



Detached and antagonistic: Pathological personality features and mate retention behaviors



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ABSTRACT

Basic personality features have been found to be associated with a variety of romantic relationship outcomes including the strategies that individuals employ to retain their romantic partners. In the current studies, we were interested in determining whether pathological personality features were associated with mate retention behaviors. We examined the associations between the pathological personality features captured by the PID-5 and mate retention behaviors across two samples (i.e., an undergraduate sample and a community sample). Pathological personality features reflecting negative affect, detachment, and antagonism were associated with mate retention behaviors such that individuals who possessed these features were less likely to provide benefits to their partner and more likely to inflict costs on them. Discussion focuses on the implications of these findings and how they can influence the tactics that individuals employ to maintain their romantic relationships.

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1. Introduction

Romantic relationships can be a source of pride, happiness, comfort, and security when they are going well. As a result, humans devote a considerable amount of time and energy to forming and maintaining these relationships. One aspect of romantic relationship maintenance that has attracted a great deal of attention in recent years has been *mate retention behaviors* which are the tactics that individuals employ to maintain their relationships by reducing the probability of defection or infidelity by their current romantic partners (Buss, 1988; Buss & Shackelford, 1997). Mate retention behaviors are described by Buss (1988) as a taxonomy of behaviors that range “from vigilance to violence” (p. 291) and are commonly classified using two higher-order dimensions: benefit-provisioning behaviors and cost-inflicting behaviors (Shackelford, Goetz, & Buss, 2005). Benefit-provisioning behaviors involve the use of fairly innocuous acts that function to highlight the positive aspects of the relationship for the partner. These behaviors include showing love and affection toward the partner, buying them expensive gifts, and enhancing one's own appearance. Essentially, benefit-provisioning behaviors provide incentives for the partner to continue investing in the relationship.

In contrast to benefit-provisioning approaches, cost-inflicting behaviors serve to generate costs to the partner if they should decide to leave the relationship or behave unfaithfully. That is, these behaviors increase the probability that one's partner will continue investing in the relationship by making defection appear to be a risky strategy. This prevention is often accomplished by using deceit, manipulation, threats of violence, or actual violence. For example, an individual may attempt to prevent his or her partner from defecting from the relationship by lying about a romantic rival in order to paint that individual in a negative light or making the partner think that he or she may be harmed (e.g., physically, financially, socially) if he or she tries to dissolve the relationship. These behaviors may escalate in their intensity as individuals become more concerned about the possibility of their partner defecting from the relationship or being unfaithful (e.g., Buss, 1988).

Researchers have begun to investigate the implications that these mate retention behaviors have for romantic relationships including marital outcomes (Kaighobadi, Shackelford, & Buss, 2010; Shackelford et al., 2005), partner-directed violence (Kaighobadi, Shackelford, & Goetz, 2009), and sexual behavior within the relationship (e.g., Pham & Shackelford, 2013; Pham et al., in press; Sela, Shackelford, Pham, & Euler, 2015). Researchers have also begun to examine the links between personality features and the use of mate retention behaviors. For example, de Miguel and Buss (2011) found that individuals with

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higher levels of neuroticism reported using more mate retention behaviors, whereas individuals with higher levels of agreeableness used fewer mate retention behaviors. More recently, [Holden, Zeigler-Hill, Pham, and Shackelford \(2014\)](#) found that individuals with high levels of honesty-humility (i.e., the dimension of personality that captures the extent to which individuals are concerned with equality, fairness, and honesty in their interpersonal relationships) reported using fewer mate retention behaviors that involved manipulation or deception.

Although research has established connections between basic personality traits and the use of mate retention behaviors, relatively little is known about the connections between darker aspects of personality and mate retention behaviors. The most frequently studied constellation of dark personality features is the Dark Triad which consists of narcissism, psychopathy, and Machiavellianism ([Paulhus & Williams, 2002](#)). Individuals with high levels of the Dark Triad personality traits tend to be antagonistic, self-concerned, callous, and manipulative. Previous research has shown that individuals with high levels of the Dark Triad traits are more likely to adopt particularly aversive mate retention strategies such as punishing their partners or acting violently toward romantic rivals ([Jonason, Li, & Buss, 2010](#)). For example, [Brewer and Abell \(2015\)](#) found that individuals with high levels of Machiavellianism were more likely than others to engage in cost-inflicting mate retention behaviors. In addition, [Tragesser and Benfield \(2012\)](#) found that borderline personality features – which include efforts to avoid abandonment as well as interpersonal relationships marked with extreme levels of idealization and devaluation – were associated with cost-inflicting mate retention behaviors. It is clear that individuals with high levels of these potentially pathological personality features employ mate retention behaviors that may be harmful to their partners or even fatal in some extreme cases.

