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A life history approach to understanding the Dark Triad

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ABSTRACT

Researchers adopting an evolutionary perspective have conceptualized the Dark Triad as an exploitative interpersonal style reflective of a fast life history strategy. However, not all research has supported this claim. We posit that different elements of the constructs associated with the Dark Triad may reflect different life history strategies. Our results indicate that the measures of the Dark Triad and other indicators of life history strategies form two distinct factors: (1) a *fast* life strategy factor that includes the impulsive antisociality facet of psychopathy, the entitlement/exploitativeness facet of narcissism, Machiavellianism, unrestricted sociosexuality, and aggression, and (2) a *slow* life strategy factor that includes the fearless dominance facet of psychopathy and both the leadership/authority and grandiose exhibitionism facets of narcissism. These factors differentially correlate with established measures of life history strategy. These findings add to the literature by clarifying how the Dark Triad fits into a life history framework.

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1. Introduction

The Dark Triad refers to the personality constructs of psychopathy, narcissism, and Machiavellianism (Paulhus & Williams, 2002). Recent research has attempted to ground the Dark Triad within life history theory by suggesting that the three components are indicators of a fast life history strategy (Jonason & Tost, 2010). However, attempts to link each component of the Dark Triad to other indicators of a fast life strategy have yielded inconsistent results (e.g. Gladden, Figueredo, & Jacobs, 2009; Jonason, Koenig, & Tost, 2010; Jonason & Tost, 2010). We suggest that some of these inconsistencies may be driven by the fact that psychopathy and narcissism are multifaceted constructs. Psychometric investigations often indicate that commonly used measures of these constructs contain a mixture of personality attributes (e.g. Ackerman et al., 2011; Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; Blonigen et al., 2010; Cooke & Michie, 2001; Emmons, 1984; Harpur, Hare, & Hakstian, 1989; Raskin & Terry, 1988; Smith, Edens, & Vaughn, 2011). Although some of these attributes may be diagnostic of a fast life strategy as previous researchers have hypothesized, others may indicate a slow life strategy. Accordingly, our research seeks to clarify the associations between the personality attributes associated with the Dark Triad and indicators of life history strategy.

1.1. Life history theory

Life history (LH) theory is a mid-level evolutionary theory that describes the trade-offs individuals make in energy allocation toward different life tasks including bodily growth and maintenance, mating effort, and parenting/kin investment (Kaplan & Gangestad, 2005). The particular pattern of energy allocation depends on the harshness and unpredictability of the environment (Ellis, Figueredo, Brumbach, & Schlomer, 2009). Unpredictable environments with high mortality risk tend to produce fast life history strategies in which individuals mature early, produce more offspring, but invest less in each offspring. This strategy is adaptive because it increases the probability of producing at least some surviving offspring. Alternatively, relatively predictable environments with low mortality risk tend to produce *slow* life history strategies where individuals mature and reproduce at a later age, producing fewer offspring in which they invest heavily. Increased allotment of energy to development may therefore be associated with greater ability to obtain resources, status, and long-term mates.

Outcomes related to sexual attitudes and behaviors are frequently linked with life history strategies. Fast life history strategies are expected to be associated with a greater number of sexual partners and more permissible attitudes toward casual sex. The extent to which individuals engage in aggressive or antisocial behavior is also a relevant outcome of one's life history strategy. Fast strategies typically arise in environments in which the risk of mortality is high and resource availability is unpredictable. These environments tend to favor risky and impulsive behaviors.

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As a result, individuals faced with these challenges may be more prone to using criminality and violence to obtain material resources, status, and mates. Consistent with this, aggression (Jonason & Webster, 2010), antisocial behavior (Jonason, Koenig, & Tost, 2010), and unrestricted sexual attitudes (Jonason, Li, Webster, & Schmitt, 2009) have been shown to be associated with the Dark Triad traits. This collection of findings is a major reason why researchers have postulated that the Dark Triad represents a fast life strategy (Figueredo et al., 2005; Harpending & Sobus, 1987; Jonason, Koenig, & Tost, 2010; Jonason et al., 2009; Jonason & Tost, 2010; Mealey, 1995). It is worth noting that although the outcomes associated with fast life strategies are often viewed by society as undesirable, life history theory views them as strategic responses to environmental conditions. Thus, behaviors associated with a fast life strategy may be adaptive with respect to individual fitness regardless of whether the behaviors impose costs on society.

