of finding incorrigible foundations for an absolutely true body of knowledge, attained by infallible epistemic agents, have accepted the axioms established in the history of epistemology.

Descartes tried to secure for the epistemic agent the absolutely certain truth of a valid deductive system based on a self-authenticating and analytically

true proposition. Locke based his account of knowledge on the incorrigibly known simple elements of sense experiences, from which all knowledge could logically be constructed. Both represent an attempt to answer the sceptic, to show how knowledge was indeed possible even though the knower had to be infallibly right. It was this antecedent idea of what constituted knowing that Descartes brought to bear in his methodological scepticism, just as it was the criterion of incorrigibility that prompted Locke in his definition of the 'ideas of sense'.

Once one has accepted the sceptical requirements for knowledge, of course, based as they are on an a priori ideal of the perfect knower and not on observation of real, fallible people, it becomes very difficult if not impossible to satisfy those requirements. Hence the sceptical conclusion concerning empirical knowledge, that people can never know anything about the world. In so far as the great figures in the epistemological tradition *started with* a set of excessively strict criteria for knowledge, which they then allowed to determine their observation of actual cases of knowing, and did not start from such observation, they were laying themselves open to the sceptical conclusion.

With reference to the notions of prescriptivism and descriptivism, we might say that the sceptic assumes a definition of knowledge, supposed to be applicable in the actual world, which is not based on observed regularities of any kind. At least one influential sceptical argument depends upon a definition of knowledge which stipulates conditions impossible of fulfilment by human epistemic agents. It is actually a kind of argument, of which the Evil Genius argument of Descartes and the more recent 'brain-in-a-vat' argument, are specimens, and in outline it runs as follows <sup>5</sup>.

1. We have experiences as of material things in a real world.
2. On the basis of experience, we claim knowledge of independent material reality.
3. But all our experience is consistent with its being caused by something quite other than what it seems to be about (by a mad scientist's electrodes, say, or an evil demon).
4. There is no justification for preferring the real world to other alternatives, as the cause and explanation of sensory experience.

∴ We have no knowledge of the material world.

The sceptical conclusion depends essentially upon the epistemic agent's not being able to eliminate conclusively the possibility of the mad scientist/evil demon as the real cause of his experience (and so too of his beliefs). What would count as conclusive elimination of such a possibility?

The mad scientist and his laboratory, and the evil demon, are by definition real and effective agents, part, with S, the epistemic agent, of a material causal network. They are therefore in principle accessible to perception by S. Perhaps if S were minutely to examine every square millimeter of his world and find no evidence of the mad scientist, he could claim to have eliminated the possibility of one. But this will not do; S's whole experience, including his supposed examination of the world, is in the control of the mad scientist, who does not choose to feed S glimpses as of the mad scientist. S can thus never

justifiably claim there is no mad scientist but a real world which causes his experience. To satisfy the justification requirement which the sceptic is assuming, S would have to be omniscient, or an epistemic agent with superhuman powers of perception and cognition. By definition, however, he is a person.

The sceptic's conditions for empirical knowledge are thus logically impossible for S to fulfil and there can ex hypothesi never be any instances of such knowledge in the actual world. Nevertheless, the sceptic claims that her definition is relevant in the actual world; she applies it as a criterion to purported cases of knowing and finds them wanting, rejecting them as instances of empirical knowledge.

There are difficulties for this position. Firstly, a criterion for anything, say x, if it is to be worthy of the name, must serve to distinguish cases of x from cases of non-x. But this the sceptic's criterion cannot do, because by its lights there are no cases of x. If she hopes to establish and use her definition as a criterion, then she must allow that on it, there could logically be cases of x. Secondly, we could have an interest in asking where the sceptic gets her definition from. It denies the possibility of empirical knowledge in the real world, so that it is clearly not from the real world that the sceptic gets her ideas of knowledge. This consideration raises suspicions about the accuracy or effectiveness of those ideas as a criterion of actual, mundane knowledge, which the sceptic submits them as.

If she wishes to avoid these difficulties, the sceptic's best bet is to present her definition of knowledge as an idealized model which actual instances may approach more or less closely. Then we could allow that a particular instance

is actually a case of knowledge even though it does not perfectly or comprehensively fulfil the sceptical ideal.

Though the sceptic will probably want to insist that her definition of knowledge is incapable of real instantiations, it can still play a useful part in a naturalistic epistemology by laying down the prescriptive ideal of knowledge. There are plenty of models in science which the actual material world fits only with difficulty, and with the help of ad hoc adjustments to explain contingent deviations. The idealized gas laws, as we have mentioned, express perfect ratios which real gases satisfy only more or less accurately. Nevertheless, real gases are said to exemplify those laws, and the laws apply to (that is they predict and explain the behaviour of) real gases.

The sceptic's requirement for justification is useful in so far as it expresses the desirability of considering every *conceivable* circumstance which could defeat a knowledge claim and of eliminating as far as possible such defeaters, in order to establish a knowledge claim securely. The naturalistic epistemologist differs from the sceptic, however, in that he holds that knowledge can, and does very often, occur, with less than such absolute justification, just as the behaviour of actual gases instantiates Boyle's and Dalton's laws, even though it may measurably deviate from the ideal.

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### **Notes to Chapter 2**

1. Parts of this chapter have appeared, in slightly different form, in 'Naturalized epistemology and scepticism', published in the South African

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2. See for instance the work of Laudan (1984, 1987) and Thagard (1989).
  3. See Rescher (1980: 10-15) for a general discussion of the problem; Chisholm (1977: 119 - 134) for an analysis of how it enters into any epistemological methodology. Shope (1983: 34 - 44) offers an interesting analysis of how current epistemology proceeds by means of definition and counterexample, a sort of dialectic between the prescriptive ideal and the observed reality.
  4. After the deaf, purblind comic character Mr. Magoo, who has consistently amazing luck in avoiding open manholes, runaway trucks, etc, that he isn't aware of. Though they are false beliefs, because they are invariably accompanied by great good fortune, they enable Mr Magoo to negotiate his environment with consistent pragmatic success. The epistemological interest of the concept lies in its splitting of truth and practical success, as pointed out by Sosa (1978: 192 - 193) and discussed by Shope ('Magoo's Murk', 1983: 112).
  5. See also Dancy's version of the brains-in-a-vat argument, 1985:10-11.
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### **CHAPTER 3 - Some implications of naturalization**

In the recent epistemological literature, though naturalization has been widely discussed in general terms, and its methodological propriety either recommended or questioned, there has not been much evidence of work done on substantive theses that might come out of a naturalized position in response to traditional or mainstream epistemological issues, and especially in response to the question of epistemic justification.

Kornblith is one exception to this general remark. He has argued (1987: 115 - 128) that both foundationalism, the traditional theory of rationalists and empiricists, and coherentism, the newer theory of more socially and pragmatically oriented epistemologists, have been superseded by naturalism. Foundationalism and coherentism were two theories which, in spite of their differences, shared an 'anti-psychological approach to epistemological questions' (ibid.: 116) which, in the new light of naturalism, makes them equally untenable. He goes on to outline a theory of justification 'beyond foundationalism and the coherence theory' (ibid.: 115).

Haack (1988) is another epistemologist who sets out some of the explicit conclusions which follow from a naturalistic methodology, for a theory of justification. She investigates a conciliatory route to getting beyond foundationalism and coherentism, in a theory she calls 'foundherentism'. This synthesis of the two established theories of justification concedes the justificatory significance of both sense experience and the web of doxastic relations, for any one particular empirical belief, which is a position similar to the one being argued for in this thesis. We too shall arrive at the view (in Chapter 5) that some form of foundationalism regarding empirical

justification, and some form of coherentism regarding other kinds of justification, is inevitable. However, it seems to me that 'foundherentism' does not give due attention to the considerable variety of the relations in which an empirical belief might stand to other beliefs, a subject to be discussed later under the style of 'dependence relations of empirical belief'.

Before attempting a naturalized theory of immediate empirical justification, it is necessary to spell out certain general guiding principles that follow from a heuristic methodology (that is, setting out to *discover* what knowledge is rather than to *construct* a definition of knowledge), and from realism about the instances of knowledge and justified belief (that is, assuming that many, and probably most, of what are generally thought to be cases of knowing, are in fact such). These may be called the two sine qua non's of naturalization.

### 3.1 Five naturalistic principles

From what has been said so far about the two essential commitments of a naturalized epistemology (the methodological and the ontological), it may be claimed that the following maxims follow from them:

1. Empirical beliefs arise within the physical causal order and are essentially dependent upon, though not always directly definable in terms of, their material causes.
2. The content and character of an empirical belief of an agent S is establishable on the basis of material facts accessible to an observer (the belief's input and output conditions).

3. Justification is a normative property of the psychological state of belief, which in turn is a property of a complex of natural facts, including a conscious cortex.

4. Justification is primarily applicable to the epistemic agent S, in virtue of the complex psychological state he instantiates, rather than only to the proposition which is the content of the state.

5. Most of what are commonly taken (said, thought, claimed) to be justified beliefs, and states of knowing in actual epistemic agents, are in fact so.

These principles are basic to the kind of naturalistic epistemology being advocated here, and acceptance of them results in a certain epistemological position concerning the nature of empirical belief and justification, one which combines doxastic involuntarism and realism about psychological states (consequences of principles 1, 2 and 5), in a modest or fallibilist (principle 4) foundationalism (principle 1), that nevertheless acknowledges the internal and deontological aspects of justification (principles 3 and 4). The implications of 1, 2 and 5 will be looked at; firstly, the difficulties of reconciling the intentionality and justifiability of beliefs with the fact that they are physically caused, and secondly, the realist consequences of the three axioms. Then the foundationalist implications of naturalism will be set out, and finally its fallibilist consequences.

### **3.2 Fitting beliefs into the causal order**

The first principle states that empirical beliefs 'arise within the causal

order'; the second, that the physical facts related to a belief are a means of access to it. If this is true of all empirical beliefs, it is even more true of immediate empirical beliefs about one's immediate physical environment, which we acquire largely as a result of what happens to be in the immediate physical environment. S opens the curtains, and as a result of a complex interaction between light, the surface of an object and the interoceptors and higher brain centres, S comes to believe that there is a cypress tree in the garden. He acquires the belief through no conscious effort of his own; rather, it simply occurs to him. In the acquisition of a typical immediate empirical belief then, there is a chain of physical events, causes and effects of each other, between objects in reality and the neurophysiological system of the subject, and the belief is a result of this process. Accepting this picture means accepting that beliefs are inextricably bound up with physical causal processes, and it suggests a thesis of involuntarism <sup>3</sup> with regard to empirical beliefs.

Given this causal picture of objective physical fact in an epistemological context, two difficulties arise. Firstly, the question of intentionality: how are beliefs as representational, conscious, non-physical states to be grafted onto the physical causal chain? How can a little burst of electro-chemical activity in the neurons be an experience of a cypress tree in front of one? Secondly, the question of justification: how can we speak of S being *justified* (a concept including normative notions of responsibility, reasonableness and choice) in an immediate belief, if it is something that the agent suffers willy-nilly as the result of an automatic process?

### 3.2.1 Intentionality

On the first point, we have already said something about how a belief is related to its physical base. It (the belief) is not to be thought of as the final event in the cause / effect series of events. The relation of the belief to the chain of physical events is not that of an effect to its cause, but rather of a result to its determining conditions, the relation referred to by the term 'supervenient'. The belief depends upon, or is determined by, a complex array of physical facts related by cause / effect links, including, most importantly, states of the subject's nervous system. These states are *conscious* physical states, and the sui generis mental property of intentionality, essential in a belief, is a function of consciousness ('consciousness' being the subject of more detailed definition in Chapter 4). So if we remember that the sensory experience, which is a set of causally related physical states or events centering on a nervous system, is essentially a conscious state, the problem of how S has access to the physical facts disappears. She has access because she consciously instantiates the brain states which are at the centre of the experience.

This conclusion is supported by a further argument in the next chapter, to the effect that perceptual experience is essentially doxastic in character, and that the caused sensory state is not to be divorced from the belief; and in Chapter 7, there is a claim that S, in a conscious sensory experience, has a special kind of cognitive access to the fact that it is a caused sensory state. In short, I am relying here on the special property of consciousness, as a feature of brain-states, to carry us from the physical causal order to the realm of the mental. Brain-stuff, as Searle points out, is capable of having both physical and psychological properties, though the fact is perhaps not very widely recognized yet. 'Many AI (artificial intelligence) workers are quite shocked by my idea that actual human mental phenomena might be

dependent on actual physical-chemical properties of actual human brains' (1982:371).

### *3.2.2 Justification*

How shall we address the second difficulty then, and what will carry us from the determined causal order to the realm of responsible and justified believing? The problem might be put so: a belief is said to supervene on a chain of physical causes and effects which occur without any choice on the part of S. His empirical beliefs 'occur to him', we said earlier; he has them thrust upon him by the environment. A belief 'arises' automatically, given certain physical facts involving a brain, within the causal order. The upshot of all this is that S is constrained to believe as he does; he has no choice in the matter.

But it is also true that the notion of justification is essentially a normative one, applying to the subject of the belief state. She is judged as reasonable or not, as justified or not, according to certain criteria for epistemically responsible believing (as indicated in principles 3 and 4), where the action which is being assessed is the accepting or maintaining of an immediate empirical belief. There is an implication of voluntariness in this terminology of 'accepting' and 'maintaining'. Moreover, we speak of an agent as being 'rash' or 'hopeful', 'careful' or 'conservative' in what she believes, implying that believing is the sort of action we can evaluate. But if someone is judged as praiseworthy or blameworthy in a certain action, the assumption is that she had a free choice in the matter. If S could not have done otherwise, if she was forced to act as she did, then the possibility of normative assessment of her action falls away. So it seems that to say S's belief was caused is to say that

she was not responsible for it and cannot therefore be either justified or unjustified in holding it.

I can do no more here than indicate the two main routes to a resolution of this difficulty. The first is to put the issue into the general terms of the free will / determinism controversy. 'Free choice', at least in the context of decision theory, is usually taken to mean that S, when he chose to do A at t, could equally well have chosen to do B or C. But if we consider that at t, S had a fixed set of preferences and background beliefs which worked to determine his choice of possible outcome, then it becomes obvious that S, as he was at t, could not have chosen otherwise than he did. The choice was a function of S's perceived circumstances and his relevant psychological states at t. The idea that S could choose *otherwise* at t, i.e., according to preferences and beliefs which he did not then have (and which would those be, exactly?), is difficult to make sense of.

The sort of free will embodied in the notion of a choice which is not contingent upon the agent's interests and beliefs, is thus seen to be an illusion. People do not have it in general when acting in the world, they do not have it in the case of empirical believing in particular, and it is just wishful thinking to expect that they could. Indeed, it is not greatly to be wished that our believing should be governed by unspecified and unknown sets of beliefs and interests. The sense of free agency which the epistemic agent might have when he thinks about choosing, rejecting and maintaining empirical beliefs, is attributable to the phenomenon of first-person instantiation of conscious states. The determining set of preferences and beliefs are present to the agent's consciousness as reasons pro and con a new belief, and the way in which they determine it, is present to consciousness as deliberation or

reflection.

The fact of first-person instantiation of conscious states also affords a way of understanding the deontological aspects of justification theory within a naturalistic epistemology. An agent is obliged to 'follow rules' in acquiring and holding beliefs. Now a naturalistic epistemologist sees justificatory rules as emerging from the stipulation of causal processes of getting and maintaining normal empirical beliefs. If, as will be argued in Chapter 7, those processes are present to the agent's consciousness through her first-person instantiation of them, then she will experience them as the 'following of rules'. There is thus no reason why the naturalistic epistemologist should not continue to use the convenient idiom of deontological justification theory, so long as it remains clear that the duties, rules and responsibilities referred to, are ultimately determined with reference to the natural causal processes according to which agents standardly acquire and hold empirical beliefs.

The discussion so far has tried to indicate a way of understanding how the experience of free choice and responsibility which is present to believing, can be reconciled with the causal processes by which empirical belief is determined. The second part of the argument attempts a resolution of how it is that we can apply a normative judgement to a caused action, relying upon a Humean kind of answer to the problem.

Hume shows (Selby-Bigge, 1978: 409 - 411), that moral accountability inheres in choices made according to, and not independently of, the agent's beliefs and interests. The opposite of a caused action is a random action, to which no judgements can be applied. The causal or determinative processes at work in the case of action in general, and of empirical believing in particular,

are to be thought of as not only constraining but as ordering, as providing the possibility of rational explanation and assessment.

The involuntariness with which S accepts or maintains an empirical belief means that his rational action takes place in accordance with certain determinative laws; that, given certain sensory experiences, or certain background empirical beliefs, S is bound to believe what they point to, as factual. We are able to apply evaluative judgements to this sort of believing just because it does take place in a law-governed way. If the accepting or maintaining of an empirical content by S were 'Brownian', anomological, completely random or at the whim of S, then there would be no question of assessing the belief for its doxastic propriety - 'anything goes' in a realm without determining principles. If, as Hume shows the negation of causal determination is chance or indifference or random, accidental connections, then it is in nomological, 'involuntary' connections of cause and effect that the possibility of evaluative judgement inheres.

This has been a very brief discussion of very big issues, but I hope it has done enough to indicate that the commitment in a naturalistic epistemology to the importance of physical causal processes, need not necessarily conflict with a commitment to either the intentionality or the normative assessability of empirical beliefs. How those two commitments may actually be reconciled, and whether both sides can satisfactorily be accommodated in epistemological practice, will transpire in the theory of *prima facie* justification of immediate beliefs that follows in the rest of this thesis.

### **3.3 Realism about beliefs**

Now for the realist implications of the two physicalist principles, numbers 1 and 2. A realist about beliefs would want to say that, as supervenient psychological states produced by the natural physical order, empirical beliefs have a real ontological basis, and thus could be other than they are taken to be by the general theorist, by an observer ascribing a belief to an agent, or even by the subject of the belief. The tenet of realism is consistent with the heuristic methods adopted by the naturalistic epistemologist. Beliefs exist in their own right, supervening on physical facts, and the epistemologist (like everyone else) finds out about them through careful attention to the material evidence that we have for their existence. The epistemologist sets himself this task, of discovering the features of beliefs, since it is a belief of a certain kind that forms the core of a state of knowing.

Commitment to a heuristic methodology implies that a philosophical theory of belief, no less than its scientific counterpart, is an hypothesis which is always open to revision in the light of new data on particular cases, from ordinary life or from the psychological laboratory. The epistemologist must constantly remind herself that she could be wrong in her definition of belief. In the particular case too, any attribution of a belief to an intentional agent, might turn out to have been wrong. There are of course ways of correcting a wrong attribution, ways of being right about beliefs - the identity criteria of any one particular belief state are publicly accessible, and the content of the state is explicable with reference to the state's place in the natural causal order.

How exactly are we to take the realist thesis? Where idealism may be roughly characterized as the view that in taking cognizance of something, the cognizing subject invests the objects of his thought with all the reality that

they possess, realism is the view that the world and the things in it have a real existence and individual characters independently of these being cognized or recognized in any way. A common formulation of realism which sums this idea up, is that 'things might be other than they seem to me'. In order to be a realist about belief one would have to maintain that 'Beliefs (any and all beliefs) might be other than they seem to me'. On the score of beliefs in particular, the realist's claim of possible mistake applies to the ascription of any of the individual beliefs in some determinate set. If we can be mistaken in identifying any one belief of S's, then the possibility exists that we are globally mistaken with regard to S's doxastic set. However, that possibility is most real when a small selection of S's beliefs is in question; it becomes remoter as more and more beliefs are consistently attributed to S.

4

There are (at least) two different ways in which the realist thesis about beliefs is commonly denied, ways in which the implicit assumption is made that a belief is just whatever we say it is. We might say these are two anti-naturalistic currents in epistemology and the philosophy of mind. Firstly, there is the plausible view of belief as essentially a 'theoretical construct', as something an observer of behaviour constructs and ascribes so that the behaviour may be explained or understood. Secondly, there is the philosophically widespread notion that people have privileged access to, and cannot be mistaken with regard to, their own mental states, including (perhaps *especially*) belief states.

### 3.3.1 *Discovering other people's beliefs*

Why should the first be a difficulty for the realist about beliefs? Because it seems to imply that a belief just is whatever the attributor reasonably

imputes to the agent. What we are calling the 'theoretical construct' view of belief may be drawn from several philosophical theories of mind, ranging from Davidson's interpretation theory, through Bayesian decision theory, to Rylean and Wittgensteinian logical behaviourism. It must be stressed that these various views of mental states do not *necessarily* imply a reductive definition of belief as 'nothing but a theoretical construct', but in the ways to be set out below, they all lend credence to it.

On the 'theoretical construct' view of belief, a belief state has no independent existence apart from its being the explanation of an action, and it can be 'read off' the action by an observer, given some information about the agent's ends. If beliefs have no status apart from their role as the rational explanation of, or reason for, a piece of behaviour, then observers have only to hit upon a reasonable account of an action to be incorrigibly right in attributing a belief to an agent. The belief is no more than the rational explanation of the action.

Another version of this kind of anti-realist reduction, is the definition of belief about the future as the subjective probability of some state of affairs for a rational agent S, which is formalized in Bayesian decision theory <sup>5</sup>. On such a view, belief is completely determined by the likelihood of S's acting in a certain way, given that she holds certain values. For instance, if S is disposed to eat bananas in preference to anything else, then, given that she prefers food which is good for her, an observer may infer that S believes that bananas are good for her. Behaviour is a function of expected utility and subjective probability, and from here it is a short step to identifying belief exhaustively with the reason for an action, where 'reason for' means 'cause of' and 'explanation of' indifferently. The three interlocking elements of rationality - behaviour, belief and value - are mutually definitive of each

other, and access to any two gives an accurate fix on, and complete definition of, the third. This much is useful; to use a given action and desire as evidence for the existence of a particular belief is quite consistent with a naturalistic methodology. The mistake only comes in, the realist claims, when we start thinking that there is no more to a belief than its definition in terms of behaviour and values.

A similar conception of belief, with the same reductive tendency, has been promoted by those who see a belief state as a state exhaustively describable in terms of actual or probable behavioural outputs; behaviouristically inclined philosophers like Ryle and Wittgenstein might be examples of this viewpoint. It is hard to reconcile such a view of belief with realism concerning beliefs, and to see how an observer O could be wrong about what he takes a such a belief - belief which is nothing but the reason constructed by an observer for an action - to be. It is important for the naturalist about beliefs to distinguish his realist position from the kind of behaviourism that denies any independent existence to beliefs, especially since a naturalistic epistemology is sometimes mistakenly thought to consist in precisely such an identification.

The anti-realist about beliefs wants to claim: 'O cannot be wrong in attributing a particular belief to S so long as his attribution is based on good information about the action and S's ends, and conforms to certain criteria for describing rational action, and so long as S is minimally rational'. There is much that is right in this claim. In so far as the explanatory construct view of beliefs rests on functionalist principles regarding output conditions, it has several wholesome implications; in fact, the view that a belief is attributable on the strength of a consistent pattern of behaviour is an assumption underlying many of the arguments in this thesis. The only part of

the anti-realist's claim that we are taking issue with, is that O cannot be wrong in his attribution.

Take the banana-eating case for instance. O claims that S's belief that bananas are good for her, is an ineluctable function of her desire to eat what is good for her and her habit of eating bananas. Yet it is always possible that S desires to eat what is good for her, eats bananas, and yet does not believe that they are good for her. She has, let us say, a general background belief to the effect that bananas, while very good-tasting, are actually bad for people, or have no nutritive effect; her eating of bananas is just weakness of the will. In this case, an observer who sees S eating the banana and knows of S's general desire to eat what is good for her, would nevertheless be quite wrong in drawing what seems the only conclusion - that S believes bananas are good for her. S's belief regarding bananas is that they are not good for her to eat.

The observer may even attribute a belief where none exists. As an example of how one could be mistaken in this way, consider the case of someone who sees a man waving his hands about his face, and thinks: 'That man believes there is something, perhaps a fly, in the air about his face, and wishes to drive it away'. But it may be the case that this is not a piece of behaviour at all, that the hand-waving is a compulsive tic on the man's part and that no belief-ascription can explain it since it is not a rational action.

These ways in which belief attributions may go wrong are enough to show how beliefs are distinct from, and essentially independent of, the evidence we may think we have of them. The realist's sensitivity to the gap keeps him alive to the evidence and always willing to revise an attribution or identification of a belief. We should remember however, that even granting all

the uncertainties in the attribution of beliefs on the basis of observable evidence, studying the material evidence remains the naturalistic epistemologist's preferred method of gaining access to beliefs.

### 3.3.2 Discovering our own beliefs

The second difficulty for a realist thesis concerning beliefs, is the widely accepted view that a belief is just whatever its subject says it is, that the first-person avowal of a belief or of an experience (which, as I shall argue in the next chapter, amount to the same thing in the epistemological context) is self-authenticating. In the first-person case, the assertion of a content ('This is an apple') and the meta-level assertion of belief in a content ('I believe this is an apple') come to the same thing. The realist claims that contrary to the usual assumption of infallibility concerning one's own mental states, there is always the possibility that S is mistaken about even his own sensory experiences and immediate empirical beliefs. S's beliefs may 'always be other than they seem' to S.

The thesis of first-person authority with regard to ascriptions and descriptions of beliefs rests upon the idea that people have a privileged sort of epistemic access to their own internal psychological states, which they do not have to things in their external environment. The assumption is that S's cognizance of his own pain, his visual image of a patch of blue, and his belief that it is cold, is immediate and non-inferential and leaves no room for error, so that he cannot be mistaken in it. This is the claim of S's *infallibility* with regard to his own immediate beliefs. Moreover, since no one else has access to S's psychological states, if he is sincere in his attribution of the state, he cannot be proved wrong about it. This is the claim of the *incorrigibility* of

the first-person statement of an immediate belief.

The claim of infallibility and incorrigibility has obvious anti-realist implications. If S has these powers with regard to his immediate beliefs, then they cannot be other than they seem to him. His consciousness of the belief would be sufficient for its existence. The realist's claim to the contrary, upon which a naturalistic, heuristic methodology depends, is that even in the first-person avowal of immediate beliefs, S may always be mistaken about what he takes himself to be believing. It can be shown that S may be mistaken about his own doxastic states in several different ways: he may make a mistake in identifying and describing a belief of his own; he may have beliefs that he does not know about, and that he may fail initially to recognize even when they are offered for his corroboration; and he may erroneously take certain psychological states of his own, which mimic empirical beliefs, for the real thing.

Perhaps the best argument for these three ways of being mistaken about one's own beliefs, is to consider some examples. In the first case, (making a mistake in identifying and describing an immediate belief of one's own), S might believe *that the flowers in the vase are vermilion* and yet misdescribe his belief as being *that the flowers in the vase are magenta*. This need not be just a negligible verbal slip, the result of 'bringing out the wrong word' (Austin, 1962: 113, also 1976: 90 - 95), in which case one would say that S was not so much mistaken as to the features of his belief and its content, as to the meaning of the two colour words involved, and in which case correcting his error would entail improving his semantics and not reconsidering his experiential belief. But there is always the possibility that S, knowing the meaning of the two words perfectly, and perceiving accurately, didn't 'notice

or attend to or properly size up the colour' as it occurred to him phenomenally, so that he could 'be brought to see, or perhaps remember' (ibid.) that the flowers had in fact appeared to him as vermilion.

As another example of a misidentification of a belief, consider the entomologist who, being thoroughly familiar with a certain species of moth F, having before her a specimen of it and recognizing it to be an F, yet at time  $t$ , refers to it mistakenly as a G and files it in the G drawer. Shortly afterwards, it strikes her that she has erred, and she corrects her error. Now what did S believe at  $t$ ? She claimed, both verbally and by her actions, to believe that the moth was a G. But the features of the sensory experience, together with her background beliefs about kinds of moths, were in fact constitutive of the belief that the moth was an F, a fact that S herself recognizes when she rights the mistake. As with the colours, S corrects her mistake in retrospect and with reference to nothing beyond her own mental states. It is not fresh data that caused S to revise her classification, but a new awareness of the features of her sensory experience. We have grounds therefore for saying that at  $t$ , S believed the moth was an F, and further, for saying that S may misdescribe and misidentify her own beliefs.

The second possible way of being wrong with regard to his own beliefs lies in S's having beliefs that he does not initially recognize when they are offered for his inspection. The qualification 'initially' is necessary if the generally true principle of an agent's having access to his own doxastic states is to be maintained; it does not weaken the claim that, at any given moment, he may be mistaken about them. There is nothing surprising in S's having beliefs that he does not know about; it is probable that a majority of any agent's empirical beliefs are non-occurrent in the sense that they are never consciously before

his mind or asserted in sentence form by him. But infallibility about his own beliefs would seem to require that S assent to a sentence that he understood and that expressed the content of a belief state of his, when it was offered him, or to assert the sentence that expressed his belief when appropriately questioned.

This need not be the case. S rummages through a drawer for his pen, then goes to the next room, where O, having heard the rummaging, asks: 'Are my keys in the desk drawer?' S blankly but sincerely replies: 'I don't know'. He does know, however, and is brought to realize it when O reminds him he's just looked in the drawer. He then consults his visual memory of its contents and remembers that the keys were in it. When questioned by O then, he did have the belief that the keys were in the drawer, but did not immediately recognize it. This sort of experience, though perhaps not common, is ordinary enough and certainly recognizable. Again in this example, there is nothing in the way of new input or evidence between the time at which S denies that he has a belief about the pen's presence in the drawer and the time at which he acknowledges it.

The third way of being mistaken about one's own belief states involves being 'taken in' by states that are really wishes, fears, guesses, etc., and coming to accord these the status of full-blown empirical beliefs - laying claim, in all sincerity, to a belief that one does not actually possess. 'Laying claim to a belief' need not be just a matter of explicitly ascribing it to oneself; one might lay claim to a belief by avowing its content or behaving in appropriate non-linguistic ways too. It is easy enough to show that S can ascribe a belief to herself when she does not in fact possess it - habitual liars do so all the time - but the tough question for the realist to answer is: can she do so

sincerely and without self-deception? Can she honestly think that she believes that something is the case when she does not *really* so believe? If the naturalistic approach to beliefs outlined so far is right, and the thesis of doxastic realism that it implies is correct, then the answer to these questions will be 'Yes'.

Wishful thinking and groundless hunches do in fact fill the role of pseudo-beliefs which dupe their subject. They are, it is true, usually conceived of as paradigms of unjustified *belief*, and they may play the same role as beliefs in directing behaviour, but they are not what we shall call 'empirical beliefs proper'. At least three considerations can be introduced to throw suspicion on their full doxastic status: they are not states which arise in the same natural causal way as ordinary empirical beliefs; when such a pseudo belief's unnatural genesis is exposed, S cannot (without self-deception) continue to hold it; and, though they may be loosely referred to as beliefs, they are actually wishes, guesses or flights of imagination which have been allowed to behave as beliefs.

For example, the thought pops into S's head that there is ice cream in the deep freezer, and soon it has enough force to impel S freezerwards. S, standing before an empty freezer, plate and spoon in hand, says, 'Oh well, I didn't really believe there was ice-cream here; I was just sort of hoping it.' We need to notice two things. Firstly, when confronted by the empty freezer, S is obliged to give up the wishful thought. It is doubtful whether an agent can have a wishful thought, a hunch or a guess about an *immediate* empirical content, since immediate beliefs necessarily occur in sensory experience which is absent in the case of hunches, etc. Secondly, if she had critically reflected on the origins of her mental state, or the grounds on which she held the

statement true, S could have saved herself the trip to the freezer. That is, the hunch is groundless, and it is within S's cognitive competence to realize this.

But S is not always so reasonable, and might not always be able or willing to give up her groundless hunches, or to admit that they are just that and not serious beliefs. She conceives the thought that p is the case, and comes to treat this thought as a piece of properly acquired information. Her behaviour is consistent with her believing such a fact, she holds true with great conviction (interestingly, often with more vehemence than one who simply believes the fact) sentences expressing the content of the hunch. Nevertheless, she is still *capable* of recognizing that the mental state is not a straightforward belief about some empirical fact; it is a wish or a hope, that she is allowing to play a belief-like role in the 'economy of her intentional system' (to borrow a Davidsonian phrase).

To draw a distinction between empirical belief states proper, on the one hand, and hunches, guesses and wishful thoughts on the other hand, is, in the first place, to build a kind of normative 'success' condition into the concept of empirical belief proper. Hunches and guesses may be called beliefs, they may sincerely be thought of as beliefs by their subjects, but the ascription is withdrawn or at least qualified as soon as these states are subjected to critical reflection. They cannot be called empirical beliefs unconditionally, which is why the special terms 'hunch', 'wishful thought', etc., apply to them. They are at best a sub-class of beliefs. In deference to accepted usage, however, we may continue to call hunches, etc., 'beliefs', referring to the kind of empirical belief which is epistemologically relevant, as 'serious' or 'epistemic' empirical belief, or empirical belief 'proper'.

Secondly, the distinction implies that all empirical beliefs proper are justified on the subjective perspective. Since they are not automatically renounced once their subject examines the grounds he has for holding them, the content of empirical beliefs proper must be something S thinks he has good reason to hold, and to continue to hold even after subjecting it to critical evaluation. The content of hunches, etc., essentially lack grounds; they are paradigms of reasonless states. Of course, subjective reasons are not necessarily good reasons simpliciter, nor is S's justification for thinking that p is the case, ipso facto objectively successful justification. More of the difference in Chapters 6 and 7.

