RESEARCH ARTICLE



Adult Attachment and Long-term Mate Preferences in Iran

Reza Afhami ¹ • Parisa Rafiee ²

Received: 27 June 2019 / Revised: 19 October 2019 / Accepted: 22 October 2019 / Published online: 25 November 2019 © Springer Nature Switzerland AG 2019

Abstract

Attachment research has investigated the ways in which individual differences in attachment influence relationship outcomes. Research on individual differences in attachment and mating preferences is lacking in non-Western cultures. The current study examined the relationships between attachment dimensions and long-term mate preferences in Iran. A sample of adults (N = 255; 54% women) completed measures of attachment and long-term mate preferences. Anxious attachment was positively correlated with women's preferences for Education/Intelligence and Religiosity/Chastity, and positively associated with men's preferences for Kindness/Dependability, Status/Resources, and Religiosity/Chastity in choosing a long-term mate. Avoidant attachment style was not related to long-term mate preferences in either sexes. Findings are discussed in the light of evolutionary perspectives on attachment and human mate preferences. Limitations and future directions are discussed.

Keywords Attachment · Mate preferences · Romantic relationships · Evolutionary psychology · Iran

In humans' evolutionary past, young children's survival was strongly contingent upon protection by a stronger or smarter figure. Selection pressures produced an innate system in order to ensure sufficient protection from predators or environmental incidents. This behavioral system is called *attachment system* and motivates vulnerable individuals (e.g., infants and young children) to seek emotional or physical proximity to their stronger and/or smarter caregivers, particularly when they experience some sort of distress (Bowlby 1969, 1973, 1980). Attachment behavioral system substantially increased the chances of surviving to reproductive age, which allowed the genes that coded for the attachment behavioral system to be passed on to offspring from one generation to the next (Simpson and Rholes 2015).

The main purpose of the mentioned behavioral system is to maximize the chances of surviving distressful situations, especially those in childhood. The attachment behavioral system was produced by natural selection forces to activate when an individual experiences distress (Bowlby 1969). This mechanism is crucial for promoting survival by maintaining physical

Reza Afhami afhami@modares.ac.ir

or emotional proximity between stronger and/or smarter caregiving figures and the individual in distress (e.g., fear, anxiety, or physical injuries). This proximity reduces the distress, allowing the individual to engage in other important tasks. As long as the distress is present, the attachment system remains "activated" to provide security; however, it is "turned off" when security is assured or the distress is significantly reduced (Simpson and Rholes 2017).

Bowlby (1969) was primarily focused on the nature of infant-caregiver relationship; however, he believed that attachment characterizes human experiences from "cradle to the grave." In pursuing these ideas in adulthood, Hazan and Shaver (1987) noted the similarities between infant-caregiver bonds and sexual pair bonds and suggested similar ways that adults attach to their romantic partners, indicating that individual differences in security show inner working models, or expectations based on attachment-related experiences and relational beliefs (Hazan and Shaver 1987). Humans gradually gain a mental record of their previous experiences at obtaining adequate proximity and comfort from their attachment figures, usually beginning with their parents and continuing with friends and romantic partners. Such mental records have two components. The first component is a model of significant others such as parents, friends, and romantic partners. The second component encompasses a model of the self, including self-worth, one's ability to successfully gain proximity, and one's worth as a romantic relationship partner (Collins 1996). These models can change over time in response to



Department of Art Studies, Faculty of Art & Architecture, Tarbiat Modares University, Tehran, Iran

Department of Psychology, Faculty of Art and Humanities, Tarbiat Modares University, Chamran Highway, Tehran, Iran

significant experiences or some events that strongly contradict those mental representations (Bowlby 1973).