1.2. The elements of the Dark Triad

A complicating issue surrounding the Dark Triad is that measures of its three elements do not all capture unitary constructs. Psychopathy was originally described as a combination of impulsive and antisocial tendencies accompanied by low levels of anxiety, fear, and remorse (Cleckley, 1941). Measures of psychopathy have often been constructed with these ideas in mind and, as a result, frequently yield two factors (e.g. Benning et al., 2003; Harpur et al., 1989): one that reflects the interpersonal and affective traits, and a second that reflects the antisocial lifestyle. These factors have been labeled Fearless Dominance (FD) and Impulsive Antisociality (IA), respectively (Benning et al., 2003). Interestingly, these factors tend to exhibit relatively distinct patterns of associations with criterion-variables. Although IA is associated most consistently with antisocial behavior and externalizing psychopathology, FD is associated with a variety of seemingly positive outcomes (Blonigen et al., 2010). For example, FD has been shown to be positively associated with educational achievement and positive emotionality (Benning et al., 2003). In contrast, IA is negatively correlated with educational achievements, income, verbal intelligence, and impulse control (Benning et al., 2003). These correlates suggest that FD may be associated with a slow life strategy whereas IA is likely to be associated with a fast life strategy.

Narcissism is typically associated with arrogance, entitlement, grandiosity, and a willingness to exploit others to bolster the self (Rhodewalt & Peterson, 2009). However, there is ongoing debate about the factor structure of the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988; see Ackerman et al., 2011 for a review), a commonly used measure of narcissism in the social/personality literature. The NPI appears to assess multiple constructs ranging from attributes that could be described as socially desirable, such as leadership skills and social influence, to attributes that could be described as socially toxic, such as entitlement and exploitativeness. Empirically, these factors tend to exhibit differential patterns of association with criterion variables. For example, the leadership/authority facet is associated with higher self-esteem, and lower neuroticism, anxiety, and depression. In contrast, the entitlement/exploitative facet is associated with lower well-being (Hill & Roberts, 2011) and interpersonal difficulties (Ackerman et al., 2011). These patterns of associations suggest that some components of narcissism may map onto a fast life strategy (entitlement/exploitativeness), whereas others may be more akin to a slow life strategy (leadership/authority).

Machiavellianism has been described as a manipulative and calculating interpersonal style (Christie & Geis, 1970) that appears to reflect a fast life history strategy. There is relatively little active

debate about the factor structure of the most commonly used measure of Machiavellianism, the MACH-IV (Christie & Geis, 1970; but see Hunter, Gerbing, & Boster, 1982) as the items seem to straight-forwardly capture an exploitative interpersonal style. Indeed, some have even concluded that the MACH-IV is a measure of psychopathy (McHoskey, Worzel, & Szyarto, 1998, but see Paulhus & Williams, 2002). Consistent with this claim, the MACH-IV has been shown to be associated with the impulsive antisociality facets of psychopathy (Witt, Donnellan, Blonigen, Krueger, & Conger, 2009b). Thus, Machiavellianism is the one construct associated with the Dark Triad that we expect to have an unequivocal association with a fast life strategy.

1.3. The present research

Although previous research has argued that psychopathy, narcissism, and Machiavellianism can be conceptualized as indicators of a fast life strategy, not all findings in the literature consistently support this perspective. In a recent factor analysis of life history strategy indicators and psychopathic attitudes, rather than converging on a single life history strategy factor, two orthogonal factors were formed: a slow life history factor and a psychopathic attitudes factor (Gladden et al., 2009). These findings were interpreted as being “inconsistent with the LH-based prediction that psychopathy is a frequency-dependent ‘cheater’ strategy characterized by short-term mating tactics” (Gladden et al., 2009, p. 273). However, a psychopathy total score was used in these analyses rather than scoring the measure for a two- or three-factor model. Given that FD and IA exhibit divergent correlations with a variety of variables, an examination of the lower order facets may be an important exercise. Likewise, recent attempts to situate the Dark Triad within the broader framework of life history theory by evaluating associations between the Dark Triad and self-control have received inconsistent support. Although psychopathy and Machiavellianism were shown to be associated with a lack of self-control in one study, this was not replicated in a second study, and Narcissism was unrelated to self-control across both studies (Jonason & Tost, 2010).

