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## Love, Sex, and Personality Pathology: A Life History View of Personality Pathologies and Sociosexuality

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*Love and sex are fundamental needs of most people, yet little research has examined such aspects of life in relation to personality pathologies. We examined the associations between pathological personality traits (i.e., negative affectivity, disinhibition, antagonism, psychoticism, and detachment) and sociosexuality (i.e., short-term mating orientation, long-term mating orientation, and sexual behavior) among 702 university students. In addition, we examined the mediating role of life history speed and tested whether sex moderated the associations that these pathological personality traits had with sociosexuality. Detachment, antagonism, disinhibition, and psychoticism had positive associations with short-term mating interests and negative associations with long-term mating interests. Life history speed mediated the associations that detachment and disinhibition had with short-term mating orientation and long-term mating orientation. Although sex did moderate the association that negative affectivity had with previous sexual behavior, we found no evidence that these mediational processes differed between men and women. Results are discussed in terms of the way personality traits shape the sociosexuality of men and women using a life history paradigm.*

Until the past decade or so, personality psychology was primarily concerned with the “big five” personality dimensions (i.e., emotional stability, extraversion, agreeableness, conscientiousness, and openness). In recent years, the field has begun to examine “darker” aspects of personality in the shape of (1) the HEXACO model of personality (i.e., adds an honesty/humility factor to the big five; Ashton, Lee, de Vries, Hendickse, & Born, 2012), (2) the dark triad traits (i.e., psychopathy, narcissism, and Machiavellianism; Paulhus & Williams, 2002), and (3) a model of pathological personality traits that consists of maladaptive variants of the big five personality dimensions (Krueger, Derringer, Markon, Watson, & Skodol, 2012; Thomas et al., 2013). In this third approach, researchers have identified pathological analogues to the big five traits of emotional stability (i.e., negative affectivity; the tendency to experience an array of negative emotions), extraversion (i.e., detachment; characterized by introversion, social isolation, and anhedonia), agreeableness

(i.e., antagonism; aggressive tendencies accompanied by assertions of dominance and grandiosity), conscientiousness (i.e., disinhibition; impulsivity and sensation seeking), and openness (i.e., psychoticism; a disconnection from reality and a tendency to experience illogical thought patterns). The persistence of these ostensibly pathological traits over time and across cultures suggests the intriguing possibility that they may actually be advantageous in some ways (e.g., facilitate the use of exploitative interpersonal strategies). In this study, we attempted to gain further insight into the correlates and nature of these pathological personality traits by examining their associations with sociosexuality.

### Personality and Sociosexuality

*Sociosexuality* is a term originally used to describe the wide variety of sexual behaviors engaged in by men and women. It has been conceptualized as individual differences in attitudes, behaviors, and desires for casual sex (Penke & Asendorpf, 2008; Simpson & Gangestad, 1991; Webster & Bryan, 2007) or composed of short-term mating interests, long-term mating interests, and previous sexual behavior (Jackson & Kirkpatrick, 2007). In this study, we focused on the latter conceptualization because it does not

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treat short-term and long-term mating as opposing ends of a single continuum, which may obscure some of the sexual relationships in which individuals engage (Jonason & Balzarini, 2016; Jonason, Li, & Cason, 2009a; Jonason, Li, & Richardson, 2010). Research concerning sociosexuality suggests that, across the globe, men have more favorable attitudes toward casual sex than women do (Schmitt, 2005), and sociosexuality is related to ostensibly pathological personality traits, such as psychopathy and narcissism (Jonason, Li, Webster, & Schmitt, 2009b; Schmitt et al., 2017). Furthermore, sociosexuality is correlated with higher levels of extraversion and lower levels of neuroticism across 56 countries (Schmitt, Allik, McCrae, & Benet-Martinez, 2007). Given the connections that sociosexuality has with big five traits (i.e., extraversion and neuroticism) and socially antagonistic traits (e.g., narcissism), there is good reason to believe sociosexuality will be related to pathological personality traits.

### Personality Pathologies and Sociosexuality

The connections between personality pathology and sociosexuality are unclear for several reasons, which we briefly discuss. First, most of this research is composed of a small number of participants who were diagnosed with a personality disorder and compared to a matched nonclinical group (Ogata et al., 1990). Such studies may undermine the trustworthiness and generalizability of their findings, given problems with small samples and the implicit dichotomous thinking involved in these sorts of comparisons. Second, the research often pathologizes the sexual functioning of people with personality disorders (Northey, Dunkley, Klonsky, & Gorzalka, 2016) or examines sexual trauma as a developmental factor in various forms of personality pathology (Westen, Ludolph, Misle, Ruffins, & Block, 1990). Third, most work concerning personality pathology comes from clinical samples using clinical assessment tools (e.g., Penner et al., 2017), which may undermine a broader, nomothetic understanding of these processes. Fourth, when sociosexuality has been assessed in relation to personality pathology, it has often been done with a relatively narrow range of traits, such as psychopathy (Jonason et al., 2009b) or schizotypy (Penner et al., 2017), as opposed to a broader, multi-dimensional assessment of pathological personality traits. Fifth, previous research has often focused on either romantic *or* sexual psychological factors but has generally failed to examine them simultaneously, which might be a fundamental oversight (Buss & Schmitt, 1993, 2016).

