CHAPTER 2

KIM'S CRITIQUE OF QUINE'S NATURALIZED EPISTEMOLOGY

Numerous critics of W.V. Quine's essay "Epistemology Naturalized" treat Quine's proposal to make epistemology a "chapter of psychology" as a proposal for abandoning normative epistemology (Quine 1969a). One of the most prominent critics making this contention is Jaegwon Kim. Kim objects that by merely describing the *causal* relationship between cognitive input and output, Quine's naturalism abandons the *normative* concept of "justification," the normative element of the concept of "knowledge", and therefore genuine epistemology (Kim 1988). Kim also urges that aside from the concept of "justification," even the concept of "belief" has a normative dimension, and that any epistemology wishing to dispense with normativity must also dispense with "belief"—a seemingly absurd consequence for naturalists who otherwise seem to be enamored of discussing reliable *belief*-forming processes.

There is, however, a serious question as to whether Quine's approach to normativity is a fundamental vulnerability in his position. In later writings, Quine denied that he intended to dispense with normativity (Quine 1986a; 1992).[6] Others have explained in detail the resources available to Quine for the purpose of naturalizing epistemic normativity (Sinclair 2004). Beyond the specific domain of Quine scholarship, proposals for naturalizing normativity in terms of special facts about biological or sociological causation abound (Giere 1988; Laudan 1984; Laudan 1990b; Rosenberg 1996; Kornblith 2002). These naturalization proposals are controversial, of course, but their existence demonstrates that one cannot challenge naturalized epistemology simply by assuming an opposition between the causal and the normative.

Surely Kim is aware of the possibility that normativity might be naturalized, and although his critique is not often remembered as such, it involves more than just the normativity objection. Kim

[6] Recent defenders of Quine have also offered explanations for why critics erroneously came to read Quine as rejecting normativity (Johnsen 2005).

also explores what he takes to be Quine's motivations for naturalizing epistemology in the first place, and argues that they are inadequate. In particular, Kim argues that the failure of traditional deductivist foundationalist epistemology does not, as Quine believes, leave Quinean naturalism as the only alternative. To support this, he points out non-Quinean alternatives to traditional epistemology, a variety of mainly contemporary theories that propose new, non-deductivist conceptions of justification. Insofar as these any of these alternatives is viable, it seems that Quine may have overlooked the third way between tradition and naturalism. The question, then, is whether the alternatives *are* viable.

I would suggest that this question about the viability of non-Quinean alternatives, rather than the normativity issue, is the more fundamental question for naturalism: naturalists have too many tools at their disposals to solve or dissolve the normativity problem. This chapter, therefore, will examine the viability of Kim's alternatives. As it happens, there are distinctively Quinean objections to be registered against each of them. But Kim does not anticipate most of these objections or the power of the distinctively Quinean principles that empower them, principles such as the underdetermination thesis, the indeterminacy thesis, and extensionalism.

To demonstrate this, I will begin with a brief review of Quine's arguments in "Epistemology Naturalized." I will then summarize the non-Quinean alternatives to traditional foundationalist epistemology Kim considers, and show how Quine might refute each by reference to his basic principles and methodology. In particular, I will discuss the methodological concept Kim relies on to propose many of his alternatives, the concept of supervenience, and show the same Quinean objections might be applied to it. I will end by examining one likely element of a would-be supervenience base for epistemic properties—belief states—and raise similar problems.

In pointing out Quinean responses to Kim's alternatives, I do not intend to defend Quine to the bitter end or reject Kim. I myself am skeptical about naturalized epistemology, and sympathize with the spirit of Kim's objections. But I think that a fair criticism of Quine must be rendered at the most

fundamental level. If deep Quinean principles make it difficult to propose alternatives to his epistemology, the only way to challenge his epistemology is to challenge those principles. Understanding this will help to illustrate the deep difference between Quine and his rivals.

"Epistemology naturalized" in brief

Kim focuses his criticism largely on Quine's essay "Epistemology Naturalized." It is important to note, however, that this essay was merely a summary of a project Quine had already been pursuing for years. As early as "Two Dogmas of Empiricism," Quine had sought to undermine the positivist insistence on an analytic/synthetic distinction that had segregated philosophy from science (Quine 1953b). He rejected the distinction, not just because philosophers had not drawn it clearly, but on principled grounds deriving from confirmation holism. According to this view, only blocks of theory as a whole can be confirmed or refuted, so any individual statement can be held true or revised come what may; therefore, analytic statements are not a distinctive type of statement that is confirmed no matter what. With this rejection of analyticity, he held statements of science and statements of mathematics or logic to be on equal epistemological footing. This would presumably also include statements of philosophy—and thereby epistemology. In *Word and Object* (1960, 3), Quine told us that "the philosopher and the scientist are in the same boat," and it is it is arguable that *Word and Object* is his major treatise on the subject of naturalized epistemology.

Fast-forward, then, to "Epistemology Naturalized." Quine begins his essay by noting a parallel between mathematics and epistemology.[7] He notes that traditionally, both mathematicians and epistemologists pursued so-called "doctrinal" and "conceptual" projects. Doctrinally, epistemologists had hoped to identify ultimate justifiers of empirical knowledge, usually somewhere in the data of the senses, just as mathematicians had sought to prove mathematical truths by reference to self-evident first principles. Conceptually, epistemologists had hoped to clarify the meaning of the terms of

[7] It is actually more than a simple parallel, as Quine believes epistemology to include the study of the foundations of mathematics.

empirical knowledge in sensory language (particularly the notion of "body"), just as mathematicians had sought to define mathematical concepts in logical and set-theoretical terms.