These inconsistencies may be clarified by an examination of the lower-order measures associated with the Dark Triad constructs. Given that fast life strategies are associated with greater allocation of energy toward mating and reproduction as well as a reduced ability to delay gratification, we predicted that Dark Triad measures reflecting impulsivity, manipulative and exploitative interpersonal styles, aggression, and unrestricted sociosexuality would be associated with a fast life history strategy. In contrast, the increase in energy allocated to growth and development in a slow life strategy has been linked to a greater ability to obtain desired resources, social status, and mating opportunities. As such, we predicted that Dark Triad measures reflecting social dominance, leadership, and reduced fear and anxiety would be associated with a slow life history strategy. We tested these ideas using a combination of factor analytic and correlational approaches.

2. Method

2.1. Participants and procedure

Participants were 296 students from Michigan State University who participated in exchange for course credit (51% male; 84.1% White). Participants completed the study anonymously via an online survey consisting of the measures described below. Unless otherwise noted, all items were measured using a 5–7 point Likert-type scale ranging from “Strongly Disagree” to “Strongly Agree” and were averaged to create composite scores.

2.2. Life history strategy measures

The Mini-K (Figueredo, unpublished manuscript) is a short form of the Arizona Life History Battery that contains 20 items assessing individual differences in life history strategy. The items include content assessing impulsivity, relationship quality, sexual promiscuity, and social support. Item responses ranged from -3 (strongly disagree) to $+3$ (strongly agree) such that higher scores indicate a slower life history strategy. Example items include, “While growing up, I had a close and warm relationship with my biological father,” and “I would rather have one than several sexual relationships at a time.”

The High-K Strategy Scale (HKSS; Giosan, 2006) is a 26-item measure assessing a variety of High-K (slow) reproductive strategy indicators. These indicators include health and attractiveness, economic prospects, and social support (e.g. “I am in good physical shape” and “My training and experience are likely to bring me opportunities in the future.”)

2.3. Dark Triad measures

2.3.1. Psychopathy

Two measures of psychopathy were used that were constructed from items measuring normal personality traits (Witt, Donnellan, & Blonigen, 2009a). The first measure included 40 items taken from the International Personality Item Pool (IPIP; Johnson, unpublished manuscript); the second measure included 34 items from the HEXACO personality inventory (Lee & Ashton, 2004). Each measure contains separate subscales for fearless dominance (FD) and impulsive antisociality (IA). These measures have shown good convergent validity with the FD and IA facets of the Psychopathic Personality Inventory (Witt et al., 2009a). In addition, the IA facet of these and similar personality-based measures of psychopathy correlate strongly with the subscales of the Self-Report Psychopathy Scale (Witt & Donnellan, 2008; Witt et al., 2009b). Example items for FD include, “I love excitement” and “I remain calm under pressure,” Example items for IA include, “I use others for my own ends” and “I enjoy being reckless.”

2.3.2. Narcissism

Narcissism was assessed using the Narcissistic Personality Inventory (NPI-40; Raskin & Terry, 1988). Participants indicated their response by selecting one of two statements where one item was more narcissistic than the other. The items were scored using the factor solution recommended by Ackerman and colleagues (2011). The factors include leadership/authority (LA; “I am a born leader”), grandiose exhibitionism (GE; “I really like to be the center of attention”), and entitlement/exploitativeness (EE; “I will never be satisfied until I get all that I deserve”).

2.3.3. Machiavellianism

Machiavellianism was assessed using the MACH-IV (Christie & Geis, 1970). Example items from the scale include, “It is hard to get ahead without cutting corners here and there” and “Most people who get ahead in the world lead clean, moral lives” (reverse scored).