The goal for the present studies was to extend what is known about the connections between personality features and mate retention behaviors by examining a broad array of pathological personality traits that were described in Section 3 (“Emerging Measures and Models” in need of further study) of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; [American Psychiatric Association, 2013](#)). This model of pathological personality is concerned with maladaptive variants of the Big Five personality dimensions of extraversion, emotional stability, agreeableness, conscientiousness, and openness ([Thomas et al., 2013](#)) and this model has led to the development of the Personality Inventory for the DSM-5 (PID-5; [Krueger, Derringer, Markon, Watson, & Skodol, 2012](#)). The PID-5 is used to capture the following personality dimensions: detachment (which is characterized by introversion, social isolation, and anhedonia), negative affect (which concerns the tendency to experience an array of negative emotions), antagonism (which refers to aggressive tendencies accompanied by assertions of dominance and grandiosity), disinhibition (which includes impulsivity and sensation seeking), and psychoticism (which involves a disconnection from reality and a tendency toward illogical thought patterns). In addition to these higher-order dimensions of pathological personality, the PID-5 consists of 25 lower-order facets including callousness, deceitfulness, depressivity, hostility, submissiveness, and withdrawal. Research concerning the PID-5 is clearly still in its earliest stages but it has already demonstrated considerable potential (e.g., [Hopwood et al., 2013](#); [Noser et al., 2015](#); [Strickland, Drislane, Lucy, Krueger, & Patrick, 2013](#)).

A number of studies have suggested that individuals scoring high on the PID-5 dimensions may have interpersonal relationships marked by violence and aggression (e.g., [Strickland et al., 2013](#)). For example, individuals with high levels of antagonism may lash out against friends and relatives when their personal

desires do not align with the goals and desires of these other individuals ([Harkness, Reynolds, & Lilienfeld, 2014](#)). This is important because pathological personality features are often accompanied by interpersonal difficulties. Although this area has yet to be fully explored, it seems reasonable to examine the possibility that the pathological personality features captured by the PID-5 may influence the approaches that individuals take in maintaining their romantic relationships. For example, some of these pathological personality features – such as antagonism – may be associated with higher levels of cost-inflicting behaviors. Therefore, we sought to extend previous research concerning both pathological personality features and mate retention behaviors by assessing the relationship between PID-5 personality dimensions and the use of certain mate retention behaviors.

1.1. Overview and predictions

The purpose of the present studies was to examine the connections that pathological personality features had with the two higher-order forms of mate retention behaviors (i.e., benefit-provisioning and cost-inflicting). We expected that negative affect would be positively associated with both benefit-provisioning and cost-inflicting mate retention behaviors. This prediction is consistent with the results of previous studies showing that neuroticism (or emotionality) is linked with these mate retention behaviors ([de Miguel & Buss, 2011](#); [Holden et al., 2014](#)). The rationale for this prediction is that negative affect involves variability in the psychological systems concerned with short-term danger detection ([Harkness et al., 2014](#)). As a result, individuals with high levels of negative affect may be highly concerned about the possibility that their partners will defect or be unfaithful which may motivate them to employ both benefit-provisioning and cost-inflicting mate retention behaviors in an attempt to mitigate these perceived dangers.

We predicted that antagonism, disinhibition, and psychoticism would each have a positive association with cost-inflicting mate retention behaviors which is consistent with previous research showing that agreeableness, conscientiousness, and openness are negatively associated with cost-inflicting mate retention behaviors ([de Miguel & Buss, 2011](#); [Holden et al., 2014](#)). Individuals with high levels of antagonism tend to be manipulative, deceitful, and grandiose ([Krueger et al., 2012](#)) which may lead them to employ mate retention behaviors that involve inflicting costs on their relationship partners. This prediction is consistent with the results of recent studies that have examined the links between mate retention behaviors and personality features that possess antagonistic elements such as low levels of honesty-humility ([Holden et al., 2014](#)) and the Dark Triad (e.g., [Brewer & Abell, 2015](#); [Jonason et al., 2010](#); [Tragesser & Benfield, 2012](#)). Our rationale for expecting that disinhibition may be associated with cost-inflicting mate retention behaviors stems from previous studies showing that features of disinhibition such as impulsivity have been found to be linked to aggression (e.g., [Edwards, Scott, Yarvis, Paizis, & Panizzon, 2003](#); [Plutchik & Van Praag, 1995](#)).

Our final prediction was that detachment would be negatively associated with both forms of mate retention behavior because individuals with high levels of detachment are likely to be withdrawn and to avoid intimacy. Therefore, we reasoned that it was unlikely that individuals with high levels of detachment would invest heavily in their romantic relationships and devote resources toward engaging in either type of mate retention behavior.

We chose to assess the associations between pathological personality features and mate retention behaviors across two studies. We explored these associations using the short form of the PID-5 in an undergraduate sample for Study 1 and the long form of the PID-5 in a community sample for Study 2. Together, these studies

allowed us to examine the associations between pathological personality features and mate retention behaviors in two samples that varied in age as well as the length and level of commitment of their romantic relationships.

2. Study 1

We examined the relationships between pathological personality features and mate retention behaviors in an undergraduate sample in Study 1.

2.1. Material and methods

2.1.1. Participants and procedure

Participants were 208 students (166 women, 42 men) 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. Participation was limited to those individuals who were involved in a heterosexual romantic relationship at the time of their participation in the study. Participants were asked to complete measures of pathological personality features and mate retention behavior – along with other measures that are not relevant to the present study (e.g., self-esteem) – via a secure website. The mean age of participants was 20.80 years ($SD = 4.32$), and the racial/ethnic composition of the sample was 75% White, 10% Black, 6% Hispanic, 4% Asian, and 6% other. The relationship status of the participants was 83% serious dating, 6% cohabiting, 4% engaged, and 7% married with an average relationship length of 32.26 months.

