

EVOLUTIONARY PSYCHOLOGY

Evolutionary psychology and evolutionary developmental psychology: Understanding the evolution of human behavior and development

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This is an introduction to this special issue on evolutionary psychology (EP) and evolutionary developmental psychology (EDP). We suggest here that, contrary to some common assumptions, mainstream psychology continues to be essentially non Darwinian and that EP and EDP are new approaches that can potentially help us to change this situation. We then present the organization of the special issue (composed of six papers). We conclude that evolution is certainly not the final consideration in psychology, but emphasize its importance as the basis upon which all modern behaviors and development are built.

Psicología evolucionista y psicología evolucionista del desarrollo: comprendiendo la evolución del comportamiento humano y su desarrollo. Ésta es una introducción al número monográfico sobre psicología evolucionista (PE) y psicología evolucionista del desarrollo (PED). Aquí se sugiere que, contrariamente a lo que a veces se asume, la psicología contemporánea continúa siendo esencialmente no Darwinista, y que nuevos enfoques como la PE y la PED pueden ayudarnos potencialmente a cambiar esta situación. A continuación se presenta la organización del monográfico (compuesto por 6 artículos). Se concluye que la evolución no es ciertamente el único elemento que necesita ser considerado en psicología, pero se destaca su importancia como base sobre la que cualquier comportamiento moderno y su desarrollo se construyen.

Year 2009 was named the «Darwin year», as all over the world it was celebrated that naturalist Charles Darwin was born 200 years ago and that 150 years ago he published his masterpiece, *The Origin of Species*. Darwin's impact on contemporary conceptions of humans, as well as in the advance of modern natural and human sciences can not be overstated. This has not been different for psychology, whose foundation and growth has been often associated with the relevance of Darwinian ideas, as expressed, for example, by its early concern with human individual differences (as seen, for instance, in psychometric approaches to intelligence and personality), its bias towards developmental views of behavior (as seen in the origins of modern child psychology, as well as some pioneering psychological theories like psychoanalyses), and its greater conscientiousness regarding comparative and functionalist perspectives (see e.g., Boring, 1950; Delval, 1982; Dixon & Lerner, 1992; Kessen, 1965; Schultz, 1981).

However, after more than a century since its inception, an increasing number of colleagues feel that the Darwinian-hype has been «much ado about nothing»; that the real impact of Darwin's thinking on our discipline has been surely lesser than expected and, sometimes emphatically, claimed. According to some authors, Darwin has not been taken seriously in psychology (e.g., Hawley, 2008), and even in some areas, like developmental psychology, the expression «Darwinian myth» (Morss, 1990) has been applied to describe his rather scarce influence (see also Charlesworth, 1992). Perhaps this is no surprise: behaviorism and cognitive psychology, the dominant paradigms of 20th century psychology, were, epistemologically speaking, explicitly non-biological (although not anti-biological) in that their established levels of analyses (observable behavior and internal mental processes, respectively) did not require any special attention to biological issues (Hernández Blasi, 2000). Moreover, fields like ethology and primatology, based intrinsically in Darwinian and biological perspectives, have proven to be less influential on psychology than initially expected (Hernández, Bering, & Bjorklund, 2003). As such, it is no wonder that evolutionary perspectives have faced difficulty gaining credence in a field that, in practice, has not seriously incorporated biology.

Thus, it would not be a surprise either that some critical colleagues in the social and behavioral sciences might see 2009 not as a celebration of Darwin's impact in all sciences, but perhaps a celebration of Darwin's impact on all *other* sciences: The «Darwin year» might have indicated to many that for more than a century, mainstream psychology continues to be, in essence, a non-Darwinian one.

It was partially due to a recognition of Darwin's absence in the social sciences that a new perspective was born over the last decade of the 20th century, called Evolutionary Psychology (EP). As hybrid between cognitive science and evolutionary biology, the main purpose of EP is to apply the knowledge and principles of evolutionary biology to develop research that leads to a better understanding of the structure of human mind (Cosmides & Tooby, 1997; Buss, 2008). Following the birth of EP (and also some previous pioneering trials; see e.g., Hernández Blasi & Bjorklund, 2003), Evolutionary Developmental Psychology (EDP) emerged with emphases on the need for a better evolutionary explanation of human development and the relationships between human phylogeny and ontogeny (see e.g., Bjorklund & Pellegrini, 2002; Geary & Bjorklund, 2000).

