

What's Within?

Nativism
Reconsidered

FIONA COWIE

WHAT'S WITHIN?

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on acid-free paper.

I thought that nature was enough
Till Human nature came
And that the other did absorb
As Parallax a Flame—

Emily Dickinson

To Stephen P. Stich,
with gratitude

Preface

By the end of World War II, a new paradigm for the scientific understanding of human development had emerged. For a variety of reasons—methodological, metaphysical, political, even empirical!—the idea that human nature is the preeminent force at work in shaping the character of a person and the contours of her life had given way to a resolute empiricism. For the first time since the Enlightenment of the eighteenth century, experience, and not our innate endowment, was universally accorded the primary role in the making of ourselves and our society. By the time of the war in Vietnam, however, the newly resurrected empiricist orthodoxy was being challenged by a vigorous resurgence of nativism. Far from playing a minor role in the making of a person, human nature was again taken to be the chief factor at work in determining the nature of people and the milieux in which they live.

Today, “Nativism Rules, OK.” In both the popular and academic presses, books and articles claiming to have found a ‘substantial genetic basis for,’ or ‘instinct for,’ or even ‘the gene for’ a variety of traits and behaviors have proliferated. Features as diverse as scholastic performance, sexual orientation, violence, “[a]ltruism, compassion, empathy, love, conscience, the sense of justice,” poverty, alcoholism and other substance abuse, susceptibility to diseases, sexual mores, the desire to rape women, the attainment of concepts, language use, even attitudes toward divorce and religion—features that were formerly held to be substantially under environmental control—are now routinely claimed to be largely, if not wholly, innate.¹

1. The quotation is from Wright (1994:12). See Herrnstein and Murray (1994), esp. 317–68) for the innateness of IQ and poverty; Hamer and Copeland (1994) and LeVay (1993) for the innateness of sexual orientation; Nobel et al. (1991), Bruner et al. (1993), and Wright (1995) for the innateness of violence; Williams and Nesse (1991) for the innateness of disease susceptibility; Thornhill and Thornhill (1992) for the genetic basis of men’s alleged compulsion to rape; Nesse (1994) for nativist perspectives on substance

But what is nativism? What does it mean to say that some trait is innate? What kinds of evidence should support such a claim? What implications should be drawn from it? This book aims to present a partial answer to the first three of these questions, and in so doing, to sound a note of caution regarding the fourth.

Nativism about the mind will be my focus. In part I, I examine the history of the controversy over innate ideas and, in the light of that examination, develop an account of what nativism about the mental is. On the view I urge, the doctrine is not univocal; there are two quite distinct positions that proponents of ‘innate ideas’ have espoused. First, nativists have defended the view that (some of) our inborn faculties of mind are task- or domain-specific. Whereas empiricists assert that learning in all domains is underpinned by the same, very general learning strategies, nativists hold that in some domains, learning must be subserved by special-purpose mechanisms. This psychological hypothesis about the nature of our inborn learning mechanisms is not, however, the only view nativists have upheld. An ostensible commitment to innate ideas has also signified their sanctioning of a second and much more radical view, namely, that our acquisition of a mental life will forever resist explanation. Whereas empiricists take it for granted that the furnishing of a mind is a natural process, amenable at least in principle to rigorous, scientific explanation, nativists hold that the processes responsible for our attainment of ideas and beliefs are, and are likely to remain, deeply mysterious.

There is thus a deep tension within the nativist camp. On the one hand, nativists offer accounts of the mechanisms responsible for acquisition. On the other, they deny that such accounts can be given. I argue that this duality stems naturally from the two quite different kinds of argument that have been used to support nativists’ claims, and that it accounts, once recognized, for the air of unclarity and confusion surrounding the nativist position. This dual nature—and corresponding unclarity—is apparent also, as I then go on to show in parts II and III, in modern-day nativist thought.

In part II, I argue that the radical concept nativism once proclaimed by Jerry Fodor is of a piece with the explanatory pessimism evinced by his historical predecessors. His claim that almost all our concepts are innate is not an attempt to explain how concepts are attained. Rather, I suggest, its purpose is to underscore the difficulty—even the impossibility—of providing a properly psychological account of the acquisition process. Recently, Fodor has tried to moderate his nativism, urging that rather than being brutally inexplicable, our acquisition of concepts is to be seen as a necessary concomitant of the ‘fact’ that most things in the world owe their existence to our being able to think about them. I argue that this ‘Constitution Hypothesis’ is nothing more nor less than an attempt to make metaphysical necessity

abuse; Fodor (1975, 1981b) for the innateness of concepts; Chomsky (1988) and Pinker (1994) for the innateness of language; and E. O. Wilson (1975) and Wright (1994) for the innateness of just about everything.

play the role played by God in the systems of earlier nativists: since natural science cannot explain how our minds are furnished, God—or in Fodor’s case, metaphysical necessity—is the only thing left to appeal to in our explanatory endeavors. As against the mystery-mongering of Fodor and his predecessors, I urge that such appeals to a *deus ex machina*—whether cloaked in the garb of metaphysical necessity or not—are unwarranted. Acquiring a concept requires that one somehow or another develop the ability to distinguish what falls under it. While sometimes, perhaps, we may be born with the requisite recognitional capacities, in most cases they must be learned. I conclude that there is, therefore, a real prospect of developing a properly scientific (that is, psychological) understanding of how we acquire concepts. The notion that concept acquisition must remain forever beyond our ken is a mistake.

Part III discusses the fate of the nativist’s faculties hypothesis, as exemplified in the views of Noam Chomsky. On this view, language learning is subserved by a dedicated ‘Language Faculty,’ a biologically-specified ‘mental organ’ that is distinct from any general-purpose capacity for learning we might possess. Chomsky goes further than asserting that a faculty for language learning exists. He also famously propounds a theory about the nature of the postulated language faculty. On his view, the language faculty incorporates (in some straightforward way) the principles of Universal Grammar.

In discussing Chomsky’s position, I seek to establish two claims. First, I argue, there is no reason to accept the Chomskyan view in toto. Chomsky’s nativism consists of a number of largely independent theses, which have (as I argue in chapters 8, 9, and 10) very different levels of evidential support. I urge that empiricist approaches to learning possess resources that have hitherto not been properly appreciated, and demonstrate how the apparent plausibility of the Chomskyan position derives from the nativist’s helping himself to a variety of more or less implausible assumptions about language learners and their experience.

