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The Two Natures: Another Dogma?

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I Introduction

It is fair to say that the latter part of twentieth-century analytic philosophy was dominated by what could be called "the naturalist turn," the influence of which was felt particularly in philosophy of mind. Here naturalism took the form of a demand: render all theories of, say, reference, or intentionality, or, more generally, rationality, consistent with what science tells us about our place in the natural world – or else cast them into the flames. This demand is further elaborated when "science" and "consistent with" are made more determinate. Given the task is to naturalize the mind, "science" gets qualified as "natural science," and "consistent with" is usually taken to be "reducible to." This latter notion has been taken to require property-identity, this being the modern variant on Nagel's original stipulation that there must be bridge laws connecting the relevant terms of the reduced and reducing theory.

There is a familiar problem, however, with the stipulation that only the natural sciences are to count if the proposed reduction is to do its ontologically purifying (and so naturalizing) work. For how do we decide what counts as a natural science? The problem encountered in answering this question is that it will be seen as merely stipulative if we simply name the privileged sciences, say physics and chemistry, leaving any other contenders out in the cold. The distinction "natural/non-natural" must be explained, not just decreed, otherwise the motivation behind the naturalist's project will be obscure. This leads to the second, related, problem, a variant of "Hempel's Dilemma":[1] if we count only those sciences we presently recognize as natural, then we advantage present knowledge over future discovery. Nothing will count as natural that is not known now, surely a *reductio* of the method of favoring the present over the future. And as we cannot know what the future will bring, not so favoring the present will leave us toothless; the requirement to use only the theories of a natural science leaves us ignorant as to how to satisfy the requirement.

In what follows I wish to, indirectly, pursue this topic whilst also, more directly, pursuing John McDowell's rejection of this naturalizing project. McDowell has stood out in bold relief in recent philosophy for resisting the siren call of science, arguing for an alternative naturalism, one that sees only a limited role for the natural sciences. What connects McDowell's rejection of what I will call "one-nature" naturalism (abbreviated to "N1" in what follows) to my previous theme is just the obvious thought that any rejection of N1 must itself be predicated on an understanding of what a natural science is. My suggestion is that McDowell's two-nature naturalism (hereafter "N2") will be seen to be absorbable by (natural) science if we have a suitably realistic idea of what a natural science could be. Second nature will turn out to be just nature, pure and simple. McDowell, though, has explicitly rejected this suggestion, but before examining his reasons for doing so I turn to characterizing in more detail his rejection of N1 and espousal of N2.

II Nature Divided

There are different ways in which one might argue for the essentially non-scientific nature of our account of being minded. One would be ontological, arguing for the essentially non-physical nature of the mind, and hence the impossibility of capturing its essence in terms appropriate to the natural sciences. McDowell does not pursue this route, although what he says has echoes in such ontological arguments. McDowell prefers to focus on what he takes to be distinctive about being a reasoning being, that such reasoning is essentially norm-governed, and that it yields accounts of human action that are not predictive. Propositional attitudes "figure in a kind of explanation that is *sui generis*" (1998b: 332): they occur within a space of reasons that cannot be captured in the realm of law. The "concepts of the propositional attitudes have their proper home in explanations in which things are made intelligible by being revealed to be, or approximate to being, as they rationally ought to be." This contrasts with a style of explanation in which one makes things intelligible "by representing their coming into being as a particular instance of how things generally tend to happen" (1998b: 328). This is the contrast between the space of reasons and the realm of law. The former, as we shall see, is part of second nature, the latter being first nature.

It is important for McDowell that reasoning beings acquire their rational capacities through becoming language-users: only linguistic creatures can be reasoners.[2] This has attracted considerable criticism, especially from those who wish to defend the idea that there can be non-conceptual representations figuring in justifications of our perceptual knowledge. One feature of this criticism is relevant here, and that is the thought that permitting such non-conceptual content to figure in our own epistemological domain renders our cognitive capacities "more continuous with" those of non-linguistic creatures, for whom all knowledge will be non-conceptually based. Now McDowell does not have any problem with attributing to non-linguistic creatures a capacity to be, as he puts it, "on to things" in their environment. "Non-human animals can have knowledge; the cat's awareness of the prey is genuinely a case of awareness of the prey . . . need not be part of the role of the image of the space of reasons to secure for us the very idea of being on to things."[3] The claim is just that this kind of knowledge is not provided by the workings of reason, the processes of which go beyond the minimal idea of just "being on to things." To be subject to the pull of reason one must be capable of reflecting on what one takes to be a reason. One must be capable of critical thought, this involving the ability to reflect on the grounds for one's belief or action, to evaluate one's evidence, to scrutinize beliefs for coherence, have reasoned beliefs about the consequences of our actions, and so on. Without this capacity for critical reflection the pull of a reason will become just the power of a cause, and so not have any justificatory force. And this critical capacity can only be exercised by those who have conceptual resources, which, it is claimed, requires the possession of language.

It is also not the case that McDowell thinks that the space of reasons is disconnected from the realm of law. Being at home in the space of reasons "could not float free of potentialities that belong to a normal human organism. This gives enough of a foothold in the realm of law to satisfy any proper respect for modern natural science" (McDowell 1994: 84). But the realm of law is essentially non-normative, so cannot be understood as containing the space of reasons. This does not have the consequence that reasoning is not part of nature, as McDowell insists that the realm of law does not exhaust what is natural, so normativity is not excluded from nature.

At first blush it would appear the nature invoked here, the nature that includes norms, is one that McDowell thinks lies not only outside the realm of law, but also outside the domain of science, which is why it is "second nature":

> Acquiring command of a language, which is coming to inhabit the logical space of reasons, is acquiring a second nature. Given that the space of reasons is special . . . ideas of phenomena that are manifestations of a second nature acquired in acquiring command of a language do not, as such, fit in the logical space of natural-scientific understanding. But there is no reason why that should rule out seeing those phenomena as manifestations of nature, since the nature in question can be a second nature. Actualizations of conceptual capacities, which as such belong in the logical space of reasons, can be natural in a different sense from the one that figures in the admittedly well-drawn contrast with the logical space of reasons.[4]

At least two questions immediately come to mind. First, what is the conception of science in play here? Second, wherein lies the incompatibility between understanding some phenomena in a "natural-scientific" way and an understanding that relies on rational norms? The first question is relevant because it appears that McDowell, in separating out the domain of law from the space of reasons, is identifying natural science with the domain of law, and so concluding that phenomena that are manifestations of rationality are not understandable by natural science. And it would be just such an identification (of natural science with the domain of law) that explains the rejection of any natural-scientific understanding of rational processes, the domain of natural law being norm-free, that of rationality being norm-governed. The defender of one-nature naturalism, then, can reject the idea that all natural-scientific understanding must exploit only law-based explanation, leaving it open whether an alternative form of explanation can capture the norms of rationality whilst still being a natural-scientific explanation.