In mathematics, the conceptual project aimed at assisting the doctrinal: defining obscure terms by reference to clearer ones could help to establish the relationship between obscure mathematical claims and more obviously true ones. Since 20th century mathematicians discovered that mathematical concepts could not be reduced to exclusively logical ones, but to logic and more obscure set theoretical terms, the mathematical doctrinal project stalled. In epistemology, empiricists like Hume sought similar cooperation between the conceptual and the doctrinal projects. By conceptually identifying bodies with types of sense impressions, Hume enjoyed limited doctrinal success in grounding some singular statements about bodies. But epistemologists made progress on the conceptual project only to the extent that, like the mathematicians, they resorted to the use of set theory (to expand their resources from simple impressions, to sets of impressions, etc.) and contextual definition (defining terms by translating whole sentences containing the term). The empiricist doctrinal project stalled because of the failure to ground generalizations and singular future tense statements.

Quine's proposal for naturalizing epistemology grows out of his contention that even Carnap's modest project was inadequate. According to Quine, even Carnap's work did nothing to advance the doctrinal "quest for certainty" in the face of Humean problems. The most it could achieve, doctrinally, was a clarification of the nature of sensory evidence through a rendering of the conceptual meaning of scientific discourse. Given this, Quine wonders what would lead Carnap to pick one of many possible "creative reconstructions" of scientific discourse over a psychological description of the actual link between evidence and theory. At best, Quine imagines that reconstruction could at least *legitimize* scientific discourse in the sense of showing that its terms could be eliminated in favor of the putatively respectable concepts of logic and set theory, if it could be translated in these terms. This would be a kind of exculpatory legitimization, if not a justificatory one.

But famously, Quine thinks this kind of translation is impossible. He notes that Carnap himself admitted this when he later proposed specifying "reduction forms" which merely gave implications of the sentences in question, rather than translational equivalences. Abandoning translational equivalence—which at least enabled the kind of exculpation I've described above—left Carnap's rational reconstruction without any advantage over psychology. And, Quine thinks that the failure of translation, had to happen if basic principles of his philosophy were true. Revisiting themes from "Two Dogmas," he invokes Duhem's confirmation holism (the idea that only theories, not individual statements are ever confirmed or falsified) along with Peirce's verificationism (the equation of meaning with method of empirical confirmation) to argue for meaning holism (the assertion that only blocks of theory, not individual statements, have meaning). Revisiting *Word and Object,* he quickly derives the indeterminacy of translation from meaning holism: if individual statements have no meanings to call their own, there are no facts of the matter to determine the correctness of translation of individual statements. Hence, the failure of Carnap's efforts at translation, and the abandonment of the last advantage of reconstruction over psychology. So the failure of the empiricist conceptual project implies the complete abandonment of even a modest (exculpatory) doctrinal project.

It is only after this development that Quine (1969a, 82–3). comes to his famous conclusion about the need for a naturalized epistemology:

> [E]pistemology still goes on, though in a new setting and a clarified status. Epistemology, or something like it, simply falls into place as a chapter of psychology and hence of natural science. It studies a natural phenomenon, viz., a physical human subject. This human subject is accorded a certain experimentally controlled input—certain patterns of irradiation in asserted frequencies, for instance—and in the fullness of time the subject delivers as output a description of the three-dimensional external world and its history. The relation between the meager input and the torrential output is a relation that we are prompted to study for somewhat the same reasons that always prompted epistemology; namely, in order to see how evidence relates to theory, and in what ways one's theory of nature transcends any available evidence.

Quine's reference to a "new setting" and "clarified status" is remarkably precise. In what follows in the essay, he specifies what he means by each.

The "new setting" of epistemology is psychology. Quine thinks epistemology is "contained" in natural science, given that the subject of epistemological study is a physical, human one. This implies, for example, that when deciding which factor to count as an observation, as epistemologically prior, we should choose whatever is closest, causally, to sensory receptors, not whatever is related to awareness of sensory atoms or *Gestalten*. Defining observation by reference to awareness or sensory atoms would be needed only for a justificatory or exculpatory approach. Observation sentences, then, are simply those about *bodies,* because these are the statements most automatically and universally cued to identical sensory stimuli.

Understanding this "new setting" of epistemology helps identify its "clarified status." First, since we are not occupied by the foundationalist concern of justifying science in terms of awareness of anything, there is nothing circular about the psychological setting of the new epistemology. Epistemology does not derive from first principles, but is continuous with natural science. Second, even though naturalized epistemology does not seek to justify science, it does still examine the relation between evidence and theory. In what way? Quine notes that observation is "meager" compared to "torrential" theoretic output, that theory "transcends" available evidence: this is a restatement of his underdetermination thesis, which, like meaning holism, derives from his confirmation holism. According to that thesis, theory transcends evidence because multiple empirically equivalent theories may be equally supported by observational evidence. This relationship between evidence and theory which Quine wishes to highlight, then, is not merely the causal one. He also wishes to highlight the logical relationship—or lack thereof: there is a logical gap—between the two. Identifying causal relationships is necessary to account for how we arrive at our theory, given that we do not arrive at it from logical deduction. This identification, of course, is a project Quine had already undertaken in *Word and Object*, in which he describes the various unjustified analogical leaps by which theory is born.

Clearly, then, Quine's motivation for naturalizing epistemology is informed by the fundamental principles—particularly the indeterminacy of translation and the underdetermination of theory by evidence (both of which derive from confirmation holism)—which had long formed the core of his philosophy. It is impossible to assess his proposal without reference to this core.

Kim's non-Quinean alternatives to deductivist foundationalism

In fairness to Kim, "What is 'Naturalized Epistemology'?" does not entirely ignore the core of Quine's philosophy. But, I will argue, he does not take into explicit account its total significance.