2.4. Life history strategy indicators

2.4.1. Sexual attitudes and behavior

The Revised Sociosexual Orientation Inventory (Sociosexuality; Penke & Asendorpf, 2008) includes nine items assessing participants’ sexual experiences, attitudes toward uncommitted sex, and sociosexual desire. All items are scored on a 9-point response scale; example items include, “With how many different partners

have you had sex within the past 12 months?” and “Sex without love is OK.”

2.4.2. Aggression

The Aggression Questionnaire (Buss & Perry, 1992) was used to assess participants’ aggressive tendencies. The questionnaire includes four subscales: physical, verbal, angry, and hostile aggression. Example items include “Once in a while I can’t control the urge to strike another person” and “I can’t help getting into arguments when people disagree with me.”

3. Results

3.1. Descriptive analyses

Means, standard deviations, alphas, and inter-correlations for all variables are included in Table 1. Gender differences are included for each variable in Table 2. The measures of slow life history strategy (Mini-K and HKSS) were positively associated with the fearless dominance facet of psychopathy ($r_s = .27-.50$) and both the Leadership/authority ($r_s = .16$ and $.27$) and Grandiose Exhibitionism ($r_s = .06$ and $.30$) facets of narcissism. The measures of slow life history strategy were negatively correlated with the impulsive antisociality facet of psychopathy ($r_s = -.28$ to $-.39$), the entitlement/exploitativeness facet of narcissism ($r_s = -.21$ and $-.22$), Machiavellianism ($r_s = -.38$ and $-.28$), sociosexuality ($r_s = -.30$ and $-.11$), and aggression ($r_s = -.19$ and $-.23$).

3.2. Factor analysis

We performed a principal axis factor analysis with a direct oblimin rotation (using SPSS version 19.0) on all of the Dark Triad measures and life history indicators, with the exception of the two established life history measures (Mini-K and HKSS). Factor extraction was determined by the scree plot and an eigenvalue cutoff of 1.0 (First three eigenvalues = 3.43, 2.82, .88). This resulted in a nearly orthogonal two-factor solution that accounted for 62.50% of the total variance. Table 3 reports the loadings for each variable.

As predicted, the first factor captured the impulsive antisociality facets of psychopathy, the entitlement/exploitativeness facet of narcissism, Machiavellianism, sociosexuality, and aggression (labeled a *Fast Life Strategy*). The second factor captured the fearless dominance facets of psychopathy and both the leadership/authority and grandiose exhibitionism facets of narcissism (labeled a *Slow Life Strategy*). Similar factor analytic results were obtained when the facets of the MACH-IV (Hunter et al., 1982), the Aggression Questionnaire (Buss & Perry, 1992), and the SOI-R (Penke & Asendorpf, 2008) were used instead of their total scores, as well as when an alternative factor solution was used for the NPI (Emmons, 1984).¹

To examine how the extracted factors relate to established measures of life history theory, the regression-weighted factor score estimates were computed and correlated with the two explicit measures of life history strategy. As expected, the Mini-K and the HKSS were both negatively correlated with the Fast Life Strategy factor ($r_s = -.43$ and $-.33$, $p_s < .05$, respectively) and positively correlated with the Slow Life Strategy factor ($r_s = .24$ and $.46$, $p_s < .05$, respectively).² When the Mini-K and HKSS measures were included in the factor analysis the Mini-K loaded more highly on the Fast Life Strategy factor whereas the HKSS loaded more highly on the Slow

¹ These analyses can be obtained from the first-author upon request.

² The same pattern of correlations was obtained when composites were computed by standardizing and then summing the variables that loaded highly on each factor.