Besides secure attachment (i.e., maintaining a positive selfregard or worthiness/lovability that does not require external validation), two broad dimensions underlie adult attachment in romantic relationship contexts (Fraley et al. 2000; Griffin and Bartholomew 1994; Hazan and Shaver 1987). The first dimension, avoidance, is defined as the degree to which individuals feel comfort with closeness and emotional intimacy in romantic relationships. Individuals who are highly avoidant have negative representations regarding romantic partners and romantic relationships, more generally. Highly avoidant people seek control, independence, and autonomy in romantic relationships as they constantly believe that gaining proximity to a romantic partner is either impossible or unpleasant (Mikulincer 1998). The second dimension, anxiety, is defined as the degree to which individuals worry about being abandoned or neglected by a romantic partner. Individuals who are highly anxious have negative views about themselves and do everything to maintain their romantic relationships, as a security-seeking behavior (Barbaro et al. 2016; Barbaro et al. 2019; Collins 1996). Since anxiously attached individuals are not sure if their partner remains fully committed, their mental representations amplify distress, making them even less secure. Expectedly, secure attachment is usually negatively associated with avoidance and anxiety. In other words, those who score low on anxious and avoidant attachment are considered to be securely attached.

Evolutionary theories on attachment posit that healthy and responsive parent-child relationships are conducive to intimacy in romantic relationships for reproductive fitness reasons as mentioned, but do not regard attachment insecurity (i.e., avoidance and anxiety) as maladaptive. Different attachment patterns lead individuals to different mating contexts and reproductive strategies. Belsky et al. (1991) maintained that early experiences with parents serve to translate information about environmental factors such as availability and predictability of resources. As people with different types of attachment styles harbor different mental models, they should get involved in different kinds of romantic relationships (Bowlby 1973, 1980). People who exhibit a secure style should gravitate toward and develop stable, supportive relationships in which relatively high levels of trust, interdependence, commitment, and satisfaction are evident, whereas those who display an avoidant style should develop emotionally distant relationships defined by lower levels of trust, interdependence, commitment, and satisfaction (Simpson 1990). People who manifest an anxious style ought to exhibit considerable ambivalence toward their romantic partners and employ a wide range of strategies to keep their partner in the relationship (Barbaro et al. 2019). Secure individuals are generally less likely to get divorced or separated from their romantic partners (Kirkpatrick and Hazan 1994), have greater levels of satisfaction (Afshari et al. 2015; Hadden et al. 2014; Mohammadi et al. 2016), and are less likely to engage short-term mating (Brennan & Shaver 2016; Schmitt 2005). With regard to mate retention behaviors—tactics that an individual performs to reduce the risk of infidelity and relationship dissolution (Buss 1988)—anxiously attached individuals perform more mate retention behaviors (e.g., love and care) while avoidantly attached individuals perform less frequent mate retention behaviors (Barbaro et al. 2019).

Logically, different types of attachment can lead to different patterns of long-term mate selection preferences. Consistent with the "attachment security hypothesis," some studies have found that securely attached individuals are preferred across all attachment styles, followed by anxious and avoidant mates (Latty-Mann and Davis 1996). However, other studies have shown that individuals prefer similarly attached partners (Frazier et al. 1996), presumably because such partners fit their mental models of close relationships. In addition, this finding is also consistent with the self-verification theory, suggesting that people prefer partners who verify their selfbeliefs (Swann Jr et al. 1992). It is, however, less clear what the relationship between attachment styles and preferred traits in long-term mates are. For example, secure individuals, based on their internal sense of self-worth, might seek individuals who are independent, kind, hard-working, and sociable. On the other hand, anxiously attached individuals might prefer sexual partners who are less likely to leave them, or to commit any extra-pair tie (typically conscientious and empathetic partners). Avoidantly attached individuals might also be particularly attracted to potential partners who are less affectionate, talkative, or sociable. Although adult attachment has been associated with long-term (vs. short-term) mating orientation (e.g., Schmitt 2005), it has not been linked to multidimensional models of long-term mate preferences, especially in non-Western and/or Muslim-majority nations where short-term mating has social costs such as being identified as promiscuous or immoral (Atari et al. in press; Chaudhary et al. 2018).

