

Reason, red in tooth and claw: naturalised accounts of reason  
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## 1. Abstract

At the beginning of the twenty first century naturalism is flourishing and affecting all of the major fields of philosophy; its influence being felt from epistemology, through metaphysics, philosophy of mind and ethics all the way to philosophy of language and philosophy of logic. Rather than try to characterise naturalism as it appears in all of those different areas I will focus upon what I consider to be the seminal aspect of naturalism – its role in our understanding of what it means for us humans to be rational. Appropriately enough, my examination will take in both the historical development of naturalised theories of rationality and the implications that such a view of reason has. The main aim, however, will be to present a sketch of a naturalist account of reason that is informed by Peirce's pragmatism.

## 2.

From a historical point of view, it is useful to view contemporary naturalist accounts of rationality as, at heart, an attempt to salvage what was most valuable in traditional enlightenment philosophy from the various critiques of mid twentieth century. In this way, Hooker (1991) places naturalism – in the context of a discussion of Feyerabend – between formalism and anarchism:

I accept that Feyerabend is essentially correct in his insistence that the Western project for reason, as it is encapsulated along the rationalism-empiricism axis, is in serious difficulty and requires some superseding conception or other. But while Feyerabend's response has been to question, in an increasingly radical way, the transcendence project which it theorizes I shall argue that there is an alternative: accept the transcendence project and re-theorize the nature of reason and the life of reason. (Hooker 1991: 44)

The transcendence project Hooker speaks of is the same project that Pascal (1669: 347) had in mind when he spoke of humans as thinking reeds; fragile in body but magnificent in mind. It consists in attempting to understand our predicament with the hope of ultimately escaping it through the use of reason. By the early twentieth century the project came to be embodied in practical terms by science and understood in terms of an intimate relationship between rationality and logic; whose universality was to guarantee that reason would be free of the baser aspects of our nature. The philosophy which many saw as carrying on the project was logical positivism, broadly understood.

Brown (1988) characterises the logic-based view of rationality as having three features:

- 1) Rational solutions should be universal.
- 2) Rationally acceptable conclusions must follow with necessity from the information given.
- 3) The rationality of the conclusions is determined by whether they conform to the appropriate rules. (after Hooker 1991: 44-45)

The search for an inductive logic (Keynes 1921, Carnap 1950) has been one of the attempts to arrive at a model of such rationality. However, for many philosophers the long litany of criticisms that have dogged logic-based accounts of rationality over the major part of the twentieth century (Popper 1935, Goodman 1955, Quine 1960, Kuhn 1962, Feyerabend 1975 and many others) together with the failure to answer Hume's original (1739-40) problem has been enough to make them as wary of such accounts as are Hooker and Brown. To a fair number this rejection has brought with it the rejection of Enlightenment ideals, as well. Naturalists, however, would rather argue that it is incorrect to understand reason as being characterised in the terms that Brown outlines, hoping to thereby maintain the transcendence project.

3.

If one considers the various positions that have gone under the name of naturalism during the last few decades, there is little in common among them all, apart from an overall favourable view of science. Indeed, such a view seems in some cases to be deemed enough to call a position naturalist. Just how wide the scope is can perhaps be gauged when it is considered that Frank Jackson's (1997) defence of conceptual analysis is often considered a good example of naturalism, even while Milikan (2005) and Bishop and Trout (2005) see a robustly critical attitude to conceptual analysis as essential to naturalism. A term is only as useful as the class of things it identifies and, in the case of 'naturalism', the breadth of the common meaning is such as to have made it difficult to have a focussed discussion due to the core of the position being obscured by vagueness. A case study of the difficulties this has caused is provided by the critical articles collected by De Caro and Macarthur (2004), which all too often end up being aimed at nothing more than some vague scientism.

Characterising naturalism as the rejection of logic-based accounts of reason together with a retention of Enlightenment ideals still leaves naturalism a broad church, but it helps to focus the debate around a clear position. The essential question becomes one of how to justify retaining those ideals without the exercise being founded upon logical methods. In effect, the position comes down to, as Hooker (1997: 52) observes, the rejection of a priori justified epistemic methods and their replacement with methods that are only justifiable a posteriori and which, therefore, are context-dependent. This move to give up on a first philosophy brings both riches and troubles. The riches come in the form of the knowledge provided by the sciences and whatever other effective epistemic methods humanity uses, which, given the rejection of a method foundationalism (or *foundationalism* as Haack (1993: 186) calls it), naturalists are free to use in coming to understand what methods are rational. The troubles are primarily those which affect any non-foundationalist position; particularly, the issue of justification that has already been raised. The naturalist must hope that their riches are sufficient to buy their way out of trouble. I will consider both in turn.

4.

Naturalism is, by its very nature, interdisciplinary. It does not have any a priori qualms about the relevance of how we reason to the question of how we should reason. As such, it can draw upon the lessons provided by the history of science as well as the sociology of science, much in the way that Kuhn (1962) suggested it. At the same time, it should also learn from how living beings in general manage to deal with their environment, requiring it to draw upon the work of biologists as well as that of other scientists. This is, of course, exactly what has been done for decades by evolutionary epistemologists of many kinds (Campbell 1974, Plotkin 1982, Callebaut and Pinxten 1987). All of these disciplines provide a great wealth of knowledge about what reasoning and its evolutionary predecessors are actually like.