Kim's article begins with a reminder of what he takes to be the central purpose of traditional epistemology: to outline criteria for the *justification* of our beliefs, and enumerate the extent to which our beliefs fit these criteria. These criteria must themselves be stated in "descriptive or naturalistic" terms, without recourse to further epistemic, i.e. normative or evaluative terms, lest the criteria be circular (Kim 1988, 382). Further, Kim emphasizes that the concept of "justification" is the central epistemic concept in any definition of "knowledge," and that it is an essentially normative concept which, more than any other concept, makes "knowledge" itself a normative concept. To say that a belief is justified, he thinks, is to say that it is "permissible or reasonable" to hold, and "epistemically irresponsible" to contradict it (383). To this extent Kim and Quine are in agreement: this was indeed the goal of traditional epistemology, and historically epistemologists sought to show why belief was justified in virtue of its being deducible from certain foundations.

Kim proceeds to present Quine's position. He accurately presents Quine's distinction between the conceptual and doctrinal projects. He notes in particular Quine's view that the empiricist conceptual project has failed because of meaning holism, and that the doctrinal project of deductivist foundationalism has failed because of the Humean predicament. In what follows, however, Kim does not appear to appreciate the ways in which Quine takes the conceptual and doctrinal projects to be linked, or the full significance of that linkage. This becomes apparent when Kim fails to appreciate

that Quine's argument from holism against the traditional conceptual project has no serious significance for the doctrinal project:

> To be sure, Quine's argument against the possibility of conceptual reduction has a new twist: the application of his 'holism.' But his conclusion is no surprise; 'translational phenomenalism' has been moribund for many years. And, as Quine himself notes, his argument against the doctrinal reduction, the 'quest for certainty,' is only a restatement of Hume's 'skeptical' conclusions concerning induction: induction after all is not deduction….We are tempted to respond: of course we can't define physical concepts in terms of sense-data; of course observation 'underdetermines' theory. That is why observation is observation and not theory. (386)

Here Kim is clearly wrong that Quine's argument against the doctrinal project is *only* a restatement of Hume's inductive skepticism. Quine's confirmation holism not only helps to establish indeterminacy of translation (via meaning holism), but *also* helps to establish the underdetermination thesis. As I will examine in greater detail in chapter 6, confirmation holism says that hypotheses are only confirmed in conjunction with their auxiliary hypotheses, and because we are free to adjust auxiliary hypotheses at will, we may revise or hold true our hypotheses in the face of observations. This implies that our theory is underdetermined by observational evidence. Thus underdetermination is a more radical form of skepticism than Hume's: it says not only that scientific hypotheses are underdetermined by our past observations, but that they are underdetermined by *all possible* observations (Quine 1975a, 313). The problem of induction follows from the fact that there is a logical gap between statements about the past and statements about the future, or between the finite number of our observations, and the infinite scope of inductive generalizations. Underdetermination follows from the fact that there is a further logical gap between even an infinite number of observations, and the pragmatic choices that determine which auxiliary hypotheses to retain or discard, and hence the resulting theory. As we shall see quite soon, this has the effect of radically delimiting the scope of viable doctrinal projects.

In addition, the indeterminacy of translation thesis will itself have implications which further delimit the availability of alternative doctrinal projects, and this issue is independent of the success or failure of the exculpatory projects of translation Kim has in mind in the passage quoted above. As we

shall see, along with indeterminacy of translation comes not only skepticism about the ability to analyze the meaning of scientific concepts, but also skepticism about the ability to analyze the meaning of philosophical concepts—including those involved in the proposal of new criteria of justification.

Because Kim isolates the conceptual project from these doctrinal implications, he believes that Quine is forcing us to make a false choice between deductivist foundationalism and naturalized epistemology. "The Cartesian project of validating science starting from the indubitable foundation of first-person psychological reports," writes Kim, "is not the whole of classical epistemology" (388). He then offers examples of the kinds of doctrinal projects that allegedly lie in between Descartes and Quine, which Quine fails to consider:

> Quine is not suggesting that we…explore others within the same framework—perhaps, to adopt some sort of "coherentist" strategy, or to require of our basic beliefs only some degree of "initial credibility" rather than Cartesian certainty, or to permit some sort of probabilistic derivation in addition to deductive derivation of non-basic knowledge, or to consider the use of special rules of evidence, like Chisholm's "principles of evidence", or to give up the search for a derivational process that transmits undiminished certainty in favor of one that can transmit diminished but still useful degrees of justification. (388)

These are, indeed, possibilities worth considering. But if Quine's principles already have some effect on doctrinal possibilities beyond deductivist foundationalism, it is worth considering whether even Kim's alternatives might also fall victim to Quinean objections. Indeed the example of Quine's rejection of Carnap's doctrinal project should already suggest that the implications of Quine's principles do extend further than the rejection of Cartesian deductivist foundationalism. But let us consider in turn each of these possibilities Kim mentions above.

Adopting some kind of probabilist epistemology does indeed seem like a natural response to the failure of the Cartesian "quest for certainty." And we can safely group together under the heading of "probabilism" the "initial credibility," "probabilistic derivation," and "diminished transmission" possibilities Kim mentions. But if there is something wrong with the first of these—if there is no way to assign initial credibility to any beliefs—there will certainly be no way for derivative beliefs to

inherit any degree (diminished or otherwise) of initial credibility. It does indeed appear that because of his underdetermination thesis, Quine would say there is no objective way to assign differential degrees of initial credibility. In a recent paper, Bredo Johnsen (2005, 82–3) argues convincingly that Quine had dismissed this possibility well in advance of "Epistemology Naturalized." As early as "Two Dogmas," Quine (1953b, 45) had argued that neither physical objects nor the gods of Homer are *on any better epistemological footing* in relation to observational evidence; they differ only in their respective pragmatic values. Even though the idea that there are physical objects is a paradigm example of the kind of belief that would otherwise be taken to have "initial credibility," the underdetermination thesis does imply that one cannot assign a hypothesis greater probability than an empirically equivalent rival hypothesis. If basic beliefs cannot be invested with any objective initial credibility, non-basic beliefs cannot inherit it, or any degrees of it.