According to Atari (2017) mating preferences have been an important cornerstone of evolutionary psychological research. Research suggests that even though there are significant costs to having a long-term mate for both males and females, this kind of committed relationship has its benefits for both sexes and is the main mode of human mating across cultures (Conroy-Beam et al. 2015). There is evidence that securely attached individuals prefer long-term romantic relationships over short mateships such as one-night stands (Brennan & Shaver 2016); however, long-term mate preferences are dimensional in nature (Atari and Jamali 2016a; Shackelford et al. 2005). Atari 2017; Atari and Jamali 2016a) proposed a five-factor model for assessment of mate preferences in Iran. According to this model, Iranian mate preferences were categorized under five superordinate dimensions: Kindness/ Dependability, Attractiveness/Sexuality, Status/Resources,



Education/Intelligence, and Religiosity/Chastity (KASER). These aspects of mate preferences have been linked to a wide range of individual differences such as basic personality dimensions (Atari et al. in press), socially aversive personality traits (Atari and Chegeni 2017), and socio-economic status (Atari and Jamali 2016b).

This model of mate preferences has performed substantially better than its Western counterparts, particularly in non-Western, Muslim-majority countries such as Iran, Pakistan, and Turkey (Atari et al. in press). This multidimensional model has also reproduced the well-established sex differences in long-term mate preferences, such as preference for attractiveness (men higher) and status (women higher) (Buss 1989). Here, we examine the associations between attachment dimensions (i.e., avoidance and anxiety) and KASER dimensions of mate preferences in Iran. Following the evolutionary psychological research on attachment and human mating, we expected that attachment styles would be related to particular dimensions of long-term mate preferences; however, we did not have any directional hypotheses. Considering sex differences identified in the KASER model (Atari 2017; also see Buss 1989) and adult attachment (Del Giudice 2011, 2016), we examined the moderating role of biological sex in the relationship between adult attachment and long-term mate preferences on an exploratory basis.

Methods

Participants

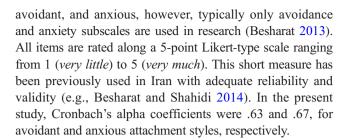
The present sample consisted of 255 individuals recruited from university settings in Tehran, Iran. A convenience sampling method was followed. Overall, 138 participants (54%) were female. The mean age of women and men were 24.3 (SD = 5.1) and 25.3 (SD = 7.8) years, respectively. All participants identified themselves as Iranian and Muslim.

Procedure

Potential participants were approached by a researcher in university settings Tehran, Iran. Inclusion criteria consisted of being at least 18 years of age. Consenting participants were given a paper-and-pencil version of the measures on attachment, mate preferences, demographic details, and other measures unrelated to this study. Participants were not compensated.

Measures

Adult Attachment The Adult Attachment Inventory (AAI; Besharat 2011) was used in this study. The AAI is a 15-item self-report inventory with three 5-item subscales: secure,



Mate Preferences We used Atari's (2017) 20-item measure which has five dimensions: Kindness/Dependability, Attractiveness/Sexuality, Status/Resources, Education/Intelligence, and Religiosity/Chastity (KASER). All items are characteristics in choosing potential mates and are rated along a 4-point Likert-type scale ranging from 1 (*unimportant*) and 4 (*very important*). This measure has been used in Iranian context in previous work (e.g., Atari et al. 2016). In the present sample, internal consistency coefficients (Cronbach's α) were .79, .77, .78, .70, and .71, for Kindness/Dependability, Attractiveness/Sexuality, Status/Resources, Education/Intelligence, and Religiosity/Chastity, respectively.

Results

Bivariate Analyses

We calculated bivariate correlations between attachment dimensions and dimensions of long-term mate preferences for men and women, separately. All correlation coefficients are presented in Table 1. Among women (n=138), anxious attachment was associated with the preference for Education/ Intelligence (r=.18, p=.04) and Religiosity/Chastity (r=.22, p=.01). Among men (n=117), anxious attachment was also found to be significantly positively correlated with the preference for Kindness/Dependability (r=.20, p=.03),

 Table 1
 Associations between attachment dimensions and mate

 preferences in men and women

	K	A	S	Е	R	Avoidance	Anxiety
K	1	.01	.19*	.24**	.35**	06	02
A	.20*	1	.51**	.26**	.02	.04	.13
S	.15	.22*	1	.23**	.16	.05	.03
E	.22*	.23*	.63**	1	.28**	.00	.18*
R	.40**	.15	.42**	.32**	1	.02	.22*
Avoidance	03	.04	01	03	08	1	.31**
Anxiety	.20*	.10	.19*	05	.21*	.20*	1

p < .05 **p < .01

K, Kindness/Dependability; A, Attractiveness/Sexuality; S, Status/Resources; E, Education/Intelligence; R, Religiosity/Chastity. Figures below the diagonal represent men and figures above the diagonal represent women



Attractiveness/Sexuality (r = .19, p = .04), Status/Resources (r = .21, p = .02), and Religiosity/Chastity (r = .18, p < .05). Higher scores on avoidant attachment were not significantly correlated with any dimension of mate preferences.