Just such an alternative has, of course, been advanced by assorted teleosemanticists, who claim that the functional explanations to be found in biology are neither law-dependent nor norm-free. If they are right, and given the status of biology as a natural science, it could appear that McDowell's rejection of a natural-scientific understanding of rationality is predicated on too narrow a conception of natural science. Now McDowell has rejected the accusation that his anti-naturalism (N1) is based on a misconception of the scope of natural science, and in fact complicates the neat division between the realm of law and the space of reasons by allowing that non-human (non-rational) animals also enjoy a second nature, one not capturable by a law-based understanding. There is already a disunity in the realm of the non-human natural:

> the idea of second nature belongs on both sides of the distinction I am chiefly concerned with, between what can be made intelligible by placement in the space of reasons and everything else. The distinction cannot be equated with a division between first and second nature. But, no doubt predictably, I want to sidestep the demand for a substantial unification. . . . I think the only unity there needs to be in the idea of the natural, as it applies, on the one hand, to the intelligibility of physical and merely biological phenomena (themselves needing to be differentiated for some purposes . . .), and, on the other, to the intelligibility of rational activity, is captured by a contrast with the idea of the supernatural – the spooky or the occult. I need only the bare invocation of *Bildung* – not . . . a detailed story about how what happens in *Bildung* connects with phenomena characterizable in terms of conformity to natural law – in order to bring out an analogy between the acquisiton of responsiveness to reasons and, for instance, the accquisition of secondary sexual characteristics. Both of these developments are . . . part of "the normal maturation of human beings." That should be enough to reassure us that, for all the *sui generis* character of responsiveness to reasons, there is nothing spooky about it, and that is all that I need from the idea of second nature. (McDowell 1999: 99)

So now we have two divisions, that between the space of reasons and everything else, and that between first and second nature. The relation between these divisions can be articulated as: (a)

the realm of law; (b) second nature, this being split into (b_1) the second nature enjoyed by both human and non-human animals,[5] and (b_2) the second nature enjoyed only by rational beings. But the picture becomes somewhat more complicated when we look at the distinction between a "natural-scientific understanding" of phenomena and that which resists such an understanding – the space of reasons. The complication is that a natural reading of McDowell's claims about the inability of a natural scientific understanding to accommodate manifestations of rationality is that that understanding is limited to law-based explanation, whereas in the quotation above he seems to be including "merely biological phenomena" within the compass of such a scientific understanding. One who defends the distinctiveness of functional explanations in biology will cavil at this suggested limitation of scientific explanation to law-based explanation.

A reasonable interpretation of McDowell's position, though, will be one recognizing that the primary division he stresses is that between an understanding that depends on the norms of rationality and those explanations that do not, these latter including both law-based and function-based explanations. And it is surely plausible that the "merely biological phenomena" will be amenable to a natural-scientific understanding, so this must now be taken to be less restricted than previously thought, given that it now includes explanations of phenomena that are exercises of functional capacities. But although I think this is the most reasonable interpretation of McDowell's position, it leaves one with a puzzle. Second nature is to be found on both sides of the main divide, both in non-rational and rational animals. Are we to say that some manifestations of second nature are explainable by natural science whereas others (those that exhibit the marks of rationality) are not, or is the position that all manifestations of second nature, both in human and non-human animals, are not so explicable?

The first option is suggested by the thought that the second nature of non-human animals does seem cognizable in scientific terms; it is part of the science of animal behavior to study, and explain, the emergence of instinctual and learned behavior in the life of individual animals. The second option, however, renders the distinction between first and second nature more philosophically attractive – it makes for a clearer picture about what is, and what is not, within the ambit of a natural scientific understanding.

Exegetically I would say that the emphasis placed by McDowell on the role of the rational ideal in our understanding of one another, and the difference this marks between ourselves and other animals, makes the first option more likely. But whichever option is chosen, the question will remain: why, if one includes the biological within the ambit of science (as McDowell clearly does), is second nature (either restricted to humans or not) not scientifically explicable? And if the first option is the one taken, the question can be put in a more pointed way: why is the *analogy* McDowell sees between human and non-human maturation insufficiently close for both to be legitimate subjects for scientific inquiry? The teleosemanticist sees the resemblance as more than analogical; the same principles, she will say, are at work in both the human and non-human cases, resulting in the same *form* of explanation for both.

Confronted with the teleosemanticist's ambitions for the now enlarged realm of (natural) science, my suspicion is that an anti-naturalist's objection to its proposed application to manifestations of rationality will be much the same as McDowell's objection to the understanding of such manifestations provided by law-dependent explanations: the kind of normativity displayed in rational behavior is not the same as that expressed in the "merely" biological phenomena that are grist to the teleosemanticist's mill. I do not know if McDowell has addressed the teleosemanticist's line of thought directly, but in what follows I want to persuade him that the resources available to the teleosemanticist are wider than often thought, and so have the potential to considerably soften

the sharp distinction he draws between what is and what is not amenable to being understood by natural science. In the process of doing this, however, a non-orthodox version of teleosemantics will be defended.

III A Non-Reductive Naturalism

In the brief characterization of the naturalist's project offered in section I it was asserted that naturalism requires the reduction of mental properties to "properly scientific" properties. However one brand of naturalism, teleosemantics, makes much of the non-reducibility of bio-functional properties to physical or chemical properties. This non-reducibility is a result of how functional properties are constituted. Functions arise as a result of a selection process operating on a varied and replicating population, the environment of that population favoring the possession of some properties at the expense of others. The favored properties are those whose effects directly or indirectly facilitate the reproduction of the bearers of the properties, increasing the ratio of instances of the favored properties in succeeding generations. The new instances of these properties are then said to have acquired a function – the function of doing whatever it was that previous (ancestral) instances of the property did in enhancing the reproductive capacity of their bearers, thus contributing to the increased production of instances of the favored property in future generations.