### Life History Speed

One way of understanding personality pathologies is that they may be expressions of how people orient toward solving the adaptive goals of mating and survival (Del Giudice, 2009). Time and resources are typically in finite supplies, and people differ in how they choose to address trade-offs in survival and reproduction. The typical trade-offs tend to be (1) somatic

effort versus reproductive effort, (2) parental effort versus mating effort, (3) quality of offspring versus quantity of offspring, and (4) future reproduction versus present reproduction. Life history theory was originally used to account for between-species differences but has been successfully used to account for within-species (personality) differences as well (Kaplan & Gangestad, 2005). Life history speed is a continuum that captures the reproductive strategies that individuals employ to resolve these trade-offs (e.g., Buss, 2009). Individuals who adopt a slow life history strategy are at one end of the continuum because they emphasize long-term benefits (e.g., individuals produce fewer offspring, but they invest more resources in raising them); those individuals who adopt a fast life history strategy are at the other end of the continuum because they emphasize short-term benefits (e.g., individuals focus on producing a relatively large quantity of offspring with little concern given to how to care for them). One manifestation of individual differences in life history speed is that those with faster speeds tend to be more willing to engage in casual sex than those with slower speeds. Men, unsurprisingly, tend to have faster life history speeds (as seen in psychopathy) than women do, and this translates to men being more interested in casual sex (Jonason et al., 2009b; Schmitt et al., 2017). This may mean that sex differences in personality pathologies and sociosexuality might be a function of life history speed. That is, life history speed may be the mechanism through which sex differentiation along these lines occurs.

### Examining Associations Between Personality Pathologies and Sociosexuality

To understand the relationships between pathological personality traits and sociosexuality, we developed several predictions. First, we expected that those characterized by pathological personality traits would report greater interest in short-term relationships and less interest in long-term relationships (e.g., Jonason et al., 2009b) compared to those less characterized by personality pathologies (hypothesis 1). Our rationale for this prediction was that each of the pathological personality traits is believed to be linked with disturbances in interpersonal functioning, which may include difficulties establishing and maintaining intimate relationships (American Psychiatric Association, 2013). However, the reasons for these associations may be different for each pathological personality trait. For instance, those who are detached may be disinterested in romantic relationships and prefer casual ones because of attachment disorders (Del Giudice, 2009; Kirkpatrick, 1998; Schmitt & Jonason, 2015). In contrast, individuals with high levels of antagonism may prefer short-term relationships as part of an exploitative mating pattern (e.g., psychopathy; Jonason, Girgis, & Milne-Home, 2017). Alternatively, disinhibited people may be disinterested in long-term relationships given the potential monotony that may be present in stable relationships (Hugill, Fink, Neave, Besson, & Bunse, 2011; Sylwester & Pawlowski, 2011). Finally, psychoticism may bias people

toward favoring an erratic lifestyle (Markon, Quilty, Bagby, & Krueger, 2013), which may align them with short-term as opposed to long-term mating interests.

Next, we sought to determine if life history speed might mediate the associations between pathological personality traits and sociosexuality. That is, we expected that a fast life history speed would be the mechanism (i.e., a mediator) through which personality pathologies would be linked to interest in short-term mating (hypothesis 2). Prior research already indicates that the faster someone's life history speed, the more psychopathologies they experience (Hurst & Kavanagh, 2017) and the greater interest they have in casual sex (Figueredo et al., 2006; Jonason, Koenig, & Tost, 2010). In both cases, individuals may be making life history trade-offs that bias them toward immediate outcomes—like casual sex—at the cost of more delayed ones. Therefore, we considered the possibility that the associations between pathological personality traits and sociosexuality may be a function of, at least in part, individual differences in life history speed. The rationale for this analysis was that one of the reasons pathological personality traits (e.g., detachment, antagonism, disinhibition) may be associated with sociosexuality stems from the way that people have (implicitly) resolved life history trade-offs.