2.1.2. Measures

2.1.2.1. Pathological personality. Pathological personality features were assessed using the Personality Inventory for the DSM-5 – Short Form (PID-5-SF; Krueger et al., 2012). The PID-5-SF is a 25-item instrument consisting of five dimensions: *negative affect* (5 items; e.g., “I worry about almost everything” [$\alpha = .76$]), *detachment* (5 items; e.g., “I’m not interested in making friends” [$\alpha = .73$]), *antagonism* (5 items; e.g., “It’s no big deal if I hurt other people’s feelings” [$\alpha = .74$]), *disinhibition* (5 items; e.g., “People would describe me as reckless” [$\alpha = .72$]), and *psychoticism* (5 items; e.g., “My thoughts often do not make sense to others” [$\alpha = .79$]). Participants were asked to rate how accurately each of the items described them using scales that ranged from 0 (*very false or often false*) to 3 (*very true or often true*).

2.1.2.2. Mate retention. Mate retention behaviors were measured using the Mate Retention Inventory-Short Form (MRI-SF; Buss, Shackelford, & McKibbin, 2008). The MRI-SF is a 38-item instrument that assesses 19 mate retention tactics that can be grouped into five broader mate retention strategies (i.e., positive inducements, public signals of possession, direct guarding, intersexual negative inducements, and intrasexual negative inducements) which, in turn, load onto two higher-order domains: *benefit-provisioning behaviors* (16 items; e.g. “Bought my partner an expensive gift” [$\alpha = .91$]), and *cost-inflicting behaviors* (22 items; “Insisted that my partner spend all their free time with me” [$\alpha = .90$]). Responses to this measure were made on scales ranging from 0 (*never performed this act*) to 3 (*often performed this act*). Previous studies have shown that the MRI-SF possesses adequate psychometric properties and is a valid measure of mate retention behaviors (Buss et al., 2008).

2.2. Results

The means, standard deviations, and intercorrelations for Study 1 are presented in Table 1. The correlation matrix revealed associations between pathological personality features and mate retention strategies. Each of the pathological personality dimensions were positively correlated with cost-inflicting behaviors. Detachment also had a negative association with benefit-provisioning behaviors.

We conducted a path analysis (Hoyle & Smith, 1994) to examine the unique associations that pathological personality traits had with the domains of mate retention. This approach was adopted because path analysis has the ability to account for shared variance between simultaneous outcome variables using fewer inferential tests, which reduces the likelihood of committing a Type 1 error when compared with separate multiple regression analyses (Schumacker & Lomax, 2004). The statistical package AMOS (version 20; Arbuckle, 2010) was used to perform these analyses. The model was just-identified (i.e., the model estimates the parameters in accordance to the number of data points producing a theoretical perfect fit), and therefore all fit indices were held constant and are not reported (Kline, 2011). The model including the standardized path coefficients can be found in Fig. 1. The results of the analysis revealed that detachment had a negative association with benefit-provisioning mate retention behaviors such that individuals with higher levels of detachment are less likely to provide benefits to their partners. In contrast, antagonism had a significant positive association with cost-inflicting mate retention behaviors and negative affect had a marginally significant positive association with these mate retention behaviors. These results suggest that individuals who engage in more antagonistic behaviors or experience a variety of negative emotions may be more likely to inflict costs on their partners and romantic rivals. No other significant associations emerged for benefit-provisioning or cost-inflicting mate retention behaviors.

2.3. Discussion

The results from Study 1 suggest that there are connections between pathological personality features and the strategies that individuals employ in order to retain their partners. More specifically, detachment was linked with less use of benefit-provisioning behaviors, whereas antagonism was associated with more use of cost-inflicting behaviors. These results suggest that pathological personality features seem to play a role in the mate retention behaviors that individuals employ.

Table 1

Study 1: Intercorrelations and descriptive statistics for pathological personality features and mate retention domains.

	1	2	3	4	5	6	7
1. Negative affect	–						
2. Detachment	.35***	–					
3. Antagonism	.22**	.54***	–				
4. Disinhibition	.16*	.42***	.50***	–			
5. Psychoticism	.48***	.50***	.44***	.54***	–		
6. Benefit-provisioning	.05	–.20**	–.04	.04	.00	–	
7. Cost-inflicting	.20***	.20***	.34***	.27***	.20**	.55***	–
<i>M</i>	1.35	0.58	0.46	0.68	0.86	1.80	0.81
<i>SD</i>	0.66	0.50	0.50	0.56	0.65	0.53	0.55

* $p < .05$.

