

Where the Psychological Adaptations Hit the Ecological Road

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Abstract

We argue the target authors focus too much on adaptive behavioral *responses* and not enough on actual psychological *adaptations*. We suggest Dark Triad traits may represent facultative, psychological adaptations sensitive to seasonal variance and food shortages. We document shorter distances from the equator are linked to higher national narcissism levels. Dark Triad traits—particularly high narcissism—may serve as survival mechanisms when prioritizing oneself over and/or at the cost of others is critical.

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The target article authors provide a compelling new way of understanding the often-cited-yet-poorly-understood relationship between heat and violence at the societal level.

Unlike most social psychological models, the authors adopt an evolutionary framework—Life History Theory—that suggests manifestations of violence, aggression, and limited self-control are adaptive responses to the environmental contingencies of sharp seasons *and* temperature. For instance, in climates like those found in Canada, there is a greater need for cooperation and long-term planning given extreme seasonality. As such, they argue one should expect (and empirically it appears to be the case) that Canadian populations are characterized by *slow* life history traits such as limited aggression and high levels of future planning.

We argue here, however, the target authors' evidence of mere behavioral manifestations of life history traits fails to adequately test their evolutionary hypothesis because it does not focus on the actual underlying adaptations themselves. Their approach conflates adaptive behavioral *responses* with actual psychological *adaptations*. From an evolutionary perspective, behaviors such as violence and cooperation are likely linked to differences in local ecology (Schmitt, 2015), but do so by interacting with internal, psychological adaptations that, we would suggest, are the constellations of hormonal, cognitive, neurological, and motivational dispositions most researchers call personality traits (Jonason & Ferrell, 2016). Selection has acted on these traits—not the specific behavioural outputs of the traits—as facultative adaptations and it is these specially-designed dispositions that interact with local ecologies in ways that ultimately produce the patterns of behavior that appear to support the authors' hypotheses.

One set of potential facultative, psychological adaptations that have been successfully studied using a life history framework are the Dark Triad personality traits (Jonason,

Webster, Schmitt, Li, & Crysel, 2012)—Machiavellianism, narcissism, and psychopathy (Paulhus & Williams, 2002). The Dark Triad traits are characterized by vanity and self-centeredness (i.e., narcissism), manipulation and cynicism (i.e., Machiavellianism), and callous social attitudes and amorality (i.e., psychopathy). These traits predict variance in community, online, and college-student samples that reflect both (1) life history behavioral indicators and (2) the psychological adaptations that are precursors to both aggression and cooperation as highlighted by the target article's authors. For example, these traits are correlated with lower-order aspects of personality that serve to facilitate both cooperation and aggression like limited self-control (Jonason & Tost, 2010) and empathy (Wai, & Tiliopoulos, 2012). Psychopathy and narcissism are particularly correlated with various forms of aggression (Jonason & Webster, 2010) and heightened competitiveness (Carter, Campbell, & Muncer, 2014). Conversely, Machiavellianism is distinguished by its long-term, tactical, strategic, and pragmatic nature (Jonason, Slomski, & Partyka, 2012) which may serve individuals who live in environments where resources are variable and future planning is essential. In addition, the importance placed on physical attractiveness in narcissism might be an adaptive response to higher pathogen-loads in warmer climates (i.e., near the equator). Overall, based on this we expect that distance from the equator will be negatively correlated with narcissism and psychopathy (potentially) and positively correlated with Machiavellianism.

Thus, we suggest Dark Triad personality traits represent facultative, psychological adaptations that are sensitive to seasonal variance and food shortages. Over evolutionary time, climatological patterns and resource irregularity would be fairly recurrent. Those people who were differentially characterized by these traits across varying environments may have been selected because the traits facilitated context-specific, or in this case climate-specific, survival. It may be useful, and perhaps adds to and improves the authors' assertions, to test

ostensible dispositional adaptations—Dark Triad traits—for environmentally-contingent links to survival, as opposed to the behaviors that are manifested from recurrent, adaptive person × ecology interactions.

In order to add to and improve on the authors' argument and data brought to bear on the CLASH model, we highlight here findings from the International Sexuality Description Project-2 (see Schmitt, 2015). The ISDP-2 was a collaboration of more than 100 psychologists around the world in which surveys were administered to 36,314 people across more than 50 nations. As part of the ISDP-2, participants were administered measures of narcissism (i.e., NPI; Raskin & Terry, 1988), Machiavellianism (i.e., MACH-20; Christie & Geis, 1970), and psychopathy (i.e., SRPIII; Paulhus, Hemphill, & Hare, 2009). More details about the ISDP-2 methods and samples are available upon request.

At the national level, ISDP-2 findings suggest the shorter the distance from the equator, the higher national narcissism levels ($r(51) = -.25, p < .05$; see Figure 1). In contrast, Machiavellianism become more evident the greater the distance from the equator ($r(52) = .24, p < .05$; see Figure 2). Psychopathy was not sensitive to variation in distance from the equator ($r = .01$). The results in the target article, therefore, might be a function of these Dark Triad adaptations for survival under varying levels of climatological threat. That is, the Dark Triad traits—particularly high narcissism and low Machiavellianism—may serve as survival mechanisms when the organism is under threat; the time when prioritizing oneself is most important. Prioritizing oneself over and/or at the cost of others is at the core of these traits.

These findings represent a climate-specific, adaptationist view of Dark Triad traits, which is in contrast to most work that has focused on sexual selection arguments of the Dark Triad (Jonason, Li, Webster, & Schmitt, 2009). Our assertions here also conflict with the pathological view of antisocial traits (Hare, 1985). Such psychological survival adaptations

may be pseudopathologies (Jonason, Duineveld, & Middleton, 2015) where they confer benefits to the person at the cost of the group (Crawford & Anderson, 1989).

In conclusion, we agree with the thrust of the CLASH hypothesis but feel the authors have not presented the best tests of their climate-linked hypotheses. We have presented evidence here that we feel better tests their assertions by examining ostensible psychological preconditions and adaptations for survival. We encourage future work to not conflate manifestations of psychological adaptations with the adaptations themselves because after all it is evolutionary *psychology* for a reason.

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Figure Captions

Figure 1. National Narcissism levels related to distance from the equator across 53 nations from the International Sexuality Description Project-2 (Schmitt, 2015).

Figure 2. National Machiavellianism levels related to distance from the equator across 54 nations from the International Sexuality Description Project-2 (Schmitt, 2015).



