Commentary on Missimer

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Connie Missimer's argument is, at least in so far as my reconstruction does it justice, that what counts as a fallacy should be determined in part by global considerations, namely the consideration that no fallacy properly so called should advance the growth of knowledge, and that a strategy which systematically prevents the growth of knowledge is fallacious. But, she argues, the appeal to 'intuitions' of rationality, particularly apparent in the informal reasoning field, are a fallacy of this second type, which prevent the growth of knowledge. In particular—and here I am less certain of the direction of the argument—Missimer suggests that intuitions of rationality often serve to rule out the investigation of alternative, apparently anti-intuitive theories. Some unintuitive theories, we know from long experience, turn out to be true. Had we not baulked at our intuitions—and any pragma-dialectical principle which enjoins us on rational grounds to ignore unintuitive paths—our scientific culture would be much weaker.

The argument is fleshed out with a range of examples, elegantly displayed across a range of cases. I will not go into the examples in depth, although I will take up one of my own later on. But in the course of discussing the reasons for the failure of Soviet biology when only Lysenko's views were mandated, she does raise a problem with her own view, which I wish to pursue. Her preferred version of an explanation of the failure of Lysenko's biology is that the alternative Darwinian accounts were outlawed. This, she says, was due to their inconsistency with Marxist theory and the subsequent clamp down on alternative views. Lysenko argued that biological systems, like social systems, inherit changes in the genetic code which arise from conditioning. It is always difficult to rely on intuitions in such complex areas, but it seems to me that this case is interesting precisely because intuition is on the side of the alternative Darwinian views. Lysenko's claims, far from being intuitive, were wildly out of kilter with the state of biological knowledge at the time. Lysenko's account of biology was not a good account, either absolutely, or seen from the perspective of relevant experts at the time. That is why knowledge faltered on its adoption. It was not the use of intuition.

What prevents the growth of knowledge may not be appeals to intuitively reasonable claims, but the fact that mistaken theories are protected from the evidence, intuitive or not. As she points out, what is intuitive is context dependent—we are now unsurprised by technologies which would have been wildly unintuitive once. On this basis, Missimer criticises those who rely on intuition in argument. But from whose perspective is this criticism to apply? If the intuitions guiding decisions of which theories to develop are those of the untutored, then indeed relying on intuition can be dangerous. If the relevant group are those of the experts in the field, or even the one inspired expert with a grasp of that field and of another apparently unrelated field, as Einstein was, then perhaps intuition is what is needed.

Fundamental intuitions of what is reasonable are just that—fundamental—and (as Missimer again admits) how could we reason at all without them? Surely, what is happening when unintuitive conclusions are derived is that thinkers balance out one set of intuitions against another, and pick, for intuitively rational reasons, one which may seem superficially less intuitive?
The strongest case needed for fallacious intuition would be one in which our most general intuitions about what is reasonable can be shown to be systematically at fault. If we find that our intuitions of rationality can themselves be criticised, then Missimer would have a clear case of the fallacy she is seeking to identify. Here I want to turn to an example Missimer does not refer to: namely Dummett's argument for what is (somewhat unfortunately in this context) called intuitionist logic. Notoriously Dummett (e.g. 1975) argues that the intuitively reasonable Law of the Excluded Middle ($p \lor \neg p$, LEM henceforth) does not generally apply. The examples he cites are based on cases in intuitionist logic. For instance, for mathematical statements like Fermat's last theorem, while we could never prove that it cannot be proved or disproved, we might never be able either to prove or disprove it. Dummett's conclusion is that we need to question our understanding, not so much of the content of say, Fermat's last theorem, but of the meaning of 'or' in such sentences. We have come to accept that semantics for 'or' should guarantee that LEM holds—but Dummett says, what is it in our use of 'or' which justifies this assumption?

Dummett extends the cases to natural language correlates of the mathematical cases, in particular to cases where there is no possibility of manifesting the understanding of a sentence by definitely establishing it as true. So for instance,

'A tacheon moves at a speed greater than light'

could be proved false, but not true. How could we, as speakers of human limitations, manifest our understanding of this sentence, since we could not in principle show it to be true? In fact, as I have said, Dummett questions our grasp of the logical operators in this context. Dummett notoriously goes on to argue to the unintuitive conclusion that our everyday logical practice, which is to accept LEM, is mistaken. We should revise our logical practice in the light of very general considerations about the use of language. He explicitly rejects the idea that conflicting 'intuitive' global considerations, like simplicity, or the intuitive strength of LEM, can be brought in to counter his argument. In 'The Justification of Deduction', he goes so far as to argue that our intuitive use of the logical constants could always be revised by considerations of this sort.

What are we to make of this argument? Dummett appears to give reasons for thinking that the strongest logical intuitions may be discounted in the light of the evidence, of a very abstract type, but evidence all the same. His example is not one which would attract Missimer, for Dummett tailors his empirical evidence to a priori considerations, rather than vice versa. But it is an argument to the conclusion that at the profoundest levels, our logical intuitions may be wrong—and we can show them wrong by discussing very general global considerations, in Dummett's case about the acquisition and manifestation of linguistic skills.

Reference