Nonetheless, I argue in chapter 11, there is reason to accept a nativist (if not altogether Chomskyan) view of language learning. This brings me to the second main aim of my discussion of linguistic nativism, which is to emphasize that *we really do not know* how language—or anything else, indeed—is learned. Our ignorance about the human mind and the processes by which it acquires knowledge is profound. So although the evidence now available tends to suggest that nativism might be right in the domain of language, the case to be made in favor of nativism, and against its empiricist alternatives, is nowhere near overwhelming enough to justify the almost religious conviction with which nativism about language has been defended over the last thirty or so years. I urge the need to develop empiricist learning theories—if not for language, then for the myriad other spheres in which learning unproblematically takes place in the absence of a special faculty—and argue that the truth or falsity of a nativist approach to a given area cannot be settled in advance of the development of a successful learning theory for that domain.

There are thus no short answers to the questions, “What is nativism about the mind?” and “Should we believe it?” Depending on what arguments the nativist uses to support his thesis as to what is within us, that thesis could be one of two very different things: an empirical psychological theory about learning mechanisms, on the one hand, or an expression of metatheoretical gloom on the other. If I am right in my assessments of these two positions, then nativist doctrines are far from indefeasible even in the psychological domain—the domain where the hypothesis of innateness has received its most articulate, intelligent, and sustained defense. How much more cautious, then, should we be about nativisms in other areas, particularly in areas where there is, apparently, much more at issue? The truth of Fodorean or Chomskyan nativism, while of course of great intellectual interest, is of little social consequence: the lives of the vast majority of people will be entirely unaffected by the outcomes of these debates, whatever those outcomes may be. The same, however, cannot be said of the resurgence of nativism in other spheres. Where what is at issue is the innateness or not of our intelligence, or our morals, or our sexuality, the stakes are arguably much higher.

Nativism’s potential for effecting profound changes in our views about ourselves and our society is already becoming apparent. The nativist’s shifting of explanatory emphasis from the environment to the genes—or from the knowable and manipulable to the imponderable and immutable—seemingly supports the more general shift in sociopolitical attitudes that is occurring as the twentieth century lurches to a close. The growing obsession here and abroad with racial, national, and sexual differences; the widely perceived failure of social welfare programs to cure society’s ills; the newly fashionable backlash against attempts to enforce ideals of equality and civil rights; the calls for a reinstatement of ‘traditional morals’ and ‘family values’; the nostalgia for a time when everyone had a place and knew that place and stayed in it—these kinds of views find a fertile seeding ground in the New Nativism. Conservative politicians, moralists, and jurists apparently find overwhelming the inference from ‘innate’ to ‘right’ and ‘inevitable.’² If the poverty and violence of our inner cities are coded in the genotypes of their inhabitants, then government program aimed at ameliorating these conditions are pointless.³ If poor scholastic performance among minority children is a consequence of their substandard genes, then forget about Head

2. See Wright (1994:13): “I believe some—some—of the conservative norms that prevailed in Victorian England reflect, if obliquely, a surer grasp of human nature than has prevailed in the social sciences for most of this century; and that some of the resurgent moral conservatism of the past decade, especially in the realm of sex, rests on an implicit rediscovery of truths about human nature that have long been denied.”

3. See Jeffrey (1994): “Social variables used by sociologists . . . are only weakly associated with the violent career offender. This indicates that possibly the career offender is different in kind. . . . These individuals may differ in terms of genetic and neurological factors.” (1994:167) Jeffrey advocates medical intervention (administration of neuroactive drugs to ‘at risk’ populations) as a crime-preventive measure.

Start and other educational reforms.⁴ If the kind of serial monogamy practices in our society destroys some men's biological 'right' to reproduce, then we should tighten the divorce laws.⁵ If women are by nature less aggressive than men, and if aggression is a factor in achieving social status and economic success, then sexual inequality and the 'glass ceiling' are here to stay. And so on. Of course, these inferences are highly questionable. 'Innate' does not in general imply 'impervious to environmental adjustment.'⁶ And to suppose that something is right just because it is innate is to commit the fallacy of deriving 'ought' from 'is.' But although the fact that there is no short argument—and perhaps no argument at all—from nativism to political, moral, or economic prescriptions is sometimes acknowledged by the New Nativism's proponents,⁷ the inference from some state of affairs' being natural to its being right is being made all the time, with potentially devastating consequences.⁸

All the more reason, then, to be very clear about what nativism is, and on what considerations its claims to credibility lie. If we as a society cannot help but draw social and political conclusions from claims about innateness—perhaps our tendency to do so is inborn!—we can at least take care to investigate the validity of those claims themselves. This book is intended to be a small step toward doing exactly that.

4. Herrnstein and Murray (1994:389–416).

5. See Wright (1994:101): "When some men dominate more than twenty-five years' worth of fertility, some man, somewhere, must do with less. . . . It is not crazy to think that there are homeless alcoholics and rapists who, had they come of age in a pre-1960s social climate, amid more equally distributed female resources, would have early on found a wife and adopted a lower-risk, less destructive lifestyle. . . . if polygyny would indeed have pernicious effects on society's less fortunate men . . . then it isn't enough to just oppose legalized polygyny. . . . We have to worry about the *de facto* polygyny that already exists. We have to ask . . . whether [monogamy] can be restored."

6. This point is argued eloquently by Alper and Beckwith (1993).

7. See Wright (1994:13): "If modern Darwinism indeed has some morally conservative emanations, does that mean it has politically conservative emanations? This is a tricky . . . question . . . the question of innate human goodness casts a political shadow that can't be so casually disregarded."

8. See Kevles (1985) and Gould (1981) for historical accounts of what ensued last time such inferences were accepted uncritically. See Lewontin, Rose, and Kamin (1984); Billings, Beckwith, and Alper (1992); and Block (1995) for cautionary scientific and philosophical responses to some of these claims.

