Testing the Compatibility of Attachment Anxiety and Avoidance with Cultural Self-Construals

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ABSTRACT
Insecure attachment has been associated with relatively more negative outcomes in mainstream attachment literature, yet several empirical studies show almost half of the populations globally are insecurely attached. Moreover, although attachment security is the universal norm, attachment anxiety and avoidance exhibit significant cultural variation. To explore how this variation can offer certain advantages to people with insecure attachment tendencies, we tested the novel idea that different insecure attachment behaviors can be differentially compatible with varying cultural senses of self (i.e. independent vs. interdependent self-construal) in an experimental setting. We manipulated cultural self-construal by exposing the participants (N=164) to either an independence or an interdependence prime and asked them to evaluate vignettes depicting typical anxious and avoidant behaviors. The results showed that insecure attachment behaviors were evaluated as more favorable when they were compatible with one’s own attachment tendency. Importantly, this trend was moderated by the cultural self-construal: Participants evaluated even those insecure attachment behaviors that were inconsistent with their own tendencies more favorably when these behaviors were compatible with the cultural self-construal that was experimentally induced. The findings are discussed in light of cultural implications.

Bowlby’s attachment theory (1969/1982, 1973, 1980) has generated immense research over the past 50 years whose common theme seems to be that secure attachment is the “good” attachment style to have: Securely attached individuals report higher quality of life and happiness, they are more competent in close relationships and better at coping with stress, they even live healthier and longer lives. Conversely, findings have consistently linked insecure attachment with relatively worse outcomes, such as problematic close relationships, dysfunctional ways of coping with stress, lower life satisfaction and happiness, attenuated professional performance, and poor physical and psychological health (see Mikulincer & Shaver, 2016 for a review). Despite the apparent multitude of such costly consequences and lack of advantages of insecure attachment, it not only subsists, but is actually surprisingly prevalent. Ample research shows that nearly half of the world’s population exhibits insecure attachment tendencies across stages of development, cultures, and measurement techniques (see Hesse, 2016; Mesman et al., 2016 for reviews). It seems odd that insecure attachment could survive years
of selection pressures and still be almost as widespread as secure attachment if it did not provide humans with any adaptive advantages. Ein-Dor et al. (2010) have pointed to this conundrum and called it the attachment paradox.

**A Solution to the Attachment Paradox: The Social Defense Theory**

Although attachment research has been dominated by the notion that secure attachment is the more favorable strategy for the formation of intimate bonds, this supposition has not gone uncriticized. The life history models of attachment have argued that insecure attachment may carry adaptive value for reproductive fitness as a function of the environmental conditions (e.g. Belsky et al., 1991; Chisholm, 1996). To complement this evolutionary framework, in their social defense theory (SDT), Ein-Dor and colleagues (2010) argued that another adaptive advantage of insecure attachment may lie at the group level.

According to SDT, while attachment security is beneficial to the group under normal circumstances, the relative adaptive advantages of insecurity surface under conditions of emergent threat (Ein-Dor et al., 2010). Whereas the normally beneficial sense of security and comfort enjoyed by secure individuals can pose a potential disadvantage under threat situations, individuals with insecure attachment can have an edge. Ein-Dor and colleagues proposed that people high on attachment anxiety may serve the survival of the group by being **sentinels**, who can more readily and quickly monitor and detect early and ambiguous signs of an imminent danger, react to them more intensely and vocally, and alert the other members (Ein-Dor et al., 2011a, 2011b; Ein-Dor & Orgad, 2012; Ein-Dor & Perry, 2014; Ein-Dor & Perry-Paldi, 2014). This action tendency is argued to be a result of their hypervigilance to threat and stress cues which stem from their chronically hyperactivated attachment systems (e.g. Mikulincer et al., 2000, 2002). Individuals high on attachment avoidance are also theorized to be functional for the group because they are more likely to develop **rapid fight-or-flight** reactions to danger in order to protect themselves and to be quick to detect and use escape routes (Ein-Dor et al., 2011a, 2011b; Ein-Dor & Perry-Paldi, 2014) as they are self-reliant, self-protective, pragmatist, and chronically inclined to flee (e.g. Mikulincer & Shaver, 2016). These cognitive schemas and action tendencies are argued to be beneficial for the rest of the group too as people are likely to follow these members through the escape routes they discovered or created. The relationships between these mental schemas and action tendencies and chronic attachment orientations have been shown to go above and beyond the effects of state and trait anxiety (Ein-Dor & Perry-Paldi, 2014) and personality factors (Ein-Dor et al., 2011a, 2011b).