This story makes the functionality of instances of functional properties dependent on their particular histories, so two instances of a single physical property (i.e. typed as one property for the purposes of physics or chemistry) may differ with regards to function if those instances have different histories. Temporally "local" supervenience does not hold, so one can have homogeneity of the physical (same physical type) with heterogeneity of the functional. In addition, because the bio-function of a property is determined by what its prior instances *did*, what it effected to enhance – for example, its bearer's reproductive capacity – such a function is constituted by that effect. Hence two properties typed differently for the purposes of physics or chemistry may be co-typed for bio-functional purposes, provided that they produce the same effect and possess sufficiently similar histories. Here we have heterogeneity of the physical with sameness of functional type.

So both of these features of bio-functional properties militate against their reduction to physical or chemical properties. Now there is a tension in the position of the teleosemanticist who celebrates this non-reducibility whilst at the same time insisting on the reducibility of intentional properties; it is a virtue, it appears, for bio-functional properties to be non-reducible, but not a virtue for intentional properties. This tension will not be pursued here, as I wish to defend a particular kind of non-reductionist teleosemantics.[6]

"Normal" reductions require the identification of reduced and reducing properties, and it is usual for these properties to have been discerned independently of one another and *then* found to be identical.[7] If the teleosemantic program were reductionist in this sense what one would expect to find is the identification of various intentional or semantic properties with previously recognized biological properties. When one reads the relevant literature, though, whether it be Dretske, Millikan, or Papineau, one does not find this happening; there is no discussion of putative biological-psychological property identities. And it is patent that no such identifications occur when one specifies the content of a belief state via a particular type of function that that state has. Rather, what is going on is the application of a well-understood key theoretical notion ("function") from another ('reputable') discipline to facilitate the characterization and organization of the data in a supposedly different domain.

It is common coin that functionality provides a principled means of taxonomizing biological data;[8] using the same general notion of function to codify mental properties can lead to the *incorporation* of the mental into the biological – they possess, one could say, the same "kindhood." The style of reduction one finds here, if reduction it is, should be called "reduction by kind." In this case it is achieved by expanding the biological domain to include psychological traits, these now being seen as owing their character and organization to the same key feature operating within biology. One consequence of this approach is that the kinds will in the first instance be located within what Richard Boyd calls a "disciplinary matrix," which includes a very general account of the way in which the properties of the kinds referred to by the discipline are determined, or how they are related to each other. In the case under discussion, the most general account of the type of property with which we are concerned, biological properties, begins with noting that such properties look as though they are there to serve a purpose. To avoid accidental "brute" purposiveness, this is then coupled with the further thought that such purpose-serving properties owe their existence to having been designed for their goal-oriented roles. This very general idea then becomes more specific as it is given more substance by incorporating into it the role of natural selection plus the other shaping mechanisms that are responsible for these kind-properties. As Boyd notes, implicit in the very general specification of these properties will be an idea of the type of explanation appropriate for members of the kind, and it is to be expected that divergent kinds will be associated with different explanatory practices. The fundamental idea is that the principles governing taxonomies are entangled with the explanatory aims of different sciences – and the way we explain complex adaptations, it turns out, is different from that of explaining causal regularities.[9]

A consequence of this way of looking at the emergence and characterization of natural kinds is that kind-reduction will be effected when the very general account of the type of property invoked by a discipline is replaced by a different understanding of that type of property. The suggestion here is that what teleosemanticists propose is that one understand the most general definition of intentional mental kinds on the same lines by which one understands the general definition of biological kinds. That is, one is invited to see the mental properties as belonging to functional kinds, with such functional kinds now subsuming both mental and biological kinds. As in other types of reduction, the recognition of mental properties as functional properties may well require a revision of our previous understanding of the nature of these mental properties.

IV Norms and Function

Given this (perhaps unorthodox) understanding of the teleosemantic program, it is clear that any assessment of its prospects will have to examine the ability of functions to capture the previous understanding of the fundamental nature of the properties in question. The opponent of this particular naturalizing project may well object that the functional norms generated by the selection processes are so different from the rational norms constituting intentional properties that there is simply no hope that they could capture such rational norms. This objection may, though, rest on a mistaken appreciation of the scope of functionality.

Defenders of the historical (etiological) view of functions sketched above say that some descendant traits are there because instances of those traits in ancestors had reproduction-enhancing effects. But note that nothing has yet been said concerning the details of how reproduction is achieved, or how selection operates. This is just an abstract account of how functions come to be.

For example, behavioral reinforcement is a form of selective regime that is independent of natural selection.[10] In natural selection differential reproduction is the selector, and reproduction is via the chromosome-copying mechanism that retains the genetic information of the ancestor. In learning we have differential reinforcement, and memory is essential to the retentive process. But this process presupposes that there are means by which the behavior can be shaped by rewards and sanctions. Sentience can function in this manner, guiding us into patterns of behaving. One of the founding fathers of evolutionary epistemology, Donald Campbell, pointed this out many years ago. He talked of the significance of what he called vicarious selection processes:

> the nutritiousness of foods represents an external criterion of direct survival relevance. It is represented in us by approximately appropriate internal selective criteria of taste buds and associated pleasure and pain mechanisms, which become the predominately effective selective criteria in our choosing of foods. The adaptive appropriateness of these vicarious criteria are to past ecologies, and if the environment has markedly changed, the vicarious selective system may operate in ways irrelevant to current adaptiveness.[11]

The structure being suggested here is that one can have various selective regimes operating, perhaps originally nested, which may pull apart, giving rise to differing patterns of behavior, some of which can be the result of a (vicarious) selection process which produces results at variance with those required by natural selection. It is clear that there will be different types of explanation appropriate, depending upon which type of selection process we wish to concentrate. And one important feature of secondary selection is that the functional norm generated will be dependent on what the selector is. Take pain as one such secondary selector, selecting out behaviors that provide painful experiences for the agents. Actions managing to avoid pain will be functioning well according to this selector, those producing pain will not. At a different level, of course, the avoidance of pain may sometimes be bad for an agent, that "badness" bringing into play yet another norm. In Campbell's opinion, animals (including us) are stuffed full of what he called "Blind Variation and Selection Systems" (BVSS), all contributing to an organism's successful negotiation of its environment. On this view there can be a profusion of functions, with attendant norms, having their source in a variety of selection processes.

So the teleosemanticist has available to her the resources to account for a plethora of functions and a variety of norms, all generated from distinctive selection processes. One could go further and investigate those functions that, although based on selection processes, to some extent "float free" from their base, and which permit a teleosemanticist to account for what Millikan calls "useless content,"[12] but enough has been said to encourage the thought that functional norms *may* have the power to illuminate rational norms. Before looking at one final objection to this endeavor I want to provide further evidence that McDowell's "second nature" has striking affinities to the realm of functions.