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THE HISTORICAL DEBATE

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What Nativism Is Not

1.1 What Is Nativism? Preliminary Spleen

The doctrine of innate ideas really is as old as philosophy itself. The claim that the character of our mental furniture is to a large extent internally rather than environmentally determined found its first substantive defense in the works of Plato, was resurrected by rationalist philosophers in the seventeenth and eighteenth centuries, and has been defended most recently by two of the twentieth century's foremost mentalists, Noam Chomsky and Jerry Fodor. Fodor has argued that the vast majority of our concepts are innate. Chomsky's view, less radical than Fodor's but radical enough, is that much of our knowledge of natural languages is inborn.

But what are innate ideas? What is one committed to when one is committed to them? What do Plato, Descartes, Leibniz, Fodor, Chomsky, and a host of lesser-known philosophers and psychologists have in common such that they are all nativists? Unfortunately, and as numerous commentators have lamented, a general understanding of nativism is hard to come by.¹ Nativists' claims do not wear their content on their sleeves; and although their thesis is one of philosophy's most venerable, the historical record is surprisingly unhelpful to one seeking to elucidate what, in fact, that thesis is.

Suppose that, as a first approximation, one were to say that nativism about the mind is the view that (some of) what is in our minds is innate, born with us, part of our biological endowment as members of the species *Homo sapiens*. Saying this adds precious little to our understanding of nativist doctrine. Yet saying even this much is enough to raise a host of interpretive difficulties.

1. See, e.g., Adams (1975:71); Scott (1987, 1988); Hacking (1975:57). Such complaints are not merely a recent phenomenon—see Locke's *Essay*, Bk.1 (Locke 1975).

Problems arise in the first instance because there are several different kinds of cognitive equipment the innateness of which may be at issue. In general, ‘what is in our minds’ receives a threefold classification into ideas (or concepts), beliefs (and other propositional attitudes), and faculties or capacities (such as our ability to reason or to learn a language). The innateness of all these kinds of equipment has, over the years, been defended. But, because different writers have focused on different aspects of the mental, there is considerable variation in the views expressed by those within the nativist camp. Consider, for example, the extent to which a contemporary nativist, like Noam Chomsky, would agree with the claims and motivations of nativists in the first part of seventeenth century. At that time, many were dismayed to see the influence of traditional Christianity being eroded by the rise of modern scientific materialism. Hoping to buttress Christian dogma and values against spreading skepticism, the so-called Cambridge Platonists sought to defend their favored moral and religious precepts by establishing their innateness.² They argued that such ‘congenite truths’ as ‘There is a God,’ ‘Promises are to be kept,’ and ‘The obscene parts and actions are not to be exposed to publick view’ (!) are immune to question on the grounds that they are written “euen [even] in thine owne bosom, written by the finger of God, in such plaine Characters, and so legible, that though thou knowest not a letter in any other booke, yet thou maist read this.”³

Chomsky has not, to my knowledge, considered whether we have any innate opinions as to the probity of indecent exposure. But it is surely not essential to his being a nativist about language that he should accept the claims of his nativist forebears as to the innateness of moral and religious beliefs. So although Chomsky and his Cambridge cohorts share the view that *something* mental is innate, they may disagree as to *what* is innate. We therefore need a characterization of nativism that is both ‘deep’ and yet general enough to accommodate substantial doctrinal differences like these: an account that links nativism too closely to the innateness of some particular psychological trait is ipso facto inadequate.

A more important source of confusion derives from the fact that parties to the debate over nativism typically rely on metaphors to elucidate their positions. In explaining what it is for some mental item to be innate, nativists—where they do not invoke near synonyms like ‘natural’ or ‘inborn’—make airy reference to veins in marble, hereditary diseases, imprints in wax, writings on the soul, and *prêt à porter* coats; which their empiricist opponents just as breezily counter with talk of blank slates, plain pages, empty storehouses, and made-to-measure suits. If taken as serious attempts to ex-

2. Patrides (1970) contains a selection of writings of the Cambridge Platonists. See Yolton (1956:30–48) for a more general survey of nativist writings prior to the publication of Locke’s *Essay*.

3. The examples of innate precepts, from Sir Matthew Hale’s *The Primitive Origination of Mankind* (1677), are due to Yolton (1956:34). The passage is from Richard Carpenter’s *The Conscientable Christian* (1623), quoted in Yolton (1956:31).

plain what nativism is, these metaphors generate a plethora of interpretive puzzles. Even the small sample of analogies just mentioned suggests at least two quite different ways to understand what it means to say that something is innate. Descartes's comparison of innate ideas with inherited illnesses, and Leibniz's likening them to veins in a slab of marble, support a dispositional reading.⁴ Just as the symptoms of hereditary gout are not present at birth, and just as the statue of Hercules is only implicit in the layout of the faults in the stone, innate ideas are not literally *there* in the mind of the neonate. Rather, their emergence is conditional upon the occurrence of certain other events or processes, in much the same way as uncovering the statue in the marble requires the sculptor's skillful chiseling or the manifestation of the disease requires that the unfortunate individual reach (say) middle age. To liken innate mental items to the statue implicit in the marble, or to the disease coded into the genes, then, is to suggest that those items are initially present in the mind only implicitly or potentially or partially, requiring something extra—experience, perhaps, or maturation—to emerge fully.

By contrast, the Cambridge Platonists' talk of principles' being written or imprinted or engraven in the soul, and the modern nativist's analogy between the mind's stock of innate concepts and a store's stock of suits, are most naturally read as implying that beliefs and ideas are present in the mind at birth in some quite straightforward and non-dispositional sense.⁵ So, in addition to the three variants of the doctrine mentioned above—as concerning, that is, concepts or beliefs or capacities—we now get an orthogonal division of nativism into its dispositional and non-dispositional versions. The doctrine of innate ideas, which at first appeared to be a univocal position, has degenerated into a motley disjunction. And the fragmentation does not stop here: further analysis of the nativist's 'explanations' just makes things worse. Stich, for instance, canvasses several ways to understand Descartes's analogy between innate ideas and hereditary diseases, each of which has some intuitive appeal and none of which is wholly satisfying.⁶ Samet (unpublished manuscript) does the same, at rather greater length, for Leibniz's statue of Hercules metaphor. But these attempts at elucidation do little to further our understanding of what nativism is. Instead, they serve to underscore how entirely unhelpful the nativist's metaphors are, and to demonstrate how hard it is to interpret them in such a way that different nativists come out saying—even roughly—the same thing.