** $p < .01$.

*** $p < .001$.

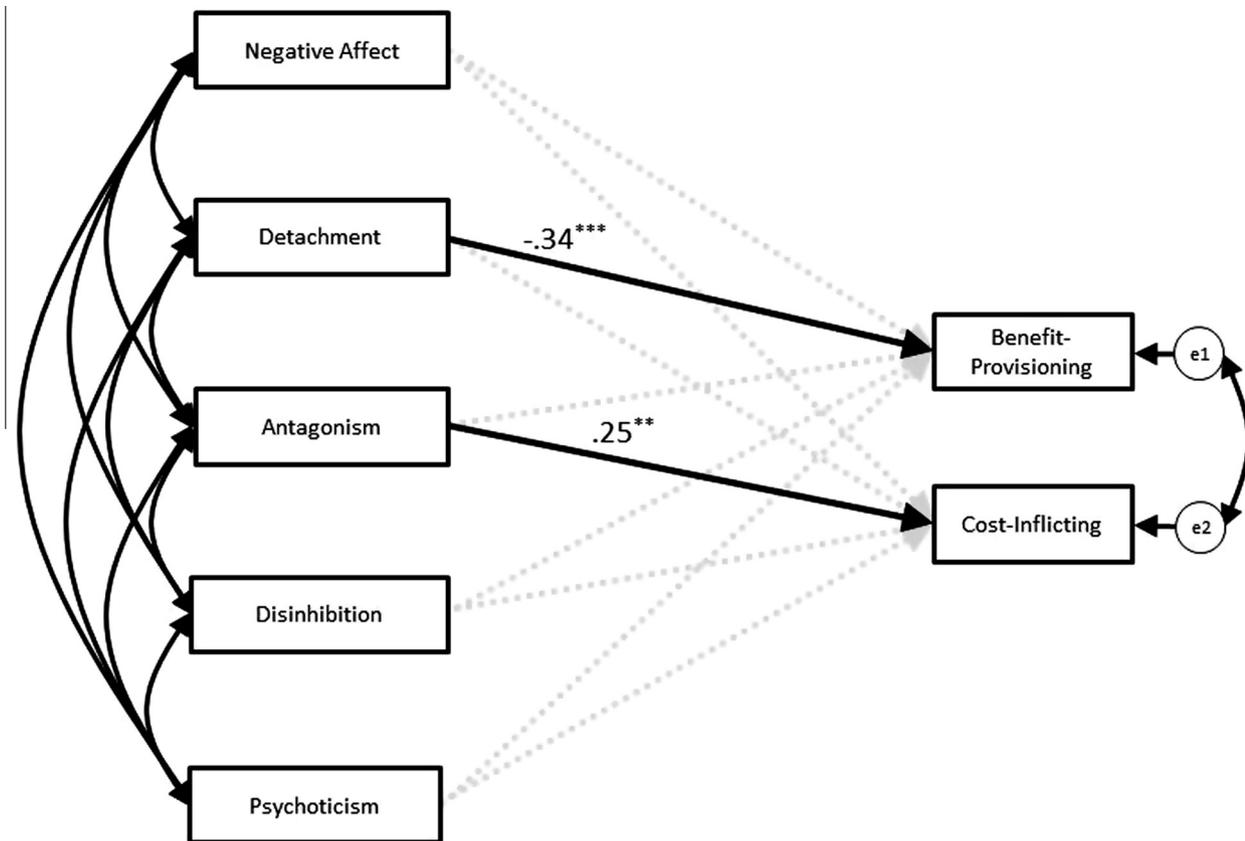


Fig. 1. Study 1: Path model of the associations that pathological personality features had with benefit-provisioning and cost-inflicting mate retention behaviors. *Note:* Rectangles indicate measured variables and circles indicate disturbance terms. The significant direct effects are indicated by a solid black arrow. The significant correlations are included for the relationships between the predictors (i.e., pathological personality features), as well as among the outcome variables (i.e., mate retention behaviors) and are indicated by curved bidirectional arrows. The dashed lines represent nonsignificant associations.

3. Study 2

In Study 2, we sought to replicate and extend the findings of Study 1 by including a more complete set of pathological personality features. We accomplished this by employing the full version of the PID-5 rather than the short form of the instrument that was used in Study 1. The long form of the PID-5 allows for the assessment of 25 pathological personality facets in addition to the five higher-order dimensions from Study 1. The inclusion of these facets may help to elucidate the findings from Study 1. In addition, we used a community sample in Study 2 which would expand the generalizability of the present results by including a slightly older sample of participants who were involved in romantic relationships that tended to be longer and more committed than the relationships reported by the college students in Study 1.

3.1. Method

3.1.1. Participants and procedure

Participants were 149 community members from the United States who were recruited using Mechanical Turk. Participants were paid \$4.00 to complete measures of pathological personality features and mate retention behaviors – as well as other measures that are not relevant to the present study (e.g., self-esteem) – via a secure website. The present study was concerned with mate retention behaviors so we excluded 67 participants who were not in a committed heterosexual romantic relationship at the time of their participation. This resulted in a final sample of 82 participants (42 women, 40 men). The mean age of participants was 36.57 years

($SD = 11.54$) and the racial/ethnic background of the final sample was 76% White, 4% Black, 4% Hispanic, 10% Asian, and 6% other. The relationship status of the final participants was 62% married, 18% seriously dating, 16% cohabiting (living with romantic partner), and 4% engaged, with an average relationship length of roughly 9 years.

3.1.2. Measures

3.1.2.1. Pathological personality. The PID-5 (Krueger et al., 2012) was used to assess pathological personality features. This 220-item instrument captures 25 pathological personality facets that load onto five higher-order dimensions: *negative affect* (anxiousness, emotional lability, separation insecurity [$\alpha = .94$]), *detachment* (withdrawal, anhedonia, intimacy avoidance [$\alpha = .94$]), *antagonism* (manipulativeness, deceitfulness, grandiosity [$\alpha = .93$]), *disinhibition* (irresponsibility, impulsivity, distractibility [$\alpha = .94$]), and *psychoticism* (unusual beliefs and experiences, eccentricity, perceptual dysregulation [$\alpha = .96$]). The internal consistencies of the facet scales were adequate to high in the current sample (Median $\alpha = .89$; range = .77–.96). Responses were made on scales ranging from 0 (*very false or often false*) to 3 (*very true or often true*). Previous research has demonstrated that the PID-5 has adequate psychometric properties (e.g., Krueger et al., 2012; Thomas et al., 2013).

