The Big Five personality dimensions and mate retention behaviors in Iran

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ABSTRACT

Personality dimensions are associated with various romantic relationship outcomes. The current study examined associations among the Big Five personality dimensions and mate retention domains in a community sample in Iran. Participants ($n = 308$) completed a survey that included measures of personality and mate retention behaviors. The results revealed that Conscientiousness and Openness to Experience were negatively associated with Cost-Inflicting mate retention behaviors (e.g., mate concealment, threatening infidelity), and that these associations remained significant when controlling for key demographic variables of sex, age, education, and relationship length. The results highlight the relationship between personality dimensions and mate retention in a non-Western culture. Limitations of the current study are noted and future directions are discussed.

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1. Introduction

A romantic partner's infidelity is a considerable threat to romantic relationships (Amato & Previti, 2003; Hall & Fincham, 2006), and is associated with family stress, violence, depression, and low self-esteem (Tsapelas, Fisher, & Aron, 2010). Maintaining a long-term romantic relationship and preventing a partner's infidelity have been adaptive problems for humans over deep evolutionary time (Buss, 1988; Starratt, Shackelford, Goetz, & McKibbin, 2007). A man whose partner commits infidelity is at risk for cuckoldry—investing resources into genetically unrelated offspring. A woman whose partner commits infidelity is at risk for losing partner-provisioned resources for her and her offspring.

Both men and women, therefore, deploy various mate retention behaviors to thwart partner infidelity or defection from a committed relationship (Barbaro, Pham, & Shackelford, 2015; Buss, 1988; Buss & Shackelford, 1997; Pham, Barbaro, & Shackelford, 2015a). Mate retention behaviors can range from socially acceptable or "positive" behaviors (e.g., bestowing gifts on a partner) to socially aversive or "negative" behaviors (e.g., violence toward rivals). Buss (1988) developed the Mate Retention Inventory (MRI) and documented 19 tactics of mate retention. Mate retention tactics are organized into five broader categories: (1) Direct Guarding, (2) Intersexual Negative Inducements, (3) Intrasexual Negative Inducements, (4) Positive Inducements, and (5) Public Signals of Possession. These mate retention categories have been organized into two higher-order domains of mate retention (Atari, Barbaro,

Shackelford, & Chegeni, 2016; Lopes, Shackelford, Santos, Farias, & Segundo, 2016; Miner, Starratt, & Shackelford, 2009): (1) Cost-Inflicting—behaviors that reduce the likelihood of partner infidelity by inflicting costs on a partner—and (2) Benefit-Provisioning—behaviors that reduce the likelihood of partner infidelity by increasing relationship satisfaction.

Mate retention behaviors are deployed in accordance with the degree to which an individual perceives a risk of partner infidelity (Buss & Shackelford, 1997). Individual differences in personality (and other individual difference traits) can influence how individuals perceive infidelity cues (e.g., Barbaro, Pham, Shackelford, & Zeigler-Hill, in press), and can influence the type of tactics one employs to thwart infidelity (e.g., Pham et al., 2015b). Evolutionary perspectives suggest that personality dimensions evolved in response to social adaptive problems recurrently faced by humans over evolutionary history (Michalski & Shackelford, 2010). In accordance with this perspective, research has examined how performance frequencies of mate retention behaviors are associated with personality dimensions.

The "Big Five" personality dimensions (McCrae & John, 1992) are comprised of Extraversion (characterized by high sociability; also referred to as "Surgency"), Agreeableness (characterized by cooperativeness), Conscientiousness (characterized by long-term goal pursuit), Neuroticism (characterized by high sensitivity to social threats; also referred to as "Emotional Stability"), and Openness to Experience (characterized by novelty-seeking) (McCrae & John, 1992). Several studies (de Miguel & Buss, 2011; Holden, Zeigler-Hill, Pham, & Shackelford, 2014; McKibbin, Miner, Shackelford, Ehrke, & Weekes-Shackelford, 2014; Pham et al., 2015b; Sela, Shackelford, Pham, & Zeigler-Hill, 2015) have investigated the associations between the Big Five personality

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dimensions (see Table 1 for summary of findings across studies). Conscientiousness and Openness to Experience, for example, show mixed associations (i.e., positive, negative, or null associations) with Benefit-Provisioning and Cost-Inflicting mate retention. Agreeableness, however, is consistently negatively associated with Cost-Inflicting mate retention. Extroversion and Neuroticism have been shown to be positively associated with Benefit-Provisioning and Cost-Inflicting mate retention (e.g., de Miguel & Buss, 2011), although some studies report null associations (e.g., Holden et al., 2014). Results across these studies, overall, are somewhat inconsistent.

One limitation of the previous research is that studies on mate retention are largely conducted in Western, Educated, Industrialized, Rich, and Democratic (WEIRD) samples (cf., Atari et al., 2016; Lopes et al., 2016). The associations between personality dimensions and mate retention behaviors, specifically, have been investigated in only one sample outside of the United States (Spain; de Miguel & Buss, 2011). Previous research has not investigated the associations between the Big Five personality dimensions and mate retention behaviors in non-WEIRD samples, however. Given the relative inconsistency of results in the extant literature, additional analyses of the association between personality dimensions and mate retention behavior in different cultures may elucidate important patterns.