The third implication of this distinction between hunches and empirical belief proper, is that not just anything which plays a determining role in the behaviour of an intentional system vis á vis its environment, that is, not just any mental state in which S holds true some empirical content, is an empirical belief proper. The 'scant propositional' view of belief was criticized earlier, as neglecting important aspects of the psychological state of empirical belief, especially its aetiology. To think that a hunch or guess is a fully-fledged belief depends on seeing belief as only the holding-true of a proposition, and perhaps its consequent disposition to act, a position that needs to be qualified in the light of the first naturalistic principle above, viz., that belief arises within the physical causal order. Behavioural output alone, which might be indistinguishable in the cases of the guess and the proper belief, that there is ice-cream in the deep freezer, is not enough to establish an empirical belief proper; the input must be right too.

The principle of realism regarding empirical belief thus dictates that even the subject of a belief be alive to the evidence he has for it. There are

belief-like states that S might mistake for beliefs proper until he examines the grounds he has for holding them, whereupon he ceases to hold them as beliefs. Those beliefs which stand up to critical reflection are beliefs proper; given the reasons for which he believes, S *cannot do otherwise* than hold them true.

The distinction is reinforced by the thesis of doxastic involuntarism. The definition of involuntary belief has it that a belief is 'involuntary for S at t iff S cannot do otherwise than hold p true at t' (note 3 below). Wishful thoughts and guesses are not involuntary in this sense. If S pays attention to the origins of a groundless hunch, say, as it is in his reflective capacity to do, he will be obliged to give it up as a serious belief. He will have to recognize he has no reason to suppose its content true. S in his capacity as 'the rational agent' thus certainly is not obliged to hold the content of a hunch or guess true. If he does so, it is not in virtue of the involuntary constraints which a genuine empirical belief-producing process place on him, but in virtue of a voluntary choice made usually at the instance of his desires or interests.

In sum then, the thesis of realism concerning empirical beliefs, both other people's beliefs and our own, requires that we admit they could always be other than we take them to be. It is an admission which is in accordance with the fact that mistakes occur in both first- and third-person belief-attribution, as seen in the examples above, and which is consistent with the naturalistic epistemologist's heuristic methodology.

### **3.4 Naturalism and foundationalism**

An important consequence of methodological naturalism, (specifically, of

taking the first three naturalistic principles in 3.1 seriously), is that a foundationalist view of the structure of empirical justification is entailed. By 'taking seriously' these three principles, which refer to the physical determining or causal conditions for beliefs, I mean that the epistemologist acknowledges the importance of these conditions for, and the need to use the scientific model of explanation in, epistemological theorizing (cf. Chapter 2, section 2.1.1 - 'four reasons for wanting close relations between epistemology and natural science'). Any enquiry into the phenomenon of empirical belief must be conducted by observing the determining or causal regularities with which such belief is associated; any understanding of belief will be gained by seeing how belief, especially empirical belief, results from its originating causes; and explaining belief and its features means showing how beliefs arise in terms of general causal covering laws.

The question is: how does this position result in foundationalism? As a general rule, theories of empirical justification (doxastic theories anyway; cf. Pollock 1986:19 - 21) are classifiable as either foundationalist or coherentist. The foundationalist sees the structure of any one particular belief's justification as linear, being constituted by other beliefs of S, which in turn are justified by further beliefs of S's, until a set of beliefs is reached which are justified without depending on any other beliefs. These are the sensory beliefs, or beliefs of experience. On this view, there are two different kinds of empirical justification and belief: basic, immediate, direct, or foundational, and inferential, indirect, or mediated.

The coherentist on the other hand, holds that empirical justification is a complex web rather than a straight line; it consists in a particular belief's relations to all other beliefs in S's doxastic set. Beliefs, in so far as their

justification is concerned, are for the coherentist, all of one kind: inferential; there is no such thing as a basic or immediately justified belief.

It is not in dispute between the foundationalist and the coherentist that there are causal, belief-producing processes (specifically the sensory processes), which are operative to different degrees and in different ways in introducing a belief into S's doxastic set. A particular empirical belief may be acquired directly in a sense experience (S may see that the kettle is boiling) or it may be arrived at purely on the basis of other beliefs and with no direct input from the senses (S may remember putting the kettle on a while ago, and, with general beliefs about the behaviour of kettles, this licenses the conclusion that the kettle is now boiling).

The foundationalist and the coherentist agree that S finds out about the world either by observing it or by thinking about what she has already observed of it. But the coherentist denies that causal physical processes are of any significance for the character or justificatory status of a belief. More; the coherentist would wish to claim that observation and inference are two (negligibly) different routes to exactly the same belief; the foundationalist, that the ways in which they are acquired make them two different kinds of belief <sup>6</sup>. The coherentist is thus unable, within the framework of his epistemology, to distinguish the class of sensory beliefs from that of inferred beliefs.

Bonjour (1985: 112 - 113) notes the difficulty of developing 'a viable conception of *observation* which is at the same time recognizably coherentist in character' when 'it is essential to the concept of observation that observational beliefs are *noninferential* in character' and 'equally

essential to the conception of a coherence theory ... that all justification is inferential, never direct or immediate'. His solution is to distinguish 'two quite different senses in which a belief may be classified as 'inferential' or 'non-inferential' ... how the belief was *arrived at* ' and 'how the belief in question is epistemically *justified or warranted*' (Bonjour's italics).

Observation beliefs then, on a coherentist view, are arrived at without reference to other beliefs of the subject but, are justified with reference to them, while indirect beliefs are both arrived at and justified with reference to other beliefs, and the same set of beliefs in each particular case. For instance, if S uses the beliefs that the kettle was switched on five minutes ago, and that kettles generally boil in five minutes, to *arrive at* the new belief that the kettle is now boiling, then he also uses those two beliefs to *justify* his conclusion. The coherentist, however (in the person of Bonjour), claims that genesis and justification, even though they happen to coincide in the case of indirect beliefs, are essentially distinct, and that the processes by which beliefs are produced and their causal determining conditions, are irrelevant to their justification. This is to say that how we understand and define an empirical belief, how we distinguish between a well-formed, epistemically proper belief and a belief which is neither of these things, is not to be done with reference to the causal process by which the belief was produced. In consequence, the coherentist must claim that one cannot explain belief and its justificatory status on the naturalistic model of causal explanation.

In recognizing the role of causal processes, the naturalistic epistemologist acknowledges the asymmetry of justification among empirical beliefs which is definitive of foundationalism. The fact that beliefs produced essentially by

perception supervene upon one kind of physical array, including a sense experience, whereas those produced by memory or inference or a mixed mode will depend on another kind (cf. the dependence relations of basic and indirect empirical beliefs as discussed in Chapter 5), gives to perceptual and inferential beliefs a different epistemological character, on a naturalistic perspective, and this difference is reflected in the thesis of foundationalism. It is thus fairly safe to say that anyone who pays attention to, and grants the epistemological significance of, the material facts of belief acquisition and instantiation, as by definition the naturalistic epistemologist does, cannot avoid being a foundationalist. Conversely, anyone who adopts a coherentist view of justification is bound to ignore the causal processes that give rise to empirical beliefs.

Is there some way in which a non-foundationalist could satisfy her naturalistic leanings and construct a theory which translated her insights about belief and justification into empirically observable terms? She would have to find some way of including beliefs in the natural order without paying any attention to their origins. Perhaps a behavioural theory of belief which ignored input, and identified a belief with its behavioural output, would do it.

Pragmatism might be one such solution - the sort of view on which a belief, especially its truth value and justification, is identified with its observed behavioural effects. Justification, for instance, is nothing but consistent success of practical action. The sort of pragmatism or 'radical empiricism' made popular by James <sup>7</sup>, is usually associated with an admiration for science, and so might be thought to be necessarily naturalistic in character. It is not naturalistic in the methodological sense explained above, however, since it ignores the question of a belief's essential determining or causal

conditions - its input - in favour if its output. Were the pragmatist to adopt the scientific model of enquiry and explanation with regard to the character of empirical belief, then he would be a foundationalist.

Contextualism might be another such solution (e.g., Annis, 1986); naturalistic because belief is observable action in a social context and coherentist rather than foundationalist because justification of an individual empirical belief is its coherence with the doxastic set of some epistemic community. Again, the contextualist, like the pragmatist, is silent about the causal origins of an empirical belief and their implications for its justification, and necessarily so, if he wishes to remain coherentist in outlook rather than foundationalist. In general, this is the cost of being a coherentist - that one must overlook the epistemic, and especially justificatory, significance of a belief's origins. The cost is not so high in the case of general empirical beliefs or a priori knowledge. In the case of particular empirical beliefs however, their causal physical conditions being essential to their general character and particular individuation, it is a considerable handicap.

### **3.5 The corrigibility of empirical belief**

Another implication of naturalization for the epistemologist is the corrigibility of all belief. If the first three principles in 3.1 were the 'causal theses', then 4 and 5 may be thought of as the 'psychological theses' of a naturalized position. They commit their holder to relativizing all epistemological claims to a plausibly human epistemic agent and a time, rather than an ideal agent in a utopian epistemic context. In principle 5, (to the effect that most of what are commonly taken to be justified beliefs in actual epistemic agents are in fact so), the limit of prescriptivism for the

naturalistic theorist is set at the definition of normal empirical belief, realistically constructed with the average case as a model, rather than idealistically, with the perfect case in mind.

This kind of methodological background leads away from the incorrigibility which was the mark of 'Cartesian epistemologies' (in Rorty's phrase, 1979), since the distinctive thing about real epistemic agents, in contrast to ideally rational ones, is that they may be mistaken about things. In reality, it is always possible that an empirical belief, even a justified empirical belief, will turn out to have been false. Real agents are not *always* wrong, of course, nor if they are normal are their empirical beliefs false in even a significantly large proportion of cases. As was claimed in the introductory chapter, the *average* empirical belief, on a bivalent system (as any theory of knowledge, with its strict truth condition, must be), will be true and not false. But the point is that any one belief in S's empirical belief set might be false, so that a naturalistic epistemology has to account for the ubiquitous *possibility* of error.

The same position regarding the corrigibility of empirical belief is reached if principle 4 is followed to its logical conclusion. This is the principle that it is the whole complex doxastic psychological state of an agent that is the primary seat of epistemic justification<sup>8</sup>. In order to make clear what this entails, firstly, some explication of a 'complex psychological state' is offered below; then the view that justification inheres essentially in propositions is discussed, by way of contrast with the preferred view; and finally, four possible kinds of reasons are presented with the aim of comparing propositional and psychological-state conceptions of empirical justification. The overall aim is to add to the persuasiveness of principle 4.

I am assuming that there are at least three elements to the complex psychological state of empirical belief, widely construed: (i) a rational agent *S*, (ii) a representational content *p* and (iii) a context or background *C*, which *S* takes some statement of *p* to be true *of*. It is helpful to see *p* as stipulative and *C* as objective truth conditions. These three elements are summed up in the naturalistic relativization of epistemological claims to an agent and time: '*B<sub>p</sub>* is justified for *S* at *t* iff ... '. If *B<sub>p</sub>* is an immediate empirical belief, then the time index *t* refers to the same thing that *C* does, since the only way of fixing an instant of time is to specify one frozen cross-section of the chronological procession of states, and this is the same thing as to specify a context, albeit not a specifically located one. Saying 'twelve o'clock yesterday', is just a way of pointing to a particular context, or of saying 'the instant at which there were five apples in the bowl, and the cat stretched on the mat, and the sun was at its zenith, and the phone rang, and ... '. In this way the elements of time and context may be seen to amount to the same thing in defining the psychological state of belief. We could say, for instance, of a basic belief: 'At *t*, *S* holds *p* true of *t*'.

This does not define basic belief though, because the same might be true of a present-tense *indirect* empirical belief, as when *S* infers that the kettle is now boiling though he cannot see or hear it. However, in past-tense<sup>9</sup> empirical beliefs, *p*'s objective truth conditions are not the same as the context in which *S* holds *B<sub>p</sub>*, so that we have to say: 'At *t*, *S* holds *p* true of *t* - *n*', where '- *n*' is an indication of how far back in time *S* takes *p* to have occurred. What we may infer from this is that the objective reference of an empirical belief is as much a part of the whole doxastic state as is its content and subject.

If principle 4 is right, and it is this whole complex that is justified and not just the proposition in it, then we should be able to say what role each element plays in that justification. The agent S, qua agent, is justified (morally or deontologically) in the rational act of accepting or maintaining p just in case p is credible for S in C and S has fulfilled epistemic responsibilities of scrutinizing p and C, and being alive to background beliefs; p is credible (reasonable, justified) for S in C if it bears warranting marks, i.e., if it is recognizable as having some objective likelihood of being true of C. The justification of the whole belief state is a function of these justificatory relations holding between its parts <sup>10</sup>.

In contrast to this view, the propositionalist assumes a belief is justified if the proposition in it is apodictically true, i.e., if it has evident incorrigibility or valid deductive relations to other propositions. The agent and the belief as a whole are derivatively justified just in case the proposition is. But it does not make any sense at all to speak of a particular *empirical* proposition being justified in abstraction from a doxastic state. It certainly cannot be contextlessly true, nor can an agent hold it true without reference to its objective truth conditions. Even general empirical claims like 'All crows are black' need a background (the whole actual world) against which their truth <sup>11</sup> and reasonableness may be established. Propositions which are a priori in character, e.g., the theorems of logic and mathematics, since their truth is guaranteed by their position in a whole system of propositions, might be thought to enjoy some special autonomous kind of justification, regardless of whether they are believed by any particular agent or not. But the truth of an a posteriori, empirical proposition is tested against the particular material circumstances to which it refers, so that it cannot have any justification out

of the context of its being held true or believed.

Historically, this fact was not accommodated in epistemological theories, which saw their project vis a vis the empirical, as the demonstration of how certainty might be attained. The focus has thus traditionally been on propositional properties and relations as the source of justification, a narrowing of range brought about by the feeling that incorrigibility of belief was somehow necessary if knowledge was to be satisfactorily explained, and that an incorrigible belief, whose justification was indefeasible, was just the mental state of acceptance of an incorrigible proposition. Propositions could be incorrigible in one of two ways. They could be the necessary deductive truths referred to above, guaranteed by convention and apprehended by reason or intuition, or they could be propositions which referred to the agent's own immediate state of consciousness, and whose acceptance was thus self-authenticating <sup>12</sup>. In whichever of the two ways the proposition achieved incorrigibility, it was confidently thought that its character was such, that when a rational agent took cognition of it, she found it indubitable, and in holding it true, she was infallibly right.

'Autonomous justification' might well be a feature of such propositions and it calls for some explanation. It may be understood as a property vesting in any and all of those propositions which have a guaranteed, or at least highly secure, truth value, a truth value not contingent upon circumstance. If  $p$  is such a proposition, then  $Bp$  might be said to be 'autonomously justified' for any  $S$ , regardless of the context or causal history or character of her belief, and regardless of any of her other beliefs. This abstract justification consists in the fact that  $p$ 's evident truth is a good reason for believing it;  $p$  thus comes with a ready-fitted justification. As such, it confers real

justification upon the belief state of any actual epistemic agent who, *recognizing this property*, comes to hold the proposition in question.

But S might not recognize its necessary truth in accepting such a proposition. so that it need not be subjectively justified or reasonable for every agent holding it. For example, S may come to believe some true theorem of an axiomatic system not because he has deduced it for himself, or because he believes it to be just such a theorem, but because he thinks that particular set of symbols just looks right. In such a case, though there *is* a good justification for S's believing that p, he does not avail himself of it. His mental state is nevertheless, on the traditional view, incorrigible, since the proposition which he believes is indubitably true.

In order to see what kind of justification it is (if any) that may be located in propositions rather than beliefs, let us take as a thumbnail definition of empirical justification, and one which will not beg the question - 'good reasons to believe that p'. Then there are four doxastic qualifications which may be put upon those reasons (R) in relation to Bp.

R(i) - R may exist as facts, or 'asserted propositions' in the Russellian phrase, in perfect abstraction from any actual doxastic set. They would be recognizable as good reasons for Bp were anyone to come upon them. Justification here subsists potentially, in natural causal relations, not necessarily instantiated in any belief, between R and p. For instance S may believe without good grounds that there is life on Mars, though such reasons may exist in the form of little green creatures on the planet.

R(ii) - R may be beliefs which are actually held by some or all members of an

epistemic community, who may or may not believe that p, but R are not in the doxastic set of S, the holder of Bp.

R(iii) - The propositions which make up R may be believed by S, but not function as reasons for her believing that p, i.e., they may not be recognized as R.

R(iv) - R may be held by S and function as reasons for which he comes to believe that p <sup>13</sup>.

It seems fairly plain that the reasons in R(i) cannot serve to justify Bp in the sense required by principle 4; in fact their claim to being reasons at all is attenuated. It is noteworthy that the reliabilist's 'reasons', though they are no kind of evidence for the existence of p, are of this sort. For instance, if Bp is an immediate visual belief, then the reliabilist thinks it is justified for S by the fact that S's eyesight is 97% reliable, whether S or anyone else is aware of this fact or not. R(ii) represents the contextualist model of justification. It does not matter whether S herself has grounds for Bp; the belief is justified for her if it is generally regarded as a justified belief by her epistemic peers, if there are beliefs abroad in her society which warrant it as a reasonable belief.

Both R(i) and (ii) locate the justifying propositions externally to S and his belief state, so that what is justified by these reasons is primarily the proposition held true, and the epistemic agent and his psychological state are derivatively justified by the propositional justification. R(i) and (ii) thus fail to satisfy principle 4, which holds justification to be 'primarily applicable to the epistemic agent and his psychological state, rather than to

the proposition believed'. In R(iii), though the reasons are not external to S, they are still outside his doxastic state Bp. For all the good they do Bp, S might just as well not believe them, and so by extension of the argument for R(i) and (ii), R(iii) also fails principle 4.

It is thus only R(iv) which satisfies 4, and so may be said to be the naturalistic adumbration of reasons, in the psychologicistic sense of 'naturalistic'. The point is worth attention, if only because it is often assumed that the reliabilist is the sole purveyor of a truly naturalistic brand of justification.

The state of believing that p, on the naturalistic view, is to be thought of as more than the scant holding, withholding or denying that something is the case. That was the 'sentential view' taken by traditional epistemologists like Chisholm (see, e.g., 1977:6), and criticized by various naturalistic epistemologists, i.a., Kornblith, Churchland and Kitcher (ut supra). It embodies the conviction that all that is of importance or interest epistemologically in a belief, is that it can be characterized as a positive, a negative or a neutral attitude to a proposition.

It is a reading which probably has its origins in the requirement that belief be taken as strictly bivalent for the purposes of defining the nature of knowledge, and as such it is of more use in stipulating the truth condition on knowledge than the justification condition. The naturalistic epistemologist is not denying the truth or importance of the fact that belief is a propositional attitude of this sort; he is denying that this is all that is of epistemological significance in the psychological state of belief. What more there is besides includes at least the character and causal history of the belief.

The conclusion to be drawn from the fact that the naturalistic epistemologist sees justification as inhering in the whole belief state and not just its propositional relations, is that she must forego the hope of incorrigibility of belief, rooted in indubitability of proposition and resulting in infallibility of epistemic agent and indefeasibility of justification, which characterized more traditional epistemologies.

It has been widely thought that accepting this conclusion about the corrigibility of all belief must mean the abandonment of foundationalism<sup>14</sup>. Basic beliefs had always been thought to be basic in virtue of their special epistemic status of incorrigibility. If they are admitted to be corrigible or defeasible, i.e., revisable in the light of new experience or of further evidence, then it seems their foundational status cannot be maintained because they will be dependent for their justification on other beliefs of the agent. Corrigibility thus seems to entail some sort of coherentism, in which all beliefs depend upon others for their empirical justification and no beliefs have a justificatory status any different from all the other beliefs in the set.

This is an unwelcome conclusion for the naturalistic epistemologist, committed as he is to foundationalism by his acknowledgement of the justificatory significance of the causal processes by which empirical beliefs are acquired. However, the implication that corrigibility bears, of coherentism, is only an apparent one. The special epistemic status of basic beliefs is seen to be consistent with their corrigibility when the distinctive nature of the *prima facie* though defeasible justification that they enjoy, is understood.

If the argument of the thesis has been successful so far, then it will have been established that naturalistic epistemology, as circumscribed in principles 1 - 5, when applied to the traditional projects of epistemology, results in a number of substantive theses, including realism and involuntarism regarding empirical belief, which in turn produce a definition of a 'serious' or 'proper' epistemic kind of believing; foundationalism regarding empirical justification; and the corrigibility of all empirical belief.

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### Notes to Chapter 3

1. It is through a thesis of evidentialism that inferential beliefs can also be shown to be involuntary. If S holds  $Bp$  and  $Bq$  in an operative mode, where  $p$  is an immediate particular fact and  $q$  is a general law by which facts of kind  $p$  are sufficient for facts of kind  $r$ , then it is evident to S, and cannot but be evident to S, that  $r$  is the case. For instance, S sees that *the kettle is now steaming* -  $p$ ; he believes that *steaming indicates boiling water* -  $q$ ; ergo, he believes *the water in the kettle is boiling* -  $r$ .

2. If S is constrained to believe that  $p$  is the case at  $t$ , there are two things to which he might be constrained: the belief and the content. Involuntarism has different degrees for immediate and indirect empirical beliefs, since it seems that in the first case, S has no choice of either *whether* to believe or *what* to believe, whereas in the second case, though the content of an inferential belief is fixed by S's existent doxastic set, *whether* he will draw a particular inference or not depends on his individual interests and values,

and here he does have some power to choose.

3. A nutshell definition of the involuntarism of empirical belief:  $B_p$  is involuntary for  $S$  at  $t$  iff  $S$  cannot do otherwise at  $t$  than hold  $p$  true. There are some relevant discussions of the question of doxastic involuntarism in Meidan (1989: 9 - 15); Mele (1986: 212 - 222); Naylor (1985: 427 - 436); and Williams (1973: 136 - 151).

4. This point is borne out in the discussion of the basis for interpreting the rational behaviour of another agent in Davidson (1984: 125 - 140 and 141 - 154; 1986: 195 - 211). See also Child (1987: 551 - 556) for a close examination of Davidson's synthesis of coherence (a belief and its content are determined by internal relations to other beliefs) and correspondence (they are determined by external relations to material reality) as determinative of empirical beliefs. We start by attributing beliefs to  $S$  on the basis of observable conditions, and as we get confirmation of more and more of these attributions, we get some idea of the internal topography of  $S$ 's whole belief set, and are able to attribute on the basis of internal relations too.

5. With qualifications of course; Bayesian theory applies to decision (choice of action) under uncertainty so that the beliefs are always about 'circumstances the agent can neither predict nor control' (Jeffrey, 1983: 1); as such they differ from normal empirical beliefs in being future-tense, the entertaining of a hypothetical content with more or less conviction, and not two-valued but ranging along a scale of probability from 0 to 1.

6. The claim these are *two different beliefs* is not quite the wild idea it might seem in the light of traditional propositional-attitude epistemology, as

I hope to show in a later chapter.

7. James sees truth in terms of successful action: 'To 'agree' in the widest sense with a reality *can only mean to be ... put into such working touch with it as to handle either it or something connected with it better than if we disagreed* ' (1955: 140, his italics), but his conception of justification is essentially coherentist: 'All human thinking gets discursified; we exchange ideas; we lend and borrow verifications, get them from one another by means of social intercourse. All truth thus gets verbally built out, stored up, and made available for every one. Hence, we must talk consistently just as we must think consistently. ... True ideas lead us to consistency, stability and flowing human intercourse' (ibid.: 140 - 141).

To know something, however, is for James purely a matter of acting successfully. In 'The meaning of truth', (1955: 195 - 256), he considers what it means to say that we know there are tigers in India: 'At the very least, people would say that what we mean by knowing the tigers is mentally *pointing* towards them as we sit here. But now what do we mean by *pointing* , in such a case as this? ... The pointing of our thought to the tigers is known simply and solely as a procession of mental associations and motor consequences that follow on the thought. ... It is known as our rejection of a jaguar, if that beast were shown to us as a tiger; as our assent to a genuine tiger if so shown. It is known as our ability to utter all sorts of propositions which don't contradict other propositions that are true of the real tigers. It is even known, if we take the tigers very seriously, as actions of ours which may terminate in directly intuited tigers, as they would be if we took a voyage to India for the purpose of tiger-hunting and brought back a lot of skins of the striped rascals which we had laid low' (ibid.: 226).

8. The complexity of a belief includes not only the elements discussed here, but also the dependence relations of Chapter 5

9. Future-tense beliefs are not discussed since they are not immediate beliefs and it is with these that we are chiefly concerned. Belief in some future state of affairs must have a hypothetical character and be at best indirectly related to sense experience, factors which put them outside the scope of the thesis of immediate justification being advanced here.

10. This paragraph anticipates the analysis of justification in Chapter 6, in which a more thorough discussion and grounding of the four aspects of empirical justification - credibility, deontology, marks and warrant - is given.

11. A fact which means that the content of a particular or general empirical belief is not a Fregean proposition, whose truth value is forever fixed in the 'third realm' of 'propositional space' outside the material world.

12. These are the 'appearance' beliefs, or beliefs about sense-data, of traditional epistemology. Their contents are not empirical propositions, as that term is being taken here; the question will be more fully discussed in connection with basic empirical beliefs.

13. Audi, 1983: 121 - 123, has a similar fourfold classification of reasons.

14. Rorty, 1979, certainly assumes that the corrigibility of empirical belief means foundationalism is impossible, and even someone like Pollock, 1986,

who declares himself sympathetic to foundationalism, still thinks that foundationalism is refuted tout court by the arguments against infallibility and incorrigibility.

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## **Chapter 4 - The nature of empirical belief**

### **4.1 The role of a theory of belief in a theory of justification**

It has been suggested that at least a part of a naturalized approach to belief consists in not taking the belief state to be merely an attitude to a proposition or sentence, more especially so if the belief in question is an empirical belief. What more there is to a belief state than propositional content, was briefly mentioned as its character and causal history <sup>1</sup>. A clearer idea of these three aspects of the belief (character, causal history and content) and how they are related within one state, is necessary in order to lay the approaches to a theory of immediate empirical justification. It is argued here that immediate beliefs have a distinctive sensory character, the result of their causal history and an intrinsic part of the whole belief state. As for content, the view that justificatorily basic beliefs are about features of one's own sense experiences is rejected in favour of the view that they are about material things in the immediate environment

This chapter is concerned to give an analysis of immediate empirical belief and its epistemologically relevant properties; it may be asked, however, if an analysis of belief can serve any useful purpose in a thesis on justification. The underlying assumption here is that such analysis is a necessary preliminary to the study of justification. Two naturalistic principles - that a majority of what we take to be justified beliefs are in fact so, and that how we do believe in the standard case is how we should believe - together lead to the conclusion that justification is a function of the normal belief, and a definition of justification is to be derived from an explication of the features of such a belief. That is, if justification supervenes on the psychological

state of ordinary empirical belief, then from a clear understanding of the nature of such an empirical belief, a clear view of its justification will emerge. Just as beliefs (and psychological states in general) supervene on their physical bases, so justification supervenes on beliefs <sup>2</sup>.

It is generally agreed that an empirical belief is *a belief about some way in which the natural world is*. A sentence which specifies the content of the belief state will be a statement of some supposed material feature of the world. In the case of a true empirical belief, the expression of its content will be a statement of physical fact. Though this is too broad a definition to be of any use in itself, it has the merits of being uncontroversial and suggesting two questions: how such belief might be acquired, and what exactly its content and its object might be.

On the first score, if an empirical belief is a belief about some way in which the world is, i.e., about a matter of physical fact, then it must be related in some way to perception, this being the only way in which cognizance can be taken of physical facts. The first question raised by the rough definition above thus concerns the relation of the sensory mechanisms to immediate empirical belief. The second concerns what the belief is about and the ontological status of what it is about: what exactly is 'a way in which the world', or a part of it, is? In answering this, we shall look at the rough definition's implications for an understanding of basic empirical beliefs, and, briefly, at the ramifications of taking empirical belief to be by definition belief which has an existent object - some part of the world, about which its intensional content may (in the case of false belief) or may not (when the belief is true) be mistaken.

## 4.2 Sensory character, sensations and sensible properties

On the naturalistic assumption that a belief may have a character and a history besides its content, it seems reasonable to say that all empirical belief is **sensory** <sup>3</sup> in character, and it is necessarily the result of the operation of the sensory mechanisms. This is most readily conceded in the case of the immediate beliefs of experience, beliefs like *this is coffee I am now drinking* , or *here is a hibiscus in front of the window* , or *an aeroplane is passing overhead* , beliefs which are embedded in sense-specific images like the aroma and taste of coffee, the colours and shapes of a hibiscus, and the sound of an aeroplane's engines. Immediate empirical beliefs are, in the first place, beliefs about the kind of fact whose 'esse est percipi' and which can only be observed via the senses. The content of a basic belief is presented to the subject in the medium of sensory experience, generally understood to be a state of consciousness embodying such things as colours, shapes, sizes, textures, and sounds <sup>4</sup>.

About what constitutes the sensible properties of material things in some observable state of affairs, there was for long a tradition of assuming that all percipients, regardless of their conceptual repertoire and background beliefs, had equal access to some set of perceivable properties, simply in virtue of their common physiology. These properties were cognized in 'pure' or non-cognitive sensations, which formed the 'raw data' of experience. On the basis of the data, an agent inferred the presence of material objects and acquired beliefs about the immediate environment. Imagine, for instance, a dish on a table. On the 'raw data' view, its roundness, flatness, and smooth, shiny surface would be some of the dish's sensible properties; its properties of being delicate bone china, a Porchester cheese plate and a collector's

piece, would not be among its sensible properties.

The 'raw data' view has been widely discredited. I shall not rehearse all the means by which this has been done; Rorty (1980) gives a detailed exposition of the recent complex of arguments against 'the myth of the given', among which, 'Sellars's behavioristic critique of the whole framework of givenness' (ibid., 170), is particularly effective (ibid., 167 - 188). The implication of the refutation of 'raw data' for an understanding of sensible properties is that there is no sustainable distinction between properties like shape and smoothness, and properties like being bone china and a Porchester cheese plate. True, the first-named properties will be accessible to many *more* percipients than the second, which are perceivable only by those with a skilled eye, and special background beliefs. But seeing shapes and textures also depends upon certain acquired skills and background beliefs, so that the two sets of properties do not differ in kind on the score of how they are sensed.

The distinction between sensible and cognized properties has often been made in terms of the immediacy of the first in perceiving and the inferential nature of the second. We see at once that something is round, it is said, while we infer that it is bone china on the evidence of immediately perceived properties. However, the perception that something is a Porchester cheese plate seems to be just as immediate as the perception that it is round. By an expert eye, the plate is *seen* as a Porchester cheese plate. On the other side, though we are very familiar with round things, and with making the perceptual judgement that something is round, such a judgement depends on learned skills and acquired beliefs. So in this regard too, there is no hard and fast line to be drawn between sensible and cognized properties.

We might say that a sensible property is anything that is accessible to the senses of a percipient who has the requisite background beliefs to appreciate it, any property of an object capable of stimulating the sensory mechanisms of a perceiver and conveying information to him about that object. What exactly the information is, depends on the perceiver's mind. This broad view of sensible properties gives a correspondingly wide view of sensations, defined as the experiencing of sensible material properties.

Sensations are identifiable with certain complex states of the perceiver's central nervous system. This is a system which is by its nature and definition sensitive to stimuli from the material environment, so that differences among its states are co-variant with differences in the sensible aspects of its immediate environment. The question might be asked, of how brain states become sensations, and there is a short answer to it: neuronal tissue has the property of consciousness; an electro-chemical event in the cortex is a mental event. A certain neuronal effect thus simply *is* consciousness, for the subject of the state, of (say) a red, rose-shaped patch.

Sensations are paradigmatically associated with the phenomenal quality of experience. In the stream of visual, tactile, auditory, etc., experience which is the forefront content of consciousness in a normal, attentive subject, sensations are present to consciousness in the medium of phenomenal properties of experience - sense-specific images of greater or lesser vividness and strength.

The relation of this phenomenal content of perceptual consciousness to the immediate empirical beliefs of the subject calls for discussion. It is first of

all saturated with representational content in the medium of sensations, so that it represents a great many individual facts and would sustain the same number of propositional expressions of itself, to all of which S has cognitive access limited only by his conceptual range. If S's stream of experiential consciousness could be frozen at t and its accessible content summed up, it would be found to contain a very large number of individual beliefs. Furthermore, each single belief state, functionally conceived as the sensorily determined disposition to some specifiable range of actions, could cause S to hold any number of suitable sentences true, i.e., each content may be expressed in many different ways. We may agree with Davidson that there is 'no useful way to count beliefs' (1986: 308).

Because the stream of phenomenal consciousness is essentially behaviour-guiding and doxastic in character, however, it is best conceived as a stream of undifferentiated immediate empirical belief. The identification of perception and belief may be challenged, though; Dretske (1981) for instance, has drawn a distinction between perception and belief in terms of an analogue and a digital watch. The digital watch makes a series of distinct, true or false statements about the time, and is therefore like belief in character. The analogue watch represents the flow of time in the continuous movement of its hands, without ever overtly holding a particular time-claim true of a single instant, in the same way that the senses monitor their environment.

The conclusion which Dretske draws is that belief and experience are essentially different. It might be pointed out though, that an analogue, just like a digital watch is used for telling the time, i.e., taking true or false readings at separate moments. In this way, assertions about the time are

implicit in the position of the hands, and so the analogue watch has a doxastic character too. In the same way, because the stream of sensory experience is capable of delivering formulations of sentences held true by S, it is doxastic. Beliefs are necessarily named in sentences held true, but it seems to be an error of reductiveness to identify them completely with their names. The conclusion is that immediate empirical belief and perceptual experience are not different in kind, and the impression that they are, is a result of seeing such a belief as a discrete entity, exhaustively defined in the sentence which states its content, and explicitly before the mind of its subject rather than implicitly guiding behaviour.