V Functions, Reason, and History

We have seen how the history behind the production of, say, a representation-producing mechanism may be relevant to a specification of the function of those representations and to the norms appropriate for the appraisal of the aptness of that content in a certain environment. The relevance of that history to functional identity has provoked what is known as the "swampman" objection:

two people physically type-identical (and in the same environment) may differ functionally because one may have the appropriate history that the other lacks. And if intentional content is dependent on function, then the physical type-identity is not sufficient to ensure identity of intentional content. This supposedly counterintuitive result is seen by some as a decisive objection to all accounts of content that have such a historical dimension.

Now I do not want to address this objection here, except to say that most theories of content would struggle to pass what I would call the "instantaneous" test. Most (plausible) accounts of intentional content require some interaction with the environment, physical or social, in order for the intentional state to have the content it does. Content that emerges spontaneously is fishy, and this is particularly so if the content is part of a system of concepts that engage with the world in a reliable way. The instantaneous emergence of a system of semantically evaluable items is surely magical, and it should be taken as an objection to any account of intentional content if it allows it.

Now one of the philosophers who may be seen as influencing McDowell's rejection of naturalism does allow for history to play a role in determining intentional normativity. It is one of the interesting facets of Wittgenstein's discussion of the normativity of mathematics and language that he endorses the importance of history, in particular the history that invokes training, such training producing the pattern of appropriate responses. "Our children are not only given practice in calculation, but are also trained to adopt a particular attitude towards a mistake in calculating. . . . What I am saying comes to this, that mathematics is normative." (*Remarks on the Foundations of Mathematics*, p. 425). See also *Philosophical Investigations*, 198: "What has the expression of a rule – say a sign post – got to do with my actions? What sort of connexion is there here? Well, perhaps this one: I have been trained to react to this sign in a particular way, and now I do so react to it."

What is fascinating here is that it is training (and learning) that provides the necessary selectionist history drawn upon by the teleosemanticist. It is not too fanciful to extend Wittgenstein's brief remarks, and say that the post is the sign that it is (it has the content we assign to it) *because* we have been trained to react to it in particular ways. And McDowell does stress the importance of "initiation," "social practice," and "tradition" in the acquisition of our second natures, all of which can be fitted into the extended teleosemanticist picture. In *Mind and World* he says:

> A rational animal could not have acquired the conceptual capacities in whose possession its rationality consists except by being initiated into a social practice. (McDowell 1994: 104–5)

> He insists that one could not simply credit individuals with a sense of how the space of reasons is laid out "without the benefit of anything like my appeal to initiation into a shared language and thereby a tradition" (185–6). And he also (implicitly) affirms the importance of history to the possession of reason (and hence conceptual content), claiming that "it is not even clearly intelligible to suppose a creature might be born at home in the space of reasons" (125).

It shouldn't really be surprising that the extended teleosemantic approach is one that is sympathetic to that favored by Wittgensteinians. Both emphasize the importance of training, in an appropriate environment, for the shaping of our responses, such a shaping endowing those responses with a normative dimension. Both emphasize the importance of "use" in the determination of intentional content, the teleosemanticist in terms that make the "consumer" of a representation an essential feature in the account of the content guiding the consumer's responses, or actions. And for both an essential, but often unstated, part of the background is the thought that what underlies commonality of responses to the environment is a common human nature.[13]

What may be of concern to somebody sympathetic to the Wittgensteinian approach, though, is that Wittgenstein was opposed to those projects that attempted *theoretical* explanations of our mental capacities, seeing in such accounts a misplaced desire to posit internal mechanisms causally responsible for our behavior. Such a desire is seen as a materialist version of the Cartesian assumption that the life of the mind is to be found "inside" the head. Now the desire to find such inner mechanisms may be appropriate in cases where what we want are "straight" causal explanations of phenomena, the idea being that such causal attributions are validated by finding mechanisms responsible for the perceived correlations. But functional explanation is not "straight" causal explanation; it is not in the business of recording causal regularities, and hence can be validated independently of the discovery of "internal" mechanisms. No doubt the discovery of such mechanisms is useful and illuminating, helping us to see how the functional properties do what they do, but those mechanisms won't confirm for us the *functionality* of the properties. Only the relevant history will do that.[14]

What I am calling the Wittgensteinian objection is sometimes put in an epistemological form: given that functionality is dependent on a certain type of (selectionist) history, it may be thought that it must be a requirement on our recognition of intentional content that we not only know the relevant history, but that we also be familiar with the theory of natural selection. If this were true then the requirement would be in tension, to say the least, with the apparent ease with which we recognize intentional content. But many features wear their functionality on their face; it is pretty clear what eyes are meant to do. In those cases where the designs of nature dazzle us, we do not need the history to know what the designed items are for, what their purpose is. Nor do we need to know about natural selection: pre-Darwinians were right to recognize such design, but they were wrong in the account they gave of how it came to be. The same capacity to be "instantly," pre-theoretically, recognizable is possessed, most of the time, by intentional content; we do not require that a theory be known before we can recognize the intention in an action, nor the meaning of a speaker's words. But not even the teleosemanticist would say that we are required to know about selection, or the history that determines the meaning to be what it is, before we can recognize that meaning. What may well be required is immersion in the same set of traditions, and participation in the same set of social practices, in which that meaning gains its "life." What will be insisted on is that that immersion be seen in terms of training and learning, and that is what seems to be involved in McDowell's invocation of a second nature.

VI Only an Analogy?

What has been suggested above is that, on a certain broad understanding of teleosemantic naturalism, the notion of a "second" nature, one that plays a large part in McDowell's rejection of N1, can be accommodated within the one nature that the "scientific" naturalist recognizes. Essentially, the (now suitably armed) defender of N1 can draw upon an extended account of what can be included within N1, in particular by drawing attention to the role of "friction" (selection) in the development of our conceptual capacities, such "friction" consisting of a combination of training, learning, and felt experience.