4. See Leibniz's Preface to his *New Essays* (1981:52) and Descartes's "Comments on a Certain Broadsheet" (CSM I:303–4; AT VIIIIB:358). (I shall give references both to the standard twelve volume edition of Descartes's works, edited by Adams and Tannery (AT) and to the two-volume edition edited by Cottingham, Stoothoff, and Murdoch (CSM). All quotations are as translated by CSM, unless otherwise indicated.)

5. The contemporary analogy between innate ideas and off-the-rack suits is due to Piattelli-Palmarini (1986, 1989).

6. See Stich, Introduction to Stich (1975).

The threat of a massive proliferation of different nativisms suggests that it may be a mistake to regard the nativist's metaphors as anything more than colorful *façons de parler*. They do, after all, often seem to be intended more rhetorically than explanatorily.⁷ If so, it is a mistake to rely too much upon them. Further, to insist on a literal reading of the nativist's words is in many cases to violate a central imperative of interpretation—namely, that one shouldn't be too quick to ascribe stupid views to smart people. Particularly problematic in this regard is the attribution of a commitment to 'naïve' or non-dispositional nativism to those who favor the 'writings on the soul' and '*prêt à porter*' conceits. This view, according to which concepts or beliefs are, as it were, 'fully present' in the mind at birth, has for so long been known to be susceptible to so many and such obvious objections, that charity alone might prevent our attributing it to anyone, his or her taste in similes notwithstanding.⁸

1.2 The Oblique Approach

Such considerations as these suggest that nativists' explicit attempts to explain their position are unreliable as guides to an understanding of what nativism is. Too great a focus on the nativists' analogical glosses leads inexorably to trouble of one sort or another. Insofar as one is concerned to answer the question, "What is nativism?", then, a more subtle approach is in order.

Unfortunately, however, our path to enlightenment is little clearer once we break free of the metaphorical undergrowth. The most obvious alternative method of finding out what nativists believe would be to figure out what problem they think nativism is a solution to and why they think nativism solves that problem, inferring thence what nativism must be in order that it solve that problem for that reason. But employment of this 'method of triangulation' is stymied by a further confusing feature of the nativism controversy, namely, that it is extremely unclear just what question nativism is designed to answer. Or rather, it is clear that there are two different

7. The passage from Carpenter quoted above, for example, was taken from a sermon. It is therefore perhaps inappropriate to read his talk of what is 'written in our souls' by the 'finger of God' as the outline of any kind of theory, it being intended rather as an exhortation to religious faith.

8. The classic articulation of nondispositional nativism's embarrassments appears in Book I of Locke's *Essay* (Locke 1975)—see §1.5.2 below. The charitable principle just mentioned is sometimes used as a basis for criticizing Locke, the charge being that no one could really have been stupid enough to subscribe to the views he criticizes in the *Essay*. Yolton (1956:30–44), however, gives scores of passages in which seventeenth-century nativists certainly wrote as if they held the naïve theory Locke lampoons. The operative idea behind Yolton's defense of Locke is that—charity notwithstanding—we ought to suppose that nativists both understand and mean what they say.

questions to which nativists have taken themselves to be responding; what is unclear is why one should think that their responses to those questions deserve the name ‘nativism.’ In the rest of this chapter, I look at the two problems to which nativism has, historically, been proposed as a solution. The first is that of providing a foundation for a rationalist epistemology. I argue, in §1.4, that nativism has (or should have) at best a subsidiary role to play in that enterprise. For, to the extent that the rationalist succeeds in his project, the real epistemological work is being done by God. The second problem to which nativists have traditionally seen themselves as responding is that of providing an answer to the psychological question, “Where does what is in our minds come from?” In §1.5, I argue that insofar as the nativist has a plausible answer to this ‘genetic’ question, that answer is indistinguishable from the empiricist’s.

1.3 Two Problems

Especially during the heyday of nativist theorizing in the seventeenth century, questions about how beliefs are acquired were frequently mixed up with questions as to their justification. Nativism seems to have been regarded not only as answering the psychological question, “How did what is in our minds come to be there?” but also, in virtue of its alleged contribution to an explanation of why beliefs that are arrived at *a priori* are justified, as forming the keystone of a rationalist epistemology.

Leibniz, for example, in the Preface to his *New Essays*, outlines two questions on which he is particularly concerned to take issue with Locke. First, he writes, “There is the question whether the soul in itself is completely blank like a writing tablet on which nothing has as yet been written . . . whether everything which is inscribed there comes solely from the senses and experience. . . .” (1981:48). This is a psychological question about the causal history of our beliefs and concepts; and Leibniz’s position on this issue is, of course, that the *tabula* is far from *rasa*: “The soul inherently contains the sources of various notions and doctrines, which external objects merely rouse up on suitable occasions” (1981:48).

Having outlined his response to this question, Leibniz immediately turns to “another question, namely, whether all truths depend on experience, that is on induction and instances, or if some of them have some other foundation” (1981:49). This is an epistemological question concerning the sources of justification for our beliefs. Taking necessary truths as his example, Leibniz argues that they could not get their warrant from sense experience. For, he says, the senses can give us only “instances, that is particular or singular truths” (1981:49), and “however many instances confirm a general truth they do not suffice to establish its universal necessity” (1981:49). Where, then, does the ‘extra’ warrant required by necessary truths come from? The nativist hypothesis again saves the day: “It appears that necessary truths . . .

must have principles whose proof does not depend on instances nor, consequently, on the testimony of the senses . . . proof of them can only come from inner principles, which are described as innate” (1981:50).

Thus, Leibniz holds that the innateness of certain ‘inner principles’ answers two quite different questions. The first is the psychological question, “Why do we have certain beliefs (and concepts) despite an apparent absence of the kinds of sense experiences that could give rise to them?” The second is an epistemological question, “What justifies beliefs (such as our beliefs about necessities) that, apparently, could not get their warrant from sense experience?” As we will see, Leibniz is not alone in asking an innateness hypothesis to perform both these tasks. In §§1.4 and 1.5, I shall argue that it performs neither of them.

