

The Virtues of Evolutionary Psychology for Studying Human Vices

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The target article author (MDG) rightly points to an area of psychology in desperate need of a reformulation along the lines of an evolutionary/functional analysis. For too long, the study of psychopathology, in all its forms, has suffered from a lack of parsimony and coherence. Indeed, to us—as outspoken proponents of the utility of evolutionary psychology—the major strengths or virtues of the adaptationist paradigm are that it provides a set of a priori assumptions concerning the most important questions to ask about mental health and illness (i.e., questions about adaptive mechanisms, ultimate functions, and ancestral-modern environmental mismatches; Buss, 2000; Nesse & Williams, 1994; Wakefield, 1992), provides the most appropriate methods for evaluating functional hypotheses (see Schmitt & Pilcher, 2004), and allows for a proverbial trimming of the various esoteric topics that undermine the scientific study of mental health and individual differences (Confer et al., 2009). MDG does a tremendous job at pulling together work from various subdisciplines of psychology to make his case that researchers can use life history theory to better understand the nature of psychopathology. In this commentary, we expound upon topics with which we agree with MDG, points where we think he did not go far enough, and discuss how the Dark Triad (i.e., psychopathy, narcissism, and Machiavellianism) have been fruitfully studied from a life history perspective.

The task of organizing the psychological sciences within evolutionary biology has some powerful implications for the study of psychopathology. It is important to note that by doing so we can distinguish the pathological “forest” from the “trees.” This is because evolutionary psychologists ask themselves “why” questions as opposed to “how” questions. “How” questions (a.k.a., proximal) involve the mechanisms that trigger a given response (viz., behaviorism, social psychology). “Why” questions (a.k.a., ultimate) are concerned with the reasons why people are responsive to certain stimuli in the first place. However, as MDG rightly points out, the most common way of diagnosing psychopathologies is the “community standard.” This presents scientists and clinicians with a moving target and slippery

slope way of determining if someone has a mental disorder.

From an evolutionary approach, dysfunction may take on a more stringent definition than the community standard or subjective wellbeing approaches. Once researchers have identified the function of a trait in its relevant context (which itself needs to be identified), they can go about ascertaining whether someone is suffering from a disordered version of that trait. Indeed, the term “dysfunction” alone assumes we already know what a given trait is supposed to do, an assumption we feel has not been sufficiently met outside of general personality traits like the Big Five. A dysfunction of an evolved physiological mechanism would be indicated, for example, if one’s blood failed to clot after one’s skin was cut, if one failed to sweat in response to external heat, or if one’s larynx failed to rise to close off the passage to the lungs when food is swallowed (see Buss, 2000; Wakefield, 1992). There are at least three criteria by which we could judge whether a psychological trait is not functioning as it should in its relevant context (Buss, 2000). First, the mechanism fails to activate in lieu of its triggers (e.g., a narcissist receives praise but fails to feel better about himself). Second, a trait is activated in an inappropriate context (e.g., being extraverted at a funeral). Third, the mechanism fails to coordinate behavior with other mechanisms (e.g., wanting social interaction but relying solely on Facebook instead of making actual friends).

MDG rightly points out that most work on psychopathologies has focused on those on the fast end of the spectrum. Personality traits like psychopathy (along with narcissism and Machiavellianism) have received considerable attention lately as a potential adaptive strategy (e.g., Jonason, Koenig, & Tost, 2010; Jonason, Valentine, Li, & Harbeson, 2011). This is a rather obvious tendency among researchers for at least two reasons. First, work on traits like the Dark Triad have been glamorized by the tendency of both the media to portray them as hero or at least antiheroes (Jonason, Webster, Schmitt, Li, & Crysel, 2012; Leistedt & Linkowski, 2014) and for researchers to use various

“sexy” characters to make their point about the adaptive value of the Dark Triad (e.g., James Bond; see Jonason, Li, & Teicher, 2010).

Second, fast spectrum disorders are incongruent with the rather slow way of life that characterizes modern Western societies with its heavy investment in offspring and cooperative, mutualistic relationships. Those with fast spectrum disorders have an agenda that is directly contradictory to the people they live with and, therefore, are more easily seen as disordered from a community standard. This makes them stand out more than slow spectrum disorders. If we assume researchers make a name for themselves by saying something nonobvious, the focus on fast spectrum disorders seems like a foregone conclusion. Instead, MDG takes a much more balanced approach, noting there are slow and fast spectrum disorders, each with their respective costs and benefits (see also Nettle, 2006). Indeed, to this point, MDG convincingly argues that each disorder is about how one deals with opportunities. Those characterized by a slow spectrum rarely take opportunities, but those characterized by a fast spectrum disorder cannot take opportunities fast enough.