This suggestion takes us back to our earlier worries about what gets to be included in the "science" that both the defender and critic of N1 take as their starting points. An unsophisticated scientific naturalism will limit the relevant sciences to physics and chemistry, and it would appear that McDowell accepts this limitation in the contrast he draws between the realm of laws and the

space of reasons. This appearance would, however, be misleading, as McDowell explicitly rejects the idea that a more sophisticated conception of science renders the distinction between the realm of laws and the space of reasons otiose. He says:

> I need a less monolithic conception of the kind of explanation that is to be contrasted with placement in the space of reasons. But I believe the "*sui generis*" claim retains its plausibility in the context of a less primitive conception of the (not particularly unified) kind of explanation that is characteristic of the natural sciences. And that is why I continue to think my relaxed Platonism can be genuinely distinguished from a scientifically inspired naturalism, however sophisticated. ("Responses," in McDowell 1999: 103–4)

And his claim that he needs only the *analogy* between "the acquisition of responsiveness to reasons and, for instance, the acquisition of secondary sexual characteristics" suggests that he has already taken into account the kind of extended teleosemantic naturalism presented above in his continued affirmation of the *sui generis* nature of the space of reasons. Now I think that the case for understanding what belongs to second nature as being formed by processes that are *of the same type* as those that figure in the formation of "ordinary" functional properties is pretty strong, so the difference that is seen as crucial, the difference making the space of reasons *sui generis*, must be found elsewhere. My understanding of McDowell's position is that second nature, being common to human and non-human animals, is insufficient to characterize the distinctive features of rationality. That is, whilst it is true that our possession of rational capacities requires the kind of history sketched above, one common to all functional features, what the history delivers in the case of rationality is a capacity whose exercise is governed by norms not capturable by "mere" functionality. So we are driven back to the position that it is the novelty of these norms that is the source of the skepticism concerning N1.

That this is the source of the rejection of N1 may be so obvious that a reader may wonder why it has taken us so long to get there. The point in dragging it out has been to make it as difficult as possible to contrast rational norms (whatever they may be) with functional norms; that contrast can be made too easily if a caricatured version of functional norms serves as one part of the contrasted pair. What one finds is a crude rejection of a teleosemantic position along the lines of "There is more to the rationality of action than the propagation of one's genes." The point of the discussion of the extended teleosemantic position argued for above was to show that there are many types of functional norms generated by the variety of processes that give rise to them. There are "multi-level" selection processes, each spawning a norm appropriate to that selector.[15]

It has also been worthwhile stressing the (close) similarities between the processes called upon by McDowell in his account of second nature and those historical processes included in "first" nature. At times he relies on the "non-spookiness" of these processes to vindicate his claim that there is nothing "spookily" non-natural about the space of reasons, even though it is *sui generis*. But if the processes in the one case, that of "first" nature, result only in the production of functional norms, then there is still some work to do to show that the different norms of rationality are *not* mysteriously non-natural. The end effect, I hope, is to create a burden of proof for the defender of N2: to show that rational norms are distinct from any functional norm generated by a relevant history.

One potentially interesting way to discharge the burden would be to stress the difference made by metacognition; we are able to reflect on not only the contents of our beliefs, say, but also on the means by which these contents came to be believed by us, this enabling us to assess these means

as providing reliable or unreliable paths to the truth. Metacognition also supplies us with the ability to assess our goals and so to reject some as unworthy, pursuing what we take to be the virtuous path. Taking this line is consistent with McDowell's claim that non-human animals can have knowledge – be "on to things" – whilst not operating within the space of reasons: "it need not be part of the role of the image of the space of reasons to secure for us the very idea of being on to things. The knowledge that Sellars's remark distinctively fits comes into view when what are *already* ways of being on to things . . . are taken up into the ambit of the space of reasons" (2002: 104).

If one does not add anything to this, however, the enlightened N1 champion will claim victory on the grounds that metacognition is something enjoyed by non-human animals, and can be made sense of using only the resources available to (suitably extended) natural science. At the very least, it will be claimed, whether this is true or not cannot be settled a priori, it being a matter for science itself to appraise. And it does seem plausible that if *cognition* is scientifically explicable, then so too will metacognition be, it just being another form of cognition. It would appear, then, that something further is required in order to make a stronger case for the *sui generis* status of the space of reasons.

The further, tempting, thought may well be that it is this reflective capacity that supports our ability to choose one action rather than another, and to assess one content as more believable than another. With choice goes freedom, and, it may be argued, we have to be sensitive to rational norms in a way that floats free of functionality, dependent as that is on history.

I say this is tempting because I find it so. It would vindicate a venerable philosophical tradition that sees us as unique in virtue of our capacity to reason, that capacity presupposing that we can reason about reason, that we can evaluate our choices in the light of reason, and so freely act. It does, however, place a lot of weight on being clear as to what this freedom consists in. What McDowell says about it is (untypically) cautious, cleaving as he does to a Davidsonian compatibilism:

> An occurrence conforms to natural law, if it does, under a description. The idea of conformity to laws is the idea of a framework of characterizations that can fit occurrences, characterizations under which they stand revealed as instances of the operation of law. Placing spontaneity in nature is insisting that some natural occurrences are describable in terms that function in a *sui generis* way, which displays those occurrences as intelligible otherwise than as conforming to law. . . . But this raises no question about our entitlement to conceive nature as a realm of law in the sense of containing law-governed occurrences. (McDowell 1999: 101–2)

And the pertinent question is one he puts himself: "How genuine a space for spontaneity is provided by this formal move? . . . how can [actions] count as free simply on the ground that they are also susceptible to other descriptions under which they are not subsumable under law?" (McDowell 1999: 102). The dilemma is that, on the one hand, appealing just to the different descriptions we have available seems too weak a defense of genuine freedom, but, on the other hand, rescuing freedom by rejecting the universality of natural law will produce the kind of dualism in nature that McDowell wishes to avoid.[16]

If my diagnosis concerning the source of distinctiveness of rational norms is correct, rather a lot depends on how this dilemma gets resolved. The whole case for resisting "one nature" naturalism rests on rescuing a robust-enough notion of freedom without alienating ourselves from nature. How it gets resolved also raises issues central to our self-understanding of what philosophers can do, and

what the nature of philosophy is. If one does think, as I do (and McDowell suggests he does), that mere difference in description is too weak a foundation for freedom, then one may be inclined to trade predicates for properties, founding freedom on the distinctive nature of mental properties. The problem will then be to explain how this property-distinctiveness is consistent with universal law, or "closed" physical causation, or whatever rules the roost in the physical domain. This can be done, but what is required is some heavy-duty metaphysics.[17] It is not clear to me that McDowell's inclination to "quietism," to seeing philosophical problems as arising from mistaken assumptions, will allow him to see the metaphysical move as in any way attractive, given that that move is proposed as a substantial solution to a genuine problem. But if not that move, then what?