There are, of course, Bayesian probabilist critiques (among others) of the underdetermination thesis itself. The point here is not that the thesis cannot be answered, but that it must be if Quine's proposal for naturalizing epistemology is to be shown to be unmotivated. What's more, it must be answered without begging any methodological questions against the naturalist. Indeed the very language of probabilism is shot through with notions that would raise Quinean eyebrows: the notion of a *proposition* whose probability is to be measured, the degrees of *belief* in terms of which probability is formulated by many, and even the modal notion of *probability* itself, the value of which is difficult to determine extensionally.[8] Probably Quine would allow for some conversational notion of probability that expresses unwillingness to assert a sentence, but this is of little use to the justificatory project in epistemology that Kim is discussing (see Hookway (1988, 106–7)).

[8] Leaving aside questions of *degrees* of probability, notice how affirmations of probability might fall prey to the same failure of intersubstitution *salva veritate* to which other intensional statements of modality are prone. "Probably the number of planets is greater than seven" is true, but "Probably nine is greater than seven" is not true if "probably" implies less than certainty. Of course one might object that if we can knowingly intersubstitute "nine" for "the number of planets," then we are operating on the premise of certainty, not mere probability. But to the extensionalist, this objection confuses epistemology with semantics. Semantically, *whatever* number of planets there is, mathematical statements about that number it in relation to other numbers are not statements of probability, and cannot serve as arguments for probability functions.

Both traditional deductivist and probabilist proposals considered so far might have fallen into a broadly foundationalist tradition. But if underdetermination and extensionalism rule out foundationalism, what of a coherentist doctrinal project? Indeed at first Quine's confirmation holism seems to be a kind of coherentism, particularly in light of "web of belief" metaphors. But the purpose this coherentism is supposed to serve is crucial in judging its justificatory power. Quine's coherentism merely describes the structure of our beliefs: there are no initial-credibility-granting "foundations," only observation sentences that constrain (but underdetermine) the inner weavings of the web of belief. On this view, the mere coherence of a set of beliefs does not confer any logical justification on any of them. There is no question of justification apart from pragmatic justification, which is a function of the predictive and explanatory power of a theory. Perhaps a view of justification set in terms of the predictive and explanatory power of a belief *just is* a coherence theory of justification. But then Kim is wrong that coherence theory is an alternative to Quinean naturalism. Assuming that he is speaking of non-Quinean or non-naturalistic coherence theories of justification, like Bonjour's (1985), these theories require much more of beliefs than mere predictive and explanatory power: in particular, they require a plausible account of how coherent systems of belief acquire initial credibility (so as to avoid the implication that coherent fantasies might count as justified). We have already seen how Quine would rule out the possibility that beliefs derive initial credibility from observation. The typical coherentist view is to confer *a priori* justification on certain sets of beliefs. But the *a priori* is clearly not acceptable to a naturalist empiricist like Quine.[9] Of course there have been attempts to naturalize

[9] For this reason, Quine would also rule out something else mentioned by Kim: Chisholm's principles of evidence. Quine would rule out Chisholm's principles for other reasons. Chisholm seems to have posited these to account for knowledge that is reached through ways "other than the formal principles of deductive and inductive logic" (Chisholm 1977, 67). He assumes that we know most of the things we take to know, and looks for principles that would explain this. Quine would probably object that this is an unjustifiably *a priori* approach to epistemology. We could just as easily be *a priorists* about induction and deduction as the only sources of knowledge, and decide *a priori* that these principles are inadmissible, and perhaps that skepticism is true. A prominent example of one of Chisholm's principles is "Having a perception of something bein an F tends to make acceptable the proposition that something is an F" (Chisholm 1977, 68). Quine would also skeptical of the idea that observation reports are in terms of sensory qualities, and is even more skeptical of the internalist mentalism inherent in Chisholm's account.

"initial credibility" or the *a priori* through an externalist account of justification. It is to these externalist accounts that we now turn.

Both foundationalist and coherentist views of justification could be described as broadly "internalist" theories. Internalism is the more traditional theory of justification, which holds that one must have some epistemic access to or awareness of the conditions of justification. As a naturalist (and especially as a behaviorist), Quine sees no way to make sense of justification in terms of awareness. What, then, of "externalist" theories of justification, which simply abandon the epistemic access requirement? Could these still offer norms of justification without collapsing entirely into Quinean naturalism? Kim considers a number of externalistic views, which he calls "naturalistic" (but not Quinean naturalistic), stressing in particular Goldman's reliabilism and Armstrong's nomological theory. These are said to be "naturalistic" only insofar as they offer a criterion for the normative concept of "justification" in *naturalistic terms*. So these theories characterize justification by reference to factors outside of the subject's immediate awareness, such as whether their beliefs are the result of a reliable belief-forming process, or whether they stand in law-like relations to the facts that make them true. This is as opposed to Quine, who appears to dispense with the possibility of traditional epistemic justification entirely, regardless of the terms in which it described.

These externalist theories do not at first seem to suffer from any of the problems characterized by foundationalism or coherentism. However, before any of these can pass the Quinean test, we need to know more about the nature of the *methodology* each of these theories uses in order to formulate its respective criterion of justification.