1.4 Nativism and Epistemology: Foundations for Rationalism

Let us look first at nativism’s role in epistemology. So closely have nativism and rationalism been associated that the *Encyclopedia of Philosophy* actually identifies a commitment to innate ideas with a commitment to the possibility of obtaining substantive knowledge of the world *a priori*: “The theory of innate ideas, in any of its philosophically significant forms, claims that all morally right judgment or all science, or both, rest upon or consist in a knowledge *a priori* either of (a) universal principles governing reality or (b) objects transcending sensory experience” (Nelson 1967:166). Not only does this formulation make the connection between rationalism and innatism rather too intimate, it also seems to ignore nativism’s other role as a psychological theory of belief and concept acquisition (see §1.5). The fact nonetheless remains that for many years *a priori* knowledge and an innateness hypothesis were regarded as a package deal.

But to try to characterize nativism in terms of its role in a rationalist epistemology is immediately to run up against a serious problem. The problem is that while a nativist hypothesis is, at least *prima facie*, a reasonable sort of response to the psychological question, “Where do beliefs arrived at *a priori* come from?” it is not a reasonable sort of answer to the epistemological question, “What *justifies* those *a priori* beliefs?” Why should the mere fact of my belief’s being innate, or of its following from certain innate ‘principles,’ serve to justify it? A belief I acquired as a result of being brainwashed or drugged or hit on the head would not be justified. Why should beliefs I acquire as a result of being built the way I am be any better off?

They would be better off if a belief’s innateness somehow guaranteed its truth; or if a principle’s innateness somehow guaranteed its reasonableness. But it does not—or not by itself, at any rate. It is possible, after all, that our heads at birth should be stuffed full of all kinds of rubbish: false beliefs, faulty inferential strategies, misleading ideas, or what-have-you. It’s therefore possible that (say) the belief that a triangle’s angles sum to 180°

is rigorously derived, using our innate faculty of Reason, from innately specified axioms—and yet false, because the innate axioms, or Reason itself, or both, are unreliable. Since innateness *per se* brings with it neither truth nor reasonableness, it will not, pace Leibniz, explain why our *a priori* beliefs are justified.

Of course, if there were some additional reason to suppose that what is innate is somehow epistemologically privileged, then the nativist would be on surer ground. Suppose, for example, there were reason to think that innate beliefs and so on were implanted in our minds by a benevolent God, concerned to give us a head start in our attempts to negotiate the sublunar wilderness. Then that would be reason to think that those beliefs are true; that our innate inferential strategies are truth-preserving; and that any innate concepts we possess are such as to carve the world at its joints. Or suppose, in a more contemporary vein, that a case could be made for the claim that natural selection would favor organisms whose innate beliefs were true over those with false beliefs. Then that would equally be grist to the nativist's mill.⁹ Or suppose, to take a third possibility, that there were some epistemological 'principle of conservatism' to the effect that if we believe that *p* and have no reason to think that *not-p*, then we are justified in continuing in that belief. Then, innate beliefs, being built in and believed by default, so to speak, would be justified unless positive grounds for rejecting them were discovered.¹⁰

But whatever extra machinery one chooses to wheel in here, the fact remains that an innateness hypothesis is at best only a part of the epistemological edifice: the real foundation for a rationalist epistemology is provided by God or Mother Nature or our 'principle of conservatism' or whoever or whatever it is that stands guarantor that our *a priori* beliefs—be they innate or not—track reality. So we have the situation alluded to above: an innateness hypothesis will not solve the epistemological problem; and what will solve that problem does not deserve to be called an 'innateness hypothesis.'

1.4.1 Doin' the Nativist Shuffle

I think that nativists themselves have always recognized, albeit very reluctantly, the shortcomings of nativism in its role as epistemological foundation stone. This recognition, and nativists' uneasiness with it, show up time and again in their tendency to shuffle their feet whenever the moment comes for

9. Carruthers (1992) makes exactly this case in response to exactly this problem. I myself have doubts about this strategy. It is, after all, a commonplace of evolutionary theory that natural selection will often favor organisms with a tendency to err: a creature that forms the belief 'Predator nearby!' whenever anything moves in its vicinity will be wrong more often than not, but it may well live longer than another that, valuing truth over prudence, sticks around to determine what really caused that moving shadow.

10. This last suggestion was made by Scott Soames.

them to take a stand as to the exact role that nativism is playing in their epistemology. On the one hand (or foot), they write as if nativism by itself were an epistemological doctrine; as if, that is to say, to propose an innateness hypothesis were in itself to answer all our questions about the justification of beliefs arrived at *a priori*. But on the other, there is evidence too that they also believe that nativism is only a psychological theory about the origins of our ideas and that, as I have argued, to advance an innateness hypothesis is at most only a part of explaining how the *a priori* is to be justified.

Henry More, to take one example, is a shuffle virtuoso. He begins his *Antidote Against Atheism* (1653) with a discussion of exactly the issues I have just raised. His central argument for the existence of God (§§3–8) is based on the claim that ‘God necessarily exists’ follows, with ‘mathematical’ certainty, from the “indelible Idea of a Being absolutely perfect in the Mind of Man,” an idea that is “Natural [i.e., innate] and Essential to the Soul of Man” (§3). But More admits at the outset that such an argument can never be apodictic, not because of any doubts about the cogency of ontological arguments in general but because, as he eloquently puts it:

it is possible that Mathematicall evidence [i.e., demonstrative proof] it self, may be but a constant undiscoverable delusion, which our nature is necessarily and perpetually obnoxious unto, and that either fatally or fortuitously there has been in the world time out of mind such a Being as we call Man, whose essential property is to be then most of all mistaken, when he conceives a thing most evidently true. (§2)

Yet, and despite having thus effectively undermined his own project, More carries on as if nothing at all had happened. His only response to the crushing objection that he himself has raised is the remark that “you may as soon un-soul the Soul, as divide her from perpetuall assent to those Mathematical truths, supposing no distemper or violence offered to her Facultyes” (§3). Cold comfort, in the light of the possibility raised in the previous quotation. Nonetheless, More feels able to summarize his argument and its conclusion as follows:

For this Idea of God being no arbitrarious Figment . . . but the necessary and naturall Emanation of the mind of Man, if it signifies to us that the Notion and Nature of God implices in it necessary existence as we have shown it does, unlesse we will wink against our own naturall light, we are without any further Scruple to acknowledge that God does exist. (§8)

Without any further scruple, indeed!