We fear one criticism that might be leveled against this theoretical contribution is that it does not provide a means by which clinicians can actually state in a definitive fashion who has a disorder or doesn't (Holcomb, 2001). However, this would be a specious criticism. The MDG approach might actually clarify some of the boundary conditions of various disorders aiding in clearer diagnoses. Clinicians have particularly strong needs to classify individuals as having a disorder or not for legal and medical purposes. By better defining various conditions, there may actually be fewer disorders to work with. Even if we assume that all the disorders that are presently in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; American Psychiatric Association, 2013) are true disorders (as opposed to some variant of preexisting ones), the MDG approach may at the very least move us from the community standard model to a more quantitative model. Instead of relying on the community standard, disorders could be indexed on some quantitative and theoretically relevant life outcomes like number of sex partners, number of friends, or income. This would also allow for the assessment of relative severity of disorders to be more than subjective experience.

Such an approach would take some serious work, but we feel this would fundamentally change the way we think about disorders, moving them from the either-or (false) dichotomy. It would be more consistent with personality research outside of the clinical settings. It would move from thinking about cutoffs to thinking about distributions of scores in a population. MDG assumes (as we do) that personality traits

are best understood on continua as opposed to dichotomies (Penke, Denissen, & Miller, 2007). Again, although we recognize the desire/need to classify individuals as we just noted, we feel this is patently flawed. Quantitative researchers have repeatedly pointed out the statistical and theoretical problems with breaking continua into groups—problems like diminished power, potential spuriousity, and obscuring nonlinear relationship (MacCallum, Zhang, Preacher, & Rucker, 2002; Maxwell & Delaney, 1993). The tendency to do so serves people's predilection for simple answers. Just because something is hard or more complicated does not mean it is wrong or should be avoided. It just means more work is needed; more nuanced analyses are required.

One area we do not feel MDG went far enough is to explore the possibility that the various “psychopathologies” or “disorders” are not either *per se* but, instead, are adaptive solutions to environmental contingencies (Denissen & Penke, 2008). Although he discusses the types of contexts under which we would expect to find certain traits he appears to miss the more important point that various contexts may actually elicit certain responses and that when these are in their disordered form it because of a mismatch between how one's brain is tuned and their current environment. For instance, some of the symptoms of posttraumatic stress disorder could be described as contingent responses to stressful and harsh environments (Christopher, 2004). During recurring crises and calamities, a person's brain may be set to run at a faster pace, favoring immediate outcomes and reproduction. In the context where the adaptive response was calibrated, the traits are functionally useful and not working against the person's interests. It is only when the war veteran returns home and is confronted with the abundantly slower life history defining conditions of modern Western living that trouble arises.

A related area where we feel MDG did not go far enough was in reference to cross-cultural psychology. The history of cross-cultural psychology reveals it to be a rather descriptive science whereby a given pair or some small set of countries/cultures/states are compared on a psychological dimension or the strength of associations between psychological constructs is contrasted across cultures (Church, 2009; van de Vijver & Leung, 2001). However, without evolutionary psychology, there are very few *a priori* reasons to expect particular outcomes or associations across cultural forms. In contrast, evolutionary psychology has yielded a plethora of insights into why cultures vary along psychological dimensions, including predictable associations among psychological constructs and factors such as pathogen load (Gangestad, Haselton, & Buss, 2006; Schaller & Murray, 2010) and morbidity (Ellis, Figueredo, Brumbach, &

Schlomer, 2009), providing strong reasons to predict particular cross-cultural effects. We would argue one could easily extend this to study cross-cultural psychopathology. Most efforts to do that to date have noted the difficulties in applying the same mental health and illness standards across different countries (Van de Velde, Bracke, Levecque, & Meuleman, 2010), and to some degree assert the need for psychopathology to be contextually understood (Friedman et al., 2010). However, this also seems to us to be moving the goalposts. A more functional analysis of personality traits and disorders and understanding how personality traits interact with particular environmental contingencies will allow for a better understanding of the geographic and ecologically embedded distribution of various psychological disorders (Ein-Dor, Mikulincer, Doron, & Shaver, 2010; Schmitt, 2008).

Taking the aforementioned points about environmental calibration, a missed point is that a life history paradigm may also (surprisingly) provide guidance for how to fashion better interventions. Our understanding of the manner by which various therapy treatments are devised is based on the manner by which individuals assume the brain works and interacts with the body. For instance, a Freudian approach assumes the brain works like a hydraulic system where pressure builds up and needs to be released, and it works on a system of conflicts between the id, ego, and superego. Alternatively, a neuroscience model envisions that brain and behavior problems stem from structural or mechanical problems with physical aspects of the brain. In contrast, we would suggest the life history model would propose an information-processing model of the brain, behavior, and their related dysfunctions. However, unlike other therapies that involve information processing (e.g., rational emotive therapy, cognitive behavioral therapy), the life history model provides a priori content that should and should not prove important in shaping people's psychology and, therefore, to improving potential dysfunctions. For instance, providing someone who has problematic narcissism with information that acts as proxies for stability in one's environment may be able to slow the pattern of information processing toward a less selfish way of life than the way that tends to characterize narcissism. This would not only trim away much of the proliferous noise in the diagnosis of disorders but also may provide a guiding framework for what are the useful and useless treatment procedures.