Table 1
Descriptive statistics for life history indicators and the Dark Triad.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Mini-K	.81											
2. HKSS	.61*	.86										
3. IPIP FD	.27*	.47*	.88									
4. HEXACO FD	.34*	.50*	.85*	.82								
5. IPIP IA	-.39*	-.35*	-.07	-.04	.92							
6. HEXACO IA	-.37*	-.28*	-.06	-.01	.73*	.81						
7. NPI LA	.16*	.27*	.60*	.58*	.01	-.04	.75					
8. NPI GE	.06	.30*	.48*	.47*	.11	.10	.52*	.73				
9. NPI EE	-.21*	-.22*	-.05	-.05	.38*	.36*	.22*	.21*	.43			
10. MACH-IV	-.38*	-.28*	-.12*	-.09	.56*	.57*	-.05	.12*	.38*	.75		
11. SOI-R	-.30*	-.11	.26*	.20*	.44*	.36*	.17*	.24*	.29*	.42*	.88	
12. Aggression	-.19*	-.23*	-.08	-.03	.62*	.62*	.08	.02	.40*	.46*	.36*	.92
<i>M</i>	1.38	4.01	3.42	3.32	2.10	2.47	.48	.35	.21	3.56	3.26	3.29
<i>SD</i>	.69	.47	.57	.54	.64	.55	.25	.24	.25	.61	1.64	.93

Note: The bolded values on the diagonal represent Cronbach's alpha for the corresponding variable. HKSS = High-K Strategy Scale; IPIP = International Personality Item Pool; FD = Fearless Dominance; IA = Impulsive Antisociality; NPI = Narcissistic Personality Inventory; LA = Leadership/Authority; GE = Grandiose Exhibitionism; EE = Entitlement/Exploitativeness; MACH-IV = Machiavellianism; SOI-R = Sociosexual Orientation Inventory-Revised.

* $p < .05$.

Table 2
Gender differences for Dark Triad measures and life history indicators.

	Men mean (<i>SD</i>)	Women mean (<i>SD</i>)	<i>t</i>	<i>d</i>
1. Mini-K	1.19 (.69)	1.57 (.64)	-4.89*	-0.55
2. HKSS	3.94 (.50)	4.09 (.44)	-2.61*	-0.30
3. IPIP FD	3.53 (.57)	3.31 (.54)	3.48*	0.39
4. HEXACO FD	3.43 (.56)	3.20 (.49)	3.64*	0.41
5. IPIP IA	2.30 (.62)	1.89 (.58)	5.78*	0.63
6. HEXACO IA	2.60 (.55)	2.33 (.52)	4.42*	0.50
7. NPI LA	0.52 (.25)	0.45 (.25)	2.52*	0.30
8. NPI GE	0.37 (.25)	0.31 (.23)	2.18*	0.25
9. NPI EE	0.25 (.27)	0.17 (.21)	2.79*	0.32
10. Machiavellianism	3.69 (.62)	3.42 (.57)	3.99*	0.45
11. Sociosexuality	4.12 (1.57)	2.37 (1.16)	10.84*	1.06
12. Aggression	3.53 (.93)	3.04 (.86)	4.73*	0.53

Note. *d* is Cohen's *d* for effect size. HKSS = High-K Strategy Scale; IPIP = International Personality Item Pool; FD = Fearless Dominance; IA = Impulsive Antisociality; NPI = Narcissistic Personality Inventory; LA = Leadership/Authority; GE = Grandiose Exhibitionism; EE = Entitlement/Exploitativeness.

* $p < .05$.

Table 3
Factor loadings for the Dark Triad measures and life history indicators.

Variable	Factor 1: Fast life strategy		Factor 2: Slow life strategy	
	<i>P</i>	<i>S</i>	<i>P</i>	<i>S</i>
IPIP IA	.85	.84	-.05	.03
HEXACO IA	.82	.81	-.07	.01
NPI EE	.50	.51	.05	.10
Machiavellianism	.70	.70	-.09	-.03
Sociosexuality	.51	.54	.26	.31
Aggression	.72	.72	-.05	.02
IPIP FD	-.13	-.04	.92	.91
HEXACO FD	-.10	-.02	.87	.86
NPI LA	.02	.08	.70	.70
NPI GE	.13	.18	.58	.59

Note: Direct Oblimin rotation used. Coefficients over .30 are bolded. Latent factor correlation = .09. *P* = Pattern Coefficient; *S* = Structure Coefficient. IPIP = International Personality Item Pool; FD = Fearless Dominance; IA = Impulsive Antisociality; NPI = Narcissistic Personality Inventory; LA = Leadership/Authority; GE = Grandiose Exhibitionism; EE = Entitlement/Exploitativeness.