In several places, Kim is careful to point out that the search for a criterion of justification does not require anything like a *definition* or an *analysis*. Early on, for example, he states that questions about the conditions of justification need not "ask for an 'analysis' or 'meaning' of the term 'justified belief'" (Kim 1988, 382). Later, he notes that (non-Quinean) epistemological naturalism "does not include (nor does it necessarily exclude) the claim that epistemic terms are definitionally reducible to

naturalistic terms (398). Clearly Kim is aware of the controversy and outright naturalistic unacceptability of the notion of analyticity, and is trying to avoid the charge of begging the question by assuming non-naturalism in order to refute naturalism. Quine, after all, is famous for having rejected the notion of analyticity, in part for the same reason that led him to adopt the underdetermination and indeterminacy theses: confirmation holism.

Whether or not Kim believes that non-Quinean naturalists could offer non-analytic criteria, it remains true that the kinds of criteria he cites *were* formulated using an analytic methodology. Judging from the origin of externalist theories of knowledge in thought experiments concerning the Gettier problem (fake barns, thermometers and the like), it is arguable that Goldman and Armstrong originally used traditional conceptual analysis to formulate their criteria of justification. Even if the results of these analyses were not meant to be taken as analytic *truths*, their status as issuing from the armchair analysis of meanings, rather than as results of scientific investigation, would still seem dubious from a Quinean naturalist perspective.[10] The *terms* of the criteria offered by these externalists may be "naturalistic" in some sense, but that does not mean that the methods used to reach the criteria are naturalistic.

Of course Quine's rejection of analyticity is not entirely uncontroversial. Recent years, in particular, have seen the resurrection of the case for analyticity from the perspective of conceptual role or two-dimensionalist semantics. (In a later book (2005), Kim joins the trend.) But the new approach is still probably more controversial than Quine's original critique: as we shall see in chapter 3, it relies crucially on semantic and modal concepts that Quine's naturalism would call into question. So it is important that Kim (at least at this stage) *is* careful not to imply that the only philosophic criteria are analytic definitions. In the final section of his paper, he does discuss a kind of philosophic criterion which appears, at first, not to have any obviously non-naturalistic commitments: epistemic

[10] In chapter 3, we will examine more of the ways in which the methodology of conceptual analysis conflicts with more basic tenets of naturalism (particularly because Kim later comes out in favor of a limited version of conceptual analysis).

supervenience (Kim 1988, 399–400). In my next section, I will show that even the supervenience relation, as ontologically minimalist as it seems, is challenged by the same Quinean problems that cast doubt on analyticity.

Kim's alternative methodology: epistemic supervenience

Few have done more than Kim to explain the idea of supervenience, particularly in philosophy of mind. I do not here wish to evaluate the overall adequacy of appeals to supervenience as a tactic in philosophy, whether in epistemology or any other discipline. I simply want to examine whether appeals to supervenience are consistent with a Quinean naturalistic outlook. Kim himself avoids appealing to conceptual analysis, presumably to avoid begging the question against Quine. If, for some reason, the appeal to supervenience also turns out to be inconsistent with the same principles of Quinean naturalism that motivate the case against analyticity, then it seems that invoking it would *also* beg the question. Supervenience would be at least as controversial as analyticity, and therefore no panacea as an alternative to Quinean naturalism. Of course, Quine's fundamental naturalistic principles may be wrong, in which case supervenience (and also analyticity) could be acceptable. But Kim does not attack Quine's fundamental principles, so it is imperative to determine whether they are in fact compatible with the notion of supervenience.

Appealing to supervenience is a widely accepted method not only in philosophy of mind but also in ethics (wherein, arguably, the concept was first developed). It helps to describe the connection between a higher level property (like a mental or ethical one) and a lower level property (like a physical one), by means of stating that there can be no difference in the higher level property without a corresponding difference in the lower. It is natural to think of epistemic properties like justification as higher level, and thus propose that they too supervene on natural properties, and that epistemological criteria identify these supervenience relations. Kim (1988, 399) states his understanding of epistemic supervenience loosely as follows:

> [I]f a belief is justified, that must be so *because* it has certain factual, nonepistemic properties, such as perhaps that it is 'indubitable,' that it is seen to be entailed by another belief that is independently justified, that it is appropriately caused by perceptual experience, or whatever. That it is a justified belief cannot be a brute fundamental fact unrelated to the kind of belief it is. There must be a *reason* for it, and this reason must be grounded in the factual descriptive properties of that particular belief.

Before getting into the details of the supervenience proposal, it is important to point out that any claim that an appeal to supervenience could be "naturalistic" should be greeted with *prima facie* skepticism. After all, the idea of supervenience was originally developed by ethical *non*-naturalists like G.E. Moore to characterize their view of the relationship between value properties and natural properties. Moore would have agreed that value properties supervene on the natural, but would have insisted that they themselves are *non*-natural. This gives us reason to think that whatever sense of "naturalism" someone might invoke to treat supervenience relationships as "naturalistic" is idiosyncratic, at best. As with our discussion of conceptual analysis, it is not enough that properties supervene on natural properties. If we must use some non-naturalistic methodology to discover or describe this supervenience, the naturalistic status of the supervenience base is irrelevant.

J.P. Moreland (1988, 35–57) has argued that supervenience is not a notion that naturalists like Quine would find acceptable. Briefly I will describe his case and then consider potential objections to it. Moreland notes two important concepts of supervenience, weak and strong, and argues that only the second is strong enough to serve the naturalist's purposes. Property A *weakly supervenes* on naturalistic property B if and only if objects whose B-properties are indiscernible are also A-indiscernible. If A is an epistemic property like justification, then this would mean that two subjects identical in subvenient naturalistic B properties will not have beliefs differing in their justification. Moreland notes that this concept of supervenience is not strong enough to give the naturalists what they want, in effect because it is consistent with accidental (but systematic) correlations between basic and supervenient properties. This version of supervenience does not require, for example, that natural properties actually *determine* epistemic ones. One advocate of a naturalistic supervenience view,

Daniel Bonevac (2001, 159) agrees on this point, noting that weak supervenience allows "no cross-world inferences" of the sort needed for naturalistic determination.