Considering these adaptive advantages of insecure attachment behaviors in the face of danger, SDT puts forward the idea that groups that are heterogeneous with respect to their members’ attachment orientations have better chances of survival than homogenous groups that are composed solely of members with secure attachment (Ein-Dor et al., 2010). SDT posits that this group-level adaptive advantage of insecure attachment in cases of danger is what kept it intact in the face of selection pressures despite its individual-level costs.
Extending the Social Defense Theory: Introducing Cultural Differences in Attachment

SDT has made an important contribution by exploring the potential adaptive functions of attachment insecurity at the group level. However, it does not acknowledge the cultural variations in insecure attachment. Cross-cultural research on attachment has repeatedly shown that although attachment security is a universal norm (see Mesman et al., 2016 for a review), the patterns of insecure attachment in fact vary greatly across cultures. Whereas attachment anxiety emerges as a relatively common pattern in cultures that are predominantly characterized by collectivism; attachment avoidance seems to be more prevalent in cultures that are typically marked by individualism—in both early years (e.g. Sagi et al., 1991; van IJzendoorn & Kroonenberg, 1988) and adulthood (Agishtein & Brumbaugh, 2013; Schmitt et al., 2004; van IJzendoorn & Bakermans-Kranenburg, 2010). Here, we argue that the attunement of different types of insecure attachment orientations to different cultures merit attention because better compatibility with culture also offers survival advantage, as it shares similar dynamics with compatibility with local environment. As suggested by Boyd and Richerson (2005) work on culture-gene coevolution, biological processes are not the sole determinants of evolutionary adaptations, but culture and genes constantly interact to determine fitness. In this view, culture is seen as an adaptive process where some cultural values become more dominant while others diminish because certain sets of mental representations and behaviors provide a better fit to the environment in which the individuals operate, while others don’t. Building on this, here we argue that exploring how mental schemas and action tendencies associated with different types of insecure attachment can be more compatible with different cultures could help shed further light on how attachment insecurity offers adaptive advantage and hence has been able to withstand years of selection pressures.

An important issue in cross-cultural research is how to define, operationalize, and measure culture. Previous research on cross-cultural differences in attachment has heavily focused on quantifying country-based variations in the prevalence of different types of attachment insecurity (e.g. Agishtein & Brumbaugh, 2013; Schmitt et al., 2004). Yet, research shows that between-group differences in psychological constructs are seldom reducible to corresponding individual differences within each group (see Na et al., 2010). Moreover, empirical evidence does not support the notion of culture as a simple classification of countries based on mere individualism versus collectivism dichotomy but rather shows that it is an overarching social cognitive system that influences basic psychological processes and how people “dynamically construct their self” in their social environment with respect to their relationships with others (see Oyserman et al., 2002 for a review). Accordingly, the present study adopts this cognitive approach to conceptualizing culture and makes the first effort to investigate attachment insecurity through the lens of self-construals—those mental representations or cognitive schemas that comprise of culture-congruent mental content, cognitive processes, and goals (Oyserman, 2011) instead of making cross-country comparisons. Mental content making up the self-construal includes all information pertaining to the self and the world, such as how others and the self are relatively situated in terms of the social relationships they have with one another and the cultural context they
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are situated in. Cognitive processes are intricately linked to this mental content, in the sense that the patterns of perceiving and reacting to the social environment are sensitive to both the social information coming from the cultural context and the goals of the agent, that are geared toward fitting the social environment. In this sense, self-construals are flexible cognitive structures that are updated in accordance with the social context (i.e. culture). These cognitive structures are typically conceptualized as independent versus interdependent self-construals (Markus & Kitayama, 1991). An independent self-construal involves mental representations pertaining to the distinction of the self from the other people, where individuals view themselves as disjoint agents acting independently. Conversely, an interdependent self-construal includes schemas related to connection and relatedness, where people tend to think of themselves with respect to their relationships with others.