The claim that immediate empirical belief is identifiable with experience, means that it is necessarily accompanied by imaging and phenomenal properties. This might be thought not in fact to be the case. Consider the example of someone looking through a desk drawer for his pen, being asked just after that if he saw keys in the drawer, and consulting memory to come up with an answer. Similar cases of recalled experience are common enough. What they seem to show is that the sensible properties of objects can be scanned by S's sensory mechanisms in a perceptual experience with no phenomenal imaging, and the experience stored in short-term memory, so that S may acquire an immediate belief as to whether or not the keys are in the drawer, without a visual image of the drawer.

The same conclusion is suggested by an even more common experience - periods of successful behaviour in a material environment of which the agent has no qualitative, forefront-of-consciousness awareness. An example is the driver who, deep in thought and quite unaware (in the phenomenal sense) of his immediate surroundings, nevertheless negotiates the corners, other cars,

pedestrians and all the physical features that require appropriate action of him. The mental state that enables this successful behaviour is by definition immediate empirical belief, but it seems not to be accompanied by awareness of the sensible properties of the environment.

It is, however, possible to maintain that sensations, i.e., images with phenomenal qualities, *are* in fact present in both cases. In the first case, the fact that S is able to consult memory in order to arrive at her belief about the keys in the desk, indicates that there must be something very like a qualitative image in short term memory, sensory traces by means of which S is able to recall the experience of sensible properties. The distracted driver is in the same case. He may not be attending to his sensations of the road, etc., but it is these subliminal images from which he infers his beliefs about things in his immediate neighbourhood. He too has the ability, in the short term, to recall something very like a qualitatively-defined image of the obstacles he is negotiating, which supports the ascription to him of sensations in the classical sense. So the claim that immediate empirical belief and sensory imaging are characteristically associated, need not be upset by these examples.

There is however, one kind of case which does seem to upset this general claim: so-called 'blindsight'. This is an experimentally well-established phenomenon in which subjects with specific cerebral abnormalities which preclude qualitative imaging, especially visual imaging, are nevertheless able to respond to stimuli (lights and objects) as if they saw them normally <sup>5</sup>. Cases of this sort exemplify the possibility of being conscious of objects in the immediate environment, and of having the ability to respond appropriately to them, without at the same time having any consciousness of sensory

images of the objects. In blindsight therefore, immediate empirical belief does not have a recognizably sensory character. What are we to make of these anomalous cases?

Two points need to be made in response. Firstly, these *are* anomalies - very strange instances of immediate belief which run counter to the standard case. They have not yet been fully explained or satisfactorily incorporated into our common understanding of how it is that we learn about our surroundings. The naturalistic epistemologist may feel justified in suspending judgement on blindsight until at least more information is available on the neurophysiological mechanisms by which it takes place.

Secondly, the point of emphasizing the association of immediate belief with sensory experience has been to establish a basis for the claim, in Chapters 6 and 7, that the justification of such belief is marked by its sensory character. The immediate beliefs of blindsight are admittedly without sensory character, but then they are also without anything that we could call justification, or grounds on which the subject holds them. Blindsight patients report being surprised by their own behavioural successes and cannot say why they believe as they do, or how they come by the accurate information they undoubtedly have <sup>6</sup>. The immediate beliefs of blindsight are thus not the 'serious' or 'epistemically proper' beliefs described earlier, beliefs which can withstand critical reflection, and which are based on reason for the subject who holds them. Nevertheless, in so far as they are states which result from some kind of sensory activity and enable the agent to act successfully in his environment, that is, they are functional states with the definitive input and output relations of immediate belief, we have to acknowledge that they are some kind of immediate empirical belief.

What we may conclude from all of this, is that, while the phenomenon of blindsight upsets the absolute generalization that immediate empirical belief has a sensory character, it supports the thesis that if an immediate belief is reasonable, this fact is signalled for its subject by the qualitative perceptual imaging which accompanies it. It seems that the generalization should be qualified to read: 'All serious immediate belief has a sensory character'.

### **4.3 Attributing sensory character to beliefs qua beliefs**

The claim here is that immediate empirical beliefs characteristically have a sensory character, and that justified beliefs of this kind necessarily have a sensory character. Attributing sensory character to a *belief* state rather than to an *experience* merits some explanation, since it rather flies in the face of a distinction, to be found in Peacocke (1983: 5 - 6), which enjoys wide acceptance in the current literature of the philosophy of mind. This is the distinction between the representational content of an experience and the belief or judgement which is said to be the result of that experience. For instance, it seems to be with this distinction in mind that Leon (1987: 337) says: 'Experiences, like beliefs, have a representational content. ... But experiences unlike beliefs also have a character, a qualitative, or sensory, or subjective character.' If we can show that the representational content of an experience is essentially doxastic, then the character of the experience will also be inseparable from the immediate belief that it instantiates.

Peacocke is concerned in the first place to account for the nature of experience in terms of its sensational and representational properties <sup>7</sup>. These latter properties 'represent the environment of the experiencer as being a certain way' (Peacocke, 1983: 5), and whether he believes that the

environment is in fact that way or not, whether he accepts the representational content of his experience as true or not, is a contingent fact. It depends on the particular circumstances of each case, especially S's background beliefs, which will have no bearing upon the representational properties as such. Content thus is clearly distinguishable from the attitude of the subject towards it.

Peacocke gives as an example, a visual experience of a tromp l'oeuil painting of a violin on a door; the representational content of the experience is of a real violin hanging on a door but (if S is wise to the painting) there is no accompanying judgement that there is in fact a real violin hanging on the door. Peacocke concludes that content and judgement are distinct, that the representational content of an experience is not necessarily identical with a belief that that content is in fact the case. The mental state of experience thus is definable in terms of representational and sensational, but not necessarily doxastic properties.

It is arguable, however, that the representational content of an experience, in the medium of sensory images, is just the same as its doxastic content. Any sensory experience causes the subject to believe *something*, either about the immediate environment (as in an experience with objective reference) or about his own sensory state (as in experiences like visual afterimages or hummings in the ears). In the given example, Peacocke claims that it is always a real violin that is sensed, and the experience causes the uninitiated subject to believe 'Here is a violin', and the wise subject to believe 'Here is a clever painting'. However, the view of sensible properties argued for above, and the impossibility of there being any 'raw data' of experience, support the conclusion that the sensory content of the experience for the wise subject, is

*here is a painting.* Knowing what he does, the percipient sees the thing as a painting and not as a real violin; his background beliefs play a role in presenting the sensory images to consciousness. The belief is immediately embedded in the experience and is not a conclusion distinct from it.

Peacocke's explicit aim is limited to examining two of the necessary internal features (representation and sensation) of a certain psychological state, viz., experience. He does not expressly deny that belief might be a third necessary element of experience, and as he himself notes (footnote to p. 5), his is not the only way of setting things up. It is possible that 'experiences with content are the causal consequences of sensations', as O'Shaughnessy proposes, although we should recognize, says Peacocke, that the fact that 'some properties of the experience are causally responsible for others would be an empirical psychological hypothesis, and one which involves simultaneous causation'.

A similar, farther-going proposal might be made, viz., that belief about some way in which the world is (either the environment or the subject's senses), is the causal consequence of the representational content of any experience. This too is an 'empirical psychological hypothesis' involving 'simultaneous causation', and it licenses a conception of experience as a compound state including sensational, representational and doxastic elements, an association which is basic to the theory of immediate empirical justification being argued here. Though all three are present in any experiential state, it is the epistemic status of the experience which is of primary importance for the epistemologist.

The automatic holding-true of the content of experience, under some aspect,

can be argued for by elimination. The relation of an epistemic agent to a representation or intentional content must needs be one of three things: holding the content true, or holding it false (denying it), or withholding judgement on it (merely entertaining the thought), (cf. Chisholm, 1977:6). Now the subject's attitude to the representational content of experience is not the last; it is not hypothetical in character. We do not treat the propositions delivered to consciousness by the senses in the same way that we treat the deliverances of imagining and wishing. We suppose that the latter might or might not be the case, where we automatically take the former to be the case. Similarly, we do not typically deny or reject what the senses inform us of. Even if we have special reasons for doubting the veracity of an apparent experiential content, the sensory content of experience always tells us something about the world. It follows, if sensory experience is not negative or hypothetical in character, that it is doxastic.

This is a point that Peacocke implicitly endorses when he says that 'representational content concerns the world external to the experiencer, and *as such is assessable as true or false*' (ibid: 9; my italics). It is not in virtue of being a representation, but a representation held true in a particular context, i.e., an empirical belief, that the content has a truth value. Were the representation to be the content of an unasserted thought, even one that 'concerns the world', like a wish or supposition or S's imagining that there is a pineapple before her, it would have no truth value nor would it be 'assessable as true or false'. If a content's truth value can be evaluated at all, it is because an agent holds it true of, or asserts it of, some set of objective truth conditions.

That perceptual experience is amenable in this way to the epistemologist's

perspective, in fact that it is explicable in terms of the acquisition of beliefs is suggested by Chisholm (1957). The representational content of experience is identifiable with belief in that the subject of a state with sensory content is thereby apprised of some way in which the world is. Sensory representational content is always believed under some aspect, and in this way it is seen to be dependent upon, if not the fact of being believed, at least the doxastic faculties of the subject.

The conclusion of the previous section, 4.2, was that serious immediate belief, that which withstands critical scrutiny by the subject, has necessarily a sensory character. From this section we can conclude that representations with a sensory character are necessarily doxastic. From the two together, it emerges that immediate empirical belief of the kind relevant to the epistemologist and the sensory contents of experience are inextricably linked. In the light of this, it is reasonable to speak of the sensory character of an immediate empirical belief.

#### **4.4 The content of immediate empirical belief**

A fair impression of the content of immediate empirical belief will already have been given. It is in the first place a sensory representation to the subject of the world's being a certain way, essentially propositional in that what is experienced is a fact about the world and not the thing(s) or simple properties which go to make up that fact. A statement of particular empirical fact may be taken to express the content. Representational content subsumes sensory content in so far as a statement of empirical fact implies a sensible state of affairs, and conversely an agent is immediately apprised of the content of an experiential belief, by his sensations, i.e., in his sensorily

perceiving that something is the case.

Taking the content of immediate belief to be a representation of some material state of affairs in the world, and further (as will emerge from Chapter 6), taking immediate belief to be justificatorily basic for all empirical belief, entails rejecting the view that the content of justificatorily basic belief is necessarily the features of the subject's own psychological, especially experiential, states. There has been a strong and long-standing epistemological tradition of construing basic beliefs as beliefs about the immediate data of consciousness.

For the empiricist this meant that immediate sensory experience was ultimately the stuff of which all knowledge was constructed. It is a tenet which runs from Locke and the classical British empiricists, through phenomenalism of the kind Russell held, up to the sense-datum and 'logische Aufbau' theorists of recent times. In the rationalist tradition, on the other hand, the Cartesian interest in a construal of basic beliefs as being about the agent's own psychological state was not that it focussed on sensory experience, but that it gave the agent the best assurance he could have that he was not wrong in his belief, since its content was incorrigibly present to his mind and he had infallible authority with respect to the existence of its object. The empiricists were more concerned than rationalistic epistemologists with how one could get from the data of consciousness to the objects in the world that the data represented.

Chisholm (1977 is representative) is probably the best example of an epistemologist still seeking to ground all an individual agent's empirical knowledge, if not incorrigibly at least very securely, in his immediate

consciousness of his own experiences. On the question of what constitutes basic beliefs, Chisholm is squarely in the 'appearance-belief' tradition. 'One could say that **the set of purely psychological properties** that a person has at any given time constitutes the *evidence-base* that that person has at that time. And as a foundationalist, I would say that this evidence-base constitutes an epistemological *foundation* of everything that that person knows at that time' (Chisholm, 1986: 43; my emphasis, his italics). Properties of S's psychological states are self-presenting to him, i.e., they are certain and evident to him and there is nothing which makes them evident to him (ibid: 42). From this evidence-base of psychological properties, and by employing logical and material epistemic principles, S is able to arrive at his beliefs about ways in which the world is. S goes 'beyond the evidence-base' (ibid: 46) in such beliefs, by supposing that there is an objective 'something' which appears to him or causes his experience.

There seem to be two main difficulties in this position: that these are very peculiar belief-states, and that, if they are basic in the required sense, we have to find some satisfactory way of getting from them to the things in the world.

An appearance belief is typically something like 'It now appears to me as if I were seeing a rectangular red patch'. Such beliefs are peculiar for several reasons. The first is the typically Cartesian regress instanced in taking the agent's own experience as an object of belief for her in the normal course of events. Her own psychological properties are 'self-presenting', 'certain', 'evident' to S, i.e., they are terms in a doxastic relation with her, which implies that they figure as the contents of beliefs of hers. The question that this suggests is: if basic beliefs are about mental states (physical object

beliefs), might we not have beliefs about (features of) basic beliefs?. An agent could then very well be said to believe: 'I am now conscious of *seeming to see a rectangular red patch* ', and 'I am aware that *I am conscious of seeming to see a ...*', and so forth. Then basic beliefs would no longer be basic. An appeal would have to be made to ever-ascending levels of monitoring of mental states, and this would defeat the whole purpose of basic beliefs, which is to stop the infinite regress of justification.

Secondly, beliefs about the contents of experience are peculiar in that though the claim is that they are foundational to empirical knowledge, they are not themselves empirical in character. They do not act like ordinary empirical beliefs in preparing S to deal with his environment. All they seem to dispose him to do is make suitable statements of their content in a justificatory context. On this ground alone, we should hesitate to call them empirical beliefs, and here is another good reason for denying them empirical character - they are not a posteriori in the sense required of empirical belief.

It is a nice question as to whether appearance beliefs are a priori or a posteriori. They concern perceptual experience, and are generated in the course of it. Without experience they could not exist, so there is a clear sense in which they cannot be a priori, before experience. But then, no exercise of his senses enables S to believe that he is being appeared to redly. He cannot visually inspect his sensory state to observe its features as he does his physical surroundings, so that his appearance belief is not arrived at a posteriori, after and through the medium of sense experience. It is therefore in a clear sense not a posteriori.

Moreover, there is some reason to doubt their very existence. If all belief is a

functional state definable by its causal inputs and effective outputs, as has been suggested, then it is fair to say that S acquires an appearance belief (Ba), i.e., a belief about the features of some experiential physical object belief of hers (Bp), only when she is apprised of the features of Bp and so acquires a disposition to act in ways which would evince the particular state of consciousness that could be so described. The question is: *Is* S so apprised and disposed in the normal course of experience? It seems more accurate to say that the experiential state Bp enables S to arrive at Ba, given the further prompt of a request for justification or given some further cause for S to inspect his immediate sensory state. Ba is thus not an operative functional state in the sense that Bp is, and it does not arise concomitantly with Bp. It might be said to exist *in posse* ; in Bp, S has the disposition to act p'ly, in Ba, S has the ability to act a'ly, but only if given further input.

Of course, it is possible deliberately to think about what one is experiencing and to come to believe, as a result of introspection, that one's psychological states have certain properties, but such introspective beliefs are neither usual nor part of any evidence-base which a (non-epistemologist) S would recognize. Features of our own states of consciousness are not what we take ourselves to be reasoning about when we think about factual states of affairs, nor do they play any characteristically doxastic role in enabling S to negotiate his environment. It is the normal course of events and the average rational agent, with his ordinary doxastic processes, that the naturalist is interested in, and behaviour-guiding states about some way in which the world is that the empirical epistemologist is interested in. On these two counts, appearance beliefs are not suited for the role of basic empirical beliefs in a naturalistic epistemology.

The fact that basic appearance beliefs are intended to fix empirical knowledge in an absolutely secure foundation, suggests a useful way of construing them. It is possible to see the whole account of inference from the data of consciousness to empirical belief as a *logical analysis* of the actual process, as Harman (1973) suggests. As such, it may be a useful formal description of the elements of an empirical belief, but it would be a mistake to read those elements (e.g., sensory features of an experiential state) as ordinary objects of belief for S. What S and the naturalistic epistemologist take as basic empirical beliefs, and as the ultimate justification for any inferential empirical claim, are sensory beliefs about material facts.

A further major difficulty for an account of basic beliefs as beliefs about psychological properties is that of explaining how the agent infers from what is present to his own consciousness to particular independent material facts. The sceptical possibility that we are all brains in vats is very real once it is allowed that the immediate data of consciousness are all there is to the stuff of empirical belief. At the very least, limiting the content of a basic belief to features of S's own mental state is to limit one's concept of the empirical and to eliminate the objectivity of experiential belief. There is no epistemic import or ontological weight in the claim 'I am appeared to redly and as if by an apple', as there is in the claim 'There is a red apple', so that basic beliefs about appearances will not be much use in a theory of empirical justification, at least without major supplementation by bridging principles.

A preferable view might start with the notion of sensations, and draw a distinction between two epistemically different kinds. What may be called 'somatic sensations' include such things as itches, pains and tickles, a humming in the ears and lights before the eyes. These are often assumed to be

paradigmatic of sensations because they are the most immediate way in which a rational agent can perceive states of matter. S has a blood-clot in the leg (physical fact) and he experiences it as a throbbing pain (immediate perception of the fact). Similarly, lights, spots, or after-images before the eyes are S's immediate experience of some spontaneous, or reactive activity of his optical system. He does not take the pain or the lights to be the objective *cause* of his experience however, and he does not arrive at empirical beliefs about the pain or the lights on the basis of it.

When the cause of his psychological state lies in some part of his own neurophysiological system (hence the 'somatic' sensations) and not some external stimulus, then the beliefs that they give rise to in S are typically (hallucinations aside) beliefs about features of his conscious experience - 'I am in pain', 'I'm seeing spots'. They are not beliefs about some way in which the world is, but about some way in which S's psychological state is. It is in fact dubious if such states are representational in character at all, and so also if they are doxastic or cognitive in nature, a doubt expressed by Wittgenstein in the question of whether I can know that I am in pain.

'Empirical sensations' on the other hand, are caused by particular material facts. They were previously defined as 'the consciousness of sensible properties', where 'sensible properties' are those properties of matter which are potentially accessible to the senses of any percipient. The beliefs that they give rise to in S are naturally beliefs about those aspects of the world which S takes to have caused his experience, cf. the discussion of sensory beliefs above. There is something to be said for calling these 'empirical' sensations, since there is far more room for trial (Greek = 'empeirikos') and error in matching sensation and sensible property, in finding out what is at

the causal end of a particular sensory experience, than there is in somatic sensations which have no external cause, and about which there is very little chance of being mistaken - one could hardly have a sensation of bodily pain without there being a bodily cause of it.

There are two objections to this distinction that need to be dealt with. First, on the point of the characterization of 'somatic' sensations: S may come to believe as a result of the pain in his leg, that there is something amiss with his leg, even that there is a clot in his femoral artery. This is as empirical a belief as any other; its content is a material fact that can be experienced by any other agent, perhaps not in the same mode as S, but equally objectively. Surely then S's somatic experience does have objective reference? The second objection challenges the somatic/empirical distinction on the grounds that it is one the agent himself cannot make. Delusive experience may have the agent looking for the mosquito that is causing the high whine in his ears, when his sinus condition is the real cause, or writing off a fuzzy TV image to his rheumy eyes when in fact the set needs adjusting. Qualitatively, somatic and empirical sensations are identical.

In reply to the first objection, it may be conceded that there is an indirect sense in which, in his pain sensation, S is aware of a clot in the leg; he may for instance infer to the belief that there is a clot in his leg on the basis of the pain. However, pain is not a sensible property of blood-clots, as redness, size and shape are. It is rather a property of a psychophysiological state. Since the clot may reasonably be said to be internal to the system which is doing the sensing, S's experience is self-reflexive or 'immediate', a sensation of nothing beyond the state of his own physiology. Were the clot external to the system sensing it, (say a surgeon operated on S's leg under local

anaesthetic, and he and S inspected the clot visually), then it could only be experienced via its sensible (as defined) properties, and then an experience of it becomes an experience of a way in which the world, and not S's conscious state, is. We may conclude that any objective reference which a pain sensation qua pain, or any other somatic sensation, has, is indirect, and that the 'content' of the state is correlative (perhaps identical) with consciousness of a neurophysiological state.

In reply to the second objection, that there are cases of sensations which S does not correctly classify as either somatic or empirical is undeniable. Delusions and hallucinations are caused by and 'represent' nothing outside of S's own central nervous system, but they are abnormal and in a minority among S's experiences. Generally, there do seem to be means by which S correctly recognizes somatic sensations as not having any real or objective reference and empirical sensations as being the effect of external causes, whether it be memory of previous such experiences or their internal marks. He will not, for instance, expect other agents to share his sensations of pain as he expects them to share his sensations of the blood clot in extenso, nor does he think that the spots before his eyes occupy any location in the world. The fact is that S does distinguish, among his sensations, those which have objective reference and those that do not, and he is usually right.

What we can conclude from this distinction, if it is correct, is that those sensations which normally give rise to beliefs about features of one's own psychological states, are not, empirical in character and have no material reference which could be experienced by another percipient. They are in a minority among sensory experiences, however; in a normal agent, the afferent nervous system is usually fully occupied with the transmission of stimuli

from external sources, i.e., empirical sensations. The fact that they are empirical as defined means that in so sensing, the agent acquires beliefs about ways in which the world is. The objects of basic empirical beliefs thus are material facts or configurations of physical things rather than features of psychological states, and their contents are expressed in the idiom of physical things, rather than in adverbial idiom or the language of appearances.

It is important to keep a firm hold of the distinction. Those like Chisholm who wish to blur it, and view sensations of blueness, texture, etc., as immediately experienced psychological properties, i.e., as somatic sensations, wish also to confer the high degree of certainty that somatic sensations enjoy onto empirical sensations. They are committed to the project of securing empirical knowledge, of giving the conditions for validation of empirical belief, rather than accepting the defeasibility of all such beliefs, as does the naturalistic epistemologist, who consequently has no motive for seeing a basic belief as a belief about sensations.

On a naturalistic perspective, the content of a basic belief is a 'particular, current, empirical fact', in Austin's phrase (1976: 77). Content so defined is a necessary but not a sufficient condition for basic beliefs - one may hold it true *that the water is now boiling* either in an immediate experiential belief or in an evidentially inferred belief. But there is available to the naturalistic epistemologist who views belief in terms of its character as well as its propositional content, the sensory character of immediate belief as a means of distinguishing it from inferential belief.

Finally, on the subject of the content of empirical belief, we need to note an implication of its objective reference. Being about 'some way in which the

world is', an empirical belief, even a false one, always has a guaranteed, more or less exactly defined, extension. Its content always has some claim to a spatiotemporal location, even if it is as vague as 'once, in the world', so that it may always be said to have as its object a certain area at a certain time, and as its content, a representation of (some aspect of) that area. Of course an empirical belief might always be false, so that its content will not always be realized in the wider or narrower location assigned it by the agent. In this case, the belief is false precisely in virtue of having as its extension or object, a spatiotemporal location in which its content is not realized. An empirical belief can always be cast in the form: 'Of spacetime region  $xy$ ,  $S$  believes that  $p$ '. In this way, all empirical beliefs have a guaranteed object. The link between object and intensional content is provided by the normally reliable sensory mechanisms. This conception of object, content and their relation is useful for understanding how immediate empirical belief becomes knowledge.

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#### Notes to Chapter 4

1. **Causal history** is pretty clearly assimilable to the origins of the belief in one of the two modes in which empirical beliefs may be acquired: immediate experience or inference; an account of causal history tells us how and by what the belief was determined. **Character** is broadly speaking the manner in which the belief's content is presented to consciousness. In the case of an immediate belief of experience, character is typically sensory. **Content** it seems is construable as a function of character and, indirectly, causal

history.

2. It might be useful at this point to make an initial distinction between subjective and objective justification. Subjective justification consists of the reasons for which S holds some belief, which make p seem acceptable to S, and they are not necessarily good reasons from any point of view but S's. But if a belief is objectively justified for S at t, then it is justified in the light of objective standards set by the epistemic community, and the reasons for which S holds it are in fact good reasons. The contention here is that in a fully justified empirical belief, subjective and objective justification conditions converge in that the latter is the former which fulfils certain criteria independently of S's judgement of it.

3. A terminological note: there are at least three other words that mean 'of, associated with, the senses' - 'sensational', 'sensuous' and 'sensorial', in preference to which 'sensory' was chosen because it has fewer inappropriate associations.

4. The term 'sensations' will be reserved here for consciousness, in the medium of sense-specific phenomenal images, of the sensible properties of matter, where 'sensible' means 'able to be sensed' and implies that these properties are accessible to any normal percipient with the requisite background beliefs. On this view, tickles and pains are not sensations. A distinction between 'empirical' and 'somatic' sensations is defended in section 4.4.

5. For discussion of experimental work on blindsight, see Sanders et al., (1974), and Weiskrantz (1980: 365 - 386; 1986); a recent, philosophically

interesting study of this and similar perceptual phenomena is the article by Young and de Haan (1990), in which this conclusion, among others, is reached: 'As concerns our understanding of awareness, the principal implication of findings from studies of vision after brain injury is that awareness is not integral to the operation of many perceptual mechanisms' (ibid.: 43). See in this regard the work of Norton Nelkin, especially his 'Unconscious sensations', 1989, in which he cites the work of Weiskrantz on blindsight and Gazzaniga on commisurotomy patients, both types of cases in which subjects 'almost certainly have representations of an image-like sort, although ... the patients are not aware that they have such representations. Why not call these image-like representations 'sensations', too, since these representations play a very similar functional role to that of our CN (conscious phenomenological) sensations?' (ibid.:137).

6. Weiskrantz (1986: 24) reports of a test in which the patient DB took an outstretched hand, located markers on a wall, and identified the horizontal or vertical orientation of a stick, all in his 'blind' field: 'After one such long series of "guesses", when he made virtually no errors, he was told how well he had done. ... DB expressed considerable surprise. ... "Can you say how you guessed - what it was that allowed you to say whether it was vertical or horizontal?" "No, I could not because I did not see anything; I just don't know." Finally, he was asked, "So you really did not know you were getting them right?" "No," he replied, still with something of an air of incredulity.'

7. For Peacocke the idea of intentionality or representation, as a component of experience, is closely linked to that of qualitative sensations. 'Representational content' in Peacocke's usage is thus to be understood as sensory in character.

## **Chapter 5 - Some dependence relations of empirical belief** <sup>1</sup>

The conclusion of the last chapter was that the ordinary beliefs of experience have a sensory character in which their justification is located; it was also said that such beliefs are justificatorily basic to all other empirical beliefs. The definition of a basic belief is generally thought to include the following conditions: (i) that the basic belief itself be justified (ii) that it not depend upon any other beliefs of the subject for its justification (iii) that it serve as the ultimate stopping place of justification for other beliefs.

Now it might be doubted if these conditions can be jointly satisfied once the thesis of the 'raw data' of experience is rejected, as it was in the last chapter. Even immediate experiential beliefs, it was said, depend upon further beliefs of the subject, on S's 'conceptual range', acquired cognitive skills and contingent 'background beliefs' (cf. Chapter 8). The expert who perceives immediately that it is a bone-china plate, is drawing on existing background beliefs as to what bone china looks and feels like, and would quote these if asked to defend the judgement. But if immediate beliefs depend on other beliefs, then they cannot be basic in the required sense.

It is to this problem that the following discussion is addressed. Briefly, the claim will be that there are different kinds of dependence relations holding between immediate empirical belief and its determinants, and that in respect of the epistemically important relation of apprising conditions, immediate beliefs depend on no further beliefs. This allows them to sustain a claim of foundational status vis á vis other beliefs in the empirical belief set of the subject.

The idea of a dependence relation per se is presented first, with some explanation of how the claim of the supervenience of empirical belief may be squared with a functionalist account of such belief. This is followed by a discussion of four dependence relations in which empirical belief may stand. Finally, some consequences are drawn about the significance of these relations for a theory of empirical justification.

### **5.1 Relations of determination or dependence**

The idea of a dependence relation has been developed by Kim in the course of his discussion of one particular such relation, supervenience <sup>2</sup>. A starting point for thinking about supervenience, and, it seems, the term's historical origin in the literature, is Moore's suggestions concerning the supervenience of ethical properties on natural, empirically observable fact. The kind of dependence that the normative features of something have on its natural properties, has since been seen to hold between psychological and physical properties (possibly a special case of normative/natural supervenience), and between macro- and microphysical properties. For instance, a particular empirical belief of S's that the cat is over there, might be said to supervene on a causal array of material fact, including cat, agent, cortex and light; the colour, odour and viscosity of oil might be said to supervene on its microphysical structure.

Supervenience is just one kind of dependence relation; others, according to Kim (1984:154), are the determination of an effect by its cause(s) <sup>3</sup> and the mereological dependence of a whole on its parts. The notion of dependency, and its converse, determination, is central to the view of the world 'not as a mere assemblage of unrelated objects, events, and facts, but as constituting

a system, something that shows structure' (ibid.:153), and central also to the intelligibility of that world and the possibility of explanation and understanding.

A dependence relation holds between two different terms, in a base and a dependent realm. The presence of individuals in the determining base realm is a necessary condition for that of individuals in its dependent realm (which makes a relation of this sort sensitive to a counterfactual test). A certain configuration of the base set is also sufficient to instantiate an element of the dependent realm. Dependence conditions differ from the usual necessary and sufficient conditions of logical equivalence, in that a description of the states in the base set is not at the same time a description of states in the dependent set.

The two sets however may have the same physical extension. It is possible to say, given certain elements of the base realm and the state dependent on them, that every exact replica of those elements will reproduce the dependent state too, but it is not possible to establish a nomological connection in the other direction and say that a certain dependent state will always be instantiated by base elements  $x, y, z$  <sup>4</sup> In Moorean terms, it is impossible that two apples should differ only in this respect, that one is a good apple and the other not good, but goodness is not reducible to a set of natural properties.

We might say, as a working definition of a dependence relation, that if realm B, a set of states  $b_1 \dots b_n$  with properties BP describable in vocabulary BV, is necessary for the instantiation of a realm D, where  $D = \{d | d \text{ has properties DP describable in DV}\}$ , then the elements of D depend on those of B. BP and DP, BV and DV, may be completely or not at all co-extensive, but cannot, it seems, partially overlap, i.e., there may be dependence relations within one category

(e.g., causal dependence among physical events) or across categories (psychophysical dependence), but an appearance of dependence of D partially on D itself and partially on B, can usually be resolved by a further reduction of D. In what follows, the contention is that empirical belief depends on both physical conditions and other beliefs, but then it must be borne in mind that these other beliefs are themselves dependent on physical conditions, specifically, those states internal to an agent's own neurological system which dispose him to proceed in certain ways and constitute parts of his belief system. I shan't undertake this further reduction here, but will speak of an empirical belief depending in part on other beliefs.

The question then is 'Given that any mental state supervenes on a complex physical array, what particular dependence relations, to what particular terms, are discernible in the case of an empirical belief?'. There are it seems at least these four things on which any particular empirical belief  $B_p$  (read 'the belief that p') of an agent S at a time t, may variously depend: *causal physical conditions* at t, including S's afferent nervous system and usually elements external to him, and cortical states of S at t which may be identified as *evidential beliefs*, *general semantic beliefs* and *probabilistic beliefs* relevant to p.

## **5.2 Dependence relations of empirical belief**

### *5.2.1 Relevant physical conditions*

Immediate empirical belief arises within the natural order at the instance of physical causes and effects. That is, some sort of cause/effect chain may be picked out from the circumstances of any particular belief, which is essential

to it. Notice that both physical causes (usually external to S) and neurophysiological effects are necessary for the generation of an immediate belief; to identify the belief with only the effects is to see it as a self-contained internal state and this opens the door to a narrow solipsistic materialism <sup>5</sup>. The physical conditions relevant to any empirical belief are rather to be thought of as an array of physical facts definable by virtue of the cause/effect relations among them, upon which the belief depends.

It is the nature of the afferent nervous system of a rational agent that, when it is brought into causal interaction with some part of its environment, the agent is thereby *normally* put in a state of readiness to act appropriately with regard to the fact(s) perceived. S is apprised of some way in which the world is. Empirical belief may thus be acquired and held while the sensory mechanisms of the agent are engaged by the (supposed) objects of the belief. The force of the 'normally' just above is two-fold. Firstly, it embodies the claim that in its ordinary functioning, without handicapping conditions or blocks on awareness, an afferent nervous system is not just sensitive, but attentive to the environment <sup>6</sup>. It automatically executes the interests of the agent by generating doxastic states which should enable successful negotiation of the surroundings (and of course values are also vital as determinants of empirical belief, though they are not discussed here).

Normally then, the agent cannot help but acquire beliefs about the environment if her senses are stimulated by it. The qualification 'normally' presupposes a standard rational agent, with the usual neurological and cognitive equipment - some experience and understanding of the world. It does not presuppose that the beliefs acquired in the course of sensory experience are true. Regrettably, it is perfectly normal to get things wrong in

an individual belief.

Here is a rough illustration of the physical cause/effect array upon which a true visual belief depends, applicable *mutatis mutandis* to doxastic states of other perceptual modes. S holds Bp at t, where p = there is a bend in the road before S at t. Bp depends on the cause/effect array of: a road with a bend in it being in a certain spatial relation to S at t, a light source adequately illuminating it, an unobstructed visual pathway between the bend and S's eyes, good enough eyes, backed up by a proper visual system, focussed on the bend, and a cortex, functioning in a normal, attentive mode.

What of a false belief though - can it depend in any significant sense on a cause/effect array to which the belief's content does not refer? The answer I think is yes, given that this is a dependence relation of generation and that the belief's content is determined by other factors as well as its cause. For example, S believes there is a bicycle tyre on the lawn before him at t, but the array which is the physical matrix of the belief includes, besides all the other usual elements, a snake and no tyre. Given S's *probabilistic* belief (*vide infra*) at t, that a snake on his lawn is unthinkable, the physical array is consonant with the belief. Again, S believes there is a bent stick in water when the stick is really straight, because his working *semantic* beliefs do not include any about refraction. It is thus possible to see how the cause/effect array, coupled with S's other beliefs at t, determine even a false current empirical belief.