Closer to what a naturalist needs to explain epistemic properties by reference to naturalistic ones is *strong supervenience*. Property A *strongly supervenes* on property B if and only if *necessarily*, objects whose B properties are indiscernible are also A-indiscernible. If A is an epistemic property like justification, this would mean that any two subjects with identical subvenient natural B properties *must* not have beliefs differing in their justification. The main question to ask is what sense a naturalist could make of the idea of "necessity." Conceptual necessity—truths necessary because they derive from the meaning of concepts—would seem to be inadmissible for the usual reasons associated with the rejection of analyticity. Quine is also generally skeptical of *any* substantive modal notions, such as necessity, because statements of necessity are referentially opaque in the same way that statements reporting beliefs can be. According to Quine, both fail the test of intersubstitutivity *salve veritate*: "Necessarily, the number of planets is greater than seven" would be false according to modal logic, but not "Necessarily, nine is greater than seven." More generally, Quine regards with suspicion any intensional notions, whether belief or necessity, on the grounds that they do not have the crisp identity conditions associated with extensional logic. Logic understood extensionally, Quine (2004a, 335) thinks, is "the grammar of strictly scientific theory." So Quine's extensionalism itself falls out of his more general naturalism—and overrules a methodology of supervenience grounded on conceptual necessity. And let us not forget that extensionalism itself plays a key role in Quine's argument against analyticity: unlike reference, which can be described in extensional terms, meaning—and truth in virtue of meaning—is putatively intensional and in need of special explanation.

Might another more acceptable notion of necessity be available? Moreland considers two remaining notions: metaphysical (Kripkean) necessity and the nomological necessity. Metaphysical necessity is itself an expression of the post-Quinean revolution in modal logic that seems, in many ways, to obviate Quine's critique of modality by providing a powerful, extensional explication of

modality, owing to its model-theoretic quantification over possible worlds. A property is metaphysically necessary if it obtains in every possible world. But as Robert Brandom (2001, 598) points out, this new expressive power does not settle the question between advocates and naturalistic critics of modality:

> The Kripke semantics is not even a candidate for providing such a reduction, because it owes its extensional character to the introduction of new primitive notions, possible worlds and accessibility relations . . . that are themselves richly modal (and whose deployment turns out to require further metaphysically nontrivial commitments concerning about what is essential and what accidental). Any legitimate reasons to doubt the legitimacy of talk of necessity and possibility are just going to be passed off and transformed into corresponding reasons to doubt the legitimacy of appeal to such primitives.

Of course it is not that Quinean naturalists would reject possible worlds just because of their status as abstract objects, accessible by *a priori* intuition. Quine accepts the existence of mathematical objects as an ontological commitment generated by science's reliance on mathematics. One question that Moreland does not consider is that Quine might take the acceptance of modal objects (i.e., possible worlds) as practically indispensable for science as well, and on this basis permit them acceptable for use in describing supervenience relations. This seems to be the approach of Chalmers (1996, 66), but Chalmers does not explain why possible worlds should be treated as indispensable primaries while other putatively intensional concepts (e.g. of the mental) need to be naturalized. There are more options available to those who would treat modal notions as pragmatically indispensable, but we will wait until chapter 3 to discuss them in more detail.

Perhaps it is best to turn away from metaphysical necessity—which was never likely to satisfy the naturalist in the first place—and turn to nomological necessity. To say that some connection between properties is nomologically necessary is just to say that the connection is covered by some law of nature. Of course to exhibit nomological necessity, it is not enough that the supervenient and subvenient properties regularly correlate. As Moreland points out, some further *explanation* must be offered showing that the laws of physics do actually guarantee that the subvenient determines the

supervenient. It is the naturalist's burden of proof to show that this explanation, together with the relevant physical laws, exists.[11]

Of course this criticism leaves open the possibility that naturalists might someday shoulder that burden, and supply the relevant laws, or at least learn a way of outlining them without stating them in detail. To see what this would involve, let's consider the parallel question of supervenience of the mental. Kim argues in an earlier essay that for mental properties to supervene requires that there be certain psychophysical laws (Kim 1985). This, interestingly, is a view that he developed in opposition to Davidson's (1984) "anomalous monism," a view which argues *in principle* against the possibility of such nomological necessity of the mental, and which is motivated by some of naturalism's favorite principles, such as the indeterminacy of meaning (62, 313).[12] Kim recognizes that Quine would take the indeterminacy thesis as refuting supervenience claims, and contends that by defending the existence of psychophysical laws in virtue of which supervenience relationships would acquire their necessity, he could, in effect, refute the indeterminacy thesis. This is the closest Kim comes to challenging one of Quine's fundamental principles—indeterminacy—though not by examining its roots in underdetermination and confirmation holism (which we shall do in chapter 6). Nevertheless, if Kim could supply and defend the relevant psychophysical laws, he would confront indeterminacy directly and reject at least one of naturalism's basic tenets in a non-question-begging manner.

