

on the global arena can, if we are to accept the message of *The Political Philosophy of Cosmopolitanism*, refer to herself as a cosmopolitan.

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David J. Buller

Adapting Minds: Evolutionary Psychology and the Persistent Quest for Human Nature.

Cambridge, MA: The MIT Press 2005.

Pp. xi + 550.

US\$34.95 (cloth: ISBN 0-262-02579-5);

US\$18.95 (paper: ISBN 0-262-52460-0).

According to David J. Buller, the debate about evolutionary psychology has been characterized by a 'lack of civilized, reasoned dialogue' (6): critics have focused on evolutionary psychologists' imagined political and ethical motives; evolutionary psychologists in turn have responded that their critics are simply unwilling to accept the true animal origin of humans. This point is no longer as true as it once was, but Buller's 'extended analysis of the *reasons* (the arguments and evidence) that evolutionary psychologists offer in support of their claims' (7, his emphasis) is still a valuable addition to the literature on the application of evolutionary ideas to human mental and behavioral functioning.

Buller's book functions in three different ways, some more successful than others: 1) as a summary of the methodological and theoretical commitments of Evolutionary Psychology (a term which, when capitalized, Buller uses to refer to the particular evolutionary approach to psychology which is dominant today, as opposed to evolutionary psychology, uncapitalized, which he uses to refer to the general field of inquiry applying evolutionary concepts to the study of mind and behavior); 2) as a critique of the assumptions of Evolutionary Psychology; and, 3) as a review and critique of specific research programs in Evolutionary Psychology.

Despite Buller's negative attitude toward Evolutionary Psychology, he presents a clear and unbiased summary of the assumptions that guide this research paradigm. More central to Buller's goals, however, are his criticisms of these assumptions. Although Buller tells us (twice: x, 12) that he is 'unabashedly enthusiastic' about evolutionary psychology, he believes that Evolutionary Psychology is 'wrong in almost every detail' (3). Notwithstanding this expression of universal disagreement, Buller agrees with much

Evolutionary Psychology. Like Evolutionary Psychologists, Buller is an adaptationist. Furthermore, Buller agrees that human psychological function operates in an essentially modular, domain-specific (actually, 'domain dominant', 139) way. However, based on a critique of a notion of species as natural kinds, Buller rejects the notion, a guiding principle of Evolutionary Psychology, that there is an identifiable human nature.

More importantly, Buller parts ways with Evolutionary Psychology concerning which specific feature of humans are adaptations, and concerning how the modularity of the mind comes about. For Buller, contra Evolutionary Psychology, there are no *cognitive* adaptations. Rather, the brain has evolved as a general purpose adaptation. Modularity develops, according to Buller (and Valerie Gray Hardcastle, who co-wrote the chapter at issue), in a fashion analogous to the development of specific antibodies in the immune system. Specific antibodies develop in response to specific pathogens encountered from the environment. Similarly, say Buller and Gray Hardcastle, specific mental modules develop in response to specific environmental stimuli encountered by the developing brain.

It is to his credit that Buller does not just criticize Evolutionary Psychology, but offers this alternative perspective. Unfortunately, the implications of his alternative perspective are not developed. (To be fair, this is also true of most other alternative approaches to Evolutionary Psychology, including those in my own book, Scher & Rauscher, *Evolutionary Psychology: Alternative Approaches*, Boston: Kluwer 2003). Evolutionary psychology (uncapitalized) is a science, and the payoff of a scientific viewpoint is its empirical consequences. Evolutionary Psychology (capitalized) has been successful because a relatively large number of empirical results have grown out of its theoretical standpoint. Until those proposing alternatives can come up with alternative empirical hypotheses, the alternatives will remain only interesting mental exercises. But, perhaps Buller, a philosopher, cannot be faulted for falling short in this way. It is up to psychologists to pick up this challenge and do the science that follows from Buller's philosophical analysis.

However, this criticism of Buller's work only applies because Evolutionary Psychology has made many empirical contributions. The third aspect of this book argues that Evolutionary Psychology has been empirically infertile. Buller's reasons for such an argument are to undermine Evolutionary Psychology: If the theoretical assumptions do not stand up and the empirical results do not hold up, then the entire enterprise does not hold up. However, Buller's critical review of Evolutionary Psychology's empirical work is unsuccessful. His criticisms are, to be sure, exhaustive. Each of the three research programs covered are subjected to close scrutiny, and any short-coming or flaws in the studies chosen for review are highlighted. The flaws discussed are both methodological and logical.

This exhaustiveness, however, is part of the problem. Buller claims that he is not looking for a single fatal flaw in Evolutionary Psychology. But any empirical study will have weaknesses — it's in the nature of the empirical endeavor. We rely on the strengths of each study to compensate for the

shortcomings of other studies. A long list of minor flaws cannot undermine a unified research perspective if they do not add up to a more coherent set of problems which apply to all of the studies. Even more problematic is the fact that Buller's approach, of highlighting flaws in individual studies and individual research programs to invalidate Evolutionary Psychology, can only invalidate the specific studies he discusses. Without identifying flaws that are inherent to any research program deriving from the Evolutionary Psychology metatheoretical perspective, Buller has to suppose that all of the research that falls within this perspective has some (unique?) flaw. Since Buller cannot, of course, cover every single research program (he reviews three in this book), he cannot use this approach to demonstrate Evolutionary Psychology's empirical uselessness.

Therefore, this aspect of Buller's book largely fails as a damning critique of Evolutionary Psychology. It is, however, a very thorough review of the specific research programs that Buller chooses to cover. And, as these are three of the most successful and — more to the point — most frequently cited research programs from within Evolutionary Psychology, this is a very valuable feature. Furthermore, as with the more general criticism of the metatheoretical assumptions of Evolutionary Psychology, Buller does not just criticize, but also offers alternative interpretations of the data collected within the research programs. These alternatives (which, to my reading sit comfortably within the general Evolutionary Psychology paradigm) should provide valuable stimulus to researchers who want to work within any of the research domains reviewed.

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