In these two examples, S did not get things badly wrong. He was mistaken only as to particular properties of the objects in the experience and much of the physical array was still directly correlative with the belief. In a case of

grossly disordered experiential belief, as when a hospitalized and hallucinating S believes there are pink rats on the dungeon wall before her, and the belief depends on a pathological brain state induced by toxins, then this particular dependence relation is not so important in the constitution or to the understanding of the belief, and one must look to S's other beliefs, memories and experiences for the more significant determinants of the belief. I have tried to avoid saying that Bp is *caused by* its relevant physical conditions, for the reasons mentioned earlier, viz. that this encourages thinking of the belief as identical with only a certain neurological state, but it does seem that this particular dependence relation is one of generation and at least very similar to a causal dependency.

### 5.2.2 Evidential belief

S may come to have a belief about some way in which the world is (say  $p$  = the chimney is smoking), not through her own experience of it, but indirectly. She may not see the smoking chimney for herself, but learn about it from a credible source, or see a fire in the grate and infer  $p$ . Bp may thus be arrived at by S on the basis of other beliefs of hers, in putative facts which indicate that  $p$  is the case. These beliefs, and what they are about, seem to fall into two main classes.

Belief in the natural evidence for  $p$ : S may come to believe that it rained last night (Bp) on the basis of his beliefs that the trees are wet (Bq), there are pools on the paths (Br) and the soil is damp (Bs). There are natural relations of cause and effect between  $q$ ,  $r$  and  $s$ , and  $p$ , so that the presence of the first three is strongly indicative of  $p$ . If awareness of these relations is an operative part of S's body of semantic or theoretical belief, then, (in the

absence of special reasons to the contrary, e.g., S's believing his neighbour's sprinkler was on), if S holds q, r and s, he will at the same time accept p. An empirical belief that p may thus depend on belief in the direct or natural evidence for p, and on the fact that it *is* such evidence, being in S's cognizance.

It seems also that there are times when S's acceptance of certain statistics or objective probabilities can act as a kind of evidence for some particular thing's being the case. If S believes that the worldwide birthrate is 28 000 per day, then it might occur to her at t that, during the last 5 minutes, a baby has been born somewhere on earth - surely a particular empirical belief with respect to time and place.

Belief in testimony for p: S may come to believe that it rained last night as a result of accepting the statement by a trustworthy source that this was so. Here, it is possible to explain the dependence relation in one of two ways. Firstly, there is a Humean sort of view on which S's belief that a source is reliable has the effect of rendering that source's claims of p, into something like direct evidence for p. The direct natural evidence that q constitutes for p, is just the highly regular consequence of p upon q; granting a source reliability is allowing that its claims of p are regularly conjoined with the fact that p. Hence, to allow that a source is reliable is to give its claims the status of natural evidence. Alternatively, it may be that Bp is arrived at via acceptance of the truth of 'p'. If S believes that T has uttered 'p', and S believes that T is trustworthy, i.e., speaks the truth, then S thereby believes that 'p' is true, and so also that p is the case. The utterance is now seen as a conventional rather than a natural sign of the fact that p. Either way, S's belief in testimony that p results in S's belief that p.

As was also the case with the physical cause/effect array, the mere existence of evidential beliefs is *normally* enough to guarantee that S will hold the dependent belief, and here again the 'normally' excludes irrationality and includes the usual background beliefs of cognitive agents. If S sees a fire in the grate and, believing that fire smokes and there are no blocking conditions on this one's smoking, yet rejects the proposition that this fire is smoking, he does so at the price of being irrational. If T asserts that the chimney is smoking, and S, believing T credible, yet holds that there is no smoke coming out of the chimney, he is committed to a contradiction. We may think of the physical array and evidential beliefs as the *apprising conditions* for empirical belief, since these are what inform S of some new state of affairs, or what give her cause to believe that something of which she was not previously cognizant, is the case.

Might there not be many other states which are apprising conditions for empirical belief? Memory, intuition, wishful thinking and brain-washing are some other ways in which it seems S might come to hold an empirical belief. Memory however, can be ruled out on the grounds that what S remembers is not a fact new to him but something previously believed, and so memory has no apprising force. As for the other three, it is true that S may come by their means to hold that p is the case, in something very like a doxastic state, a state that plays a belief-like role in his functional economy.

But these are not the terms of true dependence relations of empirical belief, as those relations were defined above. S may be in a state of guessing or wishfully thinking that p, without accepting that it is in fact the case and being ready to commit himself to appropriate action; his readiness to act and

his conviction (if he does reach one) that the proposition is true, in these two cases depend upon his having forgotten its dubious origins. A conviction that  $p$  which is induced in  $S$  by brain-washing, hypnotism or the like, is similarly not one in which  $S$  is rationally constrained, simply by virtue of being in that state, to accept  $p$ . In fact, he would be well advised, and has the reflective capacity, in such circumstances to withhold belief in  $p$ . If  $S$  asks himself the question 'Why do I believe  $p$ ?' and comes to recognize as a result that he has no grounds for thinking  $p$  to be the case, he cannot continue to believe  $p$  in the serious epistemic sense of believing.  $S$ 's perception of the fact that  $p$ , however, either sensorily in a causal physical array, or inferentially, among his existent beliefs, is identical with its acceptance by him, and does constitute a state of serious belief.

Relevant physical conditions and evidential beliefs are necessary if  $S$  is to come to learn of the existence of some empirical state of affairs; as such we have said they are the apprising conditions for his belief. The next two classes of beliefs, while also necessary to the generation of  $B_p$ , do not play an annunciatory role, but a shaping or determinative role; they will be referred to generally as the *theoretical conditions* for  $B_p$ . Both apprising and theoretical conditions are informative, but in different senses. The first cause  $S$  to perceive that something is the case, while the second enable her to give expression to the perception, and to hold it with more or less confidence.

### 5.2.3 Semantic belief

There is more needed than just the apprising conditions in order for  $S$  to hold an empirical belief, say, that there are gondolas in Venice. He will need besides some sort of concept or understanding of gondolas and what they are, and some sort of recognition of Venice and what it is, and these are cognitive

capabilities which involve further beliefs of his about boats, transport, canals, cities and their identity, and ultimately, about things, their properties and relations, their location in space and identity over time; 'endless interlocked beliefs. The system of such beliefs identifies a thought by locating it in a logical and epistemic space' (Davidson, 1984: 157). This is the familiar Quinean 'web of belief', the cognitive context without which a psychophysiological state could not be a belief, since it would have no semantic content.

The term 'semantic' should not be taken to imply a necessarily linguistic element in belief. It would be a nominalistic mistake to insist that S have the words 'gondola' and 'Venice' at his command in order to have the belief that there are gondolas in Venice, although being a linguistic creature, he will recognize his belief under some suitable statement of its content <sup>7</sup>, and will be disposed to assert and assent to such a sentence. 'Theoretical' would have done as well, but 'semantic' is used here since these are the beliefs that invest the representational content of Bp with its meaning, rather than its existential import, which is the function of the apprising conditions.

While both these features of a belief's representational content - meaning and existential import - are expressed in the same proposition, there is at least this difference between them: that meaning is general while the ontological commitment of a particular empirical belief arises only with the belief. S may have command of a whole theory of gondolas and Venice and may entertain the thought that there are gondolas in Venice, without having any cause to believe there are any particular gondolas there or anywhere at all.

S does not in any sense infer from his general beliefs about the nature of

things, together with his particular experience, to the conclusion that there are gondolas in Venice; rather the reverse. The general beliefs are present in the particular empirical belief and an observer, or S himself on reflection, is able to say, that since S has a certain particular empirical belief, that he must have certain other general beliefs too. The particular belief is a state of readiness to behave in certain ways, the general belief is the capacity to take up that state in the appropriate experiential context. We might explain such a general belief in terms of the disposition to apply a proposition of the form  $(x) (Fx \Rightarrow Gx)$ , where F represents a quorum of properties perceived by S, sufficient for the identification of something as being of a certain kind, and G is a conjunction of all the properties (including F) which S thinks belong to things of that kind.

For instance,  $F =$  brown, matt, aromatic, rectangular, sectioned, which is enough for S to recognize a slab of chocolate by. If it is chocolate, then it is also ( $G =$  ) sweet, nutritious, soft, cocoa-flavoured, yielding to the teeth, soluble, etc., properties which dispose S to proceed in certain ways. If S did not have the general semantic belief that chocolate was all these things, she could not recognize it, understand what she was looking at, act appropriately towards it, in short, acquire the belief that it was chocolate before her. A New Guinea headhunter with no experience of such stuff might believe it was a very soft wood. The general belief may be thought of as S's *theory* of chocolate, applied in a specific instance. She has certain expectations, based on her past experiences of chocolate, as to how it will behave in interaction with herself. S having recognized this as chocolate, her general expectations are translated into a disposition to proceed here and now in ways which will serve her ends.

Once again, it seems that *normally*, semantic beliefs relevant to the occasion are automatically brought into operation.

Though both particular empirical beliefs and their determining semantic beliefs are dispositional states, there is the genuine difference between them referred to above in the phrase 'existential import'. 'Beliefs about particular, spatio-temporally limited, states of affairs have been compared to maps ... which, taken together, form one great map of the world ... General beliefs are not part of the map. They are dispositions to *extend* the map according to certain principles' (Armstrong, 1973: 99). Talk of this kind should not be read as implying the possibility of some atheoretical kind of given, or of pure data of experience <sup>8</sup>.

Nevertheless, it seems that a general belief of the kind we are calling 'semantic' is operative only in the company of a cause/effect array (and possibly inference), and it is the apprising condition which is essential to S's *coming to believe* that *p* is the case, and it is also essential to S's coming to believe *that p* is the case, since it is the nature of the experience that determines what general beliefs become operative. If S experiences a gondola on a canal, he is not at liberty to construe it as an acrobat on a tightrope, or does so at the cost of his understanding and effective negotiation of the world.

#### 5.2.4 Probabilistic belief

A probabilistic belief,  $B_q$ , is a belief that S holds at *t*, antecedently to being apprised of *p*, which renders it more or less likely for him that *p* is the case. It bears thus on the credibility of the proposition *p* and disposes S to accept

or reject it, and to do so with greater or lesser firmness. A probabilistic belief is not necessarily about an objective probability;  $q$  may be any sort of proposition, though it must have some sort of perceived bearing for  $S$  on the features or context of  $p$ , and this relationship is such that it can always issue in a formulation, however rough, of the objective probability of  $p$ .

Like semantic beliefs, probabilistic beliefs precede  $S$ 's acquisition of, and are applicable to, the particular  $B_p$ . The same beliefs may be both semantic and probabilistic; what distinguishes them as two kinds is that the belief they determine, is determined in different ways by each class. The base realm of semantic beliefs determines how  $S$  will construe an experience and what range of actions she will be disposed to in her acceptance of  $p$ ; the base realm of probabilistic beliefs determines the degree of credibility that  $p$  will have for  $S$ , and (sometimes) which among several possible semantic construals is the most likely. The example above of  $S$ 's believing there is a tyre on his lawn when it is really a snake illustrates how  $S$ 's background beliefs about the likelihood of  $p$  may deflect its credibility for him onto  $q$ , even when his sensory experience suggests  $p$  more strongly than  $q$  to him.

An experience's representational content may also appear incredible to  $S$  in the light his beliefs about its or the context's mendacity; visual illusions, wax figures, deliberate deceptions of one sort or another will, if  $S$  is cognizant of the circumstances, cause him to believe not the apparent, but something else <sup>9</sup>. The corollary of this is that when, in normal circumstances,  $S$  believes an ordinary empirical proposition like 'There is a cat on the mat', his acceptance of the proposition depends on his having beliefs about the match of context and content, or about context alone, which do *not* militate against the proposition's credibility. Put into dispositional terms,  $S$  is

predisposed by his general beliefs that mats are a likely place to find cats, and his particular beliefs that there is nothing untoward about this case, to act as if  $p$  were the case when apprised of  $p$ .

Probabilistic beliefs may act to deflect  $S$  from the prima facie belief in a causal array or in the evidence, but they may also promote such belief.  $S$  is keen to add a blue-eared starling to her bird list, so she goes to a spot where these birds are known to be plentiful and settles near a tree full of their favourite fruits. Presently she sees, somewhat obscured, a bird with a bluish sheen on its head. She believes that there is a blue-eared starling on the branch in front of her. In the presence of her background beliefs about the context of her experience, and the high likelihood of the birds occurring in this context, what would otherwise be evidence too sketchy for thinking 'This is a blue-eared starling', becomes sufficient. No wishful thinking need be involved; even for a conscientious and careful believer, if there are contextual factors which increase the probability of  $p$ , then  $S$ 's belief that such factors exist automatically increases  $p$ 's credibility for  $S$ , or (in the case of an inferential belief) decreases the need for evidence or grounds. Conversely, if  $S$  were to see a blue-eared starling sitting on the back fence in broad daylight, she would probably not believe her eyes, simply because it is so unlikely a situation to find one of these rare birds in.

There is an important class of probabilistic beliefs discernible in the fact of doxastic involuntarism regarding the contents of experience. It is a pretty uncontentious fact that a rational agent  $S$  normally has a disposition to accept what his eyes, ears, and other senses tell him. This readiness is construable as a higher-order belief to the effect that his eyes, ears, etc., are believable, i.e., that his sensory belief-producing mechanisms are trustworthy, and it thus provides  $S$  with a measure of warrant for holding his

immediate beliefs (more on this point in Chapter 7). It is higher-order firstly because it is not an empirical belief which primes S to act with reference to some way the world is - like a semantic belief it directs him rather in the holding of first-order beliefs; and secondly because it is not contingent upon S's experience - there is no question of his changing his opinion in this respect as his experience changes.

Even when S has background beliefs which cause him to doubt the straightforward representational content of an experience, as in his seeing of a hologram image or a desert mirage, these background beliefs will cause him to believe a transmuted version of the apparent content rather than cause him to suspend belief altogether, so that any content presented to S by his senses is going to be believed by him under some aspect. It seems to be a 'hard-wired' state of S fixed in the sensory belief-producing mechanisms in virtue of which he is a perceiver/cognizer <sup>10</sup>.

So far the claims made regarding probabilistic beliefs have been relevant to their determination of immediate empirical belief. Here is a comparative example of how inferential belief depends on probabilistic beliefs. S goes into her garden in Johannesburg in the early morning and sees that the shrubs are wet, there are pools on the paths and the soil is damp. If it is in December, S concludes that it rained in the night; if it is in June, S thinks that the neighbour's sprinkler has been on. The first belief depends on S's further beliefs about the likelihood of rain being high in December; the second, on beliefs about rain being almost unheard of in June. This example illustrates too that Bp is not typically arrived at by S's inferring it from premisses of probabilistic beliefs plus experiential or evidential beliefs. That the experience or evidence assumes one particular character for S, rather than

another, is explicable in the light of her background beliefs.

There are (at least) two possible objections to regarding these probabilistic beliefs as dependence conditions for empirical belief. Firstly, does empirical belief essentially *depend upon* such beliefs? Aren't they rather an adjunct to a particular empirical belief, perhaps acting in the *exceptional* case to bar or generate belief, but normally playing a merely cautionary or confirmatory role? A probabilistic belief disposes S to accept or reject p *with greater or lesser firmness* (vide supra). Surely the implication of this, in conjunction with the thesis of apprising conditions in 5.2.1 and 5.2.2 above, is that probabilistic beliefs are not essential to the acceptance of an empirical fact.

If this objection can be answered, and it can be shown that they are necessary, then a second question may be raised: are probabilistic beliefs in any real sense different from the particular empirical belief they 'determine', or should they not rather be regarded as identical with it? The degree of p's subjective probability for S at t is surely just the more or less firmly held belief that p is the case. And if this is so, there can once again, though for a different reason, be no talk of dependence of the one on the other. The first objection would have it that probabilistic beliefs are only contingently related to an empirical belief, the second, that they are in a relation of identity; either way, the relation is not one of dependence.

I lack space here to deal fully with these objections, but think that both can be met. Firstly, that p's likelihood in terms of S's other relevant empirical beliefs, is necessary for Bp, and that p's acceptance after an initial rejection depends on a revision of those other beliefs, may be established both by exemplification and an argument on coherentist lines which equates

credibility with acceptability, with the consistency of  $p$  with  $S$ 's whole doxastic set. Secondly, it may be granted that  $p$ 's subjective probability for  $S$  at  $t$  is nothing but the sum of his other beliefs which bear on  $p$ 's likelihood, so long as we remember that this is not all there is to a particular empirical belief. There are also the apprising and semantic conditions, so that  $B_p$  cannot be completely identified with the probabilistic beliefs it depends upon. That they are an integral part of  $B_p$  is not a difficulty for, but a vindication of, the dependency thesis.

### 5.3 Some implications for the concepts of belief and justification

As far as the *character* of the different classes of beliefs outlined above is concerned, the claim is that semantic and probabilifying beliefs are not empirical beliefs, because they are not themselves about some way in which the world is. They do not apprise  $S$  of any empirical fact, nor do they dispose  $S$  to any range of overt actions. These claims need some defence. Firstly, on the question of whether theoretical beliefs are apprising or not, it seems possible to construct a case where they *do* apprise  $S$  of some way in which the world is.  $S$  has the theoretical semantic belief that *all G cats have an extra layer to their coats* ( $= r$ ). She sees, in an experiential array, that *Moggy is a G* ( $= p$ ), and thereby acquires the belief that *Moggy has an extra layer to his coat* ( $= q$ ). It seems fair to say that  $S$  is apprised of  $q$  at least as much by  $r$  as by  $p$ . She could not have arrived at  $B_q$  without  $B_r$  and it provides essential information regarding the particular concrete fact,  $q$ .

But to take this line is simply to equate apprising conditions with whatever causes or produces a belief, i.e., with dependence conditions, when there is a real difference. A stricter definition of what it is for something to apprise  $S$  of an empirical fact, is needed. What is essential to apprising conditions that

theoretical conditions do not have, is that they give S a compelling reason to believe. In the Moggy example, Br had, we may suppose, been in S's doxastic set for a long time without her holding Bq. It gave her no reason to hold Bq. But when Bp entered the set, S did have reason to hold Bq. It was only when S saw that Moggy was a G that Br became operative and combined with Bp to produce Bq. In general, an agent has a host of inoperative theoretical beliefs, which by themselves have no power to apprise him of particular facts. Apprising conditions or beliefs are those which, when S takes cognizance of them, produce in him a belief in some empirical fact of which she was not previously aware.

Secondly, the claim is that theoretical beliefs are not empirical because they do not dispose S to any overt behaviour vis a vis his environment; rather, they direct him in the acquisition of his empirical beliefs, and as such are higher-order beliefs. One might think that this difference in character is to be explained with reference to the particularity of empirical beliefs and the generality of theoretical beliefs, but it is not this simple - empirical beliefs may be general too. It is possible for S to hold one general content true in an empirical mode and in a semantic mode, (there may be other examples of overlap but one will do for our purposes here), as when he believes that *all red apples are sweet* (= p).

On the scant propositional view, belief in the same content is the same belief, but appealing to functional criteria will enable a distinction to be drawn between the empirical and the semantic belief here. If S is disposed by Bp, given his love of eating sweet things, to eat red apples when they present themselves, then his belief is empirical,  $_e$ Bp. If S is disposed by Bp to predicate sweetness of x when he has identified x as a red apple, then his

belief is semantic in character,  ${}_sBp$ . The two doxastic states will have some of their instrumental effects in common, at least it seems S will be inclined by both to assert sentences of the appropriate form. The assertions caused by  ${}_eBp$ , however, will have physical reference or existential implication, whereas those due to  ${}_sBp$  will be hypothetical in character.  ${}_eBp$  is about things in the world,  ${}_sBp$  is about the co-assertibility of terms, or perhaps the co-instantiation of properties.

Do we need to distinguish beliefs here, though? Surely this is just a single belief state  $Bp$  acting in rather different ways? This view would be possible on a propositional view of belief, but if we identify a belief with its range of input and output conditions, rather than the sentence(s) held true by S in it, then we must allow that  ${}_eBp$  and  ${}_sBp$  are at least two different beliefs of the same formal type (vide infra). In fact it is only on a very reductive view that the two are identifiable, because the range of sentences to which they prompt S is not the same.  ${}_eBp$  induces S to hold true 'All the red apples there are in the world, are sweet';  ${}_sBp$  induces 'All red apples, whether there are any or not in the world, would be sweet'. These two sentences can of course both roughly be expressed as 'All red apples are sweet'. So identifying them as exactly the same belief seems to entail the general principle that if, among the two ranges of sentences that any two doxastic states give rise to, just one sentence token is the same, then they are the same belief - an implausibly reductive principle.

There is a different kind of dependence relation of empirical beliefs - their occurring at the instance of the agent's interests, needs, values. Since a

belief is a means-choice disposition, it is integrally related to the agent's purposes, and he acquires beliefs about things only as he conceives them in functional interaction with himself<sup>11</sup>. However, it is incumbent on agents to discount their immediate local interests or idiosyncratic values in forming empirical beliefs. Given that absolute truth is the one value to which all empirical belief ultimately aspires and that all normal rational agents are in consequence type-identical in their relations with the material world, the needs and interests upon which empirical beliefs essentially depend will be the same across the board. The teleological relations of empirical belief may thus have less, or a different kind of, determinative power than the four discussed above. Still, values represent a base realm which would require investigation in any full study of the dependence relations of empirical belief.

Returning to the four conditions set out above, it is fairly safe to say that any particular empirical belief is determined in part by apprising conditions, by semantic and by probabilistic beliefs of the agent. The first gives S reason to think that p is the case; the second gives p a cognitive content that S can grasp; the third gives p acceptability in terms of S's other empirical beliefs.

This thesis of dependency relations has various applications. What, on a purely propositional view of belief, would be the same belief (i. e., belief in the one proposition) may depend to different degrees on these three terms, in different agents or the same agent at different times. It is possible to 'hold content steady' and construct different inputs and outputs for doxastic states that it is the content of. For instance, agents Q, R and S all believe that *there are dugongs in the Sargasso* (= p). Q has encountered them in immediate experience, though he may not have their or their location's name; R has forgotten how she came by the fact and has only the sketchiest idea of what

dugongs or the Sargasso are, but p's intersubjective assertibility has confirmed him in Bp; S extrapolates on evolutionary principles from what he knows of marine animals and their habitats to Bp.

It seems reasonable to say that the physical array of which Q is a part is centrally determinative of Q's Bp (belief de re); that whatever substance R's Bp has is derived from R's semantic beliefs (de dicto); and that S's Bp is a hypothesis that depends in the main probabilistically on other beliefs of S from which he deduces the likelihood of p. How these three instances of the 'same' belief differ, is thus explicable with reference to the different dependence relations of each. It is still the case though that all three terms (apprising conditions, semantic and probabilistic beliefs) must be present in each belief. This is to draw a distinction among different beliefs of the same formal type in terms of input conditions; it is possible to do the same in terms of output.

We have seen how a general empirical belief that all red apples are sweet differs from a general semantic belief in the same content. It seems reasonable also to say, with reference to the example here, that only Q's is a full-blooded empirical belief in that its character is such as to direct Q in his negotiation of some part of the world. Although the truth-conditional content of R's and S's belief states are just the same as Q's, the character of R's is such as to direct her in the co-assertibility of certain terms, and of S's, such as to lead him to seek confirmation of his hypothesis. He is in the same position as students who, with years of book-learning, begin to practise in their field. If the behavioural dispositions of Q, R and S are different, it is fair to say that their beliefs differ, at least on the naturalistic epistemologist's understanding of a belief as a functional state and not just

the holding-true of a content.

If the truth conditions for  $B_p$  and  $B_q$  are the same, then they are beliefs of the same formal type, and being the same in this way guarantees their similarity only in terms of truth-conditional content. If their input and output conditions are of roughly the same kind too, then they are beliefs of the same formal and psychological type, and then their justification conditions as well as their truth conditions will be the same. Several interesting questions come out of this, which we lack space to pursue but will just list: Could two beliefs be of one psychological but two different formal types? What would count as input and output conditions of the same kind? Since a formal type is individuated by its propositional content, can we distinguish, as different kinds of formal belief, empirical, a priori and perhaps hypothetical beliefs? Are there sub-species of psychological kinds of belief?

The semantic and probabilistic relations of a belief state, related as they are to  $S$ 's *understanding* of the belief's content in terms of his existent beliefs, rather than to any reasons he might have for thinking the content true, are not directly relevant to justification of the kind that will be discussed in the next parts, that reasonableness or groundedness in a belief which constitutes empirical justification. They (semantic and probabilistic relations) seem to form the basis of the coherentist's conception of justification though. There are thus also implications in this dependency thesis for the definition of empirical justification <sup>12</sup> and related issues, in particular for the longstanding disagreement between coherentists and foundationalists.

If the physical cause/effect array is indeed a determining factor of some empirical beliefs, then there is at least one important respect in which they are not dependent on the existing beliefs of  $S$  at  $t$ , and in which it might

therefore be argued their justification cannot consist in relations of coherence. In the case of inferential beliefs too, it seems that their epistemic status, and so perhaps their justification too, may consist in relations of at least three different kinds. Moreover, if the conclusion reached above regarding the identity and difference of beliefs with the same content is a sound one, then at least two anti-foundationalist arguments (those of Pollock and Bonjour set out in Chapter 7) are rebuttable by it.

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### Notes to Chapter 5

1. Most of section 5.1 and all of section 5.2 in this chapter were presented, in a slightly different version, as a paper at a congress of the Philosophical Society of Southern Africa at the University of Cape Town, in January 1990. The paper was subsequently published in Auslegung, 17, 1, Winter 1991:27-40, and is used here with grateful acknowledgements to the Editor.
2. See Kim 1978, 1982, 1984 (most useful), 1985 and 1988 (especially 399-400 on epistemic supervenience).
3. There is a serious difficulty in reading cause/effect as a relation of supervenience, at least if a Moorean conception of supervenience is to be maintained, on which elements in the base set provide the ontological realization of those in the dependent set. Causes and their effects are ontologically distinct, and if they were not, we should be faced with a cause/effect relation with only one term, an absurd *sui causa* .

4. Kim however suggests that an accommodating sort of reduction may be possible if we allow a wide enough disjunctive definition of the base realm elements on which a particular supervenient state depends (1984: passim).
5. Some of the problems attendant on such a view are accounting for the representational content of empirical belief; avoiding scepticism - if a belief depends on nothing outside out heads, we might all very well be brains in vats; and explaining cross-category causation.
6. The homuncular idiom here is harmless; the point could as well be made by saying that *the agent* is not just sensitive to the environment through the medium of his neuronal system, but attentive to it.
7. There are difficulties in saying what a 'suitable statement' would be of the empirical content that there are gondolas in Venice, for the purposes of attributing that belief to S. If the sentence that S holds true as a result of seeing gondolas in Venice is 'There are odd black boats in the city my uncle lives in', does he believe that there are gondolas in Venice? For the functionalist, it is behavioural dispositions which are essential in individuating a belief, so that if S is able to discriminate behaviourally gondolas and Venice from among other boats and cities, then he believes there are gondolas in Venice. Even if he does not have the words in his semantic network, he has their meaning and the ability to understand them.
8. For detailed illustrations of how immediate perceptual belief is theory laden, see Churchland 1979: 16 - 21 and 28 - 34.
9. Compare the discussion in Chapter 4 of Peacocke (1983: 6). The claim may be reiterated that the sensory contents of the experience are also the content

of the immediate belief.

10. If Chomsky is right, the linguistic competence in virtue of which S recognizes, classifies and represents empirical facts, an ability stored in his stock of 'semantic' beliefs, is also hard-wired in the structures of the brain. Then the two kinds of higher order beliefs upon which particular empirical beliefs depend, probabilistic and semantic, might both turn out, at least in part, to be of this kind.

11. For a definition of belief as essentially the choice, exercised or not, of a means to satisfy an individual's 'ensemble of ends', see Goldstick (1989: *passim*).

12. Support for the thesis that justification of an immediate belief might consist in relations of roughly these kinds is to be found in Millar (1989). Though he chooses to regard experience as non-doxastic, and sets himself the task of saying how a sensory experience could justify the belief it causes, he does allow that experience may involve a propositional attitude. 'A way of doing justice to our intuitions would be to hold that the class of sensations and the class of propositional attitudes are not exclusive. Experiences could be treated as hybrids which have, as it were, both sensational and propositional dimensions' (*ibid.*:141), as I have done here. For Millar (*ibid.*:150), the formation of a basic empirical belief that an F is there depends on 'an F-type experience' (our causal experiential array), on 'capacities associated with the mastery of the concept of an F' (semantic beliefs), and on the belief that 'there are no relevant countervailing facts', (background beliefs - cf. Chapter 8; he omits probabilifying beliefs). These three determining conditions are translatable into justification conditions

for the belief.

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## Chapter 6 - Criteria for epistemic justification

The suggestion has been made that, on a naturalistic perspective, the materials for a theory of empirical justification are to be found in an explication of the features of empirical belief, since how we do in fact believe is how we should believe. But not all the features of belief are justificatory; how shall we know which are relevant, and what will distinguish the definition of justification from the description of empirical belief? We need to consider what the criteria for a theory of epistemic justification are, that is, to consider the terms in which recognizably epistemological theories of justification, especially immediate empirical justification, have been developed in the past. There is such a wide variety of theories that we cannot hope to capture the common features of them all, but the four aspects of justification singled out as relevant here - internal reasonableness, the implication of responsibilities, its relation to objective truth, and its warranting role - are recognizable in, and basic to, much of the Western epistemological tradition.

### **6.1 Reasonableness**

#### *6.1.1 The credibility of a content for S*

There seems to be much that is right in Chisholm's opinion that it is justification in the sense of reasonableness which secures for true belief the status of knowledge. He takes reasonableness as a primitive concept in terms of which epistemological analysis should be conducted, and offers a definition in which it is relativized to a comparative three-term relation between two propositions and an agent: 'the concepts of the theory of

evidence may be explicated in terms of the undefined epistemic locution " \_\_\_ is more reasonable for S at t than \_\_\_ " ' (1987: 294) <sup>1</sup>.

In preferring one content to another, S indicates its greater credibility for her, or its being more evident to her, than the other content is. Credibility is synonymous with believability, and as such it is necessarily true to say that it is intrinsic to the psychological state of empirical belief. The purpose of the discussion of credibility that follows is to establish its equally close relationship to the notion of subjective justification.

If a belief state of S at t can correctly be described as justified or (what is the same for present purposes) reasonable, then it has a certain positive epistemic status, related, as Chisholm's locution suggests, to the intrinsic credibility of a content for S. Credibility as a feature of empirical contents comes in degrees<sup>2</sup> which vary with context. Something may be more or less believable for S; she may be very slightly inclined to grant it credence and very ready to withdraw belief, or she may hold it with great conviction and relinquish it only with difficulty, depending upon the evidence she has for it. The voluntaristic idiom in which talk of believing is conducted tends to imply that the agent has more power than she actually may have in the matter of choosing beliefs, i.e., choosing whether and what she will believe. In the case of empirical beliefs, as the discussion of doxastic involuntarism in Chapter 3 confirms, it is normally just the way the world is, which determines both the fact (that S will believe something) and the content (what exactly it is that she will believe) of any particular belief.

However, the degree of credibility of an empirical content, and so too the strength or weakness with which S believes some empirical fact, is determined by factors which are within S's influence as a rational agent. To

take the case of a basic belief: Bp arrives in S's doxastic set in a sensory experience whose cause and features are beyond S's volition. S observes, for instance, in a visual experience, that there is a mango tree outside the window.

The degree of credibility of the content will depend on the features of the experience - if it is a clear and close view or a glimpse in dim conditions - and on S's general background beliefs about such trees and about the context of his experience. If he believes both that mango's are tropical trees and that he is in the tropics, then the content's credibility will be high for S; on the other hand, if he believes that they are tropical and that he is in a Nissen hut on the South Polar icecap in mid-winter, then he should have some reservations in accepting his sensory experience's content.

So too in the case of an indirect belief. The belief's content will be generated for S by other beliefs of his, in the light of which p will become evident to him. But the degree of confidence or suspicion with which he treats p, the acceptability of the content for S, is determined both by his perception of the strength and nature of the evidence and by his awareness of other relevant background beliefs he holds. Whether S is alive to these things or not will determine whether the strength with which he holds the content true is judicious or not. It is a sign of epistemic virtue in a rational agent neither to under- nor over-subscribe a content's credibility. If Bp is justified for S at t, then he has fulfilled his epistemic responsibilities of bringing all his relevant background beliefs to bear on p, and of being alive to the kind of inferential connections in operation on an indirect content, and we may know that he has fulfilled those responsibilities if the degree of credibility he accords p is apposite in context.

This is not to say that S is always first apprised of a content and then consults his background beliefs etc., to establish if the content is acceptable. The credibility of an empirical, especially sensory, content for S is intrinsic to it and immediately apprehended; as soon as S believes something, he believes it more or less firmly. To illustrate this point, consider the example of someone who, while travelling through the countryside in his car, sees a barn<sup>3</sup>. In normal perceptual conditions, with nothing untoward about the barn or its circumstances, and being familiar with barns, the credibility of the immediate empirical belief that there is a barn before him, is high for S. He is strongly inclined to hold it.