Naturalised approaches to reasoning are also interdisciplinary in another respect. By considering reason in the specific context of actual reasoning beings rather than as an abstract set of rules, naturalism forces together epistemology and philosophy of mind, making it necessary to consider in close connection to each other such things as epistemic methods, rational decisions and other aspects of philosophy of mind. I would argue that the result is the embodied, situated cognitive science that has come of age during the last decade of the previous century and which is being developed by Andy Clark (1996) among others. Clark views our reasoning abilities through the lens, not of forming complete and accurate models of environments, but of having, at the right time, access to information which is adequate to making the decisions that need to be made at that point. This focus on practical commitment is one that will be seen to run through naturalism.

At this point it might seem that the tag of scientism is one that truly fits naturalism, since it is various sciences that I have mentioned. To understand that this is a unfair accusation it is necessary to consider the relationship between science and naturalised philosophy. Given the rejection of the a priori, any methods that are favoured can only be given such status on the basis of their observed results. This means that, in so far as naturalism views science favourably, it can do so only to the degree that science succeeds. The same is true for non-scientific methods, be they the common everyday things that people do when crossing the street or choosing fruit at a grocer's or be the activity under consideration literature and poetry, both of which I would argue have a cognitive, epistemic role. Given that naturalism does not see in science a particular set of universal methods, scientific activity is seen as continuous with other human activities, different only in the degree of institutionalisation, formalisation, self-criticism and self-awareness regarding the particular context-dependent methods it uses.

Of course, the continuum of human methods must be seen in the context of the continuum of the methods that are used by living beings in general. As such, human science, human knowledge and – perhaps most importantly – human reason must, likewise be seen as part of that continuum.

5.

Naturalism's openness to various methods also has a down-side. By accepting the input of other disciplines and epistemic methods naturalist accounts of reason are forced to somehow deal with the fact that these various sources often proscribe differing courses of action. This is as true when comparing clinical medicine with homeopathy, or people's fast and frugal heuristics (Gigerenzer 2000) with Bayesian rules of inference, as when the comparison is between how a chemist and a paramecium would locate concentrations of dissolved sugars. An uncritical pluralism regarding methods is quite misplaced here. To use Peirce's (1877) phrase, "real and living doubt" will have real consequences in terms of the sorts of ways one will act and, although in discussion we may eschew commitment, we can not avoid it in action. At the same time an uncritical conventionalism, though quite capable of guiding actions, will not be capable of improving upon the status quo.

Invoking Peirce in this context is most appropriate, as a number of prominent naturalists who have grappled with these issues (Haack 1993, Hooker 1991, Hacking 1983, Hookway 2000, Rescher 2005) have found his pragmatism to be capable of providing the right context for working towards an answer. The vital aspect in this instance is Peirce's (1878) insistence that "the whole function of thought is to produce habits of action". Hooker (1991: 63) presents the point this way:

[A] shift to an alternative paradigm of acceptance as an act of practical commitment leads to a decision theoretic epistemology where consequences play a key role, acceptance strategies can be subject to selective development, and there is no requirement for foundations.

The approach offers the hope that it is possible to get away from a foundationalist model without giving up on the transcendence project since it is now the practical commitment which is to underwrite the necessary normativity (witness for example, the (Collier 2000, Bickhard 2003) biologically inspired project to develop an account of function). Likewise, treating the epistemic methods we use as open to development in much the same way as our beliefs about the world we live in (i.e. thinking that methods are essentially beliefs about how we can go about finding out about our world) provides a way to internalise Kuhn's and other's objections to the logic-based account of rationality.

Other problems that troubled traditional account of reason remain to be dealt with, Hume's problem being the foremost among them. In that particular case naturalism is better placed to provide a reasonable answer due to its modesty regarding the efficacy of epistemic methods,

i.e. the fact that it recognises that methods are only going to be effective in certain limited contexts. Hume, after all, did not show that our inferences will fail in all possible worlds but only that there will always be some where they will fail. Together with an argument to the effect that it is reasonable to expect that we exist in a predictable world, naturalism is enough not so much as to solve Hume's problem – since it is strictly unsolvable – but, merely, to learn how to live with it.

6.

Thinking back to Brown's characterisation of logic-based rationality we can consider the features a naturalised rationality will have:

- 1) Rational solutions need not be universal, instead they will be only effective in appropriate contexts.
- 2) Rationally acceptable conclusions do not have to follow necessarily from the information given, as acceptance is not to be understood in terms of a formal relationship between propositions but in terms of a practical commitment.
- 3) The rationality of the conclusions is not necessarily determined by whether they conform to the appropriate rules, indeed the primary focus is removed from conclusions and placed upon actions that are taken on the basis of beliefs and methods that are all subject to further criticism and development.

While this characterisation presents a very partial and rough account it does serve to show naturalism's radical break with previous accounts of reason and to point to the ways in which it seeks to avoid the problems which ultimately brought down the earlier attempt to continue the Enlightenment project. Importantly, where Pascal saw in human reason more than a little of the divine spark, naturalism shows that we may hope to transcend ignorance without recall to anything but our native facility for reasoning.

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