Similar uneasiness about the role of nativism in epistemology is apparent in Descartes’s argument for the existence of God in the Fifth Meditation. As a preliminary to presenting his version of the ontological argument, Descartes attempts to explain both why it is that we seem to believe certain propositions in the absence of any relevant experience and why those propositions should compel our assent—why, that is, *a priori* knowledge is

knowledge, not mere belief. As to the former question, Descartes's view is that such beliefs are got from reflection upon ideas possessed innately. And as to the question of why we should trust the beliefs so acquired—crucial to Descartes's subsequent demonstration that God exists—nativism seems to be supposed to do the trick there as well.

Although he has already argued that what the mind perceives ‘clearly and distinctly’ must be true (because guaranteed by God), Descartes seems not to rely here on the clarity and distinctness of *a priori* beliefs about God as the ground for our acceptance of them. Recognizing, perhaps, the imminent threat of the notorious ‘Cartesian circle,’ he implies instead that their justification resides in their innateness. After a long discussion of the etiology of mathematical beliefs, in which he describes how they arise out of reflection upon ideas that he ‘finds within’ himself and that do not come from experience, Descartes writes of those beliefs:¹¹

And even if I had not demonstrated this [that clear and distinct ideas, such as mathematical ideas, must be true], the nature of my mind is such that I cannot but assent to them, at least so long as I clearly perceive them . . . I always held that the most certain truths of all were the kind which I recognized clearly in connection with shapes, or numbers, or other items relating to . . . pure and abstract mathematics. (CSM I:45; AT VII:65)

But is Descartes here claiming merely that the innateness of his mathematical beliefs explains why, as a matter of psychological fact, he feels compelled to regard them as true? Or is he making the much stronger claim that the beliefs’ innateness provides him with reason to accept them? Descartes waffles shamelessly between these alternatives.

On the one hand, his argument requires the stronger claim. There’s no doubt whatsoever that Descartes takes himself to have shown not just that we all must, in virtue of our psychological makeup, believe that God exists, but also that that belief is true: God does exist. As he puts his conclusion: “from the fact that I cannot think of God except as existing, it follows that existence is inseparable from God, and hence that he really exists” (CSM I: 46; AT VII:67). But it doesn’t follow that God exists because I can’t help but think he does! Something more in the way of argument is required. Assuming, as I have done, that an appeal to the belief in God’s clarity and distinctness is out of the question, an appeal to its *innateness* might look appetizing as an alternative explanation of its justification. After all, such an appeal had even at that time a venerable philosophical ancestry. And Descartes’s constant references to innate ideas and the ‘natural light’ of Rea-

11. Two notes about terminology. First, as Greene (1985:1–22) has argued, an idea for Descartes is the primary vehicle of truth; hence his ‘idea’ is often closer to our ‘belief’ or ‘proposition’ rather than our ‘concept.’ I therefore use ‘idea’ and ‘belief’ interchangeably in what follows. Second, I regard as unimportant for present purposes the distinction between beliefs or ideas that are themselves innate, and those that are acquired solely via reflection on beliefs or ideas that are innate. For simplicity’s sake, I call both ‘innate.’

son in presenting this argument certainly give the impression that nativism was the explanation he had in mind.

On the other hand, however, Descartes is too good and too honest a philosopher to be entirely happy with this strategy. He never comes out and says in so many words that because his belief in God is innate, it is justified. Rather, he again makes use of his analogy between that belief and his mathematical beliefs. Pointing out that his beliefs about God and his beliefs about mathematics have the same causal history, both being a result of reflection upon innate ideas, he claims only that they should be accorded the *same* epistemological status: “I ought still to regard the existence of God as having at *least the same level of certainty* as I have hitherto attributed to the truths of mathematics” (CSM I:45; AT VII:65–6, emphasis added). But Descartes’s careful avoidance here of any claims as to exactly how certain those truths are, makes clear that he has doubts about the cogency of his ‘demonstration.’ As he should. For we remember, even if Descartes chooses not to mention it, that the truths of mathematics cannot be known with certainty until the hypothesis of the Deceitful Demon has been ruled out. And we remember too that it is God himself who keeps the demon at bay. As Descartes apparently sensed, though he nowhere explicitly acknowledged, an appeal to innateness as a way of justifying a priori beliefs about God brings with it a new, but equally damaging, ‘Cartesian circle.’

The real foundation of seventeenth-century rationalism, then, is God. But, given the broader theological ends that that epistemology was designed to serve, this was the last thing that theorists like More or Descartes could bring themselves openly to admit. By writing as if nativism were in itself an epistemological theory—as if, that is to say, the mere fact of an idea’s being innate were enough to justify it—the rationalist tried (perhaps unconsciously) to mask the deity lurking at the bottom of his epistemology. But this is mere sleight of hand. Nativism is not an epistemological theory; and insofar as an appeal to a benevolent God constitutes such a theory, it cannot with any justice be called ‘nativism.’

1.4.2 Taking a Stand

Oddly enough, it is Plato alone among nativists who offers a story about innate knowledge that has at least some hope of avoiding the kinds of difficulties I have been discussing. I say ‘oddly enough,’ because to the extent that Plato was concerned with the kinds of epistemological issues that exercised seventeenth-century rationalists—certainty, justification, the distinction between knowledge and mere belief, and so on—he seems not to have regarded his nativism *per se* as bearing essentially on those questions. Nonetheless, it is instructive to consider Plato’s theory in the light of the present discussion, as it throws into particularly sharp relief the problems faced by a rationalist who attempts to base his epistemology on an innateness hypothesis.