These two complementary perspectives share a number of traits that make them potentially very interesting for contemporary psychology: 1) they both set human behavior and its development at the center of evolutionary analyses and research, fostering a multidisciplinary study of the evolution of human behavior and development; 2) neither pretends to be an alternative theory, model or discipline competing with other psychological theories, models, or disciplines, but rather aims to provide an overarching theoretical framework for a unified, evolutionarily-based psychology such that eventually there is no need to distinguish between Psychology and EP, and Developmental Psychology and EDP because they are one in the same (Buss, 2008; Geary, 2006; Tooby & Cosmides, 1992); and 3) both perspectives move beyond comparative and anthropological research, to generate research programs based on the study of contemporary adults and children. The present is often the best indicator of the past, and, as such, the evolutionary mechanisms shaped by natural selection (adaptations) are active in contemporary humans, and, therefore, available for study. Only time yet will tell whether these expectations on EP and EDP are to be realized (or not), as, in science, any theory, model or approach is solely as worthy as its findings.

While EP and EDP differ also on some issues (for example, with respect to the adoption of various explanatory models and the emphasis on developmental processes in shaping human evolution), we do not focus on these differences here (see Hernández Blasi, Gardiner, & Bjorklund, 2008, for a more detailed analyses). In fact, this special issue aims to present a glimpse of these perspectives and their contributions to general psychology and developmental psychology. In this way, readers can evaluate for themselves the relevancy of these perspectives to their own work.

The first three papers of this special issue focus on the evolutionary psychology perspective (namely, on the evolution of

decision making, by Andreas Wilke and Peter Todd; the evolution of mating, by Emily Miner and Todd Shackelford; and the evolution of violence, by Aaron Goetz). The final three papers focus rather on an evolutionary developmental psychology approach (namely, on an introduction to this perspective and research, by Ashley King and David Bjorklund; the role of childhood experience in shaping reproductive strategies, by Jay Belsky; and evolutionary approaches to education, by David Geary). We sought to incorporate complementary papers within each perspective. Thus, the first papers of each section (for EP, Wilke & Todd; for EDP, King & Bjorklund) are a bit more theoretical and cognitively oriented; the second papers (Miner & Shackelford; Belsky) focus on socioemotional issues; and the third papers of each section provide insight on some socially relevant or practical issues (Goetz's paper on violence, in the case of EP, and Geary's paper on education, in the case of EDP). In this manner, we hope to provide readers with not only a general view of both perspectives, but also an understanding of how these perspectives complement each other. In this way, they might more easily realize, for instance, that Belsky's paper exemplifies what an evolutionary developmental perspective can add to the field of mating research, as described previously in Miner & Shackelford's paper.

It is worth noting, however, that the scope of EP and EDP is wider and richer than the issues and topics approached here (this is particularly the case for the EP papers, where we have chosen to present more «classical» and widely known topics, like mating and violence). A more detailed and precise description regarding both views can be found in other sources (e.g., Buss, 2005; 2008; Causey, 2008; Ellis & Bjorklund, 2005).

We hope that this special issue appeals to *Psicothema* readers, and that, in conjunction with the two special issues already published in Spain on EDP in the last few years (Bjorklund & Hernández Blasi, 2003; Hernández Blasi & Bjorklund, 2008), contributes to an increased interest in the evolution of human behavior and its development among Spanish researchers and professionals. We are certainly aware that evolutionary pressures can not solely explain all human behavior but rather constitute a piece in the complex puzzle of any psychological account, that must fit jointly with many others (like culture, education and contemporary environments). We do argue, however, that humans' evolved history is *critical* to the psychological sciences, as it serves as the foundation upon which all modern behavior and development is built.

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