We also considered the possibility that these mediational associations may be further moderated by the sex of the participants (hypothesis 3). Previous research has consistently revealed sex differences for pathological personality traits, such that men tend to report higher levels of detachment, antagonism, disinhibition, and psychoticism than women, whereas women tend to report higher levels of negative affectivity than men (e.g., Jonason, Zeigler-Hill, & Baldacchino, 2017). Moreover, women tend to report slower life history speeds than do men (Figueredo et al., 2005; Jonason, Li, & Czarna, 2013). Finally, there is considerable evidence to suggest that men are more interested in casual sex than women are, whereas women are more interested in serious relationships than men are (Buss & Schmitt, 1993; Schmitt, 2005). From an evolutionary perspective (Geary, 2010), this array of sex differences makes adaptive sense. Recurrent differences in obligate investment toward offspring (Symons, 1979; Trivers, 1972) and the risks and rewards associated with engaging in antagonistic or mutualistic strategies (Figueredo et al., 2005; Jonason & Lavertu, 2017) will have acted as selection mechanisms on the sexual interests, personality, and life history speeds of both sexes (see Sela & Barbaro, *in press*, for a review). Although we expected to replicate these sex differences, we wish to advance the possibility that pathological personality traits may play a part in facilitating such sex differences in sociosexuality and life history speed. That is, one reason the sexes differ in their life history speed and sociosexual interests may be the result of the heuristical biases related to these pathological personality traits.

## The Current Study

In the current study, we examined an understudied area of sexuality: the sociosexuality of those characterized by personality pathologies. Love and sex are viewed as fundamental human needs, but little research has attempted to understand these needs for those characterized by traits such as psychoticism or antagonism. We hoped to provide a broader understanding of sociosexuality and the role of personality in accounting for variance in it.

Research concerning pathological personality traits tends to be fractured, lacking any strong organizing framework (Del Giudice, 2014) and research examining how personality pathologies are thought to relate to sexual and romantic interests may be biased and limited (i.e., small clinical samples and measures; the pathologizing of sex for those with disorders). In this study, we examined how pathological personality traits are associated with individual differences in sociosexuality, how these associations might be a function of life history speed, and how sex differences in sociosexuality might be driven by individual differences in pathological personality traits.

## Method

### Participants

Participants were 751 undergraduates at a university in the Midwestern region of the United States who were enrolled in psychology courses and participated in return for partial fulfillment of a research participation requirement. Data were excluded for 49 participants who failed to successfully complete two or more of the directed-response items that were included in the instruments to identify inattentive responding (e.g., "Answer this item with 'very true or often true'").<sup>1</sup> The final sample consisted of 702 participants (246 men [35%], 456 women [65%]). The mean age of our participants was 20.38 years ( $SD = 4.00$ , range = 18 to 64). In terms of sexual orientation, most of the participants were heterosexual (95%). In terms of racial/ethnic background, most of the participants were White (76%), followed by Black or African American (11%), Hispanic (3%), Asian (5%), and "other" (5%). Participants were informed about the nature of the study, completed measures if they consented to participate in the study, and were thanked and debriefed at the end of their participation in the study.

<sup>1</sup> The results of additional analyses that included the 49 participants who were excluded due to inattentive responding revealed patterns that were extremely similar to the results that are reported for the final sample of 702 participants. That is, excluding the data for the 49 inattentive participants did not have a substantive impact on the results of the study

## Measures

**Background Questionnaire.** We collected demographic details concerning the sex, age, racial/ethnic background, and sexual orientation of participants via self-report. Participants were asked to select which label best described their sex from the following options: *Female*, *Male*, and *Transgender*. They were asked to report their age in years by typing it into a text box and participants were asked to select the racial/ethnic background that best described them from the following options: *White*, *Black or African American*, *Hispanic*, *Asian*, and *Other*. Participants were asked to select which sexual orientation best described them from the following options: *Heterosexual (i.e., straight)*, *Homosexual (i.e., gay/lesbian)*, *Bisexual*, and *Other*.

**Pathological Personality Traits.** To measure pathological personality traits, we used the brief form of the Personality Inventory for the *DSM-5* (PID-5; Krueger et al., 2012), which is composed of 25 items that assess negative affectivity (five items; e.g., “I worry about almost everything” [Cronbach’s  $\alpha = .76$ ]), detachment (five items; e.g., “I don’t like to get too close to people” [ $\alpha = .73$ ]), antagonism (five items; e.g., “I use people to get what I want” [ $\alpha = .76$ ]), disinhibition (five items; e.g., “People would describe me as reckless” [ $\alpha = .72$ ]), and psychoticism (five items; e.g., “My thoughts often don’t make sense to others” [ $\alpha = .78$ ]). Participants were asked to rate how accurately each of the items described them using scales ranging from 0 (*Very false or often very false*) to 3 (*Very true or often true*). Items were averaged to create scores for each pathological personality trait.<sup>2</sup>

**Life History Speed.** The Mini-*K* (Figueredo, Vásquez, Brumbach, & Schneider, 2007; Figueredo et al., 2005) is a 20-item measure of life history speed (e.g., “While growing up, I had a close and warm relationship with my biological mother”). Participants indicated their level of agreement with each statement using scales ranging from 1 (*Disagree strongly*) to 7 (*Agree strongly*). We averaged these items to create an overall index of life history speed such that larger values indicate a slower life history speed ( $\alpha = .81$ ).