Life Strategy factor. Each also exhibited a noticeable cross loading on the other factor (greater than ± 0.30).

4. Discussion

The goal of the present research was to clarify the connections between the Dark Triad constructs and life history strategies. A complicating issue in past research has been that psychopathy and narcissism are assessed with multifaceted inventories, but these facets are not examined in the analyses. Importantly, we found that measures of these two constructs contain some features that map onto a fast life strategy and other features that correspond to a slow life strategy. These results are intuitive and largely consistent with previous research evaluating the correlates of the lower-order facets of psychopathy and narcissism. Fearless dominance, leadership/authority, and grandiose exhibitionism share attributes such as confidence, social dominance, self-esteem, and low anxiety – which are more reflective of a slow life strategy than a fast life strategy. In contrast, impulsive antisociality, entitlement/exploitativeness, Machiavellianism, unrestricted sociosexuality, and aggression share attributes such as a lack of self-control and a willingness to use others for gain, which seem to be clear indicators of a fast life strategy. In short, our results suggest that only certain elements of psychopathy and narcissism reflect a fast life history strategy. It could be argued that those are the core elements of the Dark Triad constructs and that the other elements simply reflect construct contamination. This might be one reason why some researchers have created their own targeted assessment of the Dark Triad (Jonason & Webster, 2010).

Previous researchers have argued that the Dark Triad traits “may best be viewed as one particular social orientation towards conspecifics” (Jonason et al., 2009, p. 6). The common element captured by our first factor might be the Dark Triad trait as conceptualized by this perspective. The caveat then is that not all elements of personality associated with psychopathy and narcissism reflect this particular social orientation. Indeed, we suspect that the Dark Triad trait described by these scholars is somewhat narrower than the constructs of narcissism and psychopathy as they are often discussed in the literature. Consistent with the conclusions drawn by Ackerman et al. (2011), not all elements of personality associated with narcissism are socially aversive. Likewise, not all elements of psychopathy are socially toxic.

Importantly, the current study helps to clarify inconsistencies in the literature. Previous research has questioned the notion that psychopathy represents a frequency-dependent cheating strategy on the basis of factor analytic work showing that psychopathic attitudes and life history indicators form two distinct factors (Gladden et al., 2009). Our results demonstrate that the impulsive and anti-

social behavioral components of psychopathy may be linked with a fast life strategy whereas the elements reflecting low anxiety and emotional stability may reflect a slow life strategy. This underscores the importance of evaluating all of the subcomponents of the Dark Triad separately. Research failing to find an association between narcissism and self-control based indicators of a fast life history strategy (Jonason & Tost, 2010) may also benefit from a lower-level analysis of the Dark Triad. Although we have used different measures of the Dark Triad than this study and did not measure specific indices of self-control, our results suggest that certain facets of narcissism, specifically the entitlement and exploitativeness facet, may reflect reduced self-control (as evidenced by its positive association with the IA component of psychopathy), whereas the other facets may not have such a connection with self-control.

A few limitations are worth mentioning. The most notable constraint is the use of a convenience sample of college students. Future research should explore the generalizability of this factor solution in more diverse samples that provide greater variation in life history strategy. Additionally, this area of research would greatly benefit from a longitudinal analysis of life history strategies that predicts relevant long-term life history outcomes, such as onset of puberty, age at first sexual intercourse, number of offspring, and parental investment in offspring. Lastly, given the multitude of psychopathy assessments available in the literature, future research should explore how the facets of different psychopathy measures are associated with fast and slow life history strategies.

In conclusion, our findings add to a growing body of literature demonstrating the insight life history theory has to offer the study of individual differences in general and the Dark Triad in particular. Although previous research has conceptualized the traits of the Dark Triad as indicators of a fast life history strategy, our findings suggest that psychopathy and narcissism have components associated with both fast and slow life history strategies. We are hopeful that future research in this domain may benefit from a more careful consideration of the multi-faceted nature of the Dark Triad and its connection to life history theory.

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