

EVOLUTIONARY PSYCHOLOGY: WHERE TO?

Commentary on the chapter by David M. Buss

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Let me first express my admiration for the thought-provoking contribution David Buss has offered. In general, I think that looking at personality from an evolutionary perspective is a very promising way ~~of~~ generating new hypotheses which are testable using cross-cultural studies. The insight we gain from an evolutionary view in psychological mechanisms like sexual jealousy, mate selection and retention can not be provided by other theories of psychological functioning. The most promising way ~~of~~ using the evolutionary perspective, however seems to me the new look it provides on sex differences seen as strategic individual differences. The examples of sexual and emotional jealousy and tactics of mate retention are convincing. I may add that the differences in sexual and emotional jealousy between the sexes have recently been replicated also with German data (Krehmeier and Oubaid, 1992). Now let me come to some more detailed questions.

Evolutionary Psychology and Personality Traits

In the current theorizing as well as in empirical work, there is a strong emphasis in personality psychology on personality traits. However, in Buss's presentation the term trait is not mentioned. It is not clear for me how dispositions as understood within an evolutionary context are different from a trait conceptualization. The reference he gives to the "Big Five", which may be considered as the major dimensions of the "adaptive landscape" as expressed in perceiving, relating and adapting to other people -important life tasks for enhancing reproductive fitness- seems to confirm that Agreeableness, Conscientiousness and eventually Emotional Stability are important for the formation of stable social bonds in marriages and groups.

Reproductive Fitness and Personality Traits

More intriguing may be the question what the relationship of reproductive fitness to personality dimensions or traits is. As Loehlin (1992) states, there is remarkably little information about this question. He cites a study by Eaves et al. (1990) based on data from the Australian twin sample. The females were asked to report their number of children and if they still have menstruations. The number of children reported was then correlated with Extraversion (E) and

Neuroticism (N) measured with the EPQ. It turned out that Extraversion and Neuroticism alone were not correlated, however the combinations of E and N were correlated. Women, who reported having the most offspring tended to come from two groups: high Extraversion plus low Neuroticism, and Introversion plus high Neuroticism. The smallest number of children were reported by the following two groups: Introversion plus low Neuroticism and Extraversion plus high Neuroticism. I am not able to interpret this finding. It needs replication by asking both sexes in a cross-cultural research effort. However, including this simple question would provide us with some data (a) concerning the reproductive values of personality dimensions and traits, (b) and concerning the selective trends in operation.

Psychological Mechanisms and Temperament

Psychological problem-solving mechanisms for adaptive problems may be special-purpose and domain-dedicated. However, if we compare the definitions of personality and temperament, we may suggest that the most basic important individual differences are probably temperamental. They regulate the stimulation from inside the organism and from outside. Temperamental characteristics like activity and reactivity, are largely formal and stylistic and not as content-saturated as personality characteristics. Temperamental traits may therefore be considered as possible candidates for such evolved psychological mechanisms.

Psychological Mechanisms and Adaptional Problems

Buss is correct in stating that recurrent problems can also be socially caused. Psychological solutions to adaptational problems are usually listed as different ways of coping. Personality characteristics of one's partner (disagreeable) may also create socially imposed problems, that recur over time for an individual. These psychological solutions may also be unsuccessful in some cases and may lead to psychopathological behaviors. This points to a more general aspect: How can evolutionary psychology deal with psychopathology ?

Psychological Mechanisms as new units for Personality Psychology?

Buss suggests the following new units for personality psychology: (a) evolved psychological mechanisms and (b) behavioral strategies. The most prominent units in the last 50 years have been traits, states, drives and motives (needs). Theorists have also introduced as basic units roles, personal constructs, personal projects (Little, 1983), and personal strivings or goals (Emmons, 1986). Buss added behavioral acts to this list and, from an evolutionary frame of reference (with regard to enhancing the reproductive success of individuals), he now labels such actlists tactics and strategies. I have no problems with the category entitled "behavioral strategies", however I feel uneasy with the evolved psychological mechanisms as new possible units. After reading the list of human universals, which I understood as a list of possible candidates for such evolved *psychological mechanisms* I would like to ask the following questions:

1. How many of such mechanisms should be postulated: Hundreds, thousands, tens of thousands?
2. Are they specifically human or are they extended to other species also?
3. What are the criteria for identifying such mechanisms ? Is cross-cultural invariance the only necessary and sufficient criterion?
4. Are these mechanisms unrelated to each other? Is it possible to understand some of them as correlated or even integrated to form some systems? In particular the proposed approach of searching for special-purpose mechanisms may lead to the adding of one mechanism to another.
5. Furthermore, is it likely that each evolved psychological mechanism solves only *one* unique adaptive problem?

Considering the concepts used in personality psychology it seems to me that especially the needs as postulated by Murray (1938) are coming close to these proposed psychological mechanisms. Murray considers physiological needs, psychological needs, latent needs and so on. But especially important are his thoughts about the interactions of these needs as well as his ideas about the criteria for detecting needs in people's daily life. Such interaction principles are prepotency, fusion, subsidiation and conflict. Evolutionary psychology may learn by considering if and how these principles are also applicable to evolved psychological mechanisms.

References

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REPLY TO A. ANGLEITNER

David M. Buss

Professor Angleitner raises several important questions that require attention. I address these in order.