**Comment on ‘Scientific Objectivity with a Human Face’ by Holm Tetens**

**Howard Sankey**

I will comment on four aspects of Professor Tetens’ paper which run counter to scientific realism. I will also offer a correction of Tetens’ characterization of fallibilism, which portrays fallibilism as a form of scepticism.

**God’s eye point of view**

Tetens emphasizes the fact that “science is done by humans for humans”. It is a “humanly feasible” activity. He says that the pragmatist is “suspicious of metaphysical realism insofar as the latter is tied to a so-called God’s eye point of view”, which “is evidently not a viewpoint humans can adopt” (p. 2).

This suggests that realism is untenable because it is impossible for humans to adopt a God’s eye point of view. But even if it is true that humans cannot adopt a God’s eye point of view, it does not follow that realism is in any way compromised. The reason is that there is no need for realists to adopt a God’s eye point of view in the first place.

Let us agree that humans are unable to adopt a God’s eye point of view. We are unable to remove ourselves from our minds and languages in order to directly observe reality as it really is. But when realists assert that humans inhabit a world that consists of mind-independent objects, we do not step out of our heads, leave our human perspective behind and adopt God’s perspective. Rather, we propose a hypothesis. The hypothesis is that humans inhabit an objective reality about which we talk and think, and of which our beliefs are true if reality really is as we believe it to be. When we propose this hypothesis, we do not adopt a God’s eye point of view. We propose the realist hypothesis from within our own human perspective, using our human language, without stepping outside of our heads. Thus, there is no need to adopt a God’s eye point of view in order to assert the hypothesis of realism.

The realist hypothesis may, of course, be false. But the point at issue is not whether realism is false, but whether it must adopt a God’s eye point of view. The answer is that it does not.

**Description and reality**

Tetens claims it is impossible to “compare our observations and theoretical descriptions with this observation- and description-independent reality ... We can only compare perceptions with descriptions and descriptions with other descriptions”. He says that this “may not be a deep insight but rather a platitude” (p. 4). But it is far from a platitude.

Consider the blue pen that I am now holding in my hand. When I say, “This pen is blue”, I describe the pen as blue. I look at the pen to see if it is blue. I use perception to compare the description with the pen that I hold in my hand. I do not compare the description with a perception or another description. Rather, I use perception to compare the description with reality. If anything is a platitude about description, *this* is the platitude.

What Tetens may have in mind is that description requires the use of language. We cannot describe the pen without using language to describe the pen. But this does not mean that we cannot compare description with reality by means of perception. To suppose that the need to use language to describe means we are trapped inside language, unable to compare description with reality, is not to espouse an uncontentious platitude. Rather, it is to assume that perception does not provide access to a reality independent of language and experience. Far from being a platitude, this is a controversial philosophical thesis for which considerable argument is needed.

**Resistance**

Tetens speaks of the “resistance” of reality to “experimental and theoretical domestication”. He claims that “we experience the independence of reality as its resistance to all our attempts to get a technical and theoretical grip on it once and for all” (p. 5).

Such talk of resistance rests explicitly upon a piece of realist metaphysics: the existence of a reality independent of thought. This is what explains why we encounter resistance when we apply our ideas in the real world. Reality defies expectation and theory because it is independent of thought.

But on the assumption that we can only compare description with perception or further description rather than reality, it is unclear how sense is to be made of resistance. Talk of the resistance of reality to “experimental and theoretical domestication” is an attempt to explain how access may be gained to a reality that exists beyond perception. It is to say *of* such a reality that *it* is responsible for our failure to adequately come to grips with observation, or to anticipate novel phenomena. But to say this is precisely to compare description with reality by saying that reality resists attempts to describe it.

**Consensus in science**

Tetens considers intersubjective agreement amongst scientists. According to Tetens, the pragmatist takes such agreement as an unexplained brute fact. By contrast, the realist provides a “vacuous” explanation (p. 14), according to which “the consensus of scientists is forced by reality itself” (p. 13). Scientists “agree with each other if and because their theories are true, that is: if and because their theories describe reality as it actually is in itself” (p. 13).

Now, if we assume that there may only be one true theory in a domain, it follows that scientists who accept a true theory in the domain will agree with each other. For they accept the same theory. Such an explanation of consensus would indeed be vacuous.

But there is no need for the realist to offer such an explanation of consensus. Instead, the realist may appeal to the existence of an objective reality that does not depend on the beliefs or experience of humans. It is objective reality that is responsible for the experiences that humans have. It is what makes their beliefs about the world true or false. But reality does not “force” scientific agreement. It is what makes it possible for scientists to agree. If no such objective reality were to exist, then the existence of consensus in science would be an utterly inexplicable mystery.

**Fallibilism versus scepticism**

Tetens describes fallibilism as “the epistemological reverse side of realism”. He characterizes fallibilism as the view that “each of our theories may one day prove false, and in face of a reality that at each stage exceeds our cognitive powers, all of our theories will in fact prove false one day” (p. 6). These remarks obscure the relation between fallibilism and realism, and lead to a misleading portrayal of fallibilism as a form of scepticism.

It should not be assumed that there is a close conceptual or logical relationship between fallibilism and realism. Scientific realism does not entail a fallibilist conception of knowledge. One might hold that science discovers the truth about unobservable entities while insisting that epistemic certainty is a requirement for knowledge. Still, scientific realists do tend to be fallibilists. It is not just that scientific realism is consistent with fallibilism. Realism provides a basis for fallibilism. For we may be mistaken in our beliefs about reality precisely because reality is independent of cognition.

Tetens characterizes fallibilism in terms of the claim that “all of our theories will in fact prove false one day”. This claim entails that all of our theories are now false. It is just that they have not so far *proven* to be false. But, since truth is a requirement for knowledge, the claim that all of our theories are false entails that we have no knowledge at the theoretical level. The position characterized by Tetens is, therefore, not a fallibilist one but a sceptical one. It is scepticism about theoretical knowledge.

Fallibilism derives from a recognition of human fallibility, which includes epistemic fallibility. The fallibilist holds that scientific knowledge is not certain. It is not indubitable or unrevisable. Nor does it rest on secure foundations. But it is unclear why fallibilism should be taken to entail that “all of our theories will in fact prove false one day”. The fallibilist grants that our present theories may prove false. But, equally, they may prove true. The fallibilist may point to the self-corrective nature of science, which results in the continual improvement of our theories. Instead of saying that all of our theories will prove false, the fallibilist may equally well say that some day all of our theories may prove true.