AUTHORS’ RESPONSE

On the Natural Selection of Alternative Models: Evaluation of Explanations in Evolutionary Psychology

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A central goal of our target article was to evaluate the soundness of evolutionary psychology’s epistemology in relation to the critical claim that evolutionary explanations are unfalsifiable. None of the 16 commentators challenge our central assertion—that the methods and strategies employed by evolutionary psychologists to generate and test hypotheses are scientifically defensible—and thus we consider our basic goal to have been achieved. However, the commentators raise a number of thoughtful and thought-provoking points. In our response to these commentaries we focus on a subset of philosophical and metatheoretical issues that we believe are most deserving of further discussion. The first part of this rejoinder addresses issues concerning evolutionary psychology and the philosophy of science; the second part addresses issues concerning the core assumptions of evolutionary psychology.

Issues in Evolutionary Epistemology

Epistemology is that branch of philosophy concerned with understanding the nature of knowledge, including the criteria for evaluating claims to knowledge (see Dancy & Sosa, 1992; Flew, 1979). The commentators raise several issues concerning our presentation of evolutionary psychology’s epistemology, including our choice of the Lakatosian framework, the distinction between verification and falsification, the relative importance of prediction versus explanation, and whether evolutionary psychology meets the criteria of scientific progressivity.

Why Lakatos?

Several commentators suggest that our argument would have been stronger if we had established the superiority of Lakatos over other approaches in philosophy of science. Holcomb, for example, questions why we applied such a “fine-grained” analysis to Lakatos (e.g., elaborating the Lakatosian “protective belt” into three levels of explanation) but not to other philosophers such as Kuhn, Popper, Laudan, or Quine. Caporael and Brewer claim that our choice of Lakatos was out of date and that we ignored more recent trends in philosophy of science such as Cartwright’s (1983) putatively “antireductionist” bent. Still other commentators (Fletcher; Haig & Durrant) wonder why we did not attempt to fully integrate the Lakatosian framework with other approaches such as Thagard’s (1992) conception of “explanatory coherence.”

We do not believe that the success of our argument hinges on establishing the superiority of Lakatos over alternative approaches in philosophy of science. Our goal was simply to demonstrate that the Lakatosian framework provides an adequate description of how psychological scientists actually go about their day-to-day epistemological business of constructing and evaluating explanations. Using the Lakatosian framework we illustrated how the generation of competing explanations from a single metatheory is simply a function of the multiple levels of explanation in science rather than evidence of unfalsifiability or faulty epistemology. We maintain that the success of this line of argumentation is predicated on the descriptive adequacy of the Lakatosian framework, and not on its superiority over alternative philosophical approaches. Nonetheless, there are specific reasons why the Lakatosian philosophy of science is particularly well-suited to the task of evaluating evolutionary psychology’s epistemology.

First, and foremost, the Lakatosian framework is especially relevant to addressing the Popperian unfalsifiability criticism that has been repeatedly leveled against evolutionary psychological explanations.