Add to this situation the background belief which S has that this area is full, along with some few real barns, of cleverly constructed sham barns, indistinguishable from the real thing for a traveller in his car. Now, though the external conditions of the experience are the same as before, the credibility of the belief that there is a barn in front of him is so low for S as not even to generate belief. He may concede that it looks just like a barn, and might even be one; that anyone who did not know the odd habits of the local inhabitants would think it a real barn; but given what he knows of the objective probability of its being one, he views it with suspicion and is disinclined to believe that here is a barn.

Suppose, having been told, he *forgets about* the sham-barn passion of the locals. Then the defeating background belief is inoperative. S's perception of the barn will be just the same as if he had never been told; he will think: 'Here is a barn'. Should the defeating belief suddenly occur to him as he is looking at the supposed barn, however, he will suddenly see the previously stone walls as papier-maché walls, etc., and withhold credence. The point is that for

S, the credibility of the content is immediately perceived, whatever its relative degree of strength or weakness. The variety of epistemological terms which characterize the relation of S to the content of his belief - it is 'evident', 'obscure', 'dubious', 'obvious', 'certain', 'indubitable', 'unlikely', 'plain', etc., - mark credibilities of various degrees.

Though degree of credibility may differ across contents and contexts for S, there will be a just measure of acceptability in each case, depending on the nature of the apprising conditions: sensory experience (for an immediate belief) or the evidential beliefs (for an indirect belief). If S gets this measure right, we could say she was reasonable in the belief <sup>4</sup>. For instance, in poor light S can just make out a figure at the front door; the visual experience is so obscure that it licenses only a judgement of *there is someone at the front door*. Were S to come to that careful belief, she would be being reasonable in it; were S to jump, perhaps wishfully or fearfully, to a belief about the identity of the person at the front door, then she would not be being reasonable, and the belief would not be justified.

In order to strengthen the claim that internal credibility is a necessary aspect of epistemic justification, let us try to imagine a counterexample, a case where p has high credibility for S but low or no justification. What about the beliefs of the religious or ideological fanatic? They have very strong credibility for him, but are surely unjustified. This apparent counterexample can be explained by pointing out that the belief-content does not have credibility, as defined, but rather credulibility (see footnote 5 below). Credibility is the rational degree of acceptability which a belief-content has for S in context; credulibility is the attractiveness of a belief-content to S for moral, religious, pragmatic, aesthetic, or even for pathological reasons <sup>5</sup>,

i.e., he may have an idiosyncratic interest in  $p$ 's being the case. If in such a case, there were no, or not much, evidence of  $p$ 's objective likelihood of being true, then  $S$ 's belief would not have much epistemic justification. The 'just measure' of a content's credibility is thus determined for  $S$  in each case by the *epistemic* grounds he has for holding it, i.e., his reasons for thinking  $p$  true (see section 6.4 below for the distinctions among different kinds of grounds). If  $S$  were to hold a belief strongly for practical or religious reasons, with no or little epistemic justification, though we might understand and even condone his holding it, it would not be possible to judge him reasonable in it.

Conversely, let us try to imagine a case in which  $S$  holds  $B_p$  at  $t$  with a high degree of (internal) justification and yet sees in  $p$  only a low degree of credibility. Might there not occur a situation in which there was overwhelming evidence for  $p$ , and  $S$ , aware of the evidence but to make sure of believing correctly, accorded  $p$  a degree of credence well below that warranted by context and her own background beliefs? For instance,  $S$  is an archaeologist who has amassed an overwhelming amount of data which points to *some prehistoric people in this area being stone-workers* ( $= p$ ), but she refuses to accept that conclusion. All she permits herself to believe at  $t$  is that *many local stone fragments have incisions on their surfaces* ( $= q$ ). Here there might appear to be a case of 'high justification, low credibility', but it is not;  $p$  has a fairly high degree of credibility for  $S$ , and  $B_p$ , a like degree of justification, but she rejects it in order to secure the even higher justification of  $B_q$ , since  $q$  is indubitable for her at  $t$ . The example in fact illustrates the relation of direct proportion that exists between the credibility of a content for  $S$  at  $t$ , and the reasonableness with which she holds it true. She would be reasonable in holding  $p$  true, given that the

evidence supports it; she is super-reasonable in holding  $q$  true, given that the evidence makes it an apodictic truth.

If credibility is identifiable with reasonableness, then the point about degrees of acceptability may be extended to justification: the beliefs in  $S$ 's doxastic set will be more or less justified for him. His basic beliefs will be more or less evident, obvious, apodictic, and he will hold his indirect beliefs for good, plentiful reasons or on poor, sketchy grounds. There will be a certain minimum level of apprising evidence essential to every case of bona fide epistemic belief, evidence to which  $S$  has cognitive access and to which he can refer in the intersubjective practice of justifying his belief. In the case of immediate belief, it is the sensory experience which provides this essential, apprising evidence; indirect beliefs rest essentially on evidential beliefs. If  $S$  has no such grounds, then this fact too is cognitively accessible to him, and having recognized it, he will not be able to maintain his belief in  $p$  without self-deception of some kind.

### *6.1.2 Reasonableness as a necessary criterion for justification*

The claim that empirical justification must always incorporate the aspect of credibility - even more, that internal reasonableness is the core notion underlying all explanations of justification, is open to two different kinds of challenge at least. The first is based on the terminological complexity of talk about justification, and the second, on the variety of very different epistemological theories of justification that there are.

On the first point, the objection may be raised that there are a great many epistemological terms for expressing the relation of a subject to a content in

a belief state - S may think the content barely likely, certain, stronger than merely possible, plain, very probable, indubitable, obscure, self-evident, necessarily true, etc. Why should the locution 'the content is reasonable for S' be favoured above all others? - for two reasons: firstly, there is the internal relation noted above between reasonableness and credibility, or believability, which suggests that reasonableness must be present if belief is; secondly, there is the fact that all the usual terms used in speaking of justification can be expressed in terms of reasonableness. It is not necessary to undertake the task of reduction here, since Chisholm (1977: 5 - 15, 135) has satisfactorily shown how evaluative terms used in epistemic assessment: 'beyond reasonable doubt', 'some presumption in its favour', 'certain', 'evident', to name a few, can be defined with reference to the single idea of reasonableness, and we may take it that the possibility of reducibility is thus effectively demonstrated.

The second objection directs attention to the great variety of convincing accounts that there are of justification which do not mention reasonableness, e.g., justification as satisfying the rules of some scientific or epistemic community, as coherence of a content within some doxastic set, as the reliability of the belief-producing mechanism, as a process of validation consequent upon the holding of a belief, as the way in which a belief holds up under practical testing. From this wide range of answers to the question of justification, answers which all seem to have some truth in them, the likelihood emerges that justification itself is a complex concept realized in many different phenomena. Intersubjective agreement, coherence, reliability, etc., might all be agreed to be justificatory in nature, even by those epistemologists who do not hold the theories concerned.

While the phenomena mentioned may all have a role to play in justification, it is neither necessary nor desirable to conclude from this that there are many kinds of epistemic justification. The more accurate explanation seems to be that these various epistemic properties and processes are all related in some way or other to the basic feature of reasonableness. The claim made above (Chapter 4, footnote 2), that justification simpliciter is subjective reasonableness which fulfils certain intersubjective criteria, suggests how they might be related. If this is so, then reasonableness is indeed basic to other kinds of justification.

There is not space for a full examination of this claim. In brief though, as far as typically *contextualist* theories go, after some beliefs have been certified as justified, and others rejected as unjustified by the ruling epistemic community or authority, the question remains as to how the judgements were made, and in virtue of what features the justified beliefs were distinguished from the unjustified beliefs. Intersubjective or authoritative acceptance, as well as pragmatic success and validating processes, arguably are consequent to, and depend essentially upon, the justified status or reasonableness of a belief. They are not constitutive of justification, but rather markers of its presence.

Then, the *reliability* of a particular belief-producing mechanism, perception, inference or memory say, can be shown to be directly proportional to, and to have a role in, the credibility of an empirical content for S. Reliabilist views of justification therefore, unless they specifically deny that the subject can have access to the nature of his own belief-producing mechanisms, do not contradict the core concept of justification as reasonableness. It is true that reliabilists tend to ignore the first-person perspective, but this does not

mean that it is incompatible with reliabilist-causal accounts of justification. As has been noted, neurological events have the property of consciousness, and there is a recognizable internal character to, or 'something that it is like' to be the subject of, a trustworthy belief-producing process (ut infra).

Lastly, the strength of *coherence* theories lies in the fact that they take justification to be a function of the internal relations of a belief to others in the same doxastic set, which maps very neatly on to one part of the core concept: that inferential justification is essentially the reasonableness of a content for S in the light of other beliefs of his (though it should be noted coherence theories offer no criteria for the acceptability to S of basic beliefs).

We may conclude that the range of different theories of justification is no cause to reject, but indeed may be seen to support, the hypothesis that there is a single essential epistemic status, viz. reasonableness, or the credibility of a content for an agent. The practice of calling all these different things 'justification' is perhaps a little loose, but they are justificatory in nature, given their supervenience on reasonableness, the core sense of justification. In fact, conceiving of them all in terms of their relations to the reasonableness of an individual belief offers a prospect of unifying the field of justification theory.

Justification in the core sense of reasonableness is thus identifiable with the credibility of some content for S. In accepting (more or less firmly) that something is the case, in a sensory experience or in the light of her other beliefs, S gives that content her 'credatur', we might say: she signifies that

she considers it permissible to believe it. If S does seriously believe that p, i.e., does hold p with some degree of conviction and not guess or surmise that p, then the reasons she has for believing that p are ipso facto sufficient in her view to establish p and they justify her in the belief, though it is always possible for her conviction to weaken or even be withdrawn upon reflection, and for an observer to judge her belief inadequately supported by the evidence, or vitiated by reasons that S should have taken into account but has failed to consider, and so to judge it unjustified.

## **6.2 Deontological aspects of justification**

It seems desirable that any theory of justification should take into account, or at least leave room for, the role of the epistemic agent, his responsibilities, rights and duties, if only because this is the way in which we commonly speak of and judge people, in the matter of believing. Pollock (1986:124) suggests that epistemic justification may be always be thought of in these terms: 'What are we asking when we ask whether a belief is justified? What we want to know is whether it is alright to believe it. Justification is a matter of "epistemic permissibility". ... Thus I will think of epistemic justification as being concerned with questions of the form, "When is it permissible (from an epistemological point of view) to believe P?" '. The notion of 'permissibility' implies that there are certain criteria which have to be satisfied before a particular belief is allowed or sanctioned by the ruling epistemic authority; in the context of voluntary agency, this places a responsibility of observing certain rules on the agent.

We have already suggested that talk of an 'agent', who 'chooses' whether 'responsibly' or otherwise, what to accept in the way of empirical contents,

can be squared with naturalistic talk of belief as the supervenient product of causal processes, by bearing in mind that the subject of the belief state is the conscious instantiator of the causal processes, and that from his first-person perspective, the causal determinants of belief are experienced as reasons for it. The voluntaristic idiom of choosing beliefs may thus be seen as a convenient way of referring to the causal processes, and of expressing the epistemic community's wisdom on what constitutes right belief. If empirical beliefs are thought of as populating a supervenient realm, depending on and being determined by physical arrays, then the epistemic agent S is a construction in this same realm.

There is a potential difficulty for the deontological aspect of justification in the concept of reasonableness set out above. We have identified the believability of a content with its reasonableness for S, and reasonableness with (subjective) justification. There may appear to be a conflation in this position, of the notions of belief and justification which would make the idea of unjustified belief problematic if not impossible. If this is so, then it is arguable that the thesis of subjective reasonableness being necessary for belief, absolves the epistemic agent of any duty to believe contently or responsibly.

Of course we want to be able to say what it is that a justified empirical belief has which an unjustified belief does not have; there must be distinguishing marks, recognizable by the agent, which serve to differentiate the one from the other. The mere fact of a content's being *accepted* cannot serve this purpose, since contents may be, and often are, accepted for all sorts of wrong reasons. It would be a vicious epistemic principle that held a belief to be justified by the mere fact that it was a belief.

But there is room in the idea of *the acceptability of a content* for objective as well as subjective criteria. We may ask: 'Acceptable to whom?'; the answer is, in the first place, acceptable to S, without whose acceptance of p there would be no belief to judge as justified or unjustified, and in the second place, acceptable to the epistemic community, whose norms establish if p *should* be accepted by S at t, and so if it is acceptable in a wider sense (cf. Chapter 8). It should not be overlooked that S herself is a member of that community, and a sharer in its norms, practices and values, and as such she has the reflective capacity to establish if her own empirical belief is acceptable in the wider sense.

All that the conflation of serious belief and reasonableness does, is to ensure the subjective justification of a belief. Credibility or acceptability in the serious sense (as opposed to credulibility or the plausibility of an empirical content for S on 'grounds' other than epistemic grounds) incorporates conditions whose satisfaction ensures *some* measure of justification for the belief, even if it is subjective and defeasible justification. In the empirical belief that there is ice-cream in the freezer - whether this is an immediate or an indirect belief, a hallucination, delusion, or based on a mistaken inference - there are subjectively available marks of reasonableness, viz., its sensory character or its relationship to other of S's beliefs. In the wishful thought or hunch or sheer guess that there is icecream in the freezer, there is no such sensory character or evidential relationship, and consequently no claim even of subjective reasonableness can be made for these states.

Among the states properly called empirical beliefs, there will be those which are fully justified and those which are not. In the first case, the grounds upon

which S holds the content true will be good grounds, which fulfil the criteria set by the epistemic community for such grounds; in the second case, of beliefs not adequately justified, the grounds on which they are held will in some way or other fall short of these criteria. Unjustified belief is thus entirely possible, seeing that there are objective standards of what counts as good grounds or sufficient reason to believe some empirical fact, and there are epistemic obligations on S to ensure that he believes in accordance with these standards.

Moreover, as a member of the epistemic community, S shares these standards and knows what his obligations are in the matter of empirical belief. His duty to believe reasonably, obliges S, not to follow any particular procedures in arriving at his beliefs, since they are largely thrust upon him anyway, but rather to be alive to the snares and illusions possible in each particular case of empirical belief, and it is ultimately these general norms of rationality, holding across the whole epistemic community, which license S in Bp at t or declare him unjustified in his holding of it. Justification simpliciter of a belief is necessarily the degree to which S in his holding of it, conforms to these standards.

They include prescriptions like the careful and conscientious scrutiny of the empirical grounds (material causal conditions or other empirical beliefs of S) for thinking that p is the case, making sure that Bp is consistent with other beliefs held, and that all the appropriate semantic and probabilistic beliefs have been canvassed - in short, that all the information possibly relevant to p and accessible to S has been brought to bear by S in his accepting or maintaining of p. There may be other prescriptions besides. If S in his believing that p at t fulfils these standards, he will be judged justified in Bp;

if not, then he will be said to be unjustified.

S's epistemic duty may be summed up generally as the obligation to ensure that his doxastic set is as true as possible. The injunction to maximize true belief might initially be interpreted in one of two ways: to acquire as many true beliefs as one can, or to hold as few false beliefs as possible. The first would be satisfied by any thoroughly incontinent agent who saw reasonable grounds in every thought that presented itself, and whose doxastic set contained a large number of false beliefs too. The second would be satisfied by an agent who discarded every belief he possibly could, at the cost of having very few true beliefs. It seems therefore that S's belief-monitoring practices should be guided by the aim of achieving the highest possible ratio of true to false beliefs.

### **6.3 Truth-directedness**

Truth might be thought of as the highest epistemic value, certainly the goal towards which all empirical believing strives. It is this fact that gives epistemic justification its distinctive character vis á vis other kinds of justification, in fields other than the epistemological. Thus, aesthetic justification might be thought to have as its fiducial point some concept of the beautiful, with reference to which critical claims are advanced and in terms of which a work of art is judged as better or worse. Moral justification depends similarly on some concept of the good or virtuous, in terms of which actions or judgements are justified.

In the case of empirical judgement, it is also capable of moral and pragmatic justification, in contrast to its epistemic justification. As an illustration of

how an empirical belief might be justified in moral terms, consider the case of S, who believes loyally but rather against the evidence in her old friend's innocence. Pragmatic justification is exemplified in a terminally ill S's believing that she will get better, against all the odds, since a positive frame of mind is essential to any chance of recovery. In both these cases, the belief is suspect on epistemic grounds. S is not warranted in believing as she does by her cognition of the likely truth of the content, and she believes at the cost of irrationality <sup>6</sup>, and yet it may be allowed (in fields other than the epistemological) that S is entitled to continue in her belief by the exigency of these other grounds. Moral or pragmatic considerations may thus ameliorate judgement of S's holding an epistemically unreasonable belief, but they are irrelevant to its epistemic status. Those cases in which S seems to hold an empirical content with great conviction and no, or inadequate, epistemic grounds, will usually be found to be cases in which moral, pragmatic or even aesthetic reasons override epistemic considerations, and for strictly empirical contents anyway, they can never be justified.

Consider the case of Pascal's wager. There are, as Pascal shows, compelling pragmatic reasons for believing in the existence of God and nothing to be gained but everything to be risked by not so believing. Nevertheless, the argument fails to be persuasive because it does not offer anything in the way of epistemic justification for holding the existential (if not strictly empirical) belief that there is a God. The premisses of the argument do nothing to establish the likely truth of the content and give us no grounds for taking it as a fact that God exists. If someone chooses to hold the proposition for the reasons that Pascal suggests, he must admit that it is epistemically speaking an unreasonable belief. Moreover, it cannot be a serious epistemic belief. It will at best be a state of mind generated by the high value S places

on the hypothesis' being true, which causes him to act in the hopes that his supposition will pay off; as such it is more accurately characterized as a wishful thought than a belief.

The relation between the truth of a content and its justification for S at t is not a straightforward one. The fact that S is justified in believing that something is the case does not entail that it is true, nor does the truth of the content ensure that S will be justified in believing it. As Chisholm (1986: 37) puts it: '... a belief may be justified and yet not true, and a belief may be true and yet not justified. (There are occasions under which one may be justified in taking a dog to be a sheep; and therefore there are occasions under which one may be unjustified in taking a sheep to be a sheep).'

Nevertheless there is a positive relationship between the two. Having conceded that the absolute truth value of any empirical statement at a particular moment is beyond a fallible and egocentrically-situated S's establishing, and that it is not at all clear what would count as 'establishing' the correspondence' of a statement with the world anyway, we may make the modest claim that an empirical content is justified for S at t to the degree that he discerns its likely truth at t, and it is justified simpliciter to the extent that his discernment is careful and conscientious.

Truth is not the only epistemic value. Explanatory power is another desideratum in a belief and an inference may be justifiable because it represents the best explanation, in the light of his other beliefs, of some fact observed by an agent. It is usual to see explanatory power as coherence within a doxastic system, but it may also be argued that 'the best explanation' is always the truest or the one closest to the facts. In cases of conflict, where

an agent resists accepting some empirical content because it seems extremely improbable given his other beliefs, and its acceptance would necessitate revision of a considerable part of his doxastic system, the agent's perception of reality nevertheless has the last word. The explanation of his experience which S is rationally obliged to accept is the one which the experience itself and not his other beliefs, suggests; it is the most evidently true one. The apprising conditions of an immediate belief thus have priority over its other dependence relations. In this way, truth (an absolute correspondential kind of truth rather than the coherentist's version) remains the ultimate epistemic goal, for empirical belief at any rate.

Thagard (1989: 437 - 438) discusses the difficulties of including basic beliefs in a theory of explanatory coherence. Though he allows that a principle of 'data priority' is necessary in such a theory, ('Propositions that describe the results of observation have a degree of acceptability on their own'), he is 'not suggesting that it [an observation proposition] is indubitable, but only that it can stand on its own *more* successfully than can a hypothesis whose sole justification is what it explains. A proposition Q may have some independent acceptability [i.e., be the possible content of a basic belief] and still end up not accepted, if it is only coherent with propositions that are themselves not acceptable.' (My inserts in square brackets.)

Thagard is pointing up the natural reluctance of an agent to accept a proposition incompatible with other of his beliefs. Reluctant or not, in the presence of apprising conditions, the agent will have no choice but to accept some proposition which is compatible with those conditions and as many of his other beliefs as possible, and in cases of real conflict, it is the apprising conditions which are overriding in determining an empirical belief's content.

We may conclude that the apprising conditions, or causal matrix of the belief, enjoy a similar importance in questions concerning the reason that an agent has for holding a particular belief, or questions of justification.

#### **6.4 Warrant - the objective likelihood of truth**

The warrant of an empirical content is that which gives it some degree of objective likelihood of truth. In terms of the warranting requirement on justification, if a belief is justified for S at t, then it is warranted for S at t. Warrant is an intrinsic part of the acceptability of a content for S, who, as a practising member of the epistemic community and sharer of its norms, can recognize a likely empirical truth when he sees one.

The reliabilist<sup>7</sup> explains justification exclusively in terms of warrant, leaving aside the ideas of credibility, deontology and internal marks of justification. Roughly speaking, a belief is justified for S at t just in case it is the product of a reliable belief-producing mechanism, such a mechanism being one that delivers a high proportion of likely true beliefs<sup>8</sup>. The belief is thus justified in a general, objective way whether the agent is aware of it or not. This goes against the internalist intuition that S must be *reasonable* in holding p true if the belief is to be justified. Let us try to express this intuition, by constructing a counterexample to the reliabilist's claims in which an agent overlooks the trustworthy mechanisms which produce Bp, and which warrant its likely truth, and comes to hold a reliably-produced, even an absolutely true belief, for quite the wrong reasons.

For instance, S gathers reliable data on horse-racing form and employs sound reasoning on these premisses to arrive at the reasonable and very likely true

belief that Aztec will win the 2 o'clock race. He is not very taken with his conclusion, but thinks the event is going to occur, and that he will bet R10 on it. Then he remembers dreaming that Aztec would win and continues, with enthusiastic conviction, to hold the reliably-produced belief on these shaky grounds. No-one would want to say that such a belief was justified simpliciter for S at t<sup>9</sup>. It seems to be a counterexample to the reliabilist's claims.

Unfortunately, it is not a counterexample. On the functionalistic construal of empirical belief that takes input and output conditions to be essential to a belief's individuation, the sensible belief and the dream-based belief are not the same beliefs in any justificatorily significant sense. They have the same truth conditions, and are beliefs of the same formal type, both being the belief that Aztec will win the two o'clock race. But they are not of the same psychological type, having different degrees of acceptability for S, different causal histories and different causal projections in action. Justification is a function of the belief qua psychological state, so that the lack of groundedness of the second dream-based doxastic state thus cannot vitiate the reasonableness of the first. If S were to bet on Aztec because he remembered his dream, he would be acting irrationally; if he were to bet on Aztec in the light of his reasoning, he would be being rational. The reliably-produced state is thus justified for S, the dream-based state is not, and this is not a case that will refute reliabilism.

If reliabilism cannot be disproved it must be conceded, with the qualification that while this view of justification is not wrong, it is not the whole truth either, omitting as it does the deontological aspects of empirical justification, failing to explain acceptability of a content for S, and offering

no internal differentiating criteria for a justified belief.

The reason that it is counter-example proof is that every case of a reliably-produced belief is at the same time a case of justified belief, justified in the full sense, that is. This is not just a happy coincidence. There is something that it is like to be the conscious rational subject of a belief-producing process and S is not in principle ignorant of his empirical beliefs' provenance. The warrant which a reliable means of production confers on a belief, of the objective likelihood of its content's truth, is within S's cognizance, as will be shown in the case of immediate justification in the next chapter.

To sum up the discussion in this chapter, it seems that if any empirical belief is justified for S at t, then it will have certain intrinsic features which an empirical belief which is unjustified for S at t will lack. These features will be cognitively accessible to S and serve to distinguish a reasonable content from an unreasonable one for her, thus explaining the acceptability of p for S. They will be such that S's holding of Bp will be seen to fulfil the deontological criteria of epistemic justification, thus explaining the acceptability of S's Bp at t on the norms of her epistemic community. The intrinsic features of a justified belief will furthermore show how S is aiming at truth in accepting the content. Lastly, they will be such as to warrant the content with some objective likelihood of truth. In brief, whatever it is that justifies Bp for S at t must furnish distinct differentiating marks, explain credibility, satisfy deontological requirements, demonstrate S's truth-directedness, and provide some account of why the belief is objectively likely to be true. These being the main aspects of epistemic justification, they will also be evident, if only by implication, in any definition or theory of

justification.

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### Notes to Chapter 6

1. For Chisholm's further discussion of this basic epistemological concept, see 1977: 12 - 15, 135 and 1986: 38.

2. The fact that the credibility of a content for S will be a matter of degree should not be understood as contradicting the fact that serious epistemic belief is bivalent and that p's truth for S is not more or less probable. If Bp is serious, then the range of greater or lesser firmness with which S *holds p absolutely true*, will always be enough for her unequivocally to assert or assent to 'p'. If the acceptability of a content drops below a minimal value, then it is no longer acceptable or credible for S, and she does not have the belief that p.

3. The example is a free adaptation of one used by Goldman (1978:121 - 122) for a rather different purpose, viz., to get at the conditions under which S is a reliable instrument for observing empirical facts. S is such an instrument, and his experiential beliefs will be justified beliefs, only if he is in command of information (here, about the fake-barn-building practice) which enables him to discriminate relevant alternatives in the context of his immediate belief.

4. The justificatory force of credibility is developed in a theory of epistemic justification called 'evidentialism', by Feldman and Conee (1987: 334 - 345):

'What we call evidentialism is the view that the epistemic justification of a belief is determined by the quality of the believer's evidence for the belief. Disbelief and suspension of judgement also can be epistemically justified. The doxastic attitude that a person is justified in having is the one that fits the person's evidence. More precisely:

EJ Doxastic attitude  $D$  toward proposition  $p$  is epistemically justified for  $S$  at  $t$  if and only if having  $D$  toward  $p$  fits the evidence  $S$  has at  $t$ .

We do not offer EJ as an analysis. Rather it serves to indicate the kind of notion of justification that we take to be characteristically epistemic - a notion that makes justification turn entirely on evidence'.

5. Notice that it is hardly appropriate to say that  $S$  holds  $Bp$  'on pathological grounds', perhaps because 'grounds' implies commendation of some sort and an empirical belief with pathological origins will not (except perhaps in very lucky circumstances when it happens to be true) have anything to recommend it. The same suspicion of inappropriateness may be extended to moral, practical and aesthetic 'grounds', on the assumption that truth is an absolute value for empirical belief, and these kinds of interest can give  $S$  no reason (at least without an adjunctive argument linking virtue, practical success and beauty to truth) to think that  $p$  is true; therefore any merit the psychological state has qua empirical belief can only be its accidental truth. The acceptability that these other kinds of reason-to-believe give to  $p$  from  $S$ 's perspective, might better be called 'credulibility', implying the credulousness of their subject, than 'credibility'.

6. For a good discussion of the character of epistemic as opposed to moral and

pragmatic justification in the context of what it is *rational* to believe, see Moser (1985: 1, and Ch. VI).

7. Goldman (1987a) is representative. See also Armstrong (1973) and Nozick (1981) for definitions of mental states which support the reliabilist view of justification.

8. The phrases 'objective likelihood of truth' and 'a high proportion of likely true beliefs' should not be taken to imply that truth can in any one case be proven. An absolute realist conception of truth, on which truth is established by the way in which a mind-independent world is, is taken as axiomatic throughout this thesis. It entails the impossibility of conclusively demonstrating the truth of any particular truth-claim, whether it be in a linguistic assertion, a knowledge claim, or a statement of belief. As Davidson effectively shows (1983: 422 - 423), the idea of 'confrontation' between any representational psychological state and an uncognized world, is an incoherent one. Nevertheless, the naturalist mitigates this handicap by assuming the truth of a majority of the beliefs in any one doxastic set, by holding that most of what we take to be states of knowing are in fact such, and by insisting that if a belief is both defeasible and undefeated, we are, if unable to *prove*, at least entitled to *claim* its truth.

9. See BonJour (1985: Chapter 3) for a series of similar examples, aimed at demonstrating that our intuitions favour the internalist criteria of justification, and depending for their effect on a belief reliably produced being held for bad or no reasons.

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## **Chapter 7 - An outline of prima facie justification**

Given the conclusions which have been argued for in the previous chapters, we are now in a position to draw up an outline of immediate empirical justification. Let us briefly review that position. The consequences of naturalism are realism about states of knowledge and justified belief, taking the standard and not the ideal belief as the paradigm, and granting the justificatory importance of material causal conditions. Consequences of these theses include the foundational structure of empirical justification; the corrigibility of all empirical belief; the view of belief as a complex psychological state with several kinds of dependence relations; the sensory character of immediate belief; and the priority of apprising conditions in empirical justification. The criteria for a theory of epistemic justification are that it describe the differentiating marks which tell justified from unjustified beliefs, explain the credibility of a content for S, that it allow for the duties of the agent, and show how a justified belief is likely to be objectively true.

In what follows, a theory of prima facie justification for immediate beliefs is set out, on which an immediate belief is justified by its sensory character, which renders the content prima facie credible and reasonable for S. It remains defeasible justification and S has always in consequence the responsibility of being alive to possible defeaters. Since the sensory mechanisms produce mostly beliefs which may be claimed to be objectively true, and since S has cognitive access to this fact of trustworthiness, immediate empirical beliefs are also warranted for S as likely true by their sensory character.

## 7.1 The reasonableness of immediate belief

The term 'immediate' may be thought to refer to the fact that there is no distinction between the content which is believed and the reason for which S believes it, i.e., *nothing other than the perception of p*, in particular no other belief of the agent, *gives him cause to believe that p*. Immediate beliefs are often referred to as 'self-evident' or 'self-presenting'. Beliefs about present facts may be said to be immediate in another sense too: that they are those functional states which are about, and which prepare an agent to deal with, the immediate environment. They are beliefs in the operational mode, as it were.

There are some important consequences of immediacy. Belief which is direct in this way is also epistemologically basic or foundational. This is a justificatory status of all and only immediate beliefs, which may be defined as the conjunction of the following conditions: (1) Bp is justified for S at t; (2) Bp depends for its empirical justification on no other empirical beliefs of S; (3) Bp may serve as the empirical justification for, i.e., it may determine the empirical content of, other beliefs of S. When a basic belief's 'foundational status' is referred to, it should therefore be understood as including these three properties. The epistemological significance of such a status in relation to an agent's whole epistemic set is clear, and condition (3) in particular has been the focus of much epistemological theorizing<sup>1</sup>. But it is conditions (1) and (2) that will occupy us here, in an effort to get clear on how a belief might be justified for S when the 'reason' for which she holds it, does not consist of reasons in the usual sense of other beliefs of S's.

Justification as the reasonableness vested in the credibility or evidentness

of a belief's content for S, may be either a matter of the relations of Bp to other beliefs of S, as when Bp is an indirect empirical belief, and S comes to hold it by *perceiving in his other beliefs* about the world, that p must be the case; or it may be a matter internal to Bp itself, as when the doxastic state is marked by sensory phenomenal qualities, and S comes to hold that p is the case in *perceiving sensorily* that it is so. In both cases, if S is justified in holding Bp at t, then the justification consists in 'having sound reason' to think that p is the case. There are, as we have noted, several factors which may combine to infuse p with the acceptability which gives S such reason: its objective truth warrant, recognizable marks of justification and conscientiously-established absence of defeaters, i.e., consistency with all S's other beliefs.

The acceptability of the content subsumes, though it does not reduce to, these other three, which is appropriate to the fact that it is *empirical* justification we are dealing with, the kind of justification concerned with the establishment of matters of fact, in which the primary focus is the belief's existential import and how the agent has arrived at it, i.e., what gives the agent reason to believe that some objective state of affairs exists. The content of an empirical belief is always an existential proposition and, by virtue of the link between justification and truth, the justification of such a belief is a matter of establishing the likely truth of that existential proposition. In terms of the belief's dependence relations, empirical justification supervenes on, and may be publicly established with reference to, the belief's apprising conditions alone; semantic and probabilistic dependence relations are not essential for showing the likely truth of ontological claims.

The term 'empirical' then, qualifies justification in terms of the reasons an agent has (internalist), or might have (non-internalist) for thinking that something is the case. In this sense, the empirical justification of basic beliefs is often seen to be problematic, even non-existent, since there seems to be nothing an agent can refer to as the reasons he has for a basic belief. Before he perceives it, S can have no cause to think, for instance, that there is a hibiscus outside the window. Immediate experiential beliefs depend for the existential import of their content on no further beliefs of S, being 'inject(ed) ... into a doxastic system' (Pollock, 1986: 88) by the processes of perception. There is thus nothing that S can point to beyond the belief itself, as the reason he has to think that p is the case. Moreover, experience has shown, especially illusory experience, that there is nothing intrinsically epistemically secure in an immediate belief. A very common response to the question of what internal empirical justification basic beliefs have, therefore, is the sceptical response that they do not have any.

However, two considerations may be advanced against this position. Firstly, it is a mistake to think that the *reason* S has to believe that p, must consist exclusively in Bp's relations to other beliefs of hers. Reason or cause to believe is identical for the agent with the credibility of some content, and with the evidence of an empirical fact for her. 'Reason' here is not a further belief which S can adduce in support of Bp, nor is 'evidence' some further body of believed fact which renders p likely for S. It is of course sometimes the case that p is evident to S in the light of other empirical beliefs of hers (where Bp is an indirect belief), but it may also be that Bp is sufficient reason for itself, i.e., is self-evident (an immediate belief). Where this kind of justification is at issue - the internal reasonableness with which S holds p or her grounds for thinking 'p' true - then perceptual beliefs may be said to

enjoy *prima facie* justification, in a sense to be made clear below.

Secondly, the argument from illusion need not issue in a sceptical conclusion. It is not inconsistent to hold that all immediate belief is in the first instance acceptable by S, while it is always corrigible and its justification subject to a defeasibility condition. The deliverances of S's senses are as such, automatically and in default of background reasons to the contrary, credible to him - they are on the face of it acceptable and remain so until (if at all) defeated by new evidence. In short, empirical contents marked by a sensory character are *prima facie* justified for S.