**Sociosexual Orientation.** Individual differences in sociosexuality were measured with a three-dimensional measure of sociosexuality (Jackson & Kirkpatrick, 2007). Participants completed items that assessed short-term mating orientation (10 items; e.g., “I could easily imagine myself enjoying one night of sex with someone I would never see again” [ $\alpha = .78$ ]), long-term mating orientation (seven items; e.g., “I hope to have a romantic relationship that lasts the rest of my life” [ $\alpha = .83$ ]), and previous sexual behavior (three items; e.g., “During your entire life, with how many partners of the opposite sex have you had sexual

intercourse?” [ $\alpha = .79$ ]). Items were standardized (i.e.,  $z$  scored) as they did not use the same response formats, and then averaged to create each index.

## Procedure

Ethics approval was obtained at Oakland University. Participation was offered to undergraduate students who were enrolled in psychology courses through the research participation system maintained by the Department of Psychology. Participants were compensated for their participation by assigning them credits that could be used to partially fulfill the research participation requirements for their courses. Participants completed measures of pathological personality traits, sociosexual orientation, and life history speed (in that order), along with other measures that are not relevant to the present study (e.g., self-esteem), via a secure Web site. Participants were able to complete the online measures at a time and location of their own choosing. The average time that participants took to complete these online measures was 42.57 minutes ( $SD = 15.28$ ).

## Results

In Table 1, we document descriptive statistics and sex differences/similarities.<sup>3</sup> We replicated sex differences in pathological personality traits whereby women (compared to men) reported higher levels of negative affectivity. Men (compared to women) reported higher levels of detachment, antagonism, disinhibition, and psychoticism. We also replicated sex differences in life history speed, with women reporting slower life history speeds than were reported by men (Jonason et al., 2013). Consistent with the results of previous studies, we found that men reported higher levels of short-term mating orientation than did women (Schmitt, 2005); women reported higher levels of long-term mating orientation than did men (Buss & Schmitt, 1993; and no sex difference emerged for previous sexual behavior, which may reflect the fact that sexual behaviors of heterosexuals involve members of both sexes, forcing parity, whereas desires are free to differ between the sexes because desires are self-contained psychological sentiments (Jonason & Fisher, 2009).

In Table 2 we report the correlations between the pathological personality traits, life history speed, and sociosexuality overall, as well as in men and women separately. As expected, each pathological personality trait was associated with a fast life history speed. Among these correlations, we found only two cases where the strength of these associations differed between men and women, suggesting that

<sup>2</sup> The pathological personality traits had significant intercorrelations for both men ( $r_s > .36$ ,  $p_s < .001$ ) and women ( $r_s > .16$ ,  $p_s < .001$ ).

<sup>3</sup> The values for Cohen’s  $d$  were reduced by no more than .03 when we adopted Hedges’s  $g$ , which suggests that the relatively large number of women in the study did not distort the results.

**Table 1.** Overall Descriptive Statistics and Sex Differences Tests

	<i>M (SD)</i>			<i>t</i>	<i>d</i>
	Overall	Men	Women		
Negative affectivity	1.34 (0.69)	1.12 (0.67)	1.46 (0.67)	6.28*	0.51
Detachment	0.79 (0.61)	0.93 (0.63)	0.71 (0.58)	-4.58*	-0.36
Antagonism	0.60 (0.57)	0.82 (0.64)	0.48 (0.49)	-7.86*	-0.60
Disinhibition	0.82 (0.59)	0.98 (0.56)	0.74 (0.59)	-5.19*	-0.41
Psychoticism	1.04 (0.67)	1.18 (0.63)	0.96 (0.69)	-4.04*	-0.33
Slow life history speed	5.13 (0.74)	4.95 (0.68)	5.23 (0.75)	5.00*	0.39
STM orientation	0.00 (0.58)	0.29 (0.63)	-0.16 (0.48)	-10.68*	-0.80
LTM orientation	0.00 (0.83)	-0.23 (0.92)	0.12 (0.75)	5.42*	0.42
Sexual behavior	0.00 (0.80)	0.05 (0.85)	-0.04 (0.76)	-1.40	-0.11

Note. STM = short-term mating; LTM = long-term mating; *d* is Cohen’s *d* for effect size; STM, LTM, and sexual behavior items were standardized and thus, they are near-zero values.

\**p* < .001.