Moderated Regression Analyses

We ran five distinct moderated regression models for KASER dimensions with avoidant attachment, anxious attachment, sex, and two-way interactions terms between attachment dimensions and sex as independent variables. The results of all moderated regressions are summarized in Table 2. We found that women placed more emphasis on Kindness, Status, and Education in their preferences, while men preferred more attractive mates than did women. Consistent with our zero-order correlations, avoidant attachment was not predictive of any dimension of mate preferences. Anxious attachment predicted preference for Kindness (B = .08, t = 2.38, p = .02), Status (B = .23, t = 2.65, p = .009), and Religiosity (B = .24, t = 2.60, p = .009) .01), while controlling for sex and avoidance. We found no evidence that sex moderated the relationship between attachment dimensions and mate preferences. These five models respectively explained 4%, 6%, 24%, 4%, and 5% of the variance in KASER dimensions of mate preferences.

Discussion

The current study was designed to investigate the relationships between adult attachment dimensions (avoidant and anxious) and long-term mate preferences in Iran as an understudied culture on an exploratory basis. This research aimed to expand our understanding of how insecure attachment styles in adult-hood are correlated with different preferences in choosing a long-term partner among men and women. These data add to the broad evolutionary literature on human mating in non-Western cultures (see Atari et al. 2017; Pazhoohi and Burriss 2016; Pollet and Saxton 2019; Rad et al. 2018).

In women, anxious attachment was found to be positively associated with women's preference for Education/ Intelligence and Religiosity/Chastity in choosing a mate. Those who are anxiously attached might be uncertain if others can be trusted or relied on. People who score higher on anxiety dimension tend to be hyper-vigilant to signs of distress or separation from partners and perceive higher risk of infidelity (Barbaro et al. 2019). In addition, high levels of anxious attachment are related to stronger motivation to take revenge against one's partner in the case of extradyadic transgressions (Beltrán-Morillas et al. 2019). Religious men, on the other hand, spend more time with their family and spouse and are less likely to redirect their resources to extra-pair mateships (Karimi-Malekabadi and Esmaeilinasab 2019) because they find cheating to be against their beliefs (Apostolou and Panayiotou 2019). Educated and intelligent men are less likely to cause distress in romantic relationships as they cope with problems using more effective strategies (e.g., Zysberg et al. 2019). In men, anxious attachment was positively associated with men's preferences for Kindness/Dependability, Status/ Resources, and Religiosity/Chastity. Taken together, it might be the case that anxiously attached individuals set higher standards in mate selection preferences, at least in Iranian culture. This is in line with perfectionistic concerns of anxiously attached individuals (Chen et al. 2015). Anxiously attached men appear to prefer women with higher mate value (e.g., kind, attractive, good financial prospect, chaste, and domestic) and provide more benefits in long-term mateships (Barbaro et al. 2019). It may also be the case that, because of higher perceived risk of infidelity, anxiously attached individuals seek "nice" mates with higher family values and stronger long-term mating orientation in order to reduce (both objectively and subjectively) the risk of being cheated on (see Atari and Chegeni 2017).