There might be felt to be some awkwardness about saying in one breath that a belief is justified and defeasible. After all, justification, like the verbs of perception, has a kind of success condition on it. Just as a true statement to the effect that S saw x, entails the existence of x, so a true claim that Bp is justified for S at t, means that Bp has successfully met certain objective standards of epistemic rationality. How then is it possible to say that the justification of a belief is successful and yet may be defeated? The answer to this question lies partly in the character of the project of naturalistic epistemology, with its concession that epistemic agents are fallible human beings and not ideally rational creatures, so that the epistemologist must allow in his theory of justification for the ubiquitous possibility of false belief; and it lies partly in the conception of belief as a complex psychological state, determined by its own unique dependence relations. Justification of Bp is thus never absolute, but relative to an agent, a time, a context, the belief's causal history and its particular dependence relations.

## 7.2 The nature of the *prima facie*

The notion of the prima facie is well suited to the delicate task of striking a balance between the success and the defeasibility of immediate justification. 'Prima facie justification' implies that the belief which is so justified, is successfully and completely justified, but its justification is nevertheless defeasible, continually open to revision in the light of new evidence. A belief will be prima facie justified for S at t when, given the context of its occurrence, it requires nothing else for its justification, although this justification may be defeated either by Bp's conjunction with certain background beliefs of S or by new evidence.

There are two possible interpretations of the term 'prima facie' as it applies in general and not only to justification. One reading emphasizes the self-evident and clearly obvious nature of whatever is prima facie; if x is prima facie F, then on the face of it and most conspicuously, x is F. This interpretation of the term implies there is a sense in which the attribution of F to x is uncontroversial, since it is a strikingly apparent feature of x. It may be called the strong or emphatic sense of the term, e.g., 'Of course he's guilty; it's a prima facie case of fraud'.

The second interpretation proceeds from the fact that appearances may not be what they seem. x may be F prima facie, but will it also be F 'secunda facie', (in Haack's phrase, 1988: 5), or 'ultima facie', (in Alston's, 1988: 276)? Application of the term 'prima facie' to something, implies that the last word on the subject has not yet been said, and the final analysis has not been reached, and that it is quite possible that x should turn out not to have been F. The implication of this second sense of prima facie is that though the property in question is being predicated correctly and uncontroversially, it is

subject to further investigation in the light of which the attribution may be withdrawn. This may be called the weak sense of the term, e.g., 'He may or may not turn out to be guilty; it's only prima facie fraud after all'.

The nature of the qualification imposed by the term *prima facie* is important. It does not imply that the predicate is of doubtful application in the case at hand, or that it yields statements of uncertain truth value. It does state the important reservation that further evidence may be relevant to the continuing security of the attribution (of fraud, justification, or whatever). In other words, the term allows that the predication may be both unqualifiedly correct and defeasible in the light of further evidence. This sounds at first like a contradiction: if *x* is *prima facie* F, then it is unconditionally and certainly F, on condition that new evidence does not show it to be not-F. There are three ways in which this apparent contradiction may be dispelled.

The first is to consider some qualifications which do undermine the security of their predicates, and compare these with the '*prima facie*' case. '*x* is probably F' is one such; another is '*x* is hypothetically F'. Here the implication is that F is not uncontroversially and unconditionally established as a property of *x*. In the case of 'probably', there is evidence at hand which renders the application of F to *x* more likely true than false, but it is not completely unproblematic. In the case of 'hypothetically', the body of evidence which supports the claim is not strong enough to make it an unconditional claim; there is some degree of unconfirmed guesswork in the predication. By comparison, '*prima facie*' does not itself cast any doubts upon the acceptability or degree of confirmation of the attribution it qualifies.

The second means of dispelling the apparent contradiction and showing that a

claim may be successful and defeasible at once, is to point to the growing body of argument, some of which was referred to in Chapters 2 and 3, which urges a new conception of the conditions for epistemic success. Any empirical claim is defeasible. When a claim is successful, then it must be allowed to be revisable too, in the light of new evidence. The naturalized conception of all the terms of positive epistemic appraisal - certainty, reasonableness, acceptability and justification (of empirical claims anyway) must thus embody a revisability condition <sup>2</sup>. The definition of doxastic success must allow for the possibility that a claim which is certain, reasonable, acceptable, and justified for S at t, is just the opposite at t + 1.

At least part of the seeming contradiction in juxtaposing 'successful' and 'defeasible' is then seen to be the idealistic expectation, nurtured by a strain of traditional epistemology, that if an empirical belief is once allowed to be justified, then there should be no possible doubt, ever again, as to its epistemic status. Otherwise, it was wrongly judged as justified in the first place. However, on the naturalistic view that all beliefs, even foundational ones, are corrigible, and so that all justified claims are defeasible, much of the difficulty in the juxtaposition mentioned above, disappears. It then falls to the naturalistic epistemologist to provide a new definition of epistemic success or justification, one clearly compatible with the defeasibility condition.

The third way of dissolving the contradiction, will be to examine one particular application of the notion of prima facie justification, to foundational empirical beliefs. The situation is complicated, in the discussion of prima facie justification, by the fact that the notion of the prima facie, simpliciter and in abstraction from any particular application of it, is already

a notion of justification. A case of prima facie fraud is one which clearly *justifies* its description as fraud; the prima facie moral preferability of act A over act B refers to the fact that A is morally *more justifiable* than B. So that when we speak of the prima facie justification of (basic) beliefs, there are two levels of justification to be distinguished: (1) the justification or reasonableness of the belief itself, which inheres in the psychological states of the agent in a particular context and is relative to certain epistemic ends; and (2) the grounds that there are for applying the term 'justified' to a (basic) belief.

There need be no difficulty with this complication if it is borne in mind that, just as a case of prima facie fraud is justifiably though defeasibly a case of fraud, so a case of prima facie justification is justifiably though defeasibly a case of justification. What this distinction does draw attention to is the small but important fact that it is the justification which an agent has for a belief, and not the proposition believed or the state of belief itself, that is, properly speaking, defeated when counter evidence comes to hand. This distinction will be taken up below.

### **7.3 Prima facie justification of immediate empirical beliefs**

There have already been several arguments offered which tend to support the conclusion that the content of a basic belief is (usually) automatically acceptable to an agent. The arguments offered in Chapter 4 for the conclusion that sensory experience is essentially doxastic in character, together with the unobjectionable assumption that sense experience is involuntary, yield the proposition that experiential belief is involuntary. The argument for the dependence of basic belief upon its causal physical array (in Chapter 5) may

be developed to the same effect. In addition, the naturalistic focus on causal belief-producing processes permits an understanding of doxastic involuntarism which in turn supports the prima facie credibility or reasonableness, for the agent, of immediate experience.

There is thus a considerable body of argument to the effect that an agent's experiential contents are immediately credible, in the absence of defeating beliefs, to him. 'Seeing is believing'; perceived facts are believed facts. Now the further claim here is that to say that *p* is perceptually or sensorily evident to *S* is to say that *S* is fully, objectively and not just subjectively justified in believing that *p*.

But this further step may be challenged - does the automatic acceptability of a content for an agent constitute justification simpliciter? It seems lacking in any of the deontological aspects proper to the notion of an agent's being justified in a belief, things like showing epistemic responsibility in evaluating a belief, assessing its likely truth and being able to give the grounds on, or reasons for, which a content is considered likely. Moreover, there is nothing at first glance to provide that warrant of likely truth of a content which is essential to justification. Any satisfactory explication of justification must embody an account of deontology and warrant, so that it will not do to define justification merely in terms of acceptance, which is what the definition of immediate justification seems to be doing. To establish the successful objective character of prima facie justification therefore, we shall have to address the questions of what differentiating marks it allows to justified beliefs, and what epistemic duties devolve on the agent according to such a theory.

### 7.3.1 Differentiating marks

A serious objection to the definition of immediate justification as prima facie, centres on its apparent lack of positive characterization of justification, its apparent neglect of warrant and differentiating marks, and the resultant principle that merely accepting a content is sufficient to justify a belief. The thesis of prima facie justification of basic beliefs does not in fact entail this principle. The discussion so far, especially the definition of the 'serious, epistemic sense of believing' in Chapters 3 and 6 and the naturalistic principle that the way in which an agent actually does believe most of the time is also the way in which she should believe, has tended to run together the ideas of belief and justification. I hope at any rate that enough *has* been said to establish their intimate and necessary connection. Now, however, there is a need to distinguish the two in order to make clear that no basic belief can be justified simply by the holding of it, or by the act of accepting an empirical content, and that subjective credibility alone is not enough to justify a belief.

What marks the content of an immediate belief as acceptable to the agent and distinguishes it from contents which do not enjoy prima facie acceptability, is its sensory character and immediate indexicality. This is a somewhat misleading way of speaking; these two 'marks' are inseparable from the functional state's doxastic character. They do not present themselves as *features of* the content, intrinsic or relational, about which S has beliefs and on the strength of which S then decides to accept the content. Sensory character and immediate indexicality are rather to be thought of as the vehicle of the content's acceptability and the means by which some fact becomes evident to S, and as such they provide an answer to the objection that the principle of prima facie justification sanctions indiscriminate

acceptance of empirical contents. It is only beliefs with these features that enjoy prima facie evidentness<sup>3</sup>.

Signs of immediacy (sensory character and indexicality) have considerable if not absolute power of conferring credibility, persuading S of the likely truth of p even when p is not remotely the case. In hallucination and delusion for instance, it is the sensory mode of presentation and the immediate indexicality of the content which gives the experience its plausibility, and it is generally agreed that S is justified in his acceptance of such contents, other things being equal. If S remembers, while experiencing a vivid hallucination, that he took a hallucinogenic substance shortly before, or if experience is of such a quality as to suggest that it is not normal, then S would be remiss in accepting the hallucination as the real thing. But if there are no defeating background beliefs, or if the hallucination is of such a kind that there is no question of S's exercising epistemic judiciousness in accepting or rejecting it, and such that it convinces him completely of its objectively real reference, then we have no difficulty in understanding why S believes as he does or in allowing that he is properly justified in that belief. What it takes for S to be brought to believe is simply the presentation of an empirical content with immediate indexicality via the activity of his sensory apparatus.

It is easy to see that the sensory character of an immediate belief's content acts as a mark of acceptability of the content for S, distinguishing it from unacceptable contents for him (generated perhaps by wishing, imagining, fearing, etc.). But can sensory character also in the full objective sense of the term *justify* S in accepting an immediate content? Anything which qualifies as justificatory must satisfy not only the credibility and 'distinct marks'

conditions, but must also incorporate deontological criteria (S must in some sense exercise epistemic virtue in holding Bp) and a warrant condition (a belief's justification increases its likelihood of being absolutely true).

### *7.3.2 Deontological aspects of immediate belief*

The concept of prima facie justification does in fact incorporate some deontological aspects. Admittedly, an agent's immediate beliefs are pressed upon him by the world; he does not choose what he will believe, nor does he have any antecedent means of assessing whether a newly acquired belief that p, should not rather be the belief that q or r. There is not the scope for empirical evaluation of the content of a basic belief that there might be in the case of indirect belief, where two or more conclusions might issue from the same set of beliefs, and the agent is able to display epistemic virtue in deciding between the competing inferences. There are, however, two ways in which S may be shown to be exercising epistemic virtue in his immediate beliefs, firstly, not by choosing judiciously, but by following (albeit ineluctably) the sound epistemic principle of believing what is evidently true, and secondly, by taking care to observe the defeasibility condition.

On the first score, while there is no denying the automatic nature of immediate belief, there is epistemic virtue in the nature of the process itself. The content of experience is presented to S as some factual way in which the world is, so that in accepting it, he believes what for him is most likely the truth. It was the aim of the discussion in 6.1 and above here, to establish a core notion of justification as the reasonableness with which an agent holds some proposition true. If a content is presented to S as factual, as is the case with perceptual contents, then it is self-evidently true and S is

reasonable to hold it true, unreasonable if he rejects it, at least without further grounds.

The 'virtue' that S thus displays in acquiring immediate beliefs is not the first-order merit of fulfilling epistemic duties, but rather the higher-order merit of instantiating a well-formed immediate belief. S is reasonable in having fulfilled the conditions for proper immediate believing, not in his role as agent, but because there is a general sense in which the type of an immediate belief can be shown to be objectively justifiable and reasonable. 'Fulfilling the conditions' here is synonymous with 'constituting' and not 'acting in accordance with'. The general sense in which immediate beliefs are justified by their sensory origins is discussed at more length in section 7.4, on warrant.

Secondly, there is a positive epistemic duty on the agent in her holding of an immediate belief, of being sensitive to the fact that her belief is always corrigible, and her justification for it, always defeasible. This sensitiveness consists in alertness to new evidence and to relevant or possibly relevant background beliefs, semantic and probabilifying. The agent must attend carefully to the surroundings, be alive to peculiarities in her experience and to background beliefs which have a bearing on it. The duties imposed on the epistemic agent by defeasibility will be discussed further in Chapter 9.

It remains to be shown how sensory character might be connected to some kind of warrant for the likely truth of an immediate empirical content, where truth is understood in an objective sense. The truth of the content from the agent's point of view is subsumed by the credibility condition. The content is acceptable to him iff he holds it likely to be true and he is in the habit of

holding true, contents which have a sensory character and immediate indexicality. Now the question arises as to whether he is right in doing so, whether these features are linked in any *objective* way with the probable truth of what they cause S to accept. If it can be shown that they are, then the further question arises as to whether S has cognitive access to the truth-conducive link. He must have such access if an internalist account of justification as reasonableness is to be defended.

Not too much needs to be said on the first score. While there is no absolute guarantee that sensory contents with immediate indexicality are true (illusion, hallucination, perceptual error), most of them are true for most people most of the time. The evil demon or the mad scientist, with his possibility of global or massive empirical error, is outside the ambit of naturalistic epistemology. Indeed such an epistemology eschews absolutist claims of universal and unconditional certainties, so that is not at all hard for the naturalist to qualify his definitions of belief, justification, truth and knowledge with a 'for human beings' <sup>4</sup>.

The 'mostly true' principle regarding immediate empirical contents is a consequence of a cornerstone principle of a naturalistic epistemology, that most of what we think are mental states of knowing are in fact so. It may be further supported by transcendental arguments from a Davidsonian perspective (that the nature of empirical belief requires the truth of a majority in any set of them) and from evolutionary postulates (that continued existence of the species presupposes adaptiveness, which presupposes mostly true empirical beliefs). The truth-conducive nature of the senses, along with other belief-producing mechanisms, is assumed in reliabilist accounts of empirical justification, though these do not require that S be aware of the

reliable nature of his senses.

### 7.3.3 *The warrant of immediate empirical belief*

Is the subject of an immediate belief with sensory character aware that her senses are generally trustworthy and truth-producing? In a qualified sense, yes. If S is an average epistemic agent representative of the kind, then she will most likely not have any explicit knowledge or occurrent beliefs about the statistical probability of her immediate experiential contents likely truth or untruth. She will probably not have even any occurrent beliefs as to the reliability of her senses, this not being the sort of thing ordinary agents occupy their minds with. But in the process of becoming a rational agent she has learnt to believe whatever she clearly and normally perceives and if she is normal this doxastic habit will by and large have proved itself in practice.

She is in other words commonly and in default of special circumstances to the contrary, in a mental state which disposes her to treat as true what her senses tell her about her immediate environment. This mental state may be construed as, and allows the attribution to S of, the general, higher-order belief that her senses are trustworthy. On a functionalistic reading of belief, S's consistent practice of accepting the contents of experience, a practice reflected in the thesis of doxastic involuntarism, points to a psychological state describable as the belief that such contents are consistently acceptable. This is to say, that S does have the belief that her perceptual mechanisms are reliable.

If presented with suitable formulations of this proposition ('People's eyes are usually good enough for them to go by', 'If you hear a noise, there's generally something making it'), S would concur with them. If asked to explicate her

justification for some immediate belief ('Why do you think there's a hibiscus in front of you?', '... something under the table?'), S is likely to come up with something like these formulations, perhaps relativized to her own particular case, herself. At any rate, she will typically refer to her sensory experience in justification of the immediate belief.

The belief that his senses are reliable is a higher-order theoretical belief of the type defined as 'probabilifying' in Chapter 5, since it has a bearing on the likelihood of p's being true. Notice that on two counts it is not itself an empirical belief as here defined. Firstly, it is like the other class of higher order beliefs upon which a particular empirical belief depends, i.e., semantic beliefs, in being not a 'part of our map of the world' but rather a licence for 'extending' that map (in Armstrong's metaphor). Being in this particular doxastic state does not dispose the agent to act in any overt ways vis a vis her surroundings; it disposes her to accept her particular sensory experiences as true.

Secondly, empirical belief is belief about some way the world is, and not about psychological states. The belief in question may be interpreted, on the strength of what it causes S to do, as the belief that her sensory contents are probably veridical, which makes it a belief about, and not of, experience. This might be disputed by an externalist about justification. The fact that the senses are reliable is construable in terms of observable physical regularities; there are predictable patterns in the interaction of neuronal systems and world, and that surely is a general empirical fact about some way in which the world is, and a concrete one when S applies this general law to her own particular perceptual systems in some particular context.

But this is to overlook the fact that it is as *belief-producing* mechanisms that the senses are being judged reliable, and a belief is *S's instantiation of a conscious neuronal state*. The probabilifying belief in question as held by S thus amounts to a belief about a feature of her own sensory experience and not merely her own neuronal systems, (cf. Chapter 4 for the distinction between empirical belief and belief about one's own mental states).

In sum then, the link between probable truth and immediate sensory contents comes down to the fact that the senses are objectively truth-conducive and S has a belief to this effect, providing her with justificatory warrant for holding her immediate experiential beliefs. The thesis of prima facie justification rests on that of doxastic involuntarism, which reflects the fact that an epistemic agent is so constituted as automatically and in default of special reasons to the contrary, to accept her sensory contents. This general practice on the part of S is seen to entail the higher-order belief that her senses are truth conducive.

This is not to say that immediate beliefs depend on further beliefs for their empirical justification. The general warranting belief does not serve as an empirical reason for S, giving her cause to hold any other particular empirical belief. It is not a piece of evidence which appraises S of some fact or from which she infers some information about the world, but part of her system of background beliefs. It is important to recognize these features of the warranting belief if the foundational status of basic beliefs, particularly their independence from other empirical beliefs, is to be maintained. Let's see how this exposition of the warranting condition stands up to what is by now a widely quoted and admired anti-foundationalist argument: Bonjour's 'regress of justification' argument (1985: 31 - 33).

BonJour agrees with many of the basic principles that are in use here, especially the conditions that justification be internal and doxastic, that there be distinguishing marks on a justified belief, that an objective truth-warrant is an essential part of justification and that whatever justifies S in believing something should also be what gives him reason to think it the case, though he does not distinguish these conditions explicitly.

In its short form, his argument goes like this: If a basic belief has the foundational status of being independent, justified and justification-conferring, then there is some feature of the belief in virtue of which it has this status. This feature 'must also constitute a good reason for thinking that the belief is true' (ibid.: 31) and S must be in cognitive possession of this reason if his basic belief is to be justified. But then it cannot be justified independently of other beliefs of his and is not basic after all. The justification-conferring reason takes the form of an argument: '(1) B has feature Phi. (2) Beliefs having feature Phi are highly likely to be true. /Therefore, B is highly likely to be true' (ibid.: 31). These two premisses are what S must believe if B is to be justified for him.

BonJour foresees the foundationalist's possible defence that (1) and (2) are not empirical beliefs, but he takes it that the only way of being non-empirical is to be a priori. 'B is ... an empirical belief, and it is hard to see how a particular empirical belief could be justified on a purely a priori basis. Thus we may conclude ... at least one of the two premisses of the appropriate justifying argument will itself be empirical' (ibid.: 31).

We may agree with BonJour that S must in some way be in cognitive possession of an argument of the given form, but on the present account,

premiss (1) is not necessarily nor even usually a belief of S's. The feature by which the basic belief is marked as credible for S is its sensory character and immediate indexicality, and this is encoded in the belief itself, so that S has 'cognitive access' to it without forming any particular beliefs about it. It would also be a very 'peculiar belief' for the same reasons that beliefs about appearances have a dubious doxastic status. S's cognitive access takes the form of consciousness of the belief's present sensory genesis or consciousness of the immediately appropriate intentional action.

S does have a belief concerning premiss (2) of the argument; it is the mental state which fosters his general disposition to accept the contents of sensory experience, defined here as that higher-order, probabilifying belief which, in conjunction with the distinguishing marks of a basic belief, provides the warrant of likely truth necessary for justification. Is it an empirical belief? And if so, does this mean that 'basic' beliefs are not really foundational? The conclusion that theoretical beliefs are not empirical in the required sense has already been argued for in Chapter 5; this is just such a theoretical belief and it is not empirical for the same reasons offered there. It readies S for no course of action in his physical environment; it has no existential implications; it is thought to be empirical only because its contents may sometimes take the same sentential form as an empirical belief's - in short, it can give S no reason for thinking there is a hibiscus outside the window.

If it is not an empirical belief, then is it an a priori belief? To answer this we should have to say whether S learns to trust his senses as a result of his on-going pragmatically successful use of them, which would mean the general belief was arrived at as a result of particular experiences and is, in a special sense, a posteriori, or whether he has an innate disposition to believe what

his senses tell him, in which case it is a priori. This is similar to the question posed in Chapter 4 as to whether the features of psychological states, specifically experience, were known a priori or a posteriori, and it was concluded there that beliefs about the features of experiences at least are not empirical. If a belief about a feature of one particular experience is not empirical, then a belief about a feature of experience in general is not empirical either. So the basic belief which is warranted by the general belief may still be claimed to be basic, in the sense of being independent of empirical beliefs, i.e., where  $B_p$  is a basic belief of  $S$ 's at  $t$ , there is nothing in  $S$ 's doxastic set which gives him reason to think that  $p$  is the case before he acquires  $B_p$ .

In what ways this circumscribed sense of independence is epistemologically significant, and what role basic beliefs play in a set of empirical beliefs, is an issue on which coherentists and foundationalists divide. A coherentist might agree that there are beliefs basic in the way defined here (it is hard to see how he could disagree), but he typically holds that this is a trivial truth with no bearing on questions of justification <sup>5</sup>.

The coherentist argues that if justification is to be internal, as we are agreed it must be if it is to include reasonableness, then the epistemic agent has *no means of justifying his belief* except through the medium of other beliefs of his. Any belief, basic or not, is defined by its place in the whole system of beliefs that  $S$  holds, in what has been described as relations of determination by semantic and probabilistic beliefs, and it is these higher order beliefs, claims the coherentist, that  $S$  must turn to if he wishes to say why he holds a basic belief.

Furthermore, the coherentist thinks that S cannot refer to the perceptual processes that deliver the belief into his doxastic set unless he refers to beliefs about features of his experience, those 'appearance' beliefs which might serve as the terminus of justification in the sense of being the last word S can produce in the intersubjective process of justifying his belief to others, but not in the sense of being the ultimate reason for which S holds that some immediate fact is the case. By the coherentist definition, there is no such ultimate reason for a basic belief. The coherentist concludes that justification is a matter of relations among all the beliefs in a doxastic set and no one kind of empirical belief has a justificatory status different from any other.

The foundationalist might agree with much of this, but require qualification of the two principles the coherentist bases his argument on, namely the holism of the mental and the impossibility of S's having cognitive access to anything except through the medium of belief. In support of the foundational thesis that some beliefs do have a justificatory status different from others, he will point out that the dependence relations of empirical beliefs on their apprising conditions are of two distinct kinds - supervenience on a causal physical array and on other empirical beliefs. Where an indirect empirical belief is held on the basis of other empirical beliefs of S, they provide his empirical justification for thinking that p is the case, and similarly where a direct empirical belief is held on the basis of an experiential array, it provides his empirical justification for holding Bp.

But we have identified the experience of p with the immediate belief that p, which means that the belief is its own justification. Where the reason for which, and the evidence on which, S believes p in the inferential case is a set

of other beliefs of his, in the immediate case, his reason and evidence is nothing beyond the experiential belief itself, a fact reflected in the established epistemological practice of calling such beliefs 'self-evident' and 'self-justifying'. The advantage of this usage is that it permits the concept of empirical justification to be marshalled under a single genus, that of *reason to believe*. It is a general model which satisfies the four criteria of any account of justification (acceptability, marks, deontology and warrant), as we have seen in the case of immediate justification.

#### **7.4 Prima facie justification on a functional view**

Before leaving this discussion of *prima facie* justification in general, it will be useful to consider a criticism of it in Pollock (1986). There are good reasons for rejecting Pollock's argument and an explication of them will serve to support the present view.

Because S's readiness to accept immediate sensory contents is interpretable as a general *belief* about the reliability of his sensory belief-producing mechanisms, the account of empirical justification being offered here remains within the scope of the 'doxastic assumption' (Pollock's term, *ibid.*: 19 *et passim*) that the justification of any empirical belief of S is a matter of states not only internal and cognitively accessible to S, but of belief states of his. This goes some way towards meeting the widely-held and intuitively plausible view that 'nothing can count as a reason for holding a belief except another belief' (Davidson, 1986: 310).

Pollock himself however thinks the doxastic assumption is mistaken and tries to derive the warranting condition for immediate empirical justification

from the processes of perception and memory themselves, in an internalist but not a doxastic theory that he calls 'direct realism'. He is not unsympathetic to the modest foundationalist's concept of prima facie justification: ' ... a possible, and somewhat attractive, version of foundationalism posits the existence of prima facie justified epistemologically basic beliefs' (1986: 35 - 36), though as he points out, in the absence of incorrigibility to act as the marker and warrant of beliefs so justified, the concept will need careful defining. However, on the question of how experiential beliefs are justified, the doxastic assumption and prima facie justification stand or fall together, and Pollock has what he thinks is a knock-down argument against them both, which he develops as follows (1986: 89):

1. If the doxastic assumption holds, then 'the justifiedness of a perceptual belief can only depend upon your other beliefs and cannot depend upon any features of perception not encoded in belief.'
2. 'Perceptual beliefs cannot be evaluated' with reference to other beliefs 'before being acquired, because it is the very fact of acquiring the perceptual belief that determines which possible belief ... to evaluate.'
3. 'It follows that ... perceptual beliefs must be prima facie justified.'
4. 'Perceptual beliefs are ordinary physical-object beliefs, and such beliefs can also be held for non-perceptual reasons. If such reasons are bad reasons, the beliefs are not justified. But then it follows that they are not prima facie justified.'
5. '(4) conflicts with (3), so the assumption from which (3) followed, namely the doxastic assumption, must be false.'

Pollock finds himself obliged by this argument to hold that 'perceptual states can license perceptual judgements about physical objects directly and without mediation by beliefs about the perceptual states'. Since he also wants to maintain that whatever justifies a belief is cognitively accessible to the holder of that belief, he is further driven to say that 'there can be "half-doxastic" connections between beliefs and non-doxastic states that are analogous to the "fully doxastic" connections between beliefs and beliefs that we call 'reasons' ' (ibid.: 91), but he nowhere offers a satisfactory account of these 'half-doxastic connections', nor is there any easily seen way of doing so. On the account offered here, this difficulty is avoided, since the epistemic agent has cognitive access to his perceptual processes, as the mechanisms which produce his immediate beliefs, only through the medium of belief: the sensory provenance and immediate indexicality which is intrinsic to the basic belief (and markers of its justified status), and the warranting general belief as to the reliability of his perceptual processes, which disposes him to accept the 'deliverances of the senses', in Locke's phrase.

How then can we counter Pollock's knock-down argument in steps 1 - 5 above? Having deduced the contradiction that a basic belief is prima facie justified, premise (3), and not justified, (4), Pollock elects to drop the premise that it is prima facie justified, and with that, the doxastic assumption. But on the definition of belief developed above, it is (4) which should be axed, holding as it does that 'perceptual beliefs are ordinary physical-object beliefs, and such beliefs can also be held for non-perceptual reasons. If such reasons are bad reasons, the beliefs are not justified. But then it follows that they are not prima facie justified.'

Pollock's point depends on granting that the immediate experiential belief that *p* and the indirectly inferred belief that *p* are the same belief, and this in turn depends on an identification of a belief state with a sentence held true by *S*. If, as I have claimed, the identity criteria for an empirical belief include not only the proposition held true, but also the input and output conditions of the particular belief state, there cannot be any talk of an immediately perceived belief and an indirectly inferred belief being the same belief.

A fortiori, the justification with which a basic belief is held by *S* cannot be defeated by the lack of justification with which its content may be inferred by him. (Indeed it is doubtful if an agent could realistically be supposed to hold two such beliefs simultaneously except perhaps in very unusual circumstances, especially on the definition of immediate belief given here, that it is a doxastic state *S* is in while his senses are engaged by the objects of the belief.) With the admission that premiss (4) fails, prima facie justification is seen to be acceptable, and so too is the doxastic assumption.

Prima facie justification as outlined here seems the best way in which to explain how it is that immediate experiential beliefs may reasonably be held in the absence of empirical reasons for them, and how they differ epistemologically from other empirical beliefs. I hope the discussion in Ch 6 and above will have answered some of the more usual objections raised against this kind of justification. It is perhaps the favourite target of anti-foundationalist attacks, and understandably so since it is often poorly or perfunctorily dealt with in expositions of foundationalism. The criticism that 'basic' beliefs are in fact dependent upon many other beliefs of the agent for their justification may be conceded, with the qualification that

there is one important class of beliefs, viz., empirical beliefs, from which they are quite independent and that in respect of their empirical justification, they are determined by no beliefs, but a causal physical array.

It is impossible to make a sound case for prima facie justification in a sentential epistemology, since it is then vulnerable to both Pollock's argument from the identification of immediate and indirect beliefs and to Bonjour's doxastic regress of justification argument. In the first case, basic beliefs are not different from inferential beliefs in any doxastically significant way, and in the second case, if there is nothing to a basic belief but a positive relation to a content, then there is nothing to justify the basic belief within itself and other beliefs must be the source of its justification.

It has been the contention here that a naturalistic epistemology must pay due regard to the causal processes by which beliefs are acquired, and that this both implies foundationalism and provides the means of understanding the prima facie justification of immediate empirical beliefs. On this view, justification remains doxastic: nothing but a belief can act in justification of a belief; and it remains internal: nothing but that to which S has cognitive access can act in justification of a belief of his. Basic beliefs are thus self-justifying and self-evident.

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### **Notes to Chapter 7**

1. Though if the lessons of the past are to mean anything, then the

temptation to undertake ambitious expansionist 'logische Aufbau', or positivistic programmes of reduction of all knowledge to empirically verifiable experience, should be resisted.

2. This is not to say that *knowledge* is defeasible. If the statement 'S knows that p at t' is true, then statements of the three conditions for knowledge (truth, belief, justification) in relation to S's belief that p at t, are true too. Lehrer (1986: 6) takes care of this requirement by putting an indefeasibility clause in as the fourth condition on knowledge. But the justification of a belief that is not knowledge, or whose knowledge status is uncertain, remains defeasible.

3. Perhaps we should reiterate here that the **sensory character** of basic belief is present in the phenomenal sense-specific imaging of perceptual experience, and reflects the essential role of the sensory mechanisms in conveying information to S about his immediate environment (the here-and-now fact that p).

4. As was pointed out in Chapter 2, the naturalistic and the sceptical attitudes towards justification are mutually exclusive.

5. Thus Bonjour (1985: 112 - 113) tries to explain observation beliefs within a coherentist account of justification by distinguishing 'two quite different senses in which a belief may be classed as "inferential" or "non-inferential". In the first place, there is the question of how the belief was *arrived at* ... but second, there is also the quite distinct issue of how the belief in question is epistemically *justified or warranted* ... why couldn't a belief which *originated* in some non-inferential way be *justified* or

*warranted* only by appeal to coherence with the rest of the system of beliefs?' (his italics).

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## **Chapter 8 - Two competing views of prima facie justification**

I have defended a version of prima facie justification for immediate beliefs which relies upon the sensory character and origins of such belief to provide the distinguishing marks and truth-warranting features necessary for successful justification, a version which is in accord with the naturalistic emphasis on causal conditions as important for epistemic, and especially empirical epistemic, justification. Bearing this in mind, it is instructive to make a comparative assessment of the views of Chisholm and Pollock on prima facie justification. I find that Pollock's is the preferable view, and that he too combines the core notion of subjective reasonableness with a reliance on objective justificatory features (specifically, the truth-conducive origins) of belief which is justified prima facie. Chisholm, on the other hand, identifies prima facie justification entirely with defeasibility, and makes no mention of the objective likelihood of truth.

### **8.1 An initial distinction**

Prima facie justification is usually assumed to be a perspicuous notion, not standing in need of explanation. There are (to my knowledge) no well-developed theories of prima facie justification in the literature, and the two competing definitions compared here have been inferred (though justifiably, as I believe the supporting quotations will show) from rather oblique textual evidence. Pollock (1974:31 et seq. and 1986: 29 et seq.), with his definition and discussion of prima facie justification as a possible justificatory status of basic beliefs, an alternative to the over-strict incorrigibility of traditional epistemology (he decides against it in the end), offers a more explicit theory than Chisholm.

Still, according to the range of beliefs to which a philosopher is willing to grant a presumption of justification, and there are significant differences on this point, he betrays his theory of prima facie justification. Differences in the set of beliefs that various applications of the term pick out, entail differences in the kind of justification involved, so that even if one keeps an open mind on whether prima facie justification as such might have a substantive character that called for explanation, it is instructive to compare the conditions for its attribution which emerge from the different fields in which it is taken to hold.