The current study seeks to expand the literature regarding associations between personality dimensions and mate retention behaviors outside the US by securing data from individuals in Iran—an understudied, non-Western culture. Iran, in particular, has undergone considerable cultural changes in the preceding decades (e.g., socioeconomic status, educational attainment; marriage rules; Alnasrawi, 1986; Shams, 2016), affording a unique opportunity to examine various aspects of mating psychology (Atari & Jamali, 2016). Findings of the current study can add to our understanding of cross-cultural similarities and differences concerning associations between personality and romantic relationship behaviors. Because previous research examining the associations between personality dimensions and performance frequencies of mate retention domains shows mixed results (see Table 1), and research has not examined the associations between personality dimensions and mate retention in Iran, a priori hypotheses were not made. The current research is an exploratory investigation of the associations between personality dimensions and mate retention domains in Iran. Key demographic variables (i.e., age, sex, education, and relationship length) are also included as covariates in the current study.

Table 1
Comparison of bivariate correlations between mate retention domains and personality dimensions.

Study	MR Domain	Big Five personality dimensions				
		A	C	E	N	O
de Miguel and Buss (2011)	BP	−	+	+	+	ns
	CI	−	+	+	+	ns
Holden et al. (2014)	BP	ns	ns	ns	ns	−
	CI	−	−	ns	+	−
McKibbin et al. (2014)	BP	+	ns	ns	ns	+
	CI	−	ns	ns	+	ns
Pham et al. (2015b)	BP	+	ns	+	ns	+
	CI					
Sela et al. (2015)	BP	ns	+	ns	+	+
	CI	−	ns	ns	+	ns

Note. MR = Mate Retention; BP = Benefit-Provisioning; CI = Cost-Inflicting; A = Agreeableness; C = Conscientiousness; E = Extroversion; N = Neuroticism; O = Openness. "+" and "-" indicate direction of bivariate correlation reported at $p < 0.05$ ($p > 0.05$ indicated by "ns"). Cost-Inflicting mate retention was not examined in Pham et al. (2015b).

2. Methods

2.1. Participants and procedure

We recruited 308 heterosexual participants (53.6% female) from university settings and public places in Tehran, Iran. To be eligible, participants must have been (1) in a heterosexual, committed romantic relationship, and (2) at least 18 years of age. All participants were in a long-term romantic relationship; 73.4% of participants were married. The mean relationship length was 63.5 months ($SD = 73.8$). Participants ranged in age from 18 to 57 years ($M = 29.5$, $SD = 6.8$). Regarding educational qualification, five participants had some school education, 27 had a high school diploma, 22 had an associate's degree, 84 had a bachelor's degree, 123 had a master's degree, and 43 had a doctorate degree (four participants did not provide information regarding their education). Potential participants were approached and asked to participate in a study about romantic relationships. Participants completed paper-and-pencil measures of personality dimensions and mate retention behaviors along with other measures unrelated to the current study. Participation was voluntary and participants were not compensated.

2.2. Measures

2.2.1. Mate retention inventory-short form (MRI-SF)

The MRI-SF (Buss, Shackelford, & McKibbin, 2008) consists of 38 items measuring 19 mate retention tactics. Participants reported on a 4-point Likert-type scale ranging from 0 (*never*) to 3 (*often*) how often they performed each behavior within the past year. Atari et al. (2016) reported satisfactory psychometric properties of the Persian translation of the MRI-SF in Iran. The Persian translation of the MRI-SF demonstrates a two-component structure, consistent with Miner et al. (2009) and Lopes et al. (2016). Composite scores of Benefit-Provisioning ($\alpha = 0.84$) and Cost-Inflicting ($\alpha = 0.78$) components were calculated by averaging the appropriate items.

2.2.2. Ten-item personality inventory (TIPI)

The Persian Ten-Item Personality Inventory (TIPI) was used to assess the Big Five personality dimensions (Atari, 2015; see also Gosling, Rentfrow, & Swann, 2003). The Persian TIPI demonstrates adequate convergent validity and test-retest reliability (Atari, 2015). Participants responded to statements on a 7-point Likert scale ranging from 1 (*disagree strongly*) to 7 (*agree strongly*). Five items of the TIPI were reversed scored, and then composite scores for each personality feature was calculated by averaging participant responses to the appropriate items (Extraversion [$\alpha = 0.51$], Agreeableness [$\alpha = 0.19$], Conscientiousness [$\alpha = 0.30$], Emotional Stability [$\alpha = 0.34$], Openness to Experience [$\alpha = 0.13$]). Generally, estimates of the internal consistency of the TIPI are low (Gosling et al., 2003; Jonason, Teicher, & Schmitt, 2011).

2.2.3. Demographics

Participants reported on a number of demographic variables including age, sex, education, and relationship length. This information was collected, in particular, because each of these items has been shown to be associated with mate retention behaviors (see Buss, 1988; Buss & Shackelford, 1997; Pazhoohi, Jahromi, & Doyle, 2016).

2.3. Data analysis

Bivariate correlation analyses were conducted to investigate the associations between, demographic variables, personality dimensions, and mate retention domains. To investigate the unique predictive utility of personality dimensions, we conducted two independent hierarchical regression analyses. The variables sex, age, education, and relationship length were entered in the first step, with the five personality dimensions entered in the second step. Benefit-Provisioning and Cost-