

Can We Really Improve Our Cognitive States? A Naturalist Reply to Skepticism

Introduction

In his article, “The Naturalists Return,” Philip Kitcher attempts to defend objections made against the five theses of traditional naturalism. In this analysis I will focus on Kitcher’s attempt at defending the first thesis of traditional naturalism against skeptical objections. More precisely, I will focus my analysis on the second half of the first thesis and it’s susceptibility to be undermined by the notion of underdetermination. The first thesis is as follows:

- (1) The central problem of epistemology is to understand the epistemic quality of human cognitive performance, and to specify strategies through whose use human beings can improve their cognitive states.¹

Thus, it should be noted that for the purposes of this essay I will only consider the second half of the first thesis that reads, “...to specify strategies through whose use human beings can improve their cognitive states” for my analysis. As such, when I refer to (1) I will only be referring to the second half of the first thesis.

In focusing my analysis exclusively on the second half I will argue that the skeptical concern regarding our incapability of improving our cognitive state as a result of underdetermination is misguided. Ultimately, I will argue that humans can in fact improve their cognitive states contrary to skeptical concerns.

Summary

(1) is criticized by skeptics on the grounds that our capacity to modify our cognitive states may be constricted in such a way that we cannot develop any considerable improvements. To put it simply, the skeptic contends that our capacity to correct our beliefs about the world are misleading—how can we *improve* our cognitive states? In justifying their objections against the first thesis of traditional naturalism, the skeptics employ the notion of underdetermination to support their objections. To borrow from Peter Kosso, underdetermination speaks to the idea that, “a theory with a perfect score on evidence...is not necessarily true...it could be confirmed by all test and still be false.”ⁱⁱ Consequently, the skeptics contend that there are alternative ways of describing the world. In addition to this, they claim that all of these alternative ways could be compatible with the observable world. As a result, the skeptic’s concern is made clear: how can we know whether we are improving our cognitive states?

Kitcher’s response to the concerns posed by the skeptics is straightforward: underdetermination is inherent in the history of science and is not detrimental to the

ⁱ [1], p. 74

ⁱⁱ [2], p. 88

viability of (1). More colloquially, just because we experience underdetermination does not suggest that we cannot improve our cognitive states. In fact, Kitcher contends that there are undisputed moments in the history of science in which underdetermination is present. Nonetheless, Kitcher points out such cases of underdetermination are transient. In other words, there are times in history with rival theories about the world, but eventually through time, those theories either converge or are proven incorrect. In addition, Kitcher posits that underdetermination is indicative of the processes of scientific inquiry. In other words, underdetermination is a ‘good thing’ in the sense that rival theories are given opportunities to test their scientific worth. Thus, as Kitcher points out, underdetermination alone is not sufficient in debunking (1).

Nevertheless, Kitcher asserts that the skeptic could undermine (1) if theories continue to be incompatible (*continued divergence*) or if they continue to be underdetermined (*indefinite underdetermination*). However, Kitcher maintains that the notion of *continued divergence* and *indefinite underdetermination* have not occurred in the history of scientific inquiry in ways that are deleterious to (1).ⁱⁱⁱ

Consequently, Kitcher suggests that underdetermination is a feature of inquiry that must occur in some cases. To suggest that underdetermination should not occur is simply fallacious since there is not enough evidence at one time to suggest that a particular theory is correct; vis-à-vis, how could 16th century scientists demonstrate that the heliocentric model of the universe was better than the geocentric model—it takes time. Therefore, Kitcher ultimately contends that *resolution* between rival theories about the world will ultimately be attained.

In this way, Kitcher responds to skeptics by showing that we can improve our cognitive states by *resolution*. That is, over time rival theories either converge or are discredited based on further evaluation through processes such as testing, observation, and compatibility with other theories. As such, self-correcting or improving our cognitive states is inevitably achievable.

Critique

Kitcher seems to answer the skeptic’s concern about improving our cognitive state; namely, we improve them by testing them and eventually competing theories will weed themselves out—they will either converge or be discredited.

But there seems to be another skeptical concern that stems from underdetermination. Although Kitcher has argued that we can improve our cognitive states through resolution of competing theories, how can we know that these improved theories are true of the world? It is a genuinely legitimate concern—how do we know that our improved theories are true of the world? And if they are not true, then how in the world are we making any improvement? Kitcher does not address these skeptical concerns, but first let me clarify the question I seek to answer:

- (2) How do we know that a particular theory, even if it has been demonstrated as being better than other theories, is true of the world?

First, let us begin by addressing the idea of ‘truth’. Such a skeptical concern seems to misconstrue the aims of traditional naturalism. In other words, the project of naturalism is not to specify strategies or theories that are true, but that are simply the ‘best’ at describing the world. In other words, the strategies and theories we use to

ⁱⁱⁱ [1], p. 97

describe and explain our world are not *necessarily* true, but they are the best that we have to offer as human beings. With that said, a line of demarcation is drawn between the truth of a theory and the adequacy of a theory.^{IV} As such, the distinction between truth and adequacy clarify the aims of the second half of the first thesis of naturalism: to specify the ‘best’ strategies to whose use human beings can improve their cognitive states.

Consequently, what it means to improve our cognitive states does not necessarily imply truth, but rather what is the best (most adequate) explanation of what we observe. Of course what it means to be ‘best’ includes a compendium of attributes consisting of internal and external virtues.^V Some internal virtues include *entrenchment*—consistency with other theories, *testability*—capable of being tested and having the capacity to be proven false or true, *generality*—describing a large variety of things, and *simplicity*—being concise as possible also referred to as “Ockham’s razor”.^{VI} The point of this is to demonstrate that we *can* improve our cognitive states and *how* we can improve our cognitive states.

In light of the information discussed, my argument for the plausibility of improving our cognitive states can be condensed into three premises and a conclusion:

- (i) The aim of traditional naturalism with regards to (1) is to specify strategies/theories that will improve our cognitive states.
- (ii) Improvement of cognitive states does not entail what is necessarily true, but rather what is the best explanation of the world. Hence, it is sufficient to ensure improvement of our cognitive states through our attempt at inferring to the best explanation.
- (iii) We engage in attempts at resolving conflicting theories by inferring to the best explanation.
- (iv) Thus, we improve our cognitive states.

Thus, the concern that we are not capable of improving our cognitive states seems at best unjustified.

Conclusion

The concerns of the skeptic were directed at the presumptions of thesis (1); more specifically, can we improve our cognitive states at all? Thus, we have concluded yes indeed, we can in fact improve our cognitive states. The reasons for accepting this conclusion are as follows:

- (i) Underdetermination is not sufficient to debar the possibility of improving our cognitive states.
- (ii) Actually, we do in fact improve our cognitive states through resolution of theories.
- (iii) The notion of improvement is not contingent on truth but rather the ability to reform our theories to accurately represent the world in the best possible manner.

^{IV}[2], p. 98

^V The terms internal and external virtues are borrowed from P. Kosso

^{VI} The internal virtues mentioned and their definitions are borrowed from P. Kosso

- (iv) There are procedures of evaluating 'best' which include internal and external virtues
- (v) We engage in the procedures of evaluation as mentioned in (iv).
- (vi) Thus, over time we improve our cognitive states.

References

[1] Kitcher, Philip. "The Naturalists Return." *The Philosophical Review*, Vol. 101, No 1(1982): 74-99

[2] Kosso, Peter. *Reading the Book of Nature: An Introduction to the Philosophy of Science*. New York: Cambridge University Press, 1997.