Plato's doctrine of *anamnesis* is introduced in the *Phaedo* and the *Meno*. On this view, so-called learning is a matter of 'recollecting' knowledge that was in fact acquired before our birth, as our souls communed in incorporeal congress with the Forms. In the *Phaedo*, Plato's defense of the theory is part of his broader project of establishing the immortality of the soul. He argues that since some of the knowledge we possess could not have entered the soul through the bodily senses, it must have been acquired prenatally. This in turn implies that our souls can and do exist, in disembodied state, prior to our birth.¹²

In the *Meno*, the recollection theory is invoked to declaw a paradox that seemingly undermines the Socratic inquiry into what virtue is. Philosophical inquiry, Meno suggests (80d–e), is impossible. For if you don't know what you're inquiring after, you won't be able to recognize it when you find it; but if you do know what you're inquiring into, your inquiry is superfluous. Socrates responds by pointing out that if learning is recollection of what is within you, then there is a sense in which you do know what you seek before you begin. But since that knowledge is buried or forgotten, there is also a sense in which you do not know. So philosophical inquiry, and Socrates' own promotion of its practice, is not pointless after all (81c–e, 85c–86b).

The fact that *anamnesis* serves such divergent philosophical ends in the two dialogues has led to much scholarly controversy about the relation of the *Meno* and *Phaedo* theories.¹³ In my view, however, the theories of the *Meno* and the *Phaedo*, and the arguments Plato marshals in their support, are essentially identical. In both dialogues, *anamnesis* is developed primarily as a solution to the psychological 'acquisition problem', "How does what is in our minds come to be there?" The doctrine's success in providing an account of concept and belief acquisition is then used to lend independent support to a view—namely, transmigration of souls—that, notwithstanding its usefulness in furthering Plato's 'deeper' philosophical ends, rather lacks something in the way of intuitive plausibility.¹⁴

Plato's argument for the recollection theory proceeds in two steps. First, he seeks to establish that much of what is in our minds must be innate. Employing, in effect, a version of the 'argument from the poverty of the stimulus,'¹⁵ Plato argues that the information provided by sensory experience

12. The existence of the soul after death—a rather more compelling issue, given Socrates' predicament in the *Phaedo*—is established by separate arguments.

13. See in particular Scott (1987) and the literature discussed therein.

14. As evidence that Plato regarded the theories presented in the *Phaedo* and *Meno* as being identical, note that he has Cebes introduce the doctrine of *anamnesis* in the *Phaedo* by describing what is, in essence, the experiment performed in the *Meno*: "... when people are asked questions, if the question is put to them in the right way, they can give a perfectly correct answer, which they could not possibly do unless they had some knowledge and a proper grasp of the subject. And then if you confront people with a diagram or anything like that, the way they react is an unmistakable proof that the [recollection] theory is correct" (*Phaedo* 73a,b).

15. To be discussed more fully in §2.2.

is too meager to account for our acquisition of certain concepts or beliefs. In the *Phaedo* (74b–75e), he begins by noting that when we are presented with two sticks, we can tell that they are not exactly equal (in length, say): they “fall short” of Equality itself (74d).¹⁶ The fact that we can make this judgment, he argues, shows that we must have had “knowledge of the Equal before that time when we first saw” (74e) the sticks and “realized that [they] strive to be like the Equal but are deficient” (74e–75a). But since *all* sensible objects, on Plato’s view, necessarily fall short of perfect equality—since “all we perceive through [the senses] is striving to reach that which is Equal but falls short of it” (75b)—it follows that we couldn’t have got our idea of equality from the senses. Hence, Plato concludes, “before we begin to see or hear or otherwise perceive, we must have possessed knowledge of the Equal itself” (75b): the idea of equality is innate.¹⁷ In the *Meno*, Plato is concerned with our acquisition of certain kinds of beliefs, such as mathematical beliefs, for which experience is again insufficient. Although Meno’s slave has never been taught anything about geometry, and although Socrates merely asks him questions (rather than supplying him with any explicit mathematical information), he is able to acquire true opinions about Pythagoras’s Theorem. Since the boy’s opinions did not come from without, Plato argues, they must have been in him from the start: they too are innate.

The second step of Plato’s defense of *anamnesis* involves establishing that the psychological process that we naively call ‘learning from experience’ is in fact a process of recollection. Just as “the sight of Simmias often reminds one of Cebes” (*Phaedo* 73d), so experience of the world of sense reminds one of the things one had previously encountered in the realm of the Forms. Sense experience does not teach us anything new; rather, it serves to remind us of the things that we know already but have forgotten. Initially haphazard and therefore unreliable, the learner’s recollections become (under the right kind of stimulus, such as a chat with Socrates) increasingly orderly and methodical. By paying attention to what he is recollecting, and by recollecting ‘in order, as he should,’ the learner converges on the truth. Finally, and insofar as he can confirm his ‘memories’ by arriving at the same point from a variety of different starting points, the learner attains a state of knowledge.

This brings us to the point about Plato that is of particular interest in the context of a discussion of the relation of nativism and rationalism in epistemology. Recall the thrust of my earlier arguments: a belief’s innateness does not guarantee its truth, for our heads at birth could be full of trash; and insofar as our *a priori* beliefs can be justified, something other than their innateness is doing the epistemological work. What is interesting about Plato is that he, alone among nativists, is actually quite explicit on this point. He alone, that is to say, has a theory that shows how the psychological hy-

16. Quotations from the *Phaedo* are taken from the translation of Hackforth (1955); those from the *Meno* are from that of Grube (1981).

17. Bostock (1986:60–102) gives a similar reading of the *Phaedo* argument.

pothesis of innateness is connected to the epistemological question of justification.

Hinted at in the *Meno*, and more fully developed in the *Phaedrus* (247c–252b), his view is that the concepts and beliefs that are recollected during learning were acquired by the soul during its prenatal sojourn in a “place beyond the heavens” where “true being dwells” (247c).¹⁸ There, using “reason alone, the soul’s pilot” (247c), the soul acquires “veritable knowledge of being that veritably is” (247e). It being, according to Plato, a necessary condition of a soul’s entering a human body that it have in this manner “journeyed with [its] god . . . gazing up to that which truly is” (249c), all human souls can be guaranteed to have innate beliefs about the Forms. And because our beliefs concerning the unchanging world of the Forms were acquired by a soul unencumbered with bodily senses (and hence immune to the errors that the senses bring with them), those beliefs are guaranteed to be true. So as long as one takes care to recollect in the orderly manner that Socrates recommends, one can be sure that the beliefs one acquires a priori are true.¹⁹

The point is that regardless of what one might think about the wisdom—not to say sanity—of basing one’s epistemology on a doctrine of metempsychosis and the theory of Forms, Plato alone among rationalists explicitly recognizes that an innateness hypothesis will not by itself solve any epistemological problems. He recognized, that is to say, what I have been arguing throughout this section: that nativism is not an epistemological doctrine.