VII Concluding Thoughts

In this chapter I have been trying to put pressure on McDowell's insistence that defending N1 is a doomed enterprise – doomed because we have to recognize that the space of reasons is not one that can be brought within the domain of any science. The strategy has been to provide a non-orthodox (because non-reductionist) account of the teleosemantic project, and then to elaborate on the variety of processes that can give rise to the central working part in that project, functionality. Given that many of these processes are of the same type as those required for the formation of our second natures, the question arises as to what, in principle, makes rationality elude the reach of science. One possible answer was briefly canvassed: that the internal connection between acting rationally and acting freely made for the impossibility of a scientific understanding of that action, qua rational. The question was then posed: how do we make sense of this freedom, given the presumption of universal law? Is heavy-duty metaphysics required?

A final thought, arising from the way the debate between naturalists and their opponents has been conducted, leads us back to our original musings about the nature of the science invoked in the naturalism wars. McDowell has suggested that when one finds a philosophical impasse, two opposed positions hammering away at each other without discernible progress being made, then one should look behind the entrenched positions and examine the assumptions fueling the debate. In this case, both naturalists and their opponents make much of the science/non-science distinction, and both seem to agree that rational explanations ("understandings") of phenomena are not scientific explanations. The question is whether this distinction can carry the weight placed on it. It is not that either party to the dispute will disagree about whether the *application* of a rational understanding requires empirical knowledge. Given this, how much hangs on the further claims regarding the scientific or non-scientific nature of rational explanation? Perhaps this distinction is just one more empiricist dogma.

Notes

1 Carl Hempel put forward his version of this dilemma, using the physics/non-physics dichotomy, in "Reduction: Ontological and Linguistic Facets," in S. Morgenbesser, P. Suppes, and M. White (eds.), *Philosophy, Science, and Method*, 1969, 179–99.

2 "Acquiring command of a language, which is coming to inhabit the logical space of reasons, is acquiring a second nature. Given that the space of reasons is special . . . ideas of phenomena that are manifestations of a second nature acquired in acquiring command of a language do not, as such, fit in the logical space of natural-scientific understanding." (M. Willaschek (ed.), "Experiencing the World," in *John*

McDowell: Reason and Nature, 1999, 3–17.) Also: "A rational animal could not have acquired the conceptual capacities in whose possession its rationality consists except by being initiated into a social practice," in J. McDowell, "Knowledge and the Internal Revisited," 2002, 93–117.

3 "Knowledge and the Internal Revisited," 104–5.

4 M. Willaschek (ed.), "Experiencing the World," in *John McDowell: Reason and Nature*, 1999, 7.

5 The inclusion of human animals in (b_1) is my interpretation, but it is fairly clear that McDowell would endorse it.

6 R. Millikan, particularly in *Language, Thought, and Other Biological Categories,* 1984, has characterized her program as being reductionist, but for the reasons given above I think that is a misconstrual of what is going on in her project.

7 Eliminative reductions are not being considered here; these "normal" reductions have been called *conservative* reductions.

8 What is contested is not only the specific interpretation of "function" (see n.3), but also how much weight functional organization has in comparison to other organizing principles. For a discussion of this latter debate, see K. Neander's discussion in "Types of Trait: The Importance of Functional Homologues," in Ariew, Cummins, and Perlman (eds.), 2002.

9 This echoes Davidson's strategy in his argument for non-reductive physicalism in his seminal "Mental Events" (Davidson 1980).

10 In what follows I will be using the expression "natural selection" to mean only that process of variable genetic reproduction which evolutionary biologists refer to in their explanations of species modifications.

11 D. T. Campbell, "Variation and Retention in Socio-Cultural Evolution," in Barringer, Blanksten, and Mack (eds.), 1965, 33.

12 See Millikan, "Useless Content," forthcoming. Millikan discusses ways in which the various functions may generate diverse, even clashing, goals in "Cross-Purposes," ch.1 of her *Varieties of Meaning: The 2002 Jean Nicod Lectures*, 2004.

13 McDowell notes that "sparse teaching" can suffice to make somebody sensitive to a rule, and so able to "go on" appropriately on future occasions. He explains the efficacy of such sparse teaching by our possession of a common human nature (and common forms of life). See "Virtue and Reason," in *Mind, Value, and Reality*, 1998b, 65.

14 See also: "It is an insight on Searle's part that intentionality is a biological phenomenon . . . but intentionality needs to be understood in the context of an organism's life in the world; we cannot understand it, or even keep it in view, if we try to think of it in the context of the brain's life inside the head" (McDowell, "Singular Thought and the Extent of Inner Space," 1986, 167 n.59). The teleosemantic perspective prides itself on viewing the person as essentially "in the world."

15 This has been emphasized recently by R. Millikan; see her *Varieties of Meaning: The 2002 Jean Nicod Lectures*, 2004.

16 He notes one can reject the claim that all events are subsumable under law, but that leaves open the question as to how the law-governed and the free are related, "especially given how plausible it is that natural law holds sway at least over the sub-personal machinery that underlies our ability to act and think." (McDowell 1999), 102.

17 See C. and G. Macdonald, "The Metaphysics of Mental Causation," and C. Macdonald, *Mind – Body Identity Theories*, 1989.

References

Ariew, A., Cummins, R., and Perlman, M. (eds.) 2002. *Functions*, Oxford: Oxford University Press.

Campbell, D. 1965. "Variation and Retention in Socio-Cultural Evolution," in H. R. Barringer, G. I. Blanksten, and R. W. Mack (eds.), *Social Change in Developing Areas*, Mass.: Schenkman Publishing Co.