**Table 2.** Correlations Between Pathological Personality Traits, Sociosexuality, and Life History Speed (Mini-K) Overall and As Moderated by Participant’s Sex

	Slow Life History Speed	STM Orientation	LTM Orientation	Sexual Behavior
Negative affectivity				
Overall	-.19**	.13*	-.05	-.02
Men	-.35**	.13*	-.23**	-.10
Women	-.19**	.13*	-.02	.04
<i>z</i>	-2.18*	0.00	-2.69**	-1.77*
Detachment				
Overall	-.35**	.25**	-.37**	.05
Men	-.31**	.18**	-.40**	-.01
Women	-.34**	.23**	-.31**	.08
<i>z</i>	0.42	-0.66	-1.30	-1.13
Antagonism				
Overall	-.32**	.41**	-.37**	.17**
Men	-.29**	.32**	-.37**	.16*
Women	-.28**	.35**	-.31**	.16**
<i>z</i>	-0.14	-0.43	-0.85	0.00
Disinhibition				
Overall	-.35**	.33**	-.29**	.14**
Men	-.41**	.22**	-.32**	.01
Women	-.28**	.33**	-.23**	.19**
<i>z</i>	-1.86*	-1.50	-1.23	-2.29*
Psychoticism				
Overall	-.26**	.23**	-.19**	.00
Men	-.28**	.15*	-.24**	-.07
Women	-.22**	.23**	-.12*	.03
<i>z</i>	-0.81	-1.04	-1.56	-1.26

Note. STM = short-term mating; LTM = long-term mating; *z* is Fisher’s *z* to compare independent correlations.

\**p* < .05; \*\**p* < .01.

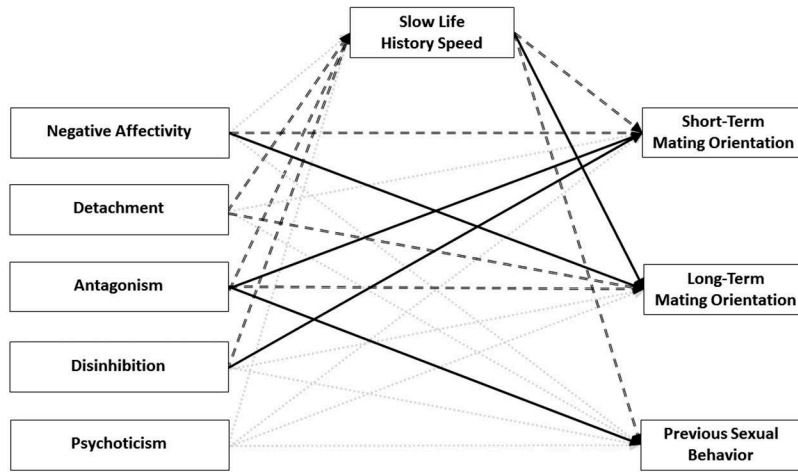
negative affectivity and disinhibition have especially strong negative associations with slow life history speed in men. In contrast, the results with sociosexuality were much more variable. Negative affectivity was positively associated with short-term mating orientation. Antagonism and disinhibition were linked to more short-term mating orientation, less long-term mating orientation, and higher levels of previous

sexual behavior. These associations were the same in men and women, except for disinhibition being more strongly associated with previous sexual behavior in women than in men. Detachment and psychoticism were linked to more short-term mating interest and less long-term mating orientation, with no differences in these associations between men and women.

**Life History Speed As a Mediator?**

Our hypotheses were consistent with an indirect effects model such that the associations that pathological personality traits had with sociosexuality were believed to be a function, at least in part, of life history speed. Direct and indirect effects were examined using model four of the PROCESS macro developed by Hayes (2013), which uses a bootstrap resampling process that was repeated 10,000 times to generate a 95% bias-corrected confidence interval (CI). Indirect effects are considered significant if the CIs do not contain zero i.e., CIs that do not contain zero suggest significant mediation.

The results of these analyses are presented in Figure 1. This approach revealed that detachment (*B* = -0.25, *SE* = 0.05, *t* = -4.84, *p* < .001, 95% CI [-.35, -.15]), antagonism (*B* = -0.12, *SE* = 0.06, *t* = -2.19, *p* = .03, 95% CI [-.24, -.01]), and disinhibition (*B* = -0.26, *SE* = 0.05, *t* = -4.93, *p* < .001, 95% CI [-.37, -.16]) had negative associations with slow life history speed. In turn, slow life history speed was negatively associated with short-term mating orientation (*B* = -0.18, *SE* = 0.03, *t* = -6.43, *p* < .001, 95% CI [-.24, -.13]) and previous sexual behavior (*B* = -0.28, *SE* = 0.04, *t* = -6.47, *p* < .001, 95% CI [-.36, -.19]) but positively associated with long-term mating orientation (*B* = 0.32, *SE* = 0.04, *t* = 8.09, *p* < .001, 95% CI [.24, .40]). Negative affectivity was negatively associated with short-term mating orientation (*B* = -0.12, *SE* = 0.03, *t* = -3.88, *p* < .001, 95% CI [-.19, -.06]) and positively associated with long-term mating orientation (*B* = 0.16, *SE* = 0.04, *t* = 3.59, *p* < .001, 95% CI [.07, .25]).