Avoidantly attached individuals tend to be more independent and self-reliant in a romantic relationship (Birnbaum and Reis 2019). Previous research suggests that individuals with an avoidant attachment style distance themselves to cope with

 Table 2
 Results of moderated regression analyses

Variable	K		A		S		Е		R	
	β	t	β	t	β	t	β	t	β	t
Sex	.08	2.16*	29	- 3.52**	.77	8.47**	.20	2.24*	04	- 0.40
Avoidance	03	-0.78	.02	0.27	07	-0.70	02	-0.17	14	- 1.35
Anxiety	.08	2.38*	.08	0.99	.23	2.65**	05	-0.52	.24	2.60*
Avoidance × Sex	.01	0.13	02	- 0.18	.10	0.76	04	-0.30	.09	0.61
$Anxiety \times Sex$	08	- 1.66	.04	0.35	21	- 1.76	.22	1.87	01	- 0.06

p < .05 **p < .01

K, Kindness/Dependability; A, Attractiveness/Sexuality; S, Status/Resources; E, Education/Intelligence; R, Religiosity/Chastity. Sex was coded as 0 (male) and 1 (female)



certain types of threats (Edelstein and Shaver 2004). According to Birnie et al. (2009), avoidantly attached individuals expect failure in their relationships and avoid commitment. The currents study indicates that avoidant attachment does not predict any of the dimensions of mate preferences operationalized by the KASER model (Atari 2017). One potential interpretation could be that people with an avoidant attachment style are less likely to be concerned about mating preferences as they believe that their relationships are doomed to fail no matter what characteristics their mate has. Alternatively, they do not deem it necessary to place too much effort on mating selection, as they will distance themselves in the relationship either way.

Overall, the results of the present study highlight the role of adult attachment—particularly attachment anxiety—in rating the importance of each dimension of long-term mate preference in men and women. Secure and anxious attachment dimensions showed to be more important attachment dimensions in predicting preferences for long-term mates because avoidant attachment did not predict mate preferences in bivariate or regression analyses. In addition, this study adds to broader evolutionary psychological literature on mating dynamics in Iran (Atari 2017; Karimi-Malekabadi et al. 2019; Pazhoohi 2016). However, these findings should be treated with caution since our design was exploratory in nature. We encourage future research to replicate these exploratory findings across cultures and using various research methods (see Zwaan et al. 2018).

The present study has multiple limitations. First, the attachment measure (Besharat 2011) in this research showed low internal consistency coefficients in the present sample. It is recommended for future research to replicate these findings using measures with better psychometric properties (e.g., Fraley et al. 2000). Second, the sample size was rather small in this study; however, a potential advantage of the sample was its diversity as we collected the data from different settings. Third, we did not control for personality traits that can potentially influence both attachment styles and mate preferences (Apostolou et al. 2019).

Acknowledgment We thank Mohammad Atari for his assistance and thoughtful feedback in this study. We are grateful to Farzan Karimi-Malekabadi for his helpful comments on an earlier version of this manuscript.

References

- Afshari, Z., Mootabi, F., & Panaghi, L. (2015). The mediating role of early maladaptive schemas in relation between attachment styles and marital satisfaction. *Journal of Family Psychology*, 2, 59–70.
- Apostolou, M., & Panayiotou, R. (2019). The reasons that prevent people from cheating on their partners: an evolutionary account of the propensity not to cheat. *Personality and Individual Differences*, 146, 34–40.