Davidson, D. 1980. *Essays On Actions and Events*, Oxford: Clarendon Press.
Hempel, C. 1969. "Reduction: Ontological and Linguistic Facets," in S. Morgenbesser, P. Suppes, and M. White (eds.). 1969. *Philosophy, Science, and Method*, New York: St Martin's Press, 179–99.
Macdonald, C. 1989. *Mind – Body Identity Theories*, London: Routledge.
McDowell, J. 1986. "Singular Thought and the Extent of Inner Space," in P. Pettit and J. McDowell, *Subject, Thought, and Context*, Oxford: Blackwell.
McDowell, J. 1994. *Mind and World*, Cambridge, Mass.: Harvard University Press.
McDowell, J. 1995. "Knowledge and the Internal," *Philosophy and Phenomenological Research* LV/4.
McDowell, J. 1998a. *Meaning, Knowledge, and Reality*, Cambridge, Mass.: Harvard University Press.
McDowell, J. 1998b. *Mind, Value, and Reality*, Cambridge, Mass.: Harvard University Press.
McDowell, J. 1999. "Experiencing the World" and "Responses," in M. Willaschek (ed.), 1999.
McDowell, J. 2002. "Knowledge and the Internal Revisited," *Philosophy and Phenomenological Research* lxiv: 97–105.
Millikan, R. 1984. *Language, Thought, and other Biological Categories*, Cambridge, Mass.: MIT Press.
Millikan, R. 2004. *Varieties of Meaning: The 2002 Jean Nicod lectures*, Cambridge, Mass.: MIT Press.
Millikan, R. (forthcoming). "Useless Content," in G. Macdonald and D. Papineau *Teleosemantics*, Oxford: Oxford University Press.
Morgenbesser, S., Suppes, P., and White, M. (eds.). 1969. *Philosophy, Science, and Method*, New York: St Martin's Press.
Neander, K. 2002. "Types of Traits: The Importance of Functional Homologues," in A. Ariew, R. Cummins, and M. Perlman (eds.), 2002.
Willaschek, M. (ed.) 1999. *John McDowell: Reason and Nature*, Munster: Lit Verlag.
Wittgenstein, L. 1958. *Philosophical Investigations*, ed. R. Rhees and G. E. Anscombe, trans. G. E. Anscombe, Oxford: Blackwell.
Wittgenstein, L. 1967. *Remarks on the Foundations of Language*, ed. G. H. von Wright, R. Rhees, and G. E. Anscombe, trans. G. E. Anscombe, Oxford: Blackwell.

Response to Graham Macdonald

1 I try to isolate a special space-of-reasons kind of intelligibility – a kind of intelligibility we find in phenomena when we explain them in a way that turns on the idea of responsiveness to reasons as such – partly by contrasting it with a different kind of intelligibility. I should not have suggested, as I did in *Mind and World*, that the image of the realm of law fits the whole extent of the kind of intelligibility I want to contrast with space-of-reasons intelligibility. I am glad Macdonald quotes a passage, from a previous set of responses to critics, in which I try to correct the suggestion. I hope his mentioning the correction will give it more currency. But I think he makes unnecessarily heavy weather over interpreting what he quotes me as saying.

As he sees, the division I chiefly care about is between space-of-reasons intelligibility and any intelligibility that is not of that kind. (This needs to be restricted to intelligibility possessed by phenomena: that is, states or occurrences in empirically knowable reality. The restriction excludes, for instance, the intelligibility of truths of pure mathematics, which belongs to neither of my two kinds. That should not disrupt what I intend by the exhaustive division of kinds of intelligibility.)

What I acknowledge in the passage Macdonald quotes is that the idea of subsuming phenomena under natural law does not fit the intelligibility of many phenomena that are, as I put it there,

merely biological. The point of the qualification "merely" is to leave room for a sense in which exercises of rationality on the part of human beings are biological phenomena. They are occurrences in the lives of human animals. But they are not *merely* biological, since their intelligibility is of the space-of-reasons variety.

Now clearly when I grant that the intelligibility of the merely biological need not be a matter of subsumability under law, I do not imply that merely biological phenomena are intelligible in a space-of-reasons way, a way that turns on responsiveness to reasons as such. I can still summarily describe the kind of intelligibility I want to contrast with space-of-reasons intelligibility as the kind of intelligibility revealed by explanations in natural science. The point is that natural-scientific intelligibility has more to it than subsumability under natural law. Macdonald gives a fine account of how the concept of function frames the kind of understanding characteristically achieved in biology, and I can appropriate that as putting in place a variety of indisputably scientific intelligibility that should not be assimilated to subsumability under natural law. So the intelligibility of the realm of law should have figured as at best exemplary of the kind of intelligibility I want to contrast with space-of-reasons intelligibility, not as coextensive with the contrasting kind of intelligibility.

The other point I make in the passage Macdonald quotes is that second nature straddles the division I chiefly care about. That is to say that some second-natural phenomena are intelligible in a space-of-reasons way, whereas some are not: for instance, the performances of a trained dog.

I cannot see why Macdonald thinks this leaves open, as an exegetical option, that according to me second-natural phenomena as such are outside the scope of natural-scientific understanding. What puts some intelligibility outside the reach of natural science, according to me, is still the fact that it turns on responsiveness to reasons as such. The point of saying that second nature straddles the main division is to note that it is only some second-natural phenomena that I am claiming natural science cannot accommodate, on the ground that their intelligibility is of the special space-of-reasons kind. In the passage Macdonald quotes, I abandon a monolithic space-of-law conception of natural-scientific intelligibity – the kind of intelligibility I continue to contrast with space-of-reasons intelligibility – in order to make room for a better picture of the surely natural-scientific intelligibility of the merely biological. The merely biological, as opposed to the phenomena in human lives that are within the scope of space-of-reasons understanding, clearly includes the second-natural dispositions and performances of trained dogs. So there is no go in the idea that I might be suggesting that the second-natural as such, on both sides of my main division, is not subject to natural-scientific understanding. That is not just the less likely of two possible readings of me, as Macdonald has it. It is simply excluded.

2 I reject a naturalism that identifies what is natural with what can be understood by the methods of natural science. In section 1 of this response I have been considering Macdonald's reading of my attempt to improve on the crude idea that natural-scientific understanding is exclusively a matter of subsuming phenomena under natural laws. But even with a less monolithic conception of natural science, I go on holding that phenomena intelligible in a way that centers on the idea of subjects who aspire to conform to rational norms are outside the scope of a naturalism of natural science. The point of my appeal to the idea of second nature is to insist that excluding these phenomena from the scope of natural-scientific intelligibility does not imply that they are not natural phenomena.

Now Macdonald thinks this stance lands me with a burden of proof, to show that a sufficiently sophisticated exploitation of the concept of function, as it figures in framing biological

understanding, cannot accommodate the explanatory potential of appeals to rationality. But I reject this view of the dialectical situation.

For there to be a burden of proof where Macdonald places it, a naturalism of natural science would need to be the default position, the position that wins the day unless it can be shown to be unacceptable. Only so would resistance to it incur the onus Macdonald wants me to shoulder, the obligation to prove that the resources of natural science cannot extend to the intelligibility of exercises of rationality. But now that we have things set up in these terms, I can say this: what I aim to show is that there is nothing but a scientistic prejudice in the view that a naturalism of natural science has that default status – the view that the very idea of what is natural can be taken to be definable in terms of natural science, unless it can be proved that natural science cannot accommodate exercises of rationality.