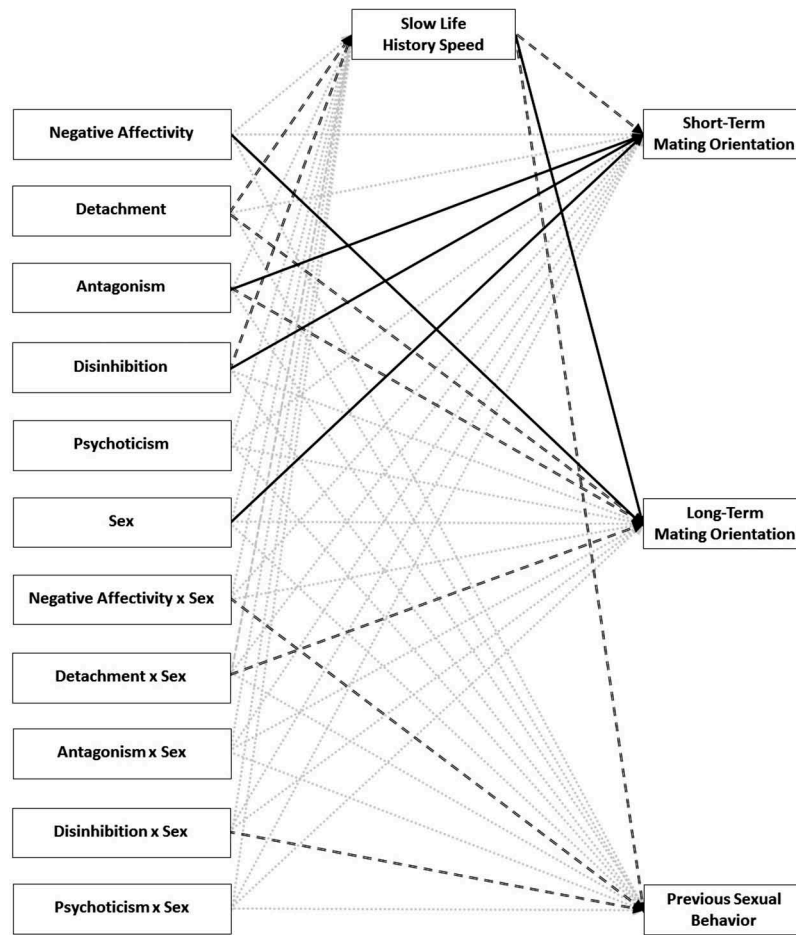
**Figure 1.** The results of the mediation analysis with life history speed mediating the associations that the pathological personality traits had with sociosexuality. The significant positive associations are indicated by solid black arrows. The significant negative associations are indicated by dashed black arrows. The dotted gray lines represent nonsignificant associations.

Detachment was negatively associated with long-term mating orientation ( $B = -0.31, SE = 0.06, t = -5.59, p < .001, 95\% CI [-.42, -.20]$ ). Antagonism was positively associated with short-term mating orientation ( $B = 0.29, SE = 0.04, t = 6.75, p < .001, 95\% CI [.21, .37]$ ) and previous sexual behavior ( $B = 0.21, SE = 0.06, t = 3.27, p = .001, 95\% CI [.08, .34]$ ) but negatively associated with long-term mating orientation ( $B = -0.31, SE = 0.06, t = -5.20, p < .001, 95\% CI [-.43, -.20]$ ). Disinhibition was positively associated with short-term mating orientation ( $B = 0.09, SE = 0.04, t = 2.29, p = .02, 95\% CI [.01, .17]$ ).

Tests of mediation found that detachment and disinhibition had similar indirect associations with short-term mating orientation, long-term mating orientation, and previous sexual behavior through slow life history speed. Detachment had positive indirect associations with short-term mating orientation ( $B = 0.05, SE = 0.01, z = 3.84, p < .001, 95\% CI [.02, .08]$ ) and previous sexual behavior ( $B = 0.07, SE = 0.02, z = 3.85, p < .001, 95\% CI [.04, .12]$ ) through slow life history speed, as well as a negative indirect association with long-term mating orientation ( $B = -0.08, SE = 0.02, z = -4.13, p < .001, 95\% CI [-.13, -.04]$ ) through slow life history speed. Disinhibition had positive indirect associations with short-term mating orientation ( $B = 0.05, SE = 0.01, z = 3.89, p < .001, 95\% CI [.02, .08]$ ) and previous sexual behavior ( $B = 0.07, SE = 0.02, z = 3.89, p < .001, 95\% CI [.04, .12]$ ) through slow life history speed, as well as a negative indirect association with long-term mating orientation ( $B = -0.08, SE = 0.02, z = -4.19, p < .001, 95\% CI [-.14, -.05]$ ) through slow life history speed. Taken together, these results show that slow life history speed provided at least a partial explanation for the connections that detachment and disinhibition had with short-term and long-term mating orientations.