- Apostolou, M., Paphiti, C., Neza, E., Damianou, M., & Georgiadou, P. (2019). Mating performance: exploring emotional intelligence, the dark triad, jealousy and attachment effects. *Journal of Relationships Research*. 10.
- Atari, M. (2017). Assessment of long-term mate preferences in Iran. *Evolutionary Psychology*, 15(2), 1474704917702459.
- Atari, M., & Chegeni, R. (2017). The Dark Triad and long-term mate preferences in Iranian women. *Personality and Individual Differences*, 104, 333–335.
- Atari, M., & Jamali, R. (2016a). Dimensions of women's mate preferences: validation of a mate preference scale in Iran. *Evolutionary Psychology*, 14, 1–10.
- Atari, M., & Jamali, R. (2016b). Mate preferences in young Iranian women: cultural and individual difference correlates. *Evolutionary Psychological Science*, 2, 247–253.
- Atari, M., Chegeni, R., & Fathi, L. (2016). Women who are interested in cosmetic surgery want it all: The association between considering cosmetic surgery and women's mate preferences. *Adaptive Human Behavior and Physiology*, 3, 61–70.
- Atari, M., Barbaro, N., Shackelford, T. K., & Chegeni, R. (2017).
 Psychometric evaluation and cultural correlates of the Mate Retention Inventory–short form (MRI-SF) in Iran. *Evolutionary Psychology*, 15(1), 1474704917695267.
- Atari, M., Chaudhary, N., & Al-Shawaf, L. (in press). Mate preferences in three Muslim-majority countries: sex differences and personality correlates. Social Psychological and Personality Science.
- Barbaro, N., Pham, M. N., Shackelford, T. K., & Zeigler-Hill, V. (2016). Insecure romantic attachment dimensions and frequency of mate retention behaviors. *Personal Relationships*, 23, 605–618.
- Barbaro, N., Sela, Y., Atari, M., Shackelford, T. K., & Zeigler-Hill, V. (2019). Romantic attachment and mate retention behavior: the mediating role of perceived risk of partner infidelity. *Journal of Social* and Personal Relationships, 36, 940–956.
- Belsky, J., Steinberg, L., & Draper, P. (1991). Childhood experience, interpersonal development, and reproductive strategy: an evolutionary theory of socialization. *Child Development*, 62, 647–670.
- Beltrán-Morillas, A. M., Valor-Segura, I., & Expósito, F. (2019). Unforgiveness motivations in romantic relationships experiencing infidelity: negative affect and anxious attachment to the partner as predictors. Frontiers in Psychology, 10, 434.
- Besharat, M. A. (2011). Development and validation of Adult Attachment Inventory. *Procedia-Social and Behavioral Sciences*, 30, 475–479.
- Besharat, M. A. (2013). Adult Attachment Inventory: questionnaire, instruction and scoring key (Persian version). *Developmental Psychology: Iranian Psychologists*, *9*, 318–321.
- Besharat, M. A., & Shahidi, V. (2014). Mediating role of cognitive emotion regulation strategies on the relationship between attachment styles and alexithymia. *Europe's Journal of Psychology, 10*, 352–362.
- Birnbaum, G. E., & Reis, H. T. (2019). Evolved to be connected: the dynamics of attachment and sex over the course of romantic relationships. *Current Opinion in Psychology*, 25, 11–15.
- Birnie, C., Joy McClure, M., Lydon, J. E., & Holmberg, D. (2009). Attachment avoidance and commitment aversion: a script for relationship failure. *Personal Relationships*, 16, 79–97.
- Bowlby, J. (1969). Attachment and loss: Vol. 1: Attachment. New York: Basic Books.
- Bowlby, J. (1973). Attachment and loss: Vol. 2: Separation. New York: Basic Books.
- Bowlby, J. (1980). Attachment and loss: Vol. 3: Loss, sadness & depression. New York: Basic Books.
- Brennan, K. A., Shaver, P. R. (2016) Dimensions of Adult Attachment, Affect Regulation, and Romantic Relationship Functioning. Personality and Social Psychology Bulletin 21 (3), 267–283