Unfortunately for Kim, the sorts of psychophysical laws he suggests are of a controversially explanatory character to begin with. Traditionally, the possibility of psychophysical laws has been considered challenging because of the multiple realizability of the mental: it is hard to see how a given mental type is reducible to or identifiable with only one physical type or natural kind. Kim's 1985 solution to this problem is to argue that psychophysical laws might be formulated as long disjunctions specifying the many different physical types that could realize mental properties. Of course Kim admits we may never be able to articulate all of the disjuncts, but he is satisfied to require that they

[11] See, for example, Vahid (2004, 15).
[12] It is telling that the later Quine himself endorsed anomalous monism.

merely be formally representable in theory. But I think this conception of law already poses preliminary problems for the possibility of the nomological necessity of the mental, since normal science does not seem to use such unspecified disjunctions as laws. These disjunctive "laws" lack law-like character. As Stephen Daniel notes, they don't explain psychophysical covariation so much as "catalogue" it; they state merely sufficient conditions for the mental (Daniel 1999, 231–2).[13]

It is, of course, impossible in this chapter to wade into the debate about what makes for genuine lawlikeness in scientific explanation. But it should suffice to say that Kim faced an uphill battle in defending the idea that his proposed psychophysical laws are even laws, to say nothing of whether or not they really exist. This makes it implausible for him to assert that one can simply choose between the indeterminacy thesis and his view of psychophysical laws: his view would need to be more obviously true than indeterminacy for that to be the case, and it is not. And since Kim has not addressed so many of the other positions that lay a foundation for the indeterminacy thesis (such as confirmation holism), his argument appears to amount to a kind of special pleading. Kim himself (2005) later appears to abandon the nomological account of necessity, in favor of a conceptual account which he thinks offers more explanatory power. But while we are here looking for an account of necessity to underpin descriptions of supervenience relations, the later Kim appeals to supervenience relations to underpin conceptual necessity. So this doesn't accomplish what we are looking for.

Assuming that both metaphysical and nomological conceptions of necessity are not adequate to provide a naturalistic account of strong supervenience, we should consider whether there is any conception apart from necessity that could account for the element of dependence in the strong supervenience relation. One such conception is discussed by Daniel Bonevac (2001). Bonevac proposes, in essence, an epistemic account of supervenience: to say that one property supervenes on

[13] Daniel even argues that even without presupposing the radical indeterminacy of the mental, Kim's laws run into trouble under the assumption of *limited* mental indeterminacy. If there are just a few mental states that are indeterminate, it seems a genuine psychophysical law would need to identify the supervenience base that explains why certain mental states are determinate and others are not. And, Daniel thinks, this is in principle impossible, because it is in the nature of the indeterminate that there is never a sharp line between it and the determinate. See Daniel (1999, 233-4).

another is just to say that the existence of the supervenient property can be justified by appeal to a "defeasibly sufficient reason," a premise concerning a naturalistic fact made relevant by a "fainthearted conditional" (2001, 153). A fainthearted conditional is one stating a relationship between antecedent and consequent "provided that conditions are suitable," in other words a conditional with a *ceteris paribus* clause. This account then turns on recognizing the truth conditions of the fainthearted conditional.

In response to Bonevac's proposal, I will not even comment on the difficulty of using an epistemic concept of supervience in order to support a concept of epistemic supervenience: if we already know what defeasibly sufficient justification is, we have already settled a great deal of traditional epistemological inquiry. This aside, it is a more immediate concern that the truth conditions Bonevac invokes for fainthearted conditions are to be spelled out in modal terms: "'If *p*, then (provided that conditions are suitable) *q*' is true at world *w* iff *q* is true in all *p*-worlds in which conditions are suitable for assessing (relative to *w*) what happens when p" (Bonevac 2001, 149). We are then faced with the same problem identified by Brandom above in relation to metaphysical necessity: reducing it requires further, naturalistically controversial modal notions. Now Bonevac also invokes David Lewis' conception of "Humean supervenience," the proposal that the modal itself might be made to supervene on the non-modal. But if, as I have urged, supervenience itself requires modal notions, then it is almost incoherent to think about how the modal itself could be explained modally in terms of the non-modal.

Last of all, let us consider the question of the naturalistic acceptability of the proposed supervenience *base* for epistemic properties. Vahid 2004, 168) has argued that epistemic supervenience may be easier to establish than mental supervenience, given that epistemic properties may not be subject to multiple realizability in the way that mental ones are said to be. This, however, presupposes that being justified is not itself some kind of mental state, or somehow dependent on mental states. It is not entirely clear that we should accept this presupposition. Consider, for example,

that a belief is very often justified by reference to other beliefs (some maintain that it is *always* by reference to other beliefs). If these other beliefs, qua mental states, could themselves be multiply realized, it would seem to follow that the property of being justified in terms of these beliefs would also be multiply realized. Of course justification is a relation among beliefs, not necessarily a belief itself. And relations are not reducible to their relata. But surely relations would at least *supervene* on relata if anything. So at best it is an open question as to whether justification is multiply realizable. Even if it is not, and epistemic supervenience does not face the same barrier as mental supervenience, there is still a heavy burden of proof on the advocate of epistemic supervenience to supply some law, disjunctive or otherwise, that goes beyond the mere identification of a mere property covariance.

Apart from the fact that justification may be multiply realizable in a way that makes it difficult to supervene nomologically on specific properties, there is the fact that those properties—in particular, beliefs—may face naturalistic problems of their own. Kim accepts fairly uncritically that the naturalized epistemologist wants to study the relationship between perception and belief. In the next section, however, I will show that Quine was not this kind of naturalized epistemologist—and for reasons that derive from the usual principles of his system.

None of the above section is meant, of course, to challenge the use of supervenience in philosophic criteria *per se.* Rather, it is to show how deeply divided naturalist and non-naturalists are from each other, down to the relevance of basic methodological concepts like supervenience.

Quinean doubts about supervenience on beliefs

To embelish his point that any naturalized epistemology dispensing with normativity must abandon genuine epistemology, Kim argues that even the concept "belief" is normative. Invoking Davidson (1984), he argues that belief attribution involves "radical interpretation," which requires an interpretive theory viewing the total system of the subject's beliefs as "largely and essentially rational and coherent" (Kim 1988, 393). If we could not view other beings as largely rational, we could not

even identify them as "cognizers" or as having beliefs in the first place. Therefore, abandoning normativity also means abandoning the concept "belief." This, Kim says, is problematic for naturalism, which seeks to "identify, and individuate the input and output of cognizers" (392).