3.1.2.2. Mate retention. As in Study 1, mate retention was assessed using the MRI-SF (Buss et al., 2008). Internal consistencies for benefit-provisioning behaviors and cost-inflicting behaviors were .91 and .93, respectively.

3.2. Results

The means, standard deviations, and intercorrelations for Study 2 are presented in Table 2. The correlations between pathological personality dimensions and mate retention strategies were largely similar to those that were observed in Study 1 except for the fact that disinhibition and psychoticism had negative associations with benefit-provisioning mate retention behaviors in Study 2 and the positive associations that detachment and disinhibition had with cost-inflicting mate retention behaviors in Study 1 were not significant in Study 2. The correlations that the PID-5 facets had with the mate retention behaviors are presented in Table 3. For the correlations involving the PID-5 facets, we focused only on those correlation coefficients of at least a moderate effect size (i.e., .3 or greater) in the interest of parsimony. These results revealed that the following PID-5 facets were negatively associated with benefit-provisioning mate retention behaviors: anhedonia, intimacy avoidance, and withdrawal. Further, the following PID-5 facets were found to be positively associated with cost-inflicting behaviors: attention seeking, callousness, deceitfulness, emotional lability, grandiosity, hostility, irresponsibility, manipulativeness, perceptual dysregulation, separation insecurity, and unusual beliefs.

As in Study 1, path analysis was used to assess the relationship between the two higher-order PID-5 dimensions of pathological personality and the mate retention domains. The model including the standardized path coefficients is presented in Fig. 2. A number of significant associations emerged for benefit-provisioning behaviors. More specifically, positive associations emerged for negative affect and antagonism such that individuals who experience a variety of negative emotions or engage in more antagonistic behaviors may be more likely to provide benefits to their romantic partners. A negative association emerged between detachment and benefit-provisions such that individuals who are more detached were less likely to provide benefits to their partners.

The associations that emerged for cost-inflicting mate retention behaviors were similar to those that emerged for benefit-provisioning mate retention behaviors. Positive associations emerged for negative affect and antagonism such that individuals who experience a variety of negative emotions or engage in more antagonistic behaviors may be more likely to inflict costs on their romantic partners and potential rivals. A negative association emerged between detachment and cost-inflicting mate retention behaviors such that individuals who are more detached were less likely to inflict costs on their partners and potential rivals.

Table 2
Study 2: Intercorrelations and descriptive statistics for pathological personality features and mate retention domains.

	1	2	3	4	5	6	7
1. Negative affect	–						
2. Detachment	.54***	–					
3. Antagonism	.31**	.34**	–				
4. Disinhibition	.67***	.64***	.39***	–			
5. Psychoticism	.66***	.65***	.39***	.69***	–		
6. Benefit-provisioning	–.14	–.48***	.04	–.25*	–.24*	–	
7. Cost-inflicting	.22*	.21	.50***	.17	.31**	.38***	–
<i>M</i>	0.80	0.68	0.77	0.59	0.60	1.62	0.49
<i>SD</i>	0.58	0.48	0.51	0.49	0.51	0.54	0.41

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3

Study 2: correlations between the PID-5 facets and mate retention domains.

	Benefit-provisioning behaviors	Cost-inflicting behaviors
<i>PID-5 facets</i>		
Anhedonia	–.31***	.06
Anxiousness	–.16*	.11
Attention seeking	.19	.37***
Callousness	–.14	.44***
Deceitfulness	.01	.43***
Depressivity	–.26**	.20*
Distractibility	–.19*	.09
Eccentricity	–.20*	.16
Emotional lability	.01	.32***
Grandiosity	.03	.32***
Hostility	–.09	.40***
Impulsivity	.06	.25**
Intimacy avoidance	–.46***	.01
Irresponsibility	–.07	.36***
Manipulativeness	.12	.45***
Perceptual dysregulation	–.15	.30***
Perseveration	–.14	.25**
Restricted affectivity	–.24**	.02
Rigid perfectionism	.12	.29***
Risk taking	.04	.21**
Separation insecurity	.04	.30***
Submissiveness	.06	.04
Suspiciousness	–.26**	.25**
Unusual beliefs	–.09	.40***
Withdrawal	–.42***	.01

* $p < .05$.

** $p < .01$.

*** $p < .001$.

3.3. Discussion

The findings for Study 2 were similar – but certainly not identical – to those of Study 1. Namely, we replicated the findings that detachment had a unique negative association with benefit-provisioning behaviors and that antagonism had a unique positive association with cost-inflicting behaviors. The association between negative affect and cost-inflicting mate retentions behaviors was only marginally significant in Study 1 but it was statistically significant in Study 2. In addition, results emerged in Study 2 that were not present in Study 1. More specifically, negative affect and antagonism had positive associations with benefit-provisioning mate retention behaviors and detachment had a negative association with cost-inflicting mate retention behaviors. Taken together, the results of Study 2 suggest that pathological personality features had similar associations with benefit-provisioning and cost-inflicting mate retention behaviors. That is, individuals with high levels of detachment were less likely to utilize either type of mate retention behavior, whereas individuals with high levels of negative affect and antagonism were likely to use both benefit-provisioning and cost-inflicting mate retention behaviors. This pattern may suggest that individuals with high levels of detachment are relatively unconcerned about the status of their relationships, whereas those individuals with high levels of negative affect and antagonism are willing to use whatever strategies are at their disposal to retain their long-term relationship partners in whom they have invested considerable time and energy.