- Buss, D. M. (1988). From vigilance to violence: tactics of mate retention in American undergraduates. *Ethology and Sociobiology*, 9, 291– 317.
- Buss, D. M. (1989). Sex differences in human mate preferences: evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, 12, 1–14.
- Chaudhary, N., Al-Shawaf, L., & Buss, D. M. (2018). Mate competition in Pakistan: mate value, mate retention, and competitor derogation. *Personality and Individual Differences*, 130, 141–146.
- Chen, C., Hewitt, P. L., & Flett, G. L. (2015). Preoccupied attachment, need to belong, shame, and interpersonal perfectionism: an investigation of the perfectionism social disconnection model. *Personality* and *Individual Differences*, 76, 177–182.
- Collins, N. L. (1996). Working models of attachment: implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, 71, 810–832.
- Conroy-Beam, D., Goetz, C. D., & Buss, D. M. (2015). Why do humans form long-term mateships? An evolutionary game-theoretic model. In Advances in Experimental Social Psychology (Vol. 51, pp. 1–39). Academic Press
- Del Giudice, M. (2011). Sex differences in romantic attachment: a metaanalysis. Personality and Social Psychology Bulletin, 37, 193–214.
- Del Giudice, M. (2016). Sex differences in romantic attachment: a facet-level analysis. *Personality and Individual Differences*, 88, 125–128.
- Edelstein, R. S., & Shaver, P. R. (2004). Avoidant attachment: exploration of an oxymoron. *Handbook of closeness and intimacy*, 39, 7–412.
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal* of *Personality and Social Psychology*, 78, 350–365.
- Frazier, P. A., Byer, A. L., Fischer, A. R., Wright, D. M., & DeBord, K. A. (1996). Adult attachment style and partner choice: correlational and experimental findings. *Personal Relationships*, 3, 117–136.
- Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, 67, 430–445.
- Hadden, B. W., Smith, C. V., & Webster, G. D. (2014). Relationship duration moderates associations between attachment and relationship quality: meta-analytic support for the temporal adult romantic attachment model. *Personality and Social Psychology Review*, 18, 42–58
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
- Karimi-Malekabadi, F., & Esmaeilinasab, M. (2019). Religiosity, intrasexual rivalry, and mate retention behaviors in Iran. Personality and Individual Differences, 149, 135–140.
- Karimi-Malekabadi, F., Ghanbarian, E., Afhami, R., & Chegeni, R. (2019). Theory-Driven Assessment of Intrasexual Rivalry. Evolutionary Psychological Science, 5, 286–293.

- Kirkpatrick, L. A., & Hazan, C. (1994). Attachment styles and close relationships: a four-year prospective study. *Personal Relationships, 1*, 123–142.
- Latty-Mann, H., & Davis, K. E. (1996). Attachment theory and partner choice: preference and actuality. *Journal of Social and Personal Relationships*, 13, 5–23.
- Mikulincer, M. (1998). Attachment working models and the sense of trust: an exploration of interaction goals and affect regulation. *Journal of Personality and Social Psychology*, 74, 1209–1224.
- Mohammadi, K., Samavi, A., & Ghazavi, Z. (2016). The relationship between attachment styles and lifestyle with marital satisfaction. *Iranian Red Crescent Medical Journal*, 18, e23839.
- Pazhoohi, F. (2016). On the practice of cultural clothing practices that conceal the eyes: an evolutionary perspective. *Evolution, Mind and Behaviour*, 14, 55–64.
- Pazhoohi, F., & Burriss, R. P. (2016). Hijab and "Hitchhiking": a field study. Evolutionary Psychological Science, 2, 32–37.
- Pollet, T. V., & Saxton, T. K. (2019). How diverse are the samples used in the journals 'evolution & human behavior' and 'evolutionary psychology'? Evolutionary Psychological Science, 5, 357–368.
- Rad, M. S., Martingano, A. J., & Ginges, J. (2018). Toward a psychology of Homo sapiens: making psychological science more representative of the human population. *Proceedings of the National Academy of Sciences*, 115(45), 11401–11405.
- Schmitt, D. P. (2005). Is short-term mating the maladaptive result of insecure attachment? A test of competing evolutionary perspectives. *Personality and Social Psychology Bulletin*, 31(6), 747–768.
- Shackelford, T. K., Schmitt, D. P., & Buss, D. M. (2005). Universal dimensions of human mate preferences. *Personality and Individual Differences*, 39, 447–458.
- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, 59, 971.
- Simpson, J. A., & Rholes, S. W. (2015). Attachment theory and research: New directions and emerging themes. New York: Guilford Press.
- Simpson, J. A., & Rholes, W. S. (2017). Adult attachment, stress, and romantic relationships. Current Opinion in Psychology, 13, 19–24.
- Swann Jr., W. B., Hixon, J. G., & De La Ronde, C. (1992). Embracing the bitter "truth": Negative self-concepts and marital commitment. *Psychological Science*, *3*, 118–121.
- Zwaan, R. A., Etz, A., Lucas, R. E., & Donnellan, M. B. (2018). Making replication mainstream. *Behavioral and Brain Sciences*, 41, e120.
- Zysberg, L., Kelmer, G., & Mattar, L. (2019). Emotional intelligence, attachment and satisfaction with romantic relationships among young adults: a brief report. *Psychology*, 10, 694–700.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