### Life History Speed As a Sex-Specific Mediator?

We employed a moderated mediation analysis using model eight of the PROCESS macro developed by Hayes (2013) to determine whether sex moderated the strength of the indirect (mediation) effects. The results of this analysis are displayed in Figure 2. Sex had a unique association with short-term mating orientation ( $B = 0.38, SE = 0.08, t = 4.56, p < .001, 95\% CI [.21, .54]$ ) such that men reported higher levels of short-term mating orientation than did women. However, sex did not have a unique association with slow life history speed ( $B = -0.15, SE = 0.11, t = -1.33, p = .18, 95\% CI [-.37, .07]$ ), long-term mating orientation ( $B = 0.13, SE = 0.12, t = 1.10, p = .27, 95\% CI [-.10, .37]$ ), or previous sexual behavior ( $B = 0.23, SE = 0.13, t = 1.82, p = .07, 95\% CI [-.02, .48]$ ). Sex did not moderate the associations that any of the pathological personality traits had with life history speed or short-term mating orientation. However, sex did moderate the associations that some of the pathological personality traits had with long-term mating orientation and previous sexual behavior. Sex moderated the association that detachment had with long-term mating orientation ( $B = -0.18, SE = 0.09, t = -2.04, p = .04, 95\% CI [-.37, -.01]$ ) such that detachment was negatively associated with long-term mating orientation for both men ( $B = -0.43, SE = 0.08, t = -5.31, p < .001, 95\% CI [-.58, -.27]$ ) and women ( $B = -0.24, SE = 0.07, t = -3.61, p < .001, 95\% CI [-.37, -.11]$ ), but this association was especially strong for men. Sex also moderated the association that negative affectivity ( $B = -0.26, SE = 0.09, t = -2.86, p = .004, 95\% CI [-.44, -.08]$ ) and disinhibition ( $B = -0.29, SE = 0.11, t = -2.65, p = .008, 95\% CI [-.50, -.07]$ ) had with previous sexual behavior. These interactions revealed that negative affectivity was negatively associated with previous sexual behavior for men ( $B = -0.26, SE = 0.08, t = -3.27, p = .001, 95\% CI [-.42, -.11]$ ) but



**Figure 2.** The results of the moderated mediation analysis with life history speed mediating the associations that the pathological personality traits had with sociosexuality. Sex is included as a moderator of these associations. The significant positive associations are indicated by solid black arrows. The significant negative associations are indicated by dashed black arrows. The dotted gray lines represent nonsignificant associations.

not for women ( $B = 0.00, SE = 0.06, t = -0.07, p = .95, 95\% CI [-.12, .11]$ ), whereas disinhibition was positively associated with previous sexual behavior for women ( $B = 0.15, SE = 0.07, t = 2.19, p = .03, 95\% CI [.02, .29]$ ) but not for men ( $B = -0.13, SE = 0.10, t = -1.38, p = .17, 95\% CI [-.32, .06]$ ). No evidence of moderated mediation emerged from these analyses.

### Discussion

Most would consider desires for sex and love to be core aspects of being human. Therefore, it would stand to reason that even those characterized by pathological personality traits should be interested in such things. However, research concerning the links between pathological personality traits and sociosexual factors has been somewhat limited. In hopes of providing new insights into the associations that personality pathology has with sociosexuality, we examined the possibility that the associations the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (*DSM-5*) pathological personality

traits had with aspects of sociosexuality would be an indirect function of life history speed. We found that detachment and disinhibition had indirect associations with short-term mating orientation, long-term mating orientation, and previous sexual behavior through life history speed. That is, life history speed provides at least a partial explanation for individuals with high levels of detachment and disinhibition showing a preference for short-term relationships (i.e., facilitation), being less interested in long-term relationships (i.e., attenuation), and being more sexually active (i.e., facilitation). We did not find any evidence that sex moderated these indirect associations. However, sex did moderate the direct association that detachment had with long-term mating orientation such that the negative association between detachment and long-term mating orientation was especially strong for men (compared to women). This pattern is consistent with previous results showing that individuals who are less comfortable with interpersonal relationships (e.g., individuals with high levels of avoidant attachment) are reluctant to pursue long-term mating strategies (e.g., Hazan & Shaver, 1987; Jackson & Kirkpatrick, 2007).