4. General discussion

The goal of the present studies was to establish the associations that pathological personality features had with mate retention behaviors. Previous work has established the connections that

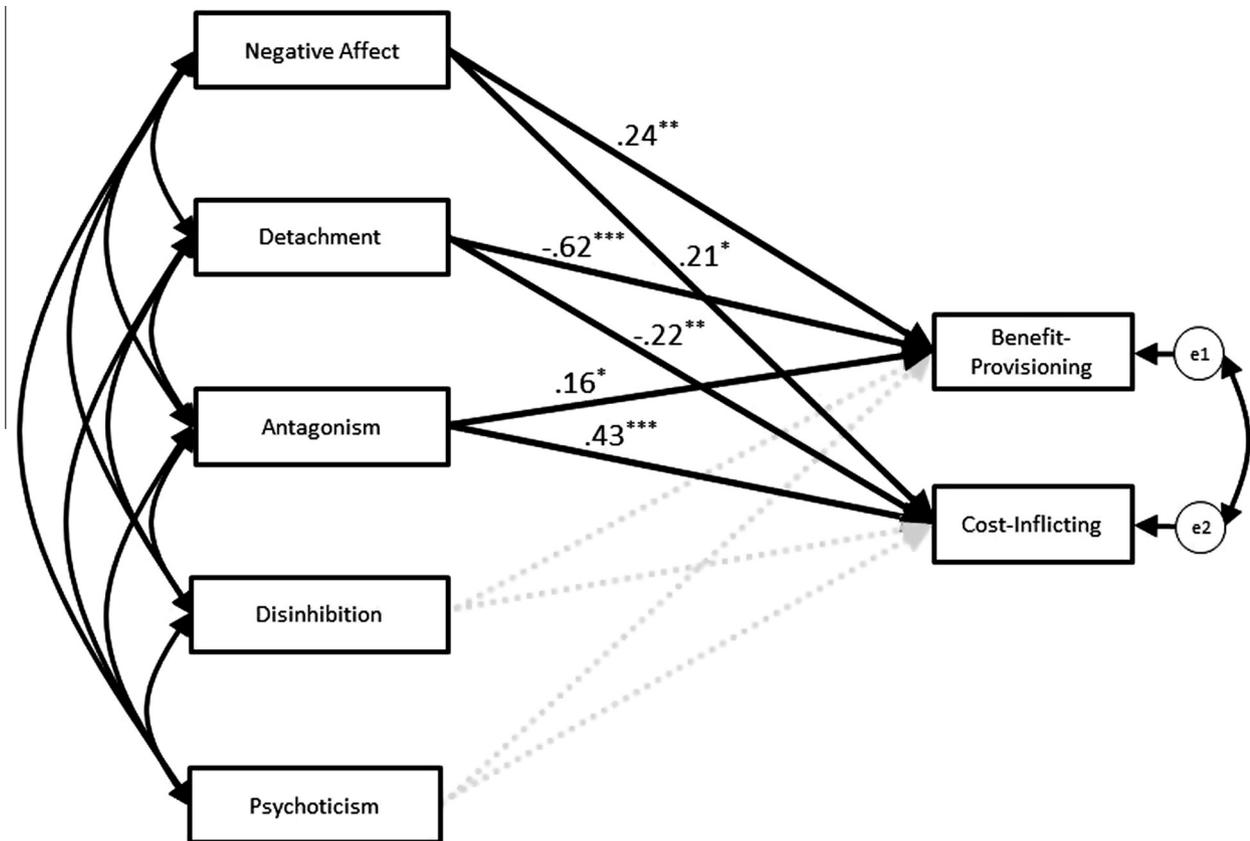


Fig. 2. Study 2: Path model of the associations that pathological personality features had with benefit-provisioning and cost-inflicting mate retention behaviors. *Note:* Rectangles indicate measured variables and circles indicate disturbance terms. The significant direct effects are indicated by a solid black arrow. The significant correlations are included for the relationships between the predictors (i.e., pathological personality features), as well as among the outcome variables (i.e., mate retention behaviors) and are indicated by curved bidirectional arrows. The dashed lines represent nonsignificant associations.

basic personality features have with mate retention behaviors (e.g., de Miguel & Buss, 2011; Holden et al., 2014). For example, individuals with lower levels of honesty-humility have reported using mate retention behaviors that were marked by manipulation, deceit, and exploitation (Holden et al., 2014). Similarly, the Dark Triad personality features have been found to be associated with cost-inflicting mate retention behaviors (Jonason et al., 2010). As a result, it seemed likely that certain pathological personality features – especially those connected with antagonism – would be associated with cost-inflicting mate retention behaviors.