There is one main divide among these, into what may be called the subjective or doxastic view, on which all beliefs, simply in virtue of being held undefeated, have a presumption of justification in their favour, and the epistemic or objective view, on which it is only those beliefs which are universally agreed to be justified by objectively recognizable features, which enjoy prima facie justification.

The idea of the prima facie in general is, as we have seen, of something evident at first blush, immediately obvious 'on the face of it', but something which may very well prove on investigation not to have been the case. In the context of the epistemic justification of empirical belief, prima facie justification is immediately evident in those beliefs which have it. There is an epistemological presumption in favour of the justification of such beliefs; the term 'presumptive justification' is synonymous with 'prima facie justification', and 'presumably justified' with 'prima facie justified', and will sometimes be used as such in the following discussion. Since it is presumed to hold, prima facie justification does not rest on argument or require

proving, though it is always defeasible in the light of subsequent reasoning or evidence.

There are two very different ways in which the claim **Bp is prima facie justified for S at t** may be taken, depending on the perspective from which the judgement of justifiedness is being made. They correspond with the two sides of the divide mentioned above. On the first interpretation, 'prima facie justified *for S*' means that it is S and not necessarily anyone else, who considers the belief to be justified. The implication is that S does in fact hold Bp. It is not a strong judgement of justifiedness; it would not be inconsistent to say 'Bp is prima facie justified for S at t only because she's ignorant of all the evidence there is against it' - that is, it may be prima facie justified *for S* but not for a more alert epistemic agent, or on the wider perspective, because there are sound reasons for not believing p, which are not evident to S at t<sup>1</sup>.

This view identifies prima facie justification very closely with the credibility of a proposition for S. It was referred to as the 'doxastic' view above since, though it is put forward in an epistemological context, it is strong enough to explain only why S believes as he does, and not why his belief might count as knowledge. On this view, a paraphrase of the claim above might be **Bp is apparently justified for S since she holds it at t**.

On the second interpretation, the assessment of Bp as prima facie *justified* (for S at t) is made from the point of view of a third person who is not necessarily S, though it may be, but is a member of the epistemic community. It may be the case that S does not actually hold the belief, but his epistemic

situation at  $t$  is such that  $B_p$  would, on the face of it, be justified for him, or anyone else in his situation, were he to take it up. This judgement of prima facie justification gives a much stronger stamp of approval to the belief than the first; it marks it as a successfully justified belief which, if true, would qualify as knowledge (hence the reference to it in the first paragraph as an 'epistemic' view of prima facie justification). Though such justification is always defeasible in principle, if it holds at  $t$  then there are no defeaters of it in either  $S$ 's or an observer's view, at  $t$ . A paraphrase of the original locution on this view might be  **$B_p$  is uncontroversially justified for  $S$ , or anyone in  $S$ 's situation, at  $t$ .**

One salient difference in the two points of view (others will emerge in the course of the discussion) is that the first one is that of the holder of the belief and it gives a purely subjective view of  $B_p$ 's justification; the second is that of the epistemic community and it gives a measure of objective force to the justification in question. The two are not mutually exclusive; in fact I shall argue that both are necessary in a proper account of the prima facie justification of sensory beliefs.  $S$  is quite capable of taking up a reflective stance towards his belief and assessing its justification on the criteria of the epistemic community, that is, saying why or how he believes as he does, so that there is a complete sense of the locution  **$B_p$  is prima facie justified for  $S$  at  $t$**  which incorporates both subjective and objective elements. The subjective viewpoint is distorting only when it is unreinforced by objective justificatory criteria, that is, when it is associated with the thesis that all belief is justified simply by virtue of being held. It is, nevertheless, often taken as the basis of attributions of prima facie justification in the literature.

## 8.2 Weak prima facie justification

A definition of prima facie justification on the subjective view would look something like this:

**PFJ<sub>1</sub> . A belief B<sub>p</sub> is prima facie justified for S at t iff he holds p true at t and there are no other beliefs of his at t which amount to not-p, or entail not-p, or defeat the belief-that-p.**

An application of this principle is to be found in Chisholm (1980: 551-2):  
*[Note: Chisholm's theory of belief as property-attribution to oneself directs that we may read 'attribution of a property' as roughly synonymous with our term 'belief'.]*

'I suggest now an extremely latitudinarian principle. This is the principle that *anything* we find ourselves believing may be said to have *some* presumption in its favor - provided it is not explicitly contradicted by the set of other things that we believe. Hence we may say, more exactly:

P3 For every x, if (i) x directly attributes to himself the property of being F, and if (ii) being F is not explicitly contradicted by the set of properties that x directly attributes to x, then his being x has some presumption in its favor for x.

The principle may be extended to propositional belief: for every x, if x accepts a proposition that is not explicitly contradicted by any set of propositions accepted by x, then that proposition has some presumption in its favor for x.'

Further, in defining the 'epistemically unsuspect', Chisholm writes (ibid.:552):

'From among those propositions that thus have some presumption in their favor for our subject, we may single out those that are 'epistemically unsuspect' or 'epistemically in the clear.' An attribution may be said to be *epistemically unsuspect*, or *epistemically in the clear*, for any subject, **provided only** that it is not disconfirmed by any set of properties that have some presumption in their favor for him' (my bold type).

From this it appears that Chisholm considers lack of defeating beliefs to be a sufficient condition for prima facie justification, and to be both a necessary and sufficient condition for epistemic merit of any belief of S's, in S's estimation. There is thus a presumption in favour of the justification of any belief which S holds, excepting those beliefs which are overridden by other beliefs in his doxastic set. A belief can be unjustified only if there exist other beliefs in the same set which defeat it, and which are available to S at t, but which S has somehow failed to take into account in his acceptance of Bp.

On PFJ<sub>1</sub> therefore, defeat is the only criterion by which epistemically bad beliefs can be told from good ones, and it is essential to a justified belief that, though not actually defeated (as the unjustified belief is) by other beliefs in its set, it remain always defeasible. To say that a belief is prima facie justified is to say no more than that its justification is liable to be defeated<sup>2</sup>. There is thus no feature of the belief itself in virtue of which it is justified, and all the work of ensuring that it has some epistemic merit, is done by the defeasibility of its justification. The next chapter deals in some detail with defeasibility. Here, we need mention only that all empirical belief is in principle defeasible in so far as it is revisable in the light of evidence; that any particular empirical belief of S's is defeasible both on the broad principle and by evidence which S actually possesses; and that defeat on the

narrow perspective, by 'evidence which S actually possesses', is what is relevant to PFJ<sub>1</sub>.

This means that the justification of each empirical belief of S's is a matter of its doxastic relations (specifically, its lack of relations to countervailing beliefs); further, since all and any of the beliefs which S does in fact hold are in principle equally defeasible, they all have the same justification conditions. These are the distinctive marks of coherentism - that justification be a matter of relations among beliefs and that no one kind of belief have a justificatory status any different from another. In structure, PFJ<sub>1</sub> is a coherence theory of justification. It is a *negative* coherence view<sup>3</sup> because it supposes that justification of any belief is identical with lack of defeating beliefs, and lack of justification with the presence of defeating beliefs, in the same set as it is. Moreover, it results in a variety of epistemological conservatism<sup>4</sup> - S would need some reason to alter, or cease in, any particular beliefs but no grounds are necessary for him to continue in those beliefs.

### **8.3 Two problems for the weak view**

There are at least two kinds of belief whose epistemic status is not satisfactorily explained by PFJ<sub>1</sub>: (i) indirect empirical beliefs, or the sort of belief described as 'well-reasoned' in the last chapter, and (ii) beliefs which are arrived at via epistemically unsound means - the hunches, wishful thoughts, fears, etc., that get into the best regulated doxastic set under the guise of serious beliefs. The way in which explanation fails is instructive, regarding the shortcomings of the weak subjective view.

(i) It seems that, contrary to the claim of PFJ<sub>1</sub>, that all beliefs are correctly presumed justified if undefeated, we cannot say that indirect beliefs are prima facie justified. The crucial difficulty here is that such beliefs are justified only if they are held *for some (positively) good reason*, that is, if there exist relations of support between them and grounding or basing beliefs in the same set, and it will not do to presume them justified on the sole condition that they not be defeated.

Suppose that S believes 'There is now a cat on the mat next door', and there are no defeating reasons available to her; is she then necessarily justified in the belief? No, for it could be the case that she is holding the belief on a whim and for no reason at all, or for no good reason. A belief about some unobserved state of affairs, that is, an indirect or inferential belief, is justified only in the presence of good reasons for holding it. S, from her perspective as holder of the belief, is justified in it only if she has both reason to hold it and no reason not to hold it, and she is unjustified in it if she has either no reason to hold it or reason not to hold it.

Still, it might be thought possible to get indirect beliefs to fit PFJ<sub>1</sub> and the negative coherence mould by collapsing the two kinds of reason, that is, by showing that having no (positive) reason to hold Bp is the same as having a (negative) reason not to hold it. It might be argued that if S holds a belief about some unobserved empirical state of affairs on a whim, then he *does* thereby have reason not to believe it, a defeating reason. The fact that the belief is not based on adequate grounds is available to him on reflection, if he pauses to think about it, and that surely gives him a reason to think he should

not hold it. Any violation of the broad epistemic principle that indirect beliefs require positive grounding in reasons is ipso facto accompanied by a reason for not so believing. Thus *S* is unjustified in holding an inferential belief only when he has reason not to hold it and this would seem to make inferential beliefs prima facie justified too.

I shall leave aside for the moment the problematic issue of how general epistemic rules might enter *S*'s doxastic set or be available to him as defeaters. In the next chapter it is squarely addressed and in (ii) below the point is made that if the judgement of prima facie justification is made only by the holder of the belief, as PFJ<sub>1</sub> would suggest, then certain defeating reasons, i.e. those stemming from the broad perspective, are automatically excluded. There is a more obvious difficulty for the conflationary argument to prove indirect belief prima facie justified.

To accept this argument for the conflation of inadequate and negative reasons, and to say that *S*'s having no reason to believe that *p*, implies that *S* has reason not to believe *p*, is just to affirm the principle that *S*'s having no reason not to believe that *p* (where *p* is some unobserved empirical state of affairs) is sufficient reason for him to believe that *p*. **'If *S* has no grounds for an indirect belief, then he has a defeater of it'** is equivalent to **'If *S* has no defeater of an indirect belief, then he has grounds for it'**.

This is clearly an undesirable epistemic rule, sanctioning as it does any wild or whimsical belief so long as it is not defeated by other beliefs of its holder. It runs counter to intuitions about what good reasons for holding an indirect empirical belief are. If *S*, on being asked why he believed there was a cat on the mat in the room next door, replied 'There's no reason why I shouldn't', it

would not normally be thought a very satisfactory reply. The equivalence set out above shows moreover that one cannot make the need for grounding reasons disappear when the justification of inferential beliefs is at issue. To identify the absence of grounds with a defeater is tacitly to acknowledge that grounds are essential to indirect belief, and hence that it is not prima facie justified, at least in the weak sense of that term.

So there is at least one exception to the claim of PFJ<sub>1</sub> that every kind of belief is prima facie justified for S, an exception that rests on the fact that there is a general rule about the conditions under which S can properly hold an indirect belief, that is, there are criteria for justification independent of (though they may be contingently within) S's subjective viewpoint.

(ii) In the case of some paradigmatically unjustified doxastic states like hunches, wishful or fearful thoughts, and fanatical convictions, it happens that the justificatory criteria which are independent of S's viewpoint, are also necessarily external to it. This has the undesirable result that on PFJ<sub>1</sub> patently unjustified beliefs have the same justificatory status as well-formed beliefs.

In the case of normal empirical beliefs, if some proposition *p* is believed by S, it follows that she judges *p* to be true and not not-*p*. In S's judgement therefore, there are no defeaters of B*p* in his doxastic set at *t*, and this would seem to suggest that, in some restricted sense, defeaters are not *available to* her if she holds B*p* true. Perhaps an ideally rational agent would always be conscious of other beliefs of hers relevant to B*p*, especially defeating beliefs, but then she would not come to hold B*p* in the first place. So we may say that

in according credibility to  $p$  at  $t$ ,  $S$  shows not only that there were no defeaters of  $B_p$  of which she actually availed himself at  $t$ , she shows also that on the perspective of one who judges  $p$  true, that is, for a believer of  $p$ , there are no potential defeaters of  $B_p$ . This is trivially true of any belief of  $S$ 's.

For instance,  $S$  believes that there is ice-cream in the fridge. He arrived at this idea by a process of wishful imagining, and it has turned into a belief only because he has succeeded in *obliterating* its shaky origin from his consciousness. His forming and maintaining the belief depend essentially upon his having forgotten this fact, so that from his perspective as subject of the belief, the defeating belief is not, *ex hypothesi*, available to him. An unfortunate corollary of this principle that defeaters are not in practice available within the purview of someone committed to the truth of a proposition is that the greater the commitment, the less accessible are the defeaters. To the fanatic who believes an extensive and coherent system of very dubious propositions, defeaters are virtually unthinkable, and the stronger his convictions, the more remote is the possibility of defeat. It follows that on  $PFJ_1$  the wishful thought or fanatical conviction is prima facie justified for  $S$  at  $t$ .

All that this shows, of course, is that  $PFJ_1$  needs supplementing with some statement of what constitutes availability of defeaters. There are two ways in which  $S$  might try to gain access to the defeaters which are not available on the perspective of the holder of the belief: he could acquire new beliefs, fresh evidence which shows that  $B_p$  is not likely to be true (he opens the fridge), or he could put a question mark on  $p$ , that is, conscientiously assume

a critical, reflective position with regard to Bp and any of his beliefs which might be relevant to it. The first method is not certain, and with the second, S suspends his commitment to the truth of p and thus quits the subjective viewpoint of PFJ<sub>1</sub> for that of a member of the epistemic community.

In looking to fresh evidence for defeaters (the first method), the assumption is that an unjustified belief, one not likely to be true, will be revealed as such to S in the course of time and further experience<sup>5</sup>. However, there is no certainty of defeat for a wishful belief or the like. Circumstances might conspire to shield the lucky guess or wish from discovery; someone might have put a tub of icecream in the fridge by the time S opens the door, so that his wishful belief never gets defeated - nothing ever enters his doxastic set which might lead him to doubt Bp. In such a case, its justificatory status according to PFJ<sub>1</sub> is exactly the same as that of a soundly-acquired sensory or memory belief. It is plainly an undesirable result for any theory of epistemic justification that it be non-discriminative between epistemically good and bad beliefs, so it seems that the second method - conscientious application of epistemic criteria - is the alternative to investigate.

In general, what these two difficulties for the weak subjective view of prima facie justification show, is that if any principle is to be effective in an epistemological context, it must include more than just the reasons that a holder of a belief may have for or against it.

#### **8.4 The objective sense of prima facie justification**

This is the view on which only certain kinds of beliefs, the patently

well-formed or evidently justified beliefs, are correctly presumed to be justified. If a particular belief is of a kind which enjoys some characteristic justification, and there are no obvious ways in which it deviates from the standards of its kind, then on the face of it, it will be justified. The statement 'Bp is prima facie justified for S at t', on the strong or objective reading, means that S's epistemic circumstances are such that the belief Bp, whatever kind it may be, is obviously justified for her in those circumstances, whether she holds it or not. 'Prima facie justified' in this sense would apply to all standard sensory, memory and interoceptive beliefs held in the right contexts, as well as to inferential beliefs based on explicit or implicit reasons.

In fact, any belief which is produced by one of the recognized sources of epistemically good beliefs has some presumption in favour of its justification and so is prima facie a justified belief for an observer, or for S herself when she slips into judicial or reflective mode regarding some belief of hers. <sup>6</sup>

If we take the field of prima facie justification to be beliefs of this sort, the following definition emerges:

**PFJ<sub>2</sub> - Prima facie justification is defeasible justification which obtains in any single belief Bp held justifiedly by S at t in the absence of empirical reasons adducible by him in relation to Bp, and which is proper to all beliefs which may be so held.**

In the definition, 'justifiedly' is preferred to 'justifiably' because the latter suggests the process of justifying which consists in adducing reasons

(justifiable = able to be justified), and the possibility of this process is excluded in the case of prima facie justification, at least for S.

'Empirical reasons' relating to Bp are of two kinds: (i) beliefs of S which give him reason to think that p is the case; reasons supporting Bp, and (ii) beliefs of S which give him reason to doubt that p is the case; reasons defeating Bp. 'Adducible' is meant to suggest that they be within his cognitive perspective at t, and not be remote possible reasons, adducible only after S has acquired them. If he doesn't have them at t, they are not reasons adducible in relation to Bp at t.

The last clause points to the fact that it is only certain kinds of belief which enjoy prima facie justification, kinds identifiable by S himself or a third party, viz., beliefs held in the presence of a relevant perceptual or interoceptive experience, or memory. The third party - S himself qua member of the epistemic community - could give some reasons as to why the belief is justified by referring to the kind of belief it is, though these would not be empirical reasons.

An application of PFJ<sub>2</sub> is to be found in Pollock (1974:31) - 'The basic idea behind the concept of a prima facie justified belief is that there is a "logical presumption" in favor of the belief's being justified. If a belief is prima facie justified, one does not need a reason for believing it, but it may be possible to have a reason for disbelieving it'. In a later version (1986:29) - '... one must be able to hold basic beliefs justifiably without having reasons for them, but reasons could still be relevant in a negative way by making one unjustified in holding such a belief when he has a reason for thinking it false. This is captured by the following definition: "A belief is prima facie justified

for a person S if and only if it is only possible for S to hold the belief unjustifiedly if he has reason for thinking he should not hold the belief (equivalently, it is necessarily true that if S holds the belief and has no reason for thinking he should not then he is justified in holding the belief)".'

What range of beliefs does this definition pick out? Indirect beliefs, for a start, are excluded. To run one through the second part of the definition: it is *not* necessarily true that if S holds the belief 'The cat is now on the mat next door', and has no reason for thinking he should not then he is justified in holding the belief, because the positive support of grounds is necessary for such a belief's justification. If S has no reason to think this state of affairs obtains next door, then he is not justified in thinking it. Hunches, wishful thoughts and other disreputable doxastic states are also excluded, not on the uncertain and sometimes impossible condition of S having defeaters of them, but because they are generally recognized as an unjustified kind of belief.

A sensory belief which (as we have seen) is held for no prior reasons, and which is always open to correction in the light of further experience, would seem a likely candidate for prima facie justification in this sense. It is not the only kind of non-inferential empirical belief, acquired in the absence of prior reasons. Remembered beliefs and beliefs about states of our own bodies, have also an immediate or groundless character, and so they too would, if justified, seem to be prima facie justified. These three kinds of belief may be put together under the single classification of 'experiential beliefs'; beliefs which S is inclined to treat as justified and acceptable though he has no positive reasons for doing so, and which he may reject in the light of overriding reasons <sup>7</sup>.

So though Pollock's position, as set out in the above quotations, may seem at first glance to be a reiteration of PFJ<sub>1</sub>, it is not. The essential difference is that Pollock leaves room for criteria of justification which are independent of the lack of defeaters, while on PFJ<sub>1</sub> justification is constituted by that lack.

It is instructive to compare Pollock and Chisholm on this point. A rough paraphrase of Chisholm's claim (1980:552): 'An attribution may be said to be *epistemically unsuspect*, or *epistemically in the clear*, for any subject, provided only that it is not disconfirmed by any set of properties that have some presumption in their favor for him' would be '**A belief is prima facie justified for S iff it is not defeated by other beliefs of his**'; of Pollock's (1986:29): 'A belief is prima facie justified for a person S if and only if ... it is necessarily true that if S holds the belief and has no reason for thinking he should not, then he is justified in holding the belief', a rough paraphrase would be '**A belief is prima facie justified for S iff when he holds it undefeated then necessarily he is justified in it**'.

In the first, Chisholm is giving an explication of justification of a certain kind. Neither the term 'justification' nor any of its cognates occurs in the explicans, which is a statement of the necessary and sufficient conditions for prima facie justification. This is not the case in the second quotation. Here, Pollock is saying when justification is a prima facie attribute of a belief. There is mention in the explicans of a justification which necessarily obtains whenever a certain kind of belief is undefeated, but it is not constituted by lack of defeaters. The point is that on PFJ<sub>2</sub>, much stronger criteria, independent of the subjective perspective, are appealed to. Defeasibility

alone is not enough for justification, and this avoids the weaknesses of PFJ<sub>1</sub>.

The view expressed in PFJ<sub>2</sub> is a variety of foundationalism regarding the structure of empirical justification. At least, one individually necessary feature of any foundations theory is explicitly stated in the definition - that there be certain beliefs which are successfully justified in virtue of features which are not doxastic, that is, in the absence of supporting beliefs. PFJ<sub>2</sub> says nothing explicit about the second individually necessary (and, with the first, jointly sufficient) condition for any foundations theory, that the beliefs so justified should have the capacity for serving as justification for all other empirical beliefs of S. Nevertheless, if it can be shown that the justification adumbrated in PFJ<sub>2</sub> is epistemically satisfactory, and that it does in fact hold in at least the case of sensory belief, which is all that I wish to do in this thesis, then we shall incidentally have gone some way also towards establishing a foundational thesis regarding the structure of empirical knowledge.

The significance of these features of prima facie justification for the case of sensory belief is that they support the naturalistic view which assumes the necessity of objective warranting features in any justified belief. Briefly, however, by holding sensory belief to be justified in the sense of PFJ<sub>2</sub>, we allow that it is justified simpliciter: on the subject's perspective, in the absence of grounds and defeaters, and on the wider perspective, by the character of the belief's producing mechanism.

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### Notes to Chapter 8

1. The differences between potential and actual defeat, kinds of defeat, and what should count as a defeater, are addressed in the next chapter.

2. There is certainly a tendency to equate 'prima facie justification' with 'defeasible justification' in the literature. Moser, using the term to characterize apparently good reasons, says (1985:4) - 'Yet we should recognize from the start that all good reasons may be prima facie reasons. That is, they may be defeasible in the sense that they can lose their justificational efficacy once one acquires certain additional reasons.' Alston consistently uses 'prima facie' in this weak sense, as synonymous with 'liable to fail or be overridden'. The following (1989:238) is representative - 'Being based on an adequate ground is sufficient only for prima facie justification, justification that may be nullified by sufficient overriding reasons ... ' And Dancy (1985:64) speaks of ' ... some beliefs which are ... fully justified unless something arises to defeat their justification. We could call this a 'defeasible' or 'prima facie' justification.'

3. Pollock (1986:72) gives the following exposition of the kind of theory under consideration - 'Some coherence theories take all beliefs to be prima facie justified. According to these theories, if one holds a belief, one is automatically justified in doing so unless he has a reason for thinking he should not. All beliefs are "innocent until proven guilty". This is the view expressed by the Neurath metaphor. According to theories of this sort, reasons function in a negative way, leading us to reject beliefs but not being

required for the justified acquisition of belief. I call these *negative coherence theories*.' In 1979:105-111, Pollock points out the similarity between this variety of coherentism and classical foundations theories, and offers 'a defense of a particular negative coherence theory'. Foley (1987:310) remarks that 'in contrast to standard coherence theories, so-called negative coherence theories ... imply that *any* proposition believed by S is epistemically rational for him provided that the other propositions he believes do not support its negation.'

4. As any weak or 'latitudinarian' principle of justification is likely to. See the discussion of Chisholm in Foley 1987:281, for an analysis of why this variety of epistemic conservatism fails.

5. There is something of a pragmatic theory of justification associated with the view that justification consists in nothing but lack of defeaters, and it is vulnerable to the same kind of criticism that is effective against all pragmatic theories, viz., that justification is not to be *identified with* practical success or lack of defeat, though they may be co-extensive. There is some logically prior feature of the belief in virtue of which its pragmatic success or lack of defeat is to be explained, and this is its justification.

6. On one recent account, Audi 1988:8-64, the 'sources of belief, justification and knowledge' are just these four: perception, memory, introspection and reason. Audi does not limit his enquiry to empirical belief, but it seems these four are also all sources of empirical belief, justification and knowledge, and the only sources. It would perhaps be more accurate to say that the set of empirical belief is closed under perception and reasoning, interoception being a special case of sensory experience and memory not being a source of *new*

beliefs. But as far as justification and so too knowledge go, all four figure as sources. Though only sensory belief and its justification is at issue in this thesis, much of what will be claimed of it is applicable in the cases of memory and interoceptive beliefs too. Perception, interoception and memory are conscious, belief-producing bodily states, so that though there are problems special to each, there is also much that applies *mutatis mutandis* to all of them.

7. As Carruthers, 1992:2, points out, there is an empiricist tradition on which **experience** may be 'understood broadly to include both memory and introspection'.

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## Chapter 9 - Defeasibility

There are (at least) two problematic issues attached to the notion of defeasibility that any theory of prima facie justification must face. Firstly, there is an apparent inconsistency in the naturalistic conception of immediate justification which needs to be explained. If a belief is corrigible and revisable in the light of negative or defeating evidence, as the modest foundationalist claims basic beliefs are, then there seems to be a sense in which it is dependent upon positive evidence, and so upon the other beliefs in an epistemic system, for its justification. But this is something which a basic belief may not be, on pain of losing its claim to being foundational. Conversely, if a belief is truly independent of all other beliefs in S's doxastic system, then it would seem to be insulated from evidential connections, and so indefeasible, in the manner of classical foundational beliefs. Corrigibility and independence seem mutually exclusive.

Secondly, the possibility of defeasibility depends on a basic belief's having the potential for being unjustified, and it is not clear that any immediate empirical belief can be unjustified. If *any* sensory content is marked as warranted, and so is prima facie justified, for S, then how is it possible for S ever to be unjustified in holding an experiential content? If there is no such thing as an unjustified basic belief, then we can hardly talk of a justified one either and the whole notion of basic justification falls away.

Before coming to an explanation of these two apparent difficulties, and in order to understand the justificatory status of basic beliefs in a modest foundationalism, we need first to get clear the relations among certain significant terms.

### 9.1 Three levels of epistemic appraisal

There is a large number of terms which are distinctively epistemic. Thus Goldman (1987: 92): 'Obviously, an exhaustive list cannot be given, but here are some examples: "justified", "warranted", "has (good) grounds", "has reason (to believe)", "knows that", "sees that", "apprehends that", "is probable" (in an epistemic or inductive sense), "shows that", "establishes that", and "ascertains that".' Being epistemic, such terms are all normative in their application, but among them there are those which are specifically terms of appraisal, and it is with these that the theory of justification is concerned. A (non-exhaustive) list would include 'justifiable', 'unlikely', 'reliable', 'reasonable', 'credible', 'indubitable', 'certain', 'corrigible', 'apparent', 'prima facie', 'evident', 'infallible', 'revisable', 'apodictic', 'demonstrable', 'acceptable', 'doubtful', 'probable', 'defeasible', and of course the opposites of all these words. They mark the epistemic properties that a proposition, or a belief, or a believer may be said to possess.

Any general taxonomy of these terms would be an ambitious project, but it is necessary just to draw attention to what seems to be an important hierarchical distinction among them, or at least among the three of them for which I shall argue: 'acceptable', 'justifiable', and 'defeasible'. If it holds for these three, the distinction should be of more general application, but I shall not try to establish it here.

If we suppose that the terms 'acceptable', 'justifiable' and 'defeasible', apply loosely to the intentional state of believing, that an epistemic agent S is in at t, then it would seem that they apply in different ways. It is a proposition

that is acceptable or unacceptable for S at  $t^1$ , and what is justifiable or unjustifiable is his acceptance, denial or withholding of it. This means that S must have taken up a doxastic attitude with respect to p before there is the possibility of justification (or disproof); the predicate 'is justified' applies to the holding true of some sentence. There is at least this priority of acceptance over justification, then, that the second presupposes the first.

Similarly, the application of the term 'defeasible' makes sense only when its object is a justified belief. It is justification (and with it, acceptance) that may be defeated by new evidence, since one cannot speak of defeasibility with respect to a proposition which is unjustified for S, one which he is merely entertaining. We may say that it is a content that is acceptable for S at t, the acceptance of a content that is justifiable or reasonable for S at t, and the justification of the acceptance of a content that is defeasible for S at t.

Notice that justification may be found wanting in one or both of two ways: it may fail subjectively for S, as when S remembers a countervailing fact he had forgotten in coming to hold Bp, and then S will give up Bp or at least modify the credibility he accords p; and it may fail intersubjectively, as when an observer declares S's justification for Bp at t to be inadequate, perhaps because he realizes S has overlooked or neglected to acquire countervailing evidence. It is only the first case we are calling 'defeated' justification. The second is a case of objectively unjustified belief in which S's subjective justification is not necessarily defeated.

To put the three different levels in more concrete terms: S, in the course of a visual experience, comes to believe (accepts) that there is an apple on the

table. She is justified in the belief (acceptance of the content), always assuming of course that she is aware of no countervailing reasons. Her justification is defeasible by new evidence. The three levels of epistemic appraisal terms are quite plain in this example. An empirical content must be accepted in order to be justified, and justified in order to be defeated.

There are some significant conclusions to be drawn from the hierarchy just described for the case of foundational beliefs. First, it draws a distinction between acceptance of a content and the justification or acceptability (in the wide sense and not just for S) of the belief, and thereby affirms the possibility of an unjustified immediate belief. An experiential content may be accepted and maintained by S without justification, for instance when she sees what looks like a barn from the highway and, forgetting what she has been told about this being barn-facsimile country, believes that it is a barn.

Then, it is often assumed that if an empirical belief, and especially a basic belief, is allowed to be corrigible, revisable, or its justification in any way defeasible, then this in some sense makes it epistemically suspect. It is rather the case that if (the justification of) a basic belief is allowed to be defeasible, then the basic belief must be justified.

Lastly, the distinction of these epistemological levels confirms the naturalistic principle that the proper object of justification is the whole psychological state of belief. There seems to be a growing realization, perhaps fostered indirectly by issues like Kripke's 'puzzle about belief' and the reference of indexicals, that what is justified is not a proposition, or at least not a Fregean proposition, but a content defined by a history and a potential output, that is, a doxastic state <sup>2</sup>.

## 9.2 Defeasibility and foundational status

There are two requirements for basic empirical belief: (i) A particular, current, empirical fact is presented to S's consciousness (not necessarily in the form of a phenomenological image) through the medium of his senses; (ii) there is no awareness on S's part of any undermining evidence, or any untoward circumstances in the causal complex which resulted in his present state of mind, which would have the effect of rousing his suspicions concerning the perception and perhaps defeating the *prima facie* justification of the belief. Given these two conditions, S will usually accept the fact so presented <sup>3</sup>.

If these are the actual conditions for the holding of basic beliefs, then, in the spirit of a naturalistic epistemology, this is where we must look for their justification and for the defeaters of justification as well. The two conditions represent two aspects of *prima facie* justification; its positive and negative aspects, one might say. The positive reasons which S has for accepting a basic belief have already been dealt with in some detail; in brief, a basic belief is justified for an agent at a time in virtue of the agent's recognition that it *is* a basic belief, i.e., that it has sensory character and immediate indexicality.

Negatively, the justification of a basic belief is not defeated for S at t iff he has no reason not to hold it. Some epistemologists identify *prima facie* justification tout court with this lack of defeating evidence: 'A belief is *prima facie justified* for a person S if and only if it is only possible for S to hold the belief unjustifiedly if he has reason for thinking he should not hold

the belief (equivalently, it is necessarily true that if S holds the belief and has no reason for thinking he should not then he is justified in holding the belief' (Pollock, 1986: 29). But this is to neglect the deontological, warranting and 'distinct marks' requirements on any satisfactory account of justification.

Possible defeaters, or the reasons that S might have for not holding an empirical content, may be looked at under the rubric of the dependence relations of empirical belief. It will first be necessary to show briefly how these relations play a role in the *justification* of any empirical belief before coming to the question of *defeat* of justification. If the account in Chapter 5 was correct in canvassing the epistemologically significant determinants of such belief, then S's reasons for holding Bp at t cannot come from outside these base realms. It was suggested there that the two main bases, apprising conditions and theoretical beliefs, might both play a role in the justification of a particular empirical belief. In different ways, they both provide S with reasons for believing as he does. If he were asked to justify his belief, he would be able to do so by referring to the apprising conditions of his belief or to the semantic beliefs in terms of which he conceives its content or to the probabilifying beliefs which make it most likely true. They all give him rather different kinds of grounds for thinking that p is the case, and the contention will be that it is only apprising conditions that are properly called 'empirical justification'.

An agent may adduce, firstly, what might be called 'semantic reasons' for holding just the particular belief that he does, where these reasons consist in the agent's beliefs concerning the meaning of the words which describe his experiential belief, and their aptness for that task. For instance, on being

asked why he believes that there is a red geranium on the windowsill, S might reply that the colour of the flowers in front of him is just what is called 'red'; or he might say that geraniums have that characteristically-shaped fuzzy leaf; or he might offer any of a very large number of reasons which would have this in common, that they referred to the semantic content of the belief. Semantic justification derives from the fact that any particular belief is individuated in terms of its relations to whatever other concepts and beliefs an agent possesses, and an agent in adducing it as justificatory, is appealing to the shared semantic network of the epistemic community for ratification of his reading of the apprising conditions. Such justification when offered in defence of a basic belief, is not empirical justification since it has nothing to do with the sensory acquisition of the belief.

A useful way of determining whether reasons of some kind are empirical justifiers or not, is to ask if the epistemic agent could have those reasons and *not* have the belief that they are offered in support of. If the answer is 'Yes', then those reasons do not function as empirical justifiers. It is plain that S has many beliefs about flowers, colours, windowsills, spatial relations, etc., all the beliefs that he may offer as semantic justification for his belief that there is a red geranium on the windowsill and which are presupposed for the semantic interpretation of the belief, without having the belief that there is a red geranium on the windowsill. Semantic reasons are necessary but not sufficient conditions for the generation and justification of an immediate belief. Kornblith, who calls this kind of reason 'background beliefs' describes their non-empirical role thus: they 'do not appear on the justificatory tree tracing the etiology of the belief in question' (1987: 121), and so do not provide positive support for it, but they are nevertheless relevant, often in a negative way, to its general justificatory status.