In short, what we are arguing for here is an adaptive information-processing model of the generation of personality traits in their ordered and disordered fashions. Information about one's environment is processed by one's brain to make sense of the world and make predictions about the future. For those

falling into fast spectrum disorders, information will have tuned their brain to move faster because it perceives they are living on a shorter time line. This has important implications in that it actually dismisses the idea of personality psychopathologies in the first place. It suggests that all people have the ability to find themselves in fast or slow spectrum disorders. Such flexibility is surely part of our evolutionary history. The sensitivity to environmental inputs whether over the course of one's childhood or in flash events in their lives is an apparently important system to allow individuals to better adjust their behavior to immediate circumstances. An individual who employed only one set of tactics or strategies would produce fewer offspring in the long run compared to someone with a more protean approach to life (Jonason & Webster, 2012).

Last, we wish to challenge an implicit assumption MDG makes. He treats life history strategies in a bidirectional way, with life history strategies being described on a single continuum. We wonder whether this is overly simplistic. Take, for instance, the multidimensional nature of sexual strategies (Penke, 2011). According to strategic pluralism (Gangestad & Simpson, 2000; Jonason, Li, & Cason, 2009; Schmitt, 2005), individuals' sexual strategies exist on two relatively orthogonal dimensions that can run simultaneously. That is, a woman can simultaneously engage in friends-with-benefits or booty-call relationships while she looks for a more serious partner. This allows her to satisfy her needs for socioemotional support and sexual satisfaction while she attempts to find the "best deal" of a partner with whom she can invest in making a baby (Jonason, 2013). In as much as sexual strategies are subsumed under the larger heading of life history strategies (Dunkel & Decker, 2010), it seems rather obvious that individuals may simultaneously engage in fast and slow life history strategies. Take, for instance, the first author of this commentary. His approach to publishing could be described as producing a large number of low-investment publications (offspring) while working on high-investment publications (offspring). By having access to both approaches, individuals may have even more flexibility in their decision making and can reap greater rewards. That is, they can, on the fly, recalibrate (to a degree) their approach to life. Indeed, some do this in that when they go on vacation may act differently than when they are at home. For instance, the behavior of many American college students on spring break (a 1-week holiday in March or April) is markedly different to how they behave at home or at their university. It may be that this bidimensional nature that underlies the apparent overlaps in some of the disorders noted by MDG and the idea of comorbidity. Such an approach might be tested through the use of cluster analysis to allow

researchers to better define each trait on its own and in relation to others.

One final oversight to which we would like to draw attention is the reliance on the Big Five personality traits and psychopathy (on its own) to describe various disorders. We wish to highlight the work on what is called the Dark Triad, which focuses on the overlap between psychopathy, narcissism, and Machiavellianism (Paulhus & Williams, 2002). This work falls well within the realm of this review, having been repeatedly studied from a life history paradigm. For instance, using the information provided in Table 1 in the target article makes it clear that the Dark Triad traits—mostly psychopathy given its “darker” nature (Rauthmann, 2012)—can be treated as fast spectrum traits. Those high in the Dark Triad traits evidence sexual promiscuity (Jonason, Li, Webster, & Schmitt, 2009), unstable attachments (Jonason, Li, & Czarna, 2013), risk taking (Crysel, Crosier, & Webster, 2013), impulsivity (Jones & Paulhus, 2011), future discounting (Jonason, Koenig, et al., 2010), low conscientiousness and agreeableness (Paulhus & Williams, 2002), and exposure to (familial) stressors (Jonason, Lyons, & Bethell, 2014). Despite all of this, we would suggest the Dark Triad traits are *not* necessarily disorders. For instance, the limited empathy associated with the Dark Triad (Jonason & Krause, 2013; Jonason, Lyons, Bethell, & Ross, 2013) might be adaptive in as much as not empathizing with one’s victims will facilitate the exploitive, cheater strategy embodied by the traits. We contend they are not necessarily fast spectrum disorders, but we agree they are “fast” traits.

We have used our work on the Dark Triad to highlight how traits that most would consider dysfunctions might be adaptive if properly understood in an evolutionary perspective. We feel MDG has added important nuance and balance that complements our work. We look forward to upcoming work that will expand on his article in basic and applied contexts.

Note

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COMMENTARIES

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