We were particularly interested in the antagonism dimension of the PID-5 because it captures the extent to which individuals report possessing aggressive tendencies and attempt to assert their dominance or grandiosity when dealing with others. The results from the present studies found that individuals with high levels of antagonism were more likely than other individuals to engage in cost-inflicting mate retention behaviors. This suggests that individuals with higher levels of antagonism were more willing to engage in mate retention behaviors that involved manipulating, deceiving, or exploiting their romantic partners (e.g., “Got my partner pregnant so she would stay with me,” “Pretended to be mad so that my partner would feel guilty”). The present results are consistent with the characterization of antagonistic individuals as being cold, callous, and manipulative in their dealings with others (Strickland et al., 2013) and having relatively little concern for avoiding harm to others or treating them fairly (Noser et al., 2015). It is important to note that the present results are consistent with previous studies showing that the Dark Triad personality traits – which are all antagonistic in nature – are associated with

similar mate retention strategies as well as mate poaching behaviors (Jonason et al., 2010). Furthermore, the trait of antagonism is thought to be connected to evolved psychological systems concerning agenda protection (Harkness et al., 2014). More specifically, agenda protection systems are focused on the drives and desires of individuals in conjunction with the drives and desires of others. Unless the desires of the individual and others are aligned, the desires of the individual will take precedence. Thus, these psychological systems help to ensure that the individual remains focused on efforts that are relevant to their own survival and reproduction. However, it has been suggested that these agenda protection systems may malfunction which results in aggressive and antagonistic behavior that may be severe enough in some cases to meet diagnostic criteria for certain types of psychopathology (Harkness et al., 2014). Therefore, these individuals may enact mate retention behaviors that are in line with this malfunctioning system (e.g., mate retention behaviors that involve deception and manipulation) in order to protect and promote their own reproductive efforts.

Detachment was found to be associated with lower levels of benefit-provisioning in Study 1 and lower levels of both benefit-provisioning and cost-inflicting mate retention behaviors in Study 2. This is consistent with the idea that individuals with high levels of detachment may not feel motivated enough to provide benefits to their partners (e.g., buying gifts for their partners, displaying affection toward their partners, providing support to their partners) or inflict costs on their partners or potential rivals (e.g., insisting that their partners spend all their free time with them, forcing their partners to have a higher level of commitment to

the relationship, acting violently toward rivals). That is, these individuals are likely to be withdrawn and may actively avoid intimacy with their partners. Therefore, individuals with high levels of detachment may pursue romantic relationships, but may prefer to keep their partners at a distance and avoid investing in the relationship beyond a relatively superficial level. Furthermore, detached individuals may approach romantic relationships from a different perspective than other individuals. That is, individuals with high levels of detachment may not view their romantic relationships as a mutual source of closeness and support but as a way to meet their own needs and desires (e.g., continued sexual access; Ackerman, Griskevicius, & Li, 2011; Baumeister & Vohs, 2004).

Negative affect was positively associated with both cost-inflicting and benefit-provisioning mate retention behaviors in Study 2. The connections between negative affect and psychological systems concerned with short-term danger detection (e.g., Harkness et al., 2014) may lead these individuals to be highly concerned about the possibility that their partners will defect or be unfaithful and employ a wide range of behaviors – including those that provide benefits as well as those that inflict costs – in an attempt to mitigate these perceived dangers.

It may be important for future research in this area to include attachment styles (e.g. Hazan & Shaver, 1987) because they may play important roles in the connections between pathological personality features and mate retention behaviors. For example, individuals with high levels of detachment are likely to possess an avoidant style of attachment such that they value their independence and are at least somewhat uncomfortable with closeness in relationships. Thus, attachment avoidance may help explain why individuals with high levels of detachment are not motivated to offer benefits to their partners or inflict costs on them. In contrast, individuals with high levels of negative affect may possess an anxious style of attachment such that they are characterized by a fear of abandonment. This concern about abandonment may provide at least a partial explanation for the connections between negative affect and both forms of mate retention behavior (i.e., individuals with high levels of negative affect are desperate to retain their partners).

Although it cannot be determined from the present studies whether these aversive mate retention behaviors would be successful in retaining a partner, it does paint a relatively bleak picture for the relationships of those individuals with high levels of antagonism or detachment. That is, the reliance on cost-inflicting mate retention behaviors along with the relative absence of benefit-provisioning behaviors certainly suggest the possibility that the partners of individuals with these pathological personality features may be less than completely satisfied with their relationships. However, it is important to note that we did not secure relationship evaluations from the partners of the participants nor did we evaluate the long-term outcomes of these relationships so this remains an open empirical question that deserves attention in future studies.

These studies possess a number of strengths (e.g., diverse samples, comprehensive assessment of pathological personality features) but there are limitations that should be noted. The correlational nature of these studies does not allow us to determine the direction of causality between pathological personality features and mate retention behaviors. Although our underlying process model was that pathological personality features would predispose individuals to use certain mate retention behaviors, other possibilities certainly exist. For example, the employment of cost-inflicting mate retention behaviors may shape the development of pathological personality traits. Additionally, we were not able to control for design and sample variations across the two studies reported above. Although we obtained the benefit of

increased generalizability from the use of these two samples, we cannot determine if the effects that emerged are unique to these samples. For example, we believe that some of the differences between Study 1 and Study 2 may be due to the participants in Study 2 being somewhat older and in more established relationships than is the case for participants in Study 1. However, it is difficult to be certain this is the case because we utilized different forms of the PID-5 across these samples, which prevents us from combining the samples.

5. Conclusions

The results from two studies showed that pathological personality features were associated with the types of mate retention behaviors that individuals employed. More specifically, detachment was associated with less use of benefit-provisioning mate retention behaviors, whereas antagonism and negative affect were primarily associated with greater use of cost-inflicting mate retention behaviors. Taken together, these results suggest that the pathological personality features of negative affect, detachment, and antagonism were associated with individuals using more aversive mate retention strategies to preserve and maintain their romantic relationships.