A better candidate for being the default view, the view that should stand unless it can be shown to be wrong, is the "venerable philosophical tradition" that Macdonald admits he finds tempting. According to this tradition, human beings are unique among living things – outside the reach of the sort of understanding achievable by a scientific biology – in virtue of the freedom that belongs with our responsiveness to reasons as such.

There is a temptation to think this tradition can be dislodged from its default acceptability, on the ground of a supposed implication: that the phenomena whose specialness the tradition insists on are outside the scope of the natural, and hence unnatural or supernatural. My point is to consider and reject that temptation. I claim that the concept of second nature accommodates the phenomena in question, without any requirement that their intelligibility be shown to be a case of the sort of intelligibility that the natural sciences find in phenomena. And that gives the lie to the idea that the venerable tradition, with its denial that these phenomena are scientifically intelligible, implies that they are extra-natural.

The point is not at all to pretend to be able to show that the project of bringing rationality within the scope of natural-scientific intelligibility is impossible. The point is that starting from a naturalism that consists only in the thought that we should not countenance unnatural or supernatural phenomena unless it turns out to be unavoidable, we can derive no motivation at all for engaging in the project. It is perfectly feasible, at any rate so far as these considerations go, to let the venerable tradition stand. The point about the project is not that we are in a position to know it cannot be executed, but that these considerations show that it has no motivation except a bare faith in the universal scope of the natural sciences. That leaves it at least arguable that the venerable tradition is a more intellectually respectable starting point for reflection about rationality. It has more going for it than groundless confidence in science does.

3 I have no distaste for metaphysics as such. After all, the thought that rational animals are unique among living things in being free – the central thesis of the venerable tradition – is in an obvious sense a metaphysical thought.

Macdonald thinks I need heavy-duty metaphysics to sustain that thought. But this reflects the fact that he thinks I am committed to a Davidsonian compatibilism. Given that, he thinks I need to show how the freedom exemplified in some events can be consistent with their being subject to "universal law, or 'closed' physical causation, or whatever rules the roost in the physical domain."

But this is a misreading.

In the passage Macdonald takes to show my adherence to a Davidsonian compatibilism, my point is simply this: when I insist that, since nature includes second nature, it can embrace events

that display the freedom implied by Kantian talk of spontaneity, I do not imply that there is *no* room in nature, so conceived, for conformity to law. (It is obvious that there is no such implication. But pointing that out was relevant, in the dialectical context of the response to criticism that Macdonald is quoting from.) The point is that conformity to law is not absent from nature as I recommend conceiving it. The point is not that *all* events that are natural, in the sense I am indicating, exemplify conformity to law (or some substitute: "whatever rules the roost in the physical domain"). So far as this goes, it could be that some events that are natural in the sense in question exemplify conformity to law (or an improved substitute), while others – those that display the freedom of exercises of rationality – do not.

As I go on to remark (in a bit of the passage that Macdonald omits), when I claim that to place spontaneity in nature is not to exclude conformity to law from nature, I am, so far, skirting issues raised by the thesis that *everything* that happens in nature is subsumable under natural law. I am certainly not indicating that I accept that thesis, as Macdonald apparently thinks.

Davidsonian compatibilism accepts some such thesis. Davidsonian compatibilism purports to vindicate a place for freedom in nature by claiming that some of the events in nature, all of which are supposedly subsumable under law under some descriptions, are also describable in ways that depict them as exercises of rationality and hence free.

I query whether this can be a satisfactory vindication of freedom. Here Macdonald takes me to be posing a problem for myself, given that, as he thinks, I am committed to the Davidsonian strategy for vindicating freedom. That is why he thinks I need that heavy-duty metaphysics. But when I raise that query, I mean to be expressing a skepticism about the Davidsonian strategy. Macdonald says "rescuing freedom by rejecting the universality of natural law will produce the kind of dualism in nature that McDowell wishes to avoid." On the contrary, that is exactly how I think freedom should be vindicated.

It is useful to reserve the label "dualism" for sources of philosophical trouble. On this usage, a contrast is not necessarily a dualism. I see no problem about rejecting the Davidsonian monism according to which, though some of what happens in nature is describable in terms of exercises of rationality, all of what happens in nature – including those events, which under other descriptions manifest freedom – is describable in terms of "whatever rules the roost in physics." I am quite happy to suppose there are two kinds of happenings in nature: those that are subsumable under natural law, and those that are not subsumable under natural law, because freedom is operative in them. That is a distinction, not a dualism, and I have no wish to avoid it.

This is not a line I am taking for the first time here, just to avoid trouble from Macdonald. In my paper "Functionalism and Anomalous Monism,"[1] I suggest a skepticism about Davidson's monism. As I note there, Davidson's monism, which is a monism of events, cannot be defended as a necessary means to avoid Cartesian dualism. Cartesian dualism is a dualism of substances, not of kinds of event. In Ryle's instructive caricature, Cartesian dualism depicts minds as paramaterial substances. If we hold that some events in human lives have no description that brings them within the scope of any science of matter, that does not imply that they take place in a paramaterial substance. It does not imply that the composition of a human being includes something just like a kind of stuff except that it is not material. That is a dualism, and we must avoid it. But it is not implied by the differentiation of kinds of events that I envisage.

As Macdonald notes, I acknowledge that if we hold that some events, those that manifest human freedom, are not subsumable under natural law, that leaves us needing to say more about how events that manifest freedom are related to events that are subsumable under natural law. In fact it would be better to formulate this consequential task in terms of the less monolithic conception

of what it takes for events to be within the scope of natural-scientific intelligibility that was my concern in section 1 above. The question is how events that manifest freedom are related to events that are intelligible by the methods of natural science. And that is a good question. Exercises of human freedom cannot be simply independent of the workings of our (literally) internal organization, which are surely scientifically explicable.

But of course to acknowledge that there is more to be said if we take a certain line is not, just as such, to identify a reason against taking it. I think this conception of a remaining task yields a fine account of the intellectual interest that attaches to the scientific investigation of the machinery of mindedness, as I put it in the Introduction to *Mind and World* (pp. xxi–ii).

Note and Reference

1 Reprinted in *Mind, Value, and Reality*, Cambridge, Mass.: Harvard University Press, 1998.