Sex also moderated the associations that negative affectivity and disinhibition had with previous sexual behavior. Negative affectivity had a particularly strong negative association with previous sexual behavior for men, which suggests this pathological personality trait may disrupt the mating efforts of men. For example, negative affectivity may interfere with the social competence of men, which is a trait that women find highly desirable when evaluating potential mating partners (Jonason, Li, & Madson, 2012) which may lead to negative affectivity in men being something akin to a relationship “deal breaker” (Jonason, Garcia, Webster, Li, & Fisher, 2015). In contrast, disinhibition was positively associated with previous sexual behavior for women but not for men. The strong connection between disinhibition and sexual behavior is consistent with the results of previous studies (e.g., Kahn, Kaplowitz, Goodman, & Emans, 2002). It is important to note that we did not predict these particular interactions, so it will be important for future studies to replicate these associations. In sum, our results confirmed our predictions and revealed the mating biases that are specific to each pathological personality trait and how they might be a function of life history speed.

We replicated sex differences in pathological personality traits suggesting that men are more detached, antagonistic, disinhibited, and psychotic than women are (Jonason et al., 2017); men are more interested in casual sex than women are (Buss & Schmitt, 1993, 2016; Simpson & Gangestad, 1991); and women report more negative affectivity than men do (Schmitt, Realo, Voracek, & Allik, 2008). We also replicated previous findings suggesting that women tend to report slower life history speeds than men (Figueredo et al., 2006, 2005). We showed that antagonistic and disinhibited men reported a bias toward short-term mating, consistent with work on the dark triad traits of psychopathy, narcissism, and Machiavellianism, which suggests that those characterized by impulsive (Jones & Paulhus, 2011), antagonistic (Jones & Olderbak, 2014), and exploitative (Jonason et al., 2017) personality traits tend to engage in opportunistic mating strategies. This pattern suggests that these ostensibly pathological personality traits may potentially be beneficial to the extent that they encourage and facilitate short-term mating. It may be that men who are equipped with such personality traits are better suited to taking advantage of others (Foster, Shrira, & Campbell, 2006; Jonason et al., 2009b), whereas women characterized by such traits may pay higher reproductive costs (Jonason & Lavertu, 2017). During human evolution, these asymmetries may have acted as selection pressures that contributed to modern sex differences (Trivers, 1972). These traits may facilitate a relatively fast life history speed, but they may come with a variety of interpersonal costs because antagonistic individuals tend to prioritize their own desires over the desires of others in their social environment (Harkness, Reynolds, & Lilienfeld, 2014).

## Limitations and Conclusions

Despite the strengths of the current study (e.g., large sample size, multidimensional assessment of pathological personality traits and sociosexuality), this research had a few potential limitations. The first is that the use of a sample examining pathological personality traits outside of a clinical sample might not enhance our understanding and treatment of those suffering from these traits. Alternatively, researchers might criticize our sample as being too homogenous (i.e., Western, educated, industrialized, rich, and democratic; Henrich, Heine, & Norenzayan, 2010) and thereby limited in generalizability. Our sample consisted predominantly of women, although the standard deviations in each sex hovered around parity for our study variables. Thus, these findings may provide a better representation of the connections between pathological personality traits and sociosexuality for women than it does for men. This limits the generalizability of these findings because it is quite possible, based on theory, that the connections between pathological personality traits and sociosexuality may vary between men and women, but we were underpowered to detect these differences due to the imbalanced sex ratio. To address this, we adopted an effect size measure (see Table 1) that is sensitive to this imbalance. Future research would benefit from examining these connections in samples that have a more equal balance of men and women, as well as greater diversity in other demographic characteristics (e.g., greater breadth in terms of age, racial/ethnic background, educational level, and socioeconomic status).

Another limitation is that while expanding the range of pathological personality traits being considered in the general population, there remain many other aspects of personality pathology to consider in future studies (e.g., depressive personality traits; Beck, Weissman, Lester, & Trexler, 1974). In addition, our sample was almost exclusively heterosexual. It is important for future research to examine whether life history speed would play a similar role in the associations between pathological personality traits and sociosexuality in a sample with greater diversity in terms of sexual orientation and even relationship styles, such as polyamory. A potential statistical limitation is that some have questioned whether mediational analyses should be used with cross-sectional data (Maxwell & Cole, 2007; Maxwell, Cole, & Mitchell, 2011). Despite these concerns, we believe the analyses are useful because they provide information regarding the ways in which men and women differ that may be likely to facilitate different approaches to sexual behavior (Jonason et al., 2009a). The current study provides novel and theoretically derived tests about the connections between pathological personality traits and sociosexuality.

In conclusion, we have expanded what is known about the relationships between pathological personality traits and sociosexuality. In a large sample of community members, we explored the associations between the *DSM-5* pathological personality traits, which are

maladaptive variants of the big five personality traits, and individual differences in short-term mating interests, long-term mating interests, and past sexual behavior. We also tested whether these associations were mediated by the life history speeds reported by individuals. We encourage future studies to replicate and extend the present research by attempting to gain an even clearer and more nuanced understanding of the role that pathological personality traits play in relationship-specific outcomes such as love and sex using more diverse samples.

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