The trouble is with Kim's assumption that Quine's naturalized epistemology involves the assignment of *individually meaningful beliefs* to subjects in order to examine the cognitive input/output relationship. But Quine is famous for arguing that interpretation is really a domestic version of "radical translation," and that translation is indeterminate. Translation is indeterminate, for Quine, for the reasons we have already considered. It is only the use of pragmatically-generated *normativity*-imbued "analytical hypotheses" that permit translation to move forward, but not in a determinate way. So, on Quine's views, "belief" attribution does indeed require a certain kind of normativity, and it is for this very reason that it is indeterminate, which is to say that there are no objective facts of the matter—no naturalistically respectable facts—determining our assignment of beliefs. This would seem to cast doubt on the possibility that beliefs might form the naturalistic supervenience base for epistemic properties.

But if Quine is not interested in objective beliefs, what kind of "output" does his naturalized epistemology deal with? At one point, Kim actually considers that Quine might simply refuse to treat the cognitive outputs of interest as "beliefs" at all (Kim 1988, 394). Kim considers that Quine may consider various neural states, instead of beliefs, to be the appropriate sorts of output, but responds that to identify the appropriate neural states would still require pairing them with interpreted beliefs. Quine's only recourse would be to bypass anything even remotely related to normatively interpreted beliefs, a consequence Kim takes to be unacceptable for anyone doing anything like epistemology.

Quine may not find Kim's attempted *reductio* so absurd. Kim misses another kind of "output" that is near and dear to Quine's heart: language. That this is the intended subject of study in his version of naturalistic epistemology is made quite clear in *The Roots of Reference*(1974, 35):

> We want to know how men can have achieved the conjectures and abstractions that go into scientific theory. How can we pursue such an inquiry while talking of external things to the exclusion of ideas and concepts? There is a way: we can talk of language. We can talk of concrete men and their concrete noises. Ideas are as may be, but the words are out where we can see and hear them. And scientific theories, however speculative and however abstract, are in words.

As I have already suggested, instead of evaluating our "outputs" in the traditional way. Quine's proposal is to examine how they were generated and came to serve our pragmatic purpose, *given* that they were not generated by being logically justified.

Avoiding reference to beliefs is, of course, the essence of Quine's methodological behaviorism. Quine's behaviorism is itself a consequence of his more fundamental principles, his extensionalism and his indeterminacy thesis, and more generally, his naturalism. Understanding this, we are also in a position to see that the range of possible naturalistically permissible supervenience bases has been delimited quite narrowly. Even if justification did not face problems of multiple realizability, it now seems that any traditional theory of epistemology making reference to beliefs (whether via their coherence or the reliability of their formation) is a non-starter for Quine.

Conclusion

Although I have not focused much on Kim's normativity argument in the above, it is worth observing how eliminating Kim's alternatives reflects upon that argument. Kim has argued that if one dispenses with logical normativity in the traditional sense, one also dispenses with the normativity of the concept "knowledge"—and therewith, the normativity of the discipline of epistemology itself. But with the core of Quine's philosophy in mind, it should come as no surprise that Quine talks as little about "knowledge" as he does about "belief" in "Epistemology Naturalized." As long as his epistemology can concern itself with examining the relationship between evidence and language, Quine thinks it still has an important task to accomplish, even if this involves no reference to "knowledge" or "justification." Quine's naturalism, after all, is pragmatist. He is not concerned with preserving the *traditional* concepts of "justification," "knowledge," or even "epistemology." Here it is

useful to note Quine's (1981a, 474) reply to Barry Stroud, who also insists that naturalized epistemology does not seem to achieve the goals of traditional epistemology:

> Stroud finds difficulty in reconciling my naturalistic stance with my concern with how we gain our knowledge of the world. We may stimulate a psychological subject and compare his resulting beliefs with the facts as we know them; this much Stroud grants, but he demurs at our projecting ourselves into the subject's place, since we no longer have the independent facts to compare with. My answer is that this projection must be seen not transcendentally but as a routine matter of analogies and causal hypotheses. True, we must hedge the perhaps too stringent connotations of the verb 'know'; but such is fallibilism.

Having repudiated conceptual analysis, Quine is not, in general, interested in preserving any traditional concepts. What he hopes for, at most, is to *explicate* our concepts: to take those which already serve some clear, practical purpose, and clarify and/or modify them as needed. In chapter 5, we will see how Quine proposes to explicate the concept of "justification" in pragmatic terms. In this case, he finds little about the traditional concepts of epistemology to be usable.

We may disagree with Quine that there is so little to salvage from traditional epistemology. But if we are right, it is our responsibility to show where Quine has gone wrong. I have argued that Quine's objections to traditional epistemology run deep: they grow naturally from the fundamental principles of his naturalism, i.e., from his underdetermination thesis, his indeterminacy thesis, and his extensionalism. Kim's critique of Quine is severely limited because he fails to consider the numerous ways in these principles delimit the scope of viable epistemological alternatives, rendering naturalized epistemology the only going option. Even his apparently independent objection from the normativity of the concept "belief" fails for the same reason. In short, Kim has given us no reason to think that Quine's epistemology is unmotivated, or that it is somehow internally inconsistent.

How then should we critique Quine? I recommend challenging him at the root. Challenge the underdetermination thesis which Kim concedes, but which also underlies the powerful indeterminacy thesis. Propose alternatives to confirmation holism, which underlies both indeterminacy and underdetermination. Challenge his extensionalism with examples of intensional concepts that appear to be indispensable to scientific discourse. Even reconsider the basic thesis of naturalism, the idea that

science—rather than first-handed commonsense observation—is our only source of knowledge. Most of these challenges will be made in chapter 6. But before that, we need to examine in more detail whether Quinean behaviorism is completely justified in rejecting the concept "belief."