References

- Ackerman, J. M., Griskevicius, V., & Li, N. P. (2011). Let's get serious: Communicating commitment in romantic relationships. *Journal of Personality and Social Psychology, 100*, 1079–1094.
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association.
- Arbuckle, J. L. (2010). Amos (Version 20.0) [Computer software]. Chicago, IL: SPSS.
- Baumeister, R. F., & Vohs, K. D. (2004). Sexual economics: Sex as female resource for social exchange in heterosexual interactions. *Personality and Social Psychology Review, 8*, 339–363.
- Brewer, G., & Abell, L. (2015). Machiavellianism in long-term relationships: Competition, mate retention and sexual coercion. *Scandinavian Journal of Psychology*. Advance online publication.
- Buss, D. M. (1988). From vigilance to violence: Tactics of mate retention in American undergraduates. *Ethology and Sociobiology, 9*, 291–317.
- Buss, D. M., & Shackelford, T. K. (1997). From vigilance to violence: Mate retention tactics in married couples. *Journal of Personality and Social Psychology, 72*, 346–361.
- Buss, D. M., Shackelford, T. K., & McKibbin, W. F. (2008). The mate retention inventory-short form (MRI-SF). *Personality and Individual Differences, 44*, 322–334.
- de Miguel, A., & Buss, D. M. (2011). Mate retention tactics in Spain: Personality, sex differences, and relationship status. *Journal of Personality, 79*, 563–586.
- Edwards, D. W., Scott, C. L., Yarvis, R. M., Paizis, C. L., & Panizzon, M. S. (2003). Impulsiveness, impulsive aggression, personality disorder, and spousal violence. *Violence and Victims, 18*, 3–14.
- Harkness, A. R., Reynolds, S. M., & Lilienfeld, S. O. (2014). A review of systems for psychology and psychiatry: Adaptive systems, personality psychopathology five (PSY-5), and the DSM-5. *Journal of Personality Assessment, 96*, 121–139.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*, 511–524.
- Holden, C. J., Zeigler-Hill, V., Pham, M. N., & Shackelford, T. K. (2014). Personality features and mate retention strategies: Honesty-humility and the willingness to manipulate, deceive, and exploit romantic partners. *Personality and Individual Differences, 57*, 31–36.
- Hopwood, C. J., Wright, A. G. C., Krueger, R. F., Schade, N., Markon, K. E., & Morey, L. C. (2013). DSM-5 pathological personality traits and the Personality Assessment Inventory. *Assessment, 20*, 269–285.
- Hoyle, R. H., & Smith, G. T. (1994). Formulating clinical research hypotheses as structural equation models: A conceptual overview. *Journal of Consulting and Clinical Psychology, 62*, 429–440.
- Jonason, P. K., Li, N. P., & Buss, D. M. (2010). The costs and benefits of the Dark Triad: Implications for mate poaching and mate retention tactics. *Personality and Individual Differences, 48*, 373–378.
- Kaighobadi, F., Shackelford, T. K., & Buss, D. M. (2010). Spousal mate retention in the newlywed year and three years later. *Personality and Individual Differences, 48*, 414–418.
- Kaighobadi, F., Shackelford, T. K., & Goetz, A. T. (2009). From mate retention to murder: Evolutionary psychological perspectives on men's partner-directed violence. *Review of General Psychology, 13*, 327–334.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (5th ed.). New York, NY: Guilford Press.

- Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine*, *42*, 1879–1890.
- Noser, A. E., Zeigler-Hill, V., Vrabel, J. K., Besser, A., Ewing, T. D., & Southard, A. C. (2015). Dark and immoral: The links between pathological personality features and moral values. *Personality and Individual Differences*, *75*, 30–35.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, *36*, 556–563.
- Pham, M. N., Shackelford, T. K., Holden, C. J., Zeigler-Hill, V., Sela, Y., & Jeffery, A. J. (in press). Men's benefit-provisioning mate retention behavior mediates the relationship between agreeableness and their oral sex behaviors. *Archives of Sexual Behavior*.
- Pham, M. N., & Shackelford, T. K. (2013). Oral sex as mate retention behavior. *Personality and Individual Differences*, *55*, 185–188.
- Plutchik, R., & Van Praag, H. M. (1995). The nature of impulsivity: Definitions, ontology, and relations to aggression. In E. Hollander & D. J. Stein (Eds.), *Impulsivity and aggression*. New York, NY: John Wiley & Sons.
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling*. Mahwah, NJ: Psychology Press.
- Sela, Y., Shackelford, T. K., Pham, M. N., & Euler, H. A. (2015). Do women perform fellatio as a mate retention behavior? *Personality and Individual Differences*, *73*, 61–66.
- Shackelford, T. K., Goetz, A. T., & Buss, D. M. (2005). Mate retention in marriage: Further evidence of the reliability of the Mate Retention Inventory. *Personality and Individual Differences*, *39*, 415–425.
- Strickland, C. M., Drislane, L. E., Lucy, M., Krueger, R. F., & Patrick, C. J. (2013). Characterizing psychopathy using DSM-5 personality traits. *Assessment*, *20*, 327–338.
- Thomas, K. M., Yalch, M. M., Krueger, R. F., Wright, A. G., Markon, K. E., & Hopwood, C. J. (2013). The convergent structure of DSM-5 personality trait facets and five-factor model trait domains. *Assessment*, *20*, 308–311.
- Tragesser, S. L., & Benfield, J. (2012). Borderline personality disorder features and mate retention tactics. *Journal of Personality Disorders*, *26*, 334–344.