It is, in the light of all this, an interesting question why nativism and rationalism have been so closely associated throughout the history of philosophy. Perhaps this association is due to rationalist philosophers’ having given in to the (apparently overwhelming) temptation to conflate psychological compulsion with rational compulsion. Nativism, as I have already remarked, might look plausible as an explanation of why it is that there are things that we can’t help but believe: just as our genes make sure that hearts and blood and brains are, as it were, ‘standard features’ of the human machine, so they might ensure too that certain beliefs are non-optional. But it is one thing to explain why I am compelled to believe that *p* in this sense; and it’s quite another to explain why I am compelled to believe that *p* in the sense that interests the epistemologist. To think otherwise is to confuse

18. Quotations from the *Phaedrus* are taken from the translation of Hackforth (1955).

19. As Alan Hájek pointed out to me, this does not go all the way toward solving the problem of justification. For although Plato argues for the reliability of innate beliefs, his talk about orderly recollection does not guarantee the reliability of our access to them: as we in the post-Freudian age recognize, it’s possible that no matter how hard I try to remember, I might fail to access knowledge that is in me. But Plato does at least go one better than his nativist descendants, who explicitly recognized and responded to neither problem.

the lack of doxastic choice that we might well have qua human beings, with whatever lack of choice we have qua rational beings.

1.5 Nativism and Psychology: The ‘Genetic’ Question

Dominic Scott remarks that, in thinking about nativism, there is “a fundamental choice to be made: are we to use one or another brand of innatism merely to tell us something about the origin of certain beliefs or about their justification?” (1988:136).²⁰ In §1.4, I argued that nativism per se has nothing to tell us about the justification of our beliefs. I left it open, however, that nativism may have something to say about their origins. Indeed, in arguing that it is only in conjunction with certain further assumptions (such as that God is good, or that souls can commune before birth with the Forms) that nativism can play a role in a rationalist epistemology, I tacitly assumed that nativism is indeed a psychological theory of belief and concept acquisition. In the present section, I shall argue that this assumption is, in fact, problematic. It is unobvious, to say the least, what the nativist is claiming about the origins of what is in our minds.

1.5.1 Internalism and Externalism: The Debate over Nature versus Nurture

When it is not characterized as being identical with rationalism in epistemology, nativism is often equated with rationalism in psychology. Rationalism in psychology, in turn, is understood in terms of its opposition to empiricism, the two doctrines being viewed as constituting radically different answers to the ‘genetic’ question, “How did what is in our minds come to be there?” Nativism (or rationalism), on this conception, is the view that what is in our minds did not (in any very interesting sense) *come to be there* at all. Rather, it always was there; it was born with us; it is innate. Empiricism, by contrast, is the view that the contents of our minds are not (in any very interesting sense) born with us. Instead, they come ‘from experience’ or ‘from the senses.’

Godfrey-Smith’s recent discussion (1996) exemplifies this popular account of what nativism is, and reveals some of the difficulties inherent in it. Godfrey-Smith begins by making a general distinction between ‘internalist’ and ‘externalist’ explanations of an organism’s traits: externalists explain “properties of organic systems in terms of properties of their environments” (1996:30), while internalists explain “one set of organic properties in terms of other internal or intrinsic properties of the organic system” (1996:30). He then proceeds to classify a wide variety of views and positions, including

20. See also Scott (1987:346–47; 1988:125–36).

those of nativists and empiricists, according to this schema.²¹ On his view, empiricists such as Locke, Berkeley, and Hume are externalists: “The central empiricist claim . . . is the claim that the contents of thought are determined, directed or strongly constrained by the properties of experience. In strong forms, this is the claim that there is nothing in the mind that was not previously in sense” (1996:32). Leibniz and Chomsky, by contrast, are by this account internalists: they claim that “there is no way ideas which come into the mind from outside can be formed into beliefs and judgments without the operation of specific internal mechanisms. Inputs will not just coalesce into beliefs.” (1996:39)

But while something like this understanding of nativism and empiricism is more or less the standard one, distilled as it is in popular references to the debate over “nature vs. nurture,” it is clearly inadequate as it stands to capture what actual empiricists and nativists were up to. For, rhetoric aside, *both* empiricists *and* nativists are *both* internalists *and* externalists about the origins of what is in our minds. That is to say, each side accepts what is, on this account, the core of the other’s position, for both sides agree that our minds are a product of a highly complex *interaction* of the experiential with the inborn. Admittedly, this meeting of minds is sometimes obscured by the rhetoric (not to say caricature and abuse) hurled from one side to the other. As I have mentioned (§1.1), this is a battle that is largely fought over, and with, metaphors: blank slates and empty warehouses clash with engraved souls and well-stocked department stores. But in this philosophical Balkans, as perhaps in the real thing, the rhetoric seems only to mask the absence of a substantive disagreement—at least so far as the appropriateness of internalist and externalist explanatory strategies in psychology is concerned. Force the warring parties to lay down their similes and negotiate the disputed territory in plain language, and there seems precious little that they disagree about. Nativists agree with the empiricists’ ‘externalist’ insistence that very special sorts of interactions with the environment are necessary for the acquisition of a mental life. And empiricists agree with the nativists’ ‘internalist’ claim that were it not for our possession of some rather special inborn equipment, we, like most of the natural world, would have no mental lives at all.

1.5.2 A Case Study: Locke and Leibniz

The interchange between Locke, arch empiricist, and Leibniz, paradigmatic rationalist, amply illustrates the pitfalls of understanding the innateness controversy in internalist versus externalist terms. In the first book of the *Es-*

21. In fact, Godfrey-Smith does not restrict his attention to theories about organisms: as well as finding an opposition between internalism and externalism in psychology and biology, he applies his taxonomy to epistemologies and philosophies of science according to the ways they explain the properties of a given (not necessarily organic) system in terms of intrasystemic, as opposed to extrasystemic factors (1996:30ff.)