Secondly, an agent may adduce probabilifying beliefs in defence of her holding a particular belief  $B_p$ . These are the theoretical beliefs which bear in some way or other on the likely truth of  $p$ , perhaps being about the statistical probability of  $p$ 's in that context, or the kind of causal circumstances in which  $B_p$  arose, or the reliability of the sort of process by which it was produced. The automatic acceptance of a basic belief always occurs in the doxastic context of a presupposed set of theoretical background beliefs with which it must be consistent. Once again, as with semantic beliefs, the possession of such a set is compatible with the agent's not having the basic belief in question, and therefore background beliefs do not function as empirical justifiers.

The third kind of reason that an epistemic agent might give in support of her belief that  $p$  at  $t$ , are empirical reasons, which refer in some way to the apprising conditions of  $B_p$ . If it is a basic belief that she is justifying, then there will not be much she can say in its defence, beyond referring in various ways to the sensory causal history and immediately indexical character of the belief itself. Immediate empirical justification has been discussed in the section above on prima facie justification. If it is an inferential belief that she is justifying, then the reasons that  $S$  will give as its empirical justification (as has already emerged in the test for semantic and probabilifying reasons), will be whatever gives her reason to think that  $p$  is the case. Empirical reasons are, like  $S$ 's general theoretical reasons, essential to her belief that  $p$  in that she could not have come to believe that  $p$  if she had not had these reasons (or others of equal force).

But, unlike theoretical reasons,  $S$ 's having of empirical reasons guarantees that she will believe  $p$  (if, as we assume, she is rational). The

foundationalist's claim is simply that in respect of its *empirical* justification, a basic belief is independent of any other belief. This claim explains also how it is that an immediate belief may be defeasible and yet independent - the class of defeaters originates from within that of general theoretical beliefs, though it is not identical with it. We may look to the hierarchy of epistemic appraisers established earlier for confirmation of this; defeaters apply to the justification of a belief rather than to its acceptance and are therefore not themselves justifying reasons. If S can be shown that it is not a geranium but a pelargonium, she will cease to hold Bp. A reason like 'No one else here can see a red geranium on the windowsill' may defeat empirical justification because it makes the truth of the basic belief less likely.

We may define a defeater roughly as follows: if S holds the justified Bp at t, any belief (Bd) that is in S's doxastic set at t and that, in conjunction with S's full set of reasons for Bp, causes S to hold B-p, is a defeater of the justification of Bp <sup>4</sup>. Seeing that, on a functionalist view, any empirical belief *is* to a large extent its apprising conditions, since it is defined and its psychological type is fixed in terms of them, it is not possible for apprising conditions to *defeat* justification.

Of course, S may hold Bp true of c at t, and at t + 1, hold Bq true of c, but then p's and q's apprising conditions are quite different and they are quite different beliefs. We might say that Bq has superseded Bp, perhaps that the belief itself has been corrected, but it is not the defeat of justification as defined above. Only background beliefs <sup>5</sup> may act as reasons to defeat any justification, and since they are not empirical reasons as defined, the foundationalist's claim of the empirical independence of basic beliefs is not

disturbed by his admission of the defeasibility of all empirical belief.

### **9.3 The possibility of unjustified immediate beliefs**

As was claimed above, if an agent believes seriously and in the absence of vitiating background beliefs, he is thereby assured of believing reasonably in a subjective sense. This is not enough for an objective judgement of reasonableness to be accorded the belief though; for that, an observer who is cognizant of S's mental states and circumstances, or S himself in a judicious attitude, must assess the belief epistemically, its causal history, character, and its relations to other beliefs actually or possibly in S's doxastic set. This is a rather formal way of speaking about what is common and inconspicuous practice among epistemic agents, evinced in idioms like 'should realize that', 'can't seriously think that', 'could have seen/ heard/ smelt/etc that', 'must remember that', and so on.

It seems that the justified belief is allowed to pass without comment and assessment is vocalized only when S falls short in his epistemic responsibilities. It is thus quite possible and, to judge by the prevalence of the censorial idioms, quite common for an agent to believe seriously, in the epistemic sense, and with a sufficient measure of subjective reason to ensure acceptance of the content, and yet not to satisfy the objective standards of justified belief.

When might the sensory mode of presentation and immediate indexicality of a content fail to justify S in accepting it? Just in case he has reason to think the physical causal array which determines the belief is less than trustworthy, is off-key or non-standard in some way. These reasons may be antecedent to or arise concomitantly with the experience. In the first case,

although the experience may be phenomenologically indistinguishable from a normal perception, there exist vitiating background beliefs of which S is or should have been aware, such as that his colour perception is being affected by a recent attack of jaundice, or that he is looking at Peacocke's *tromp l'oeil* door, or the Hall of Illusions at a funfair.

Then, there may be something fishy about the experience itself (a peculiar quality to it like a dimness or lights before the eyes, a penumbra, an echo to the sounds) which should lead S to treat the whole experience with circumspection. Of course it might happen that S has no reason, and cannot in all fairness be expected to have any reason, to suspend belief in the content of the experience. These are the successful cases of illusion and hallucination mentioned above in which S is justified in believing as he does because he is the unwitting dupe of mendacious conditions.

But we should notice that he is not always and not necessarily a helpless victim; if he is on the alert for off-key perceptions, open to the warning signs which often accompany abnormal experiences; if he places a high premium on careful and accurate scrutiny of the environment and the acquisition of immediate empirical belief which is as exact a representation of its objects as possible; and if he takes these epistemic responsibilities seriously enough, then he will not be the victim of illusion as often as an agent who does not. In short, to the extent that he is an excellent epistemic agent who exercises the epistemic virtues, he is able to acquire true beliefs.

In general though, cases of perceptual illusion are successful and thus underscore the principle that any content whose mode of presentation appears to the agent to be a normal sensory one or whose indexicality is immediate, is

automatically credible to him, and if it is acceptable then he is justified in believing it.

Hallucination and illusion are not the only or the most common sources of error in sensory experience. It might happen that S goes beyond the given content, and so arrives at a belief with some hypothesis in it, which will be unjustified unless supported by other grounds. Kornblith (1987:121, in illustration of a rather different point) gives the example of Moe and Joe, both looking at an apple on the table in front of them, and both believing that they are looking at an apple, the typical setting for *prima facie* justification of a basic belief. Moe is in fact so justified while Joe is not, because Joe knows that he suffers from myopia which makes his eyes untrustworthy.

The example is implausible for this reason: that Joe could not honestly and seriously come to believe there is an apple on the table in front of him if his eyes are truly not good enough to do so. He may choose to act as if there were an apple there, and even find his hypothesis confirmed by further experience, but there will be an element of guesswork in his belief and it is better described as the assumption that the reddish shape which he *does* seriously believe is before him, is an apple. Shortsightedness is precisely the *inability* to form beliefs about what one is looking at beyond a certain distance, as anyone with myopia will know. What Joe may well believe with conviction, in the epistemic sense of believing, is that there is a reddish, roundish object in front of him.

The general point at issue here is that the deliverances of the senses wear their justification on their sleeves. An agent forms beliefs about his immediate environment at the direction of his senses and not by referring to

other of his beliefs. What he believes and how many beliefs he acquires in a causal experiential array is a function of those apprising conditions and nothing else, and if an agent does not go beyond them with assumption and guesswork, he is always justified in accepting the content of sensory experience (bearing in mind the further two qualifications mentioned above - no vitiating background reasons and no peculiar phenomenology).

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### Notes to Chapter 9

1. The impossibility of any proposition's being justified in isolation from a generally intentional context, and of an empirical proposition's being justified in abstraction from a doxastic context, has already been argued for in Ch. 3.
2. See for instance Bonjour (1985: 5): '... there are difficult problems concerning the concept of belief, especially pertaining to the idea that it is propositions which are the objects or contents of beliefs', and he refers in an explanatory footnote to 'the recent arguments by Perry (1979) and others [Lewis (1979) and Castaneda (1967)] that propositions as traditionally understood cannot serve as the objects of all kinds of knowledge because some knowledge seems to be expressible only in indexical terms' (ibid.: 230).
3. 'Usually', because one might imagine a counterexample to the above generalization in which S, through some psychological quirk, doubts everything which he observes on, say, February 29th, or feels unsure, for no good reason, of everything he perceives through sunglasses, so that in spite of

what reason tells him, S cannot accept certain of the facts that his senses present him with.

4. For more exact and carefully argued definitions, see Annis (1978: 156 - 157) and Swain (1978: 160 - 183).

5. The term is used by Kornblith (1987: 121) to refer to the class of possible defeaters.

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## **Chapter 10 - Conclusion**

The problem with which we started was the old philosophical worry about the security of our knowledge of the external world. Is it reasonable to hold the all beliefs that we do commonly hold, about the material world in our immediate vicinity? Are experiential beliefs about physical reality justified? and if so, how are they justified? There is a short answer to these questions: 'Yes, it is reasonable to hold them because they are prima facie justified'.

Understanding the nature of that justification, however, its relations to the subject of the justified belief and the adjudicators of justification in the persons of the epistemic community; what it says about the form of an immediate belief and the physical world about which the belief is, has proved to be not a short or simple exercise. Three main themes have been developed in the course of explicating a theory of prima facie justification, each with specific consequences for that theory. A summary review of these will give us a bird's eye view of the thesis.

### **10.1 Naturalistic epistemology**

It has been the contention here that prima facie justification is best grounded in a naturalistic epistemology, and three main points, with significant consequences for the thesis, were made concerning the nature of that enterprise.

#### ***10.1.1 Reconciliation***

A naturalistic approach should not preclude the traditional issues of

epistemology from being followed in a recognizably epistemological manner. The significance of this for the thesis is that it rules out the possibility of a purely externalist or reliabilist theory of justification. The traditional (and difficult) question has always been: 'Are we, as conscious subjects, reasonable in believing as we do of our environments?', and that is the question I have tried to address here.

The difficulty of reconciling subjective and objective viewpoints has been met in various ways: taking consciousness and intentionality to be properties of the instantiation of brain states; taking justification to be a feature of the well-formed, standard belief; taking it that prima facie justification needs more than internal reasonableness effectively to warrant experiential beliefs, and that their reliable origins in neurophysiological processes must anchor their immediately obvious acceptability.

### *10.1.2 Realism*

The naturalistic viewpoint also mandates realism regarding justification and knowledge. In adopting a heuristic approach to her subject, the naturalistic epistemologist assumes the existence of the objects of study, and thus closes the door at the outset of the enterprise, on any possibility of radical scepticism.

Part of a realistic approach is the commitment to description rather than prescription, to taking the average belief, case of justification, state of knowing, as the paradigm, rather than the idealized but unattainable model. The sort of justification that this thesis is about is therefore the mundane variety that we speak of in ordinary contexts, and attribute to ordinary

people. Taking the average epistemic agent rather than the ideally rational agent as a paradigm entails acknowledging the ubiquitous possibility of error, even in foundational beliefs, and this is reflected in the defeasibility clause in the definition of prima facie justification. Foundational beliefs are realistically seen as ordinary physical-fact beliefs rather than beliefs about the contents of experience.

### *10.1.3 The physical matrix*

The naturalistic outlook is one in which the agent is conceived as an integral part of the material world, in constant causal interaction with it, and in which beliefs, especially immediate empirical beliefs, are determined essentially and substantially by the array of physical events upon which they supervene. The physical evidence for beliefs and their genesis in physical arrays, is epistemologically significant.

This leads to a view of the structure of empirical justification as linear and to a view of experiential beliefs as justificatorily basic. Commitment to the causal matrix of beliefs also means allowing that the acquisition and holding of immediate beliefs is an involuntary matter, which supports the automatic acceptability of a content needed for prima facie justification, but bedevils the inclusion of any notion of epistemic responsibility or merit on the part of the agent. We tried to answer this difficulty by showing that S exhibits a higher-order virtue in automatically accepting sensory contents, and instantiating well-formed causal processes, and a first-order virtue in carefully and conscientiously servicing the defeasibility condition.

## **10.2 Empirical belief**

There are two main strands of argument here, each taking a premiss from the nature of empirical belief and drawing a conclusion for the nature of immediate empirical justification.

### *10.2.1 Sensory character*

It is the nature of immediate or experiential belief to be marked with a sensory character, reflecting its origins in causal neurophysiological processes. This acts as a marker for S of the credibility of sensory contents; its absence from an immediate content marks that content's unacceptability. This allows us to see the automatic acceptance of sensory contents as an act of some discernment and reasonableness.

Further, the sensory character of immediate belief reflects the generally trustworthy processes by means of which it is produced. There is thus an objective warrant of likely truth in the sensory character of an immediate belief. Since S is disposed habitually to accept such contents, he evinces a higher-order belief that his senses are to be trusted, and this enables us to link the warrant of the belief to its internal reasonableness. Moreover, the warrant provided by its sensory origins is recognized by the epistemic community as such. Immediate belief with a sensory character is thus *prima facie* justified on the wider perspective too.

### *10.2.2 Dependence relations*

The thesis of dependence relations supports the naturalistic view of belief as a complex psychological state defined in terms of its inputs and outputs,

rather than an attitude to a proposition. The corollary of this for justification is that the justification of beliefs resides in the web of causal and dependence relations in which they are defined and individuated, and not in propositional relations.

The complex web of relations, to apprising conditions, semantic and probabilistic beliefs, in which an immediate belief stands, allows us to understand how it is that such beliefs may be justificatorily basic, and prima facie justified for their subject. They depend on no reasons in the form of further beliefs, in respect of their empirical justification, that justification essential for existential beliefs which consists in 'having reason to think that p is the case'.

Prima facie justification rests largely on the possibility of defeat of justification. The dependency thesis substantiates this aspect of immediate justification by showing how background beliefs, which may act as defeaters of the justification of an immediate sensory belief, are to be found in the class of semantic and probabilistic beliefs, upon which the immediate belief depends for its theoretical justification.

### **10.3 Criteria for prima facie justification**

There are at least four features of justification which need to be recognized if we are to agree that a belief is a successfully justified belief, and consequently, four necessary conditions for justification which any theory must accommodate:

- the content of the belief must be reasonable for its subject;

- there must be distinguishing marks by means of which the subject and the epistemic community can tell a justified from an unjustified belief;
- there must be some epistemic virtue or responsibility displayed by the subject in acquiring or maintaining the belief;
  - whatever it is that justifies the belief must give it some objective likelihood of truth.

These conditions can be seen to have been met in the theory of the prima facie justification of immediate empirical belief:

- sensory contents are automatically acceptable and reasonable for their subject; the immediate empirical beliefs so constituted depend on no other beliefs of the subject for their reasonableness;
- their acceptability is marked for S and the epistemic community by their sensory character;
- prima facie justification bears responsibilities in so far as the subject has to constantly be alive to defeaters of that justification, and it exhibits epistemic merit at the level of instantiation of well-formed experiential beliefs;
- the warrant which is necessary for objectively successful justification is ultimately provided by the general reliability of the sensory mechanisms, and may be claimed as a higher-order belief of the subject's in virtue of her disposition to accept sensory contents as true..

## BIBLIOGRAPHY

- Annis, D. 1978. 'Knowledge and defeasibility', pp. 155 - 159 in Essays on knowledge and justification, eds. G. S. Pappas and M. Swain. Ithaca : Cornell University Press.
- \_\_\_\_\_ 1986. 'A contextualist theory of epistemic justification', pp. 203 - 213 in Empirical knowledge, ed. P. K. Moser. Totowa, N.J. : Rowman and Littlefield.
- Almeder, R. 1990. 'On naturalizing epistemology', American Philosophical Quarterly, 27, 4, Oc 90:263 - 279.
- \_\_\_\_\_ 1992. Blind realism. An essay on human knowledge and natural science. Lanham, MD: Rowman and Littlefield.
- Alston, W. 1971. 'Varieties of privileged access'. APQ, 8, 3, Jl 1971, 223 - 241.
- \_\_\_\_\_ 1986a. 'Internalism and externalism in epistemology'. Philosophical topics, Spring 1986, 14, 1:179 - 221.
- \_\_\_\_\_ 1986b. 'Concepts of epistemic justification', pp. 23 - 54 in Moser.
- \_\_\_\_\_ 1988. 'An internalist externalism'. Synthese, 74, 3, Mr 88, 265 - 283.
- \_\_\_\_\_ 1989. Epistemic justification. Ithaca, NY: Cornell University Press.
- Armstrong, D. M. 1973. Belief, truth and knowledge. Cambridge: Cambridge University Press.
- Audi, R. 1983. 'Foundationalism, epistemic dependence and defeasibility'. Synthese, 55, 1983, 119 - 139.
- \_\_\_\_\_ 1988. Belief, justification and knowledge. Belmont, Ca: Wadsworth Publishing Co.
- Austin, J. L. 1962. Sense and sensibilia. Ed. G. J. Warnock. Oxford: Oxford University Press.
- \_\_\_\_\_ 1979. Philosophical papers. Eds. J. O. Urmson and G. J. Warnock. Oxford :

Oxford University Press.

Block, N (ed.) 1980. Readings in philosophy of psychology. London: Methuen.

Bogdan, R. J. (ed.) 1986. Roderick M. Chisholm. Dordrecht: Reidel.

BonJour, L. 1985. The structure of empirical knowledge. Cambridge, Mass.: Harvard University Press.

Campbell, D. 1987 (a). 'Pattern matching as an essential in distal knowing', 81 - 106 in Kornblith (ed.), 1987.

\_\_\_\_\_ 1987 (b). 'Neurological embodiments of belief and the gaps in the fit of phenomena to noumena', 165 - 192 in Shimony and Nails (eds.), 1987.

Carruthers, P. 1992. Human knowledge and human nature. Oxford: Oxford University Press.

Castaneda, H-N. 1967. Indicators and quasi-indicators. APQ, 4, 85 - 100.

Child, T. W. 1987. 'Critical notice. *Perspectives on the philosophy of Donald Davidson*'. Mind, XCVI, 384, Oc 87: 549 - 569.

Chisholm, R. M. 1957. Perceiving. A philosophical study. Ithaca, NY: Cornell University Press.

\_\_\_\_\_ 1977. Theory of knowledge. Englewood Cliffs, N.J. : Prentice Hall.

\_\_\_\_\_ 1980. 'A version of foundationalism', in French, Ühling and Wettstein, (eds.), Midwest studies in philosophy. Vol V. Studies in epistemology: 543 - 564. Minneapolis: University of Minnesota Press.

\_\_\_\_\_ 1986. (a) 'Knowing', 37 - 48 in Roderick M. Chisholm, ed. R. J. Bogdan. Dordrecht : Reidel.

\_\_\_\_\_ 1986. (b) 'Presence in absence'. The Monist, 69, 4, Oct 1986, 497 - 504.

\_\_\_\_\_ 1986. (c) 'Self-profile', 3 - 77 in Bogdan (ed.), 1986.

\_\_\_\_\_ 1987. 'A version of foundationalism', 293 - 308 in Human knowledge. Classical and contemporary approaches, eds. P. K. Moser and A. van der Nat. Oxford : Oxford University Press.

\_\_\_\_\_ 1988. 'The indispensability of internal justification'. Synthese, 74, 3,

Mr 88, 285 - 296.

- Churchland, P. 1979. Scientific realism and the plasticity of mind. Cambridge: Cambridge University Press.
- Clarke, D. S. 1990. 'Two uses of "know"'. Analysis, 50, 3, N.S. 227, Je 1990: 188 - 190.
- Cornman, J. 1978. 'Foundational vs. non-foundational theories of epistemic justification', pp. 229 - 252 in Pappas and Swain.
- \_\_\_\_ 1980. Skepticism, justification, and explanation. Dordrecht: Reidel.
- Dancy, J. 1985. Introduction to contemporary epistemology. Oxford: Blackwell.
- \_\_\_\_ (ed.) 1988. Perceptual knowledge. Oxford: Oxford University Press.
- Davidson, D. 1980. 'How is weakness of the will possible?', pp. 21 - 42 in Essays on actions and events. 1980. Oxford : Oxford at the Clarendon Press.
- \_\_\_\_ 1982. 'Empirical content', pp. 471 - 489 in Grazer Philosophische Studien, ed. R. Haller. Nos. 16/17.
- \_\_\_\_ 1983. 'A coherence theory of truth and knowledge', pp. 423 - 438 in Kant oder Hegel?, ed D. Heinrich. 1983. Stuttgart : Klett-Cotta.
- \_\_\_\_ 1984. Inquiries into truth and interpretation. Oxford : Oxford University Press.
- \_\_\_\_ 1986. 'Judging interpersonal interests', in Foundations of social choice theory, eds. J. Elster and A. Hylland. Cambridge: Cambridge University Press.
- \_\_\_\_ 1988. 'Meaning, truth and evidence', forthcoming in Proceedings of the Quine Conference, Washington University, St. Louis, Mo.. Ed. R. Gibson.
- Duran, J. 1988. 'Reductionism and the naturalization of epistemology'. Dialectica, 42, 4, 1988: 295 - 306.
- Dretske, F. 1971. 'Conclusive reasons'. Austral J Phil, 49,1 - 22.

- \_\_\_\_\_. 1981. Knowledge and the flow of information. Cambridge, Mass.: MIT Press.
- Feldman, R. and Conee, E. 1987. 'Evidentialism', in Moser and van der Nat: 334 - 345.
- Firth, R. 1969. 'Coherence, certainty and epistemic priority', in Empirical knowledge, eds. R. Chisholm and R. Swartz. 1973. Englewood Cliffs, N. J.: Prentice Hall.
- Foley, R. 1987. The theory of epistemic rationality. Cambridge, Mass.: Harvard University Press.
- Gettier, E. 1963. 'Is justified true belief knowledge?' Analysis, 23.6, 121 - 123.
- Goldman, A. 1978. 'Discrimination and perceptual knowledge', pp. 120 - 145 in Pappas and Swain.
- \_\_\_\_\_. 1986. Epistemology and cognition. Cambridge, Mass.: Harvard University Press.
- \_\_\_\_\_. 1987. (1) 'What is justified belief?' in , pp. 91 - 113 in Naturalizing Epistemology, ed H. Kornblith. Cambridge, Mass. : MIT Press.
- \_\_\_\_\_. 1987. (2) 'Epistemics: the regulative theory of cognition', in Kornblith.
- Goldstick, D. 1989. 'Belief', in American Philosophical Quarterly, 26, 3, JI 89, 231 - 238.
- Haack, S. 1975. 'The relevance of psychology to epistemology'. Metaphilosophy, 6, 161 - 176.
- \_\_\_\_\_. 1988. 'Rebuilding the ship while sailing on the water'. Paper read at the Quine Conference, Washington University, St. Louis, Mo.; April 1988..
- Haldane, J. 1989. 'Naturalism and the problem of intentionality'. Inquiry, 32, 1989: 305 - 322.
- Harman, G. 1973. Thought. Princeton: Princeton University Press.
- \_\_\_\_\_. 1986. Change in view. Principles of reasoning. Cambridge, Mass.: MIT

Press, Bradford Books.

Heil, J. 1984. 'Doxastic incontinence'. Mind, 1984, 93: 56 - 70.

Hume, D. 1978. A treatise of human nature. Ed. L. A. Selby-Bigge. London: Clarendon Press.

James, W. 1955. Pragmatism and four essays from The meaning of truth. New York: Meridian.

Jeffrey, R. C. 1983. The logic of decision. Chicago: University of Chicago Press.

Kant, I. 1964. Groundwork of the metaphysic of morals. Trs. H. J. Paton. New York: Harper and Row.

Kaplan, M. 1985. 'It's not what you know that counts'. J Phil, 82: 350 - 363.

Kim, J. 1978. 'Supervenience and nomological incommensurables', in APQ, 15, 2, Ap 78: 149 - 156.

\_\_\_\_\_ 1982. 'Psychophysical supervenience', in Phil Studs, 41, Ja 82: 51 - 70.

\_\_\_\_\_ 1984. 'Concepts of supervenience', in Phil Phen Res, LXV, 2, De 84:153 - 176.

\_\_\_\_\_ 1985. 'Psychophysical laws', 369 - 386 in Actions and events. Perspectives on the philosophy of Donald Davidson, eds. E. LePore & B. McLaughlin. Oxford: Basil Blackwell.

\_\_\_\_\_ 1988. 'What is "naturalized epistemology"?', in Philosophical Perspectives, 2, Epistemology, 1988: 381 - 405.

\_\_\_\_\_ 1989. 'The myth of non-reductive materialism'. APA Presidential Address to the Central Division, Proceedings and addresses of the APA, 63, 3, Nov 89: 31 - 47.

Kitcher, P. 1983. The nature of mathematical knowledge. New York: Oxford University Press.

Klein, P. 1971. 'A proposed definition of propositional knowledge'. J Phil, 68, 471 - 482.

- \_\_\_\_\_. 1976. 'Knowledge, causality and defeasibility'. J Phil, 73, 792 - 812.
- Kornblith, H. 1982. 'The psychological turn'. Austral J Phil, 60, 238 - 253.
- \_\_\_\_\_. 1987. 'Introduction: what is naturalized epistemology?', 1 - 13, and 'Beyond foundationalism and the coherence theory', 115 - 128 in Naturalizing epistemology, ed. H. Kornblith. Cambridge, Mass.: MIT Press.
- Kvanvig, J. 1986. 'How to be a reliabilist'. APQ, 23, 2, Ap 86, 189 - 198.
- Laudan, L. 1984. Science and values. Berkeley: University of California Press.
- \_\_\_\_\_. 1987. 'Progress or rationality? The prospects for normative naturalism.' APQ, 1987, 24: 19 - 31.
- Lehrer, K. 1971. 'Why not skepticism?' The Phil Forum, 1971, 23: 283 - 298.
- \_\_\_\_\_. 1974. Knowledge. Oxford: Oxford University Press.
- \_\_\_\_\_. 1986. 'The coherence theory of knowledge'. Philosophical Topics, 14, 1, 5 - 25.
- Leon, M. 1987. 'Character, content, and the ontology of experience'. Austral J Phil, 65, 4, De 1987: 377 - 399.
- Levi, I. 1980. The enterprise of knowledge. Cambridge, Mass.: MIT Press.
- Lewis, D. 1974. 'Radical interpretation'. Synthese, 23, 1974: 331 - 344.
- \_\_\_\_\_. 1979. Belief *de Dicto* and *de Se*. Philosophical Review, 88, 4, Oc 79: 513 - 543.
- Locke, J. 1964. An essay concerning human understanding. (Ed.) A. D. Woozley. London: Fontana / Collins.
- Luper-Foy, S. 1987. 'The causal indicator analysis of knowledge'. Phil Phen Research, XLVII, 4, Je 87:563 - 587.
- MacHamer, P. 1985. (Guest editor) Synthese, 64, 1 & 2, Jl & Au 1985. (Two volumes on 'Naturalistic epistemology').
- Malherbe, J. 1991. 'Some dependence relations of empirical belief'. Auslegung, 17, 1, Winter 91:27-41.

- \_\_\_\_ 1993. 'Naturalized epistemology and scepticism', in the South African journal of philosophy, 12, 4, Nov 93.
- Meidan, A. 1989. 'Towards a psychological theory of belief'. Explorations in knowledge, VI, 2: 9 - 15.
- Mele, A. R. 1986. Incontinent believing. The philosophical quarterly, 36, 143: 212 - 222.
- Millar, A. 1989. 'Experience and the justification of belief'. Ratio (New series), 11, 2, De 1989:138 - 152.
- Moser, P. K. 1985. Empirical justification. Dordrecht : Reidel.
- \_\_\_\_ 1986. 'Introduction: empirical knowledge', pp. 3 - 19 in Empirical knowledge, ed. P. K. Moser. Totowa, N. J. : Rowman and Littlefield.
- \_\_\_\_ and van der Nat, A. Eds.1987. Human knowledge. Classical and contemporary approaches. Oxford : Oxford University Press.
- \_\_\_\_ 1989. Knowledge and evidence. New York: Cambridge University Press.
- Naylor, M. 1985. 'Voluntary belief'. Philosophy and phenomenological research, XLV, 3, Mr 1985: 427 - 486.
- Nelkin, N. 1989. 'Unconscious sensations'. Philosophical psychology, 2, 2, 1989, 129 - 141.
- Pappas, G. S. and Swain, M. 1978. Eds. Essays on knowledge and justification. Ithaca : Cornell University Press.
- \_\_\_\_ 1979. (Ed.) Justification and knowledge. Boston: Reidel Publishing Co.
- Pastin, M. 1978. Modest foundationalism and self-warrant' Pappas and Swain: 279 - 288.
- Peacocke, C. 1983. Sense and content. Experience, thought and their relations. Oxford: Clarendon Press.
- Pendlebury, M. 1982. Indexical reference and the ontology of belief. SA Jl. Phil, 1; 2: 65 - 74.
- \_\_\_\_ 1987. Perceptual representation. Proc Aris Soc. New Series, LXXXVII:

91 - 106.

- Perry, J. 1979. The problem of the essential indexical. Nous,13: 3 - 21.
- Plantinga, A. 1993. Warrant: the current debate. New York: Oxford University Press.
- Pollock, J. 1979. 'A plethora of epistemological theories', in Pappas (ed.), Justification and knowledge: 93 - 114. Boston: Reidel Publishing Co.
- \_\_\_\_\_ 1986. Contemporary theories of knowledge. Totowa, NJ: Rowman and Littlefield.
- Popper, K. R. 1980. The logic of scientific discovery. (Revised edition.) London: Hutchinson.
- Quine, W. V. 1960. Word and object. Cambridge, Mass. : MIT Press.
- \_\_\_\_\_ 1969. Ontological relativity and other essays. New York : Columbia University Press.
- \_\_\_\_\_ 1974. 'Comment on Donald Davidson'. Synthese, 27, 1974, 325 - 329.
- \_\_\_\_\_ 1975. 'The nature of natural knowledge', in Gutenplan, S. (ed.) Mind and Language. Oxford: Clarendon Press. 67 - 81.
- Rescher, N. 1980. Scepticism. Oxford: Blackwell.
- Rorty, R. 1979. Philosophy and the mirror of nature. Princeton, N. J. : Princeton University Press.
- Roth, M. 1990. 'The wall and the shield. K-K reconsidered'. Philosophical studies, 59, 2, Je 1990: 137 - 157.
- Sanders, M. D., Warrington, E. K., Marshall, J., and Weiskrantz, L. 1974. "'Blindsight": vision in a field defect. Lancet, Apr 20 1974: 707 - 708.
- Sanford, D. 1988. 'Epistemology meets cognitive psychology'. Inquiry, 4, 31, De 1988: 519 - 533.
- Searle, J. R. 1981. 'Minds, brains and programs'. The mind's I: 353 - 373. (Eds.) D. Hofstadter & D. Dennett. Harmondsworth: Penguin.
- \_\_\_\_\_ 1983. Intentionality. Cambridge: Cambridge University Press.

- \_\_\_\_\_. 1984. Minds, brains and science. The Reith Lectures. London: BBC.
- Shimony, A. and Nails, D. (eds.) 1987. Naturalistic epistemology. Boston: Reidel. (Especially Introduction by Shimony: 1 - 13).
- Shope, R. 1983. The analysis of knowing. Princeton, NJ: Princeton University Press.
- Siegel, H. 1984. 'Empirical psychology, naturalized epistemology, and first philosophy'. Phil of science, 51, 4, 1984: 667 - 676.
- Sosa, E. 1978. 'How do you know?', 184 - 205 in Pappas and Swain.
- \_\_\_\_\_. 1983. 'Nature unmirrored, epistemology naturalized'. Synthese, 55, 1, Ap 1983: 49 - 72.
- \_\_\_\_\_. 1986. 'The raft and the pyramid: coherence versus foundations in the theory of knowledge', pp. 145 - 170 in Moser.
- Stalnaker, R. 1987. Inquiry. Cambridge, Mass.: MIT press, A Bradford Book.
- Stich, S. 1986. From folk psychology to cognitive science. The case against belief. Cambridge, Mass. : A Bradford Book, MIT Press.
- Stroud, B. 1984. The significance of philosophical scepticism. Oxford: Clarendon Press. (Ch. VI - Naturalized epistemology.)
- Swain, M. 1978. (a) 'Epistemic defeasibility', pp. 160 - 183 in Pappas and Swain.
- \_\_\_\_\_. 1978 (b) 'Reasons, causes and knowledge'. J Phil, 75, 229 - 249.
- Thagard, P. 1989. 'Explanatory coherence'. Behavioral and brain sciences, 12, 3, Se 1989, 435 - 502.
- Thompson, M. 1981. 'Epistemic priority, analytic truth, and naturalized epistemology'. APQ, 18, 1, Ja 1981:1 - 12.
- Tripllett, T. 1990. 'Recent work on foundationalism.' APQ, 27, 2, Apr 1990: 93 - 116.
- Unger, P. 1975. Ignorance: A case for scepticism. London: Clarendon Press.
- Weiskrantz, L. 1980. 'Varieties of residual experience', in Quarterly Journal of

Experimental Psychology, 32, 3: 365 - 386.

\_\_\_\_ 1986. Blindsight. A case study and its implications. Oxford: Clarendon Press. Oxford Science Publications.

Whyte, J. T. 1990. 'Success semantics'. Analysis, 50, 3, N. S. 227, Je 1990: 149 - 157.

Williams, B. 1973. 'Deciding to believe': 136 - 151 in Problems of the self. Cambridge: Cambridge University Press.

Young, A. W. and de Haan, E. H. F. 1990. 'Impairments of visual awareness'. Mind and language, Spr 1990, 5, 1: 29 - 48.

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