We offer a novel hypothesis to SDT in an effort to understand how the sentinel and rapid fight-flight mental schemas and action tendencies associated with insecure attachment orientations can be differentially compatible with a particular cultural self-construal by capitalizing on the culture-fit hypothesis (Friedman et al., 2010). This framework argues that the form of insecure attachment that is prevalent within a culture leads to less adverse outcomes. Friedman and colleagues found that attachment avoidance, but not attachment anxiety, poses a greater risk factor for negative outcomes, such as heightened relationship conflict, less perceived relationship support and investment, and poorer relationship satisfaction in cultures that are predominantly characterized by an interdependent self-construal (as compared to cultures that are typically characterized by an independent self-construal). Rothbaum et al. (2002) have also argued that since dependence is relatively functional in these cultures, where close relatedness is valued, attachment anxiety should not be seen as abnormal or maladaptive. Consistent with these conjectures, studies conducted with Turkish and Chinese samples revealed that attachment avoidance, but not attachment anxiety, negatively predicts a number of key outcome variables, such as maternal sensitivity (Selcuk et al., 2010), secure attachment to parents (Sümer & Kaşıkçıbaşı, 2010), marital satisfaction (Harma & Sümer, 2016), friendship quality (Özen, Sümer, & Demir, 2011), and support from family and friends (Cheng & Kwan, 2008). Attachment avoidance hence emerges as a specific risk factor in these cultures that value closely-knit relatedness and where attachment anxiety is more prevalent. In contrast, attachment anxiety has been associated with adverse outcomes, such as compulsive and intrusive caregiving (Kunce & Shaver, 1994) and more frequent relationship conflict and destructive engagement (Feeney & Karantzazas, 2017) in American samples, where attachment avoidance is more predominant.

Building on the culture-fit hypothesis, here we argue that the mental schemas and action tendencies associated with the sentinel script of individuals with high attachment anxiety will be more compatible with an interdependent self-construal. In contrast, we reason that the rapid fight-or-flight script of individuals with high attachment avoidance will be more compatible with an independent self-construal.

Specifically, on the one hand, we propose that the sentinel mental schemas and action tendencies of people with high attachment anxiety will be relatively more compatible with the interdependent self-construal because such cognitions and behavior
would not be incongruous with the outlook of this cultural pattern. From a developmental perspective, being raised by an inconsistent and unpredictable caregiver makes people with high attachment anxiety chronically unsure of their environment, so they hyperactivate their attachment system and become hypervigilant to threat cues, they seek constant help, cling to their attachment figures, and protest separation extremely (see Mikulincer & Shaver, 2016). We propose that these anxiously attached individuals’ predisposition to monitor and communicate threat cues will be more in tune with an interdependent self-construal. We reason that such hypervigilant sentinel behaviors will be relatively compatible with this self-construal as it is characterized by a relational sense of self, fuzzy interpersonal boundaries, small personal space, dependence on others’ opinions and approval, and valuing being part of a greater whole (Cross & Gore, 2003; Markus & Kitayama, 1991; Oyserman, 2011; Ting-Toomey & Chung, 2005; Triandis, 1989). Conversely, we expect that the pragmatic and selfish rapid fight-or-flight behavior of individuals with high attachment avoidance will be relatively more discordant with such a cultural self-construal because they are more likely to be considered as violations of the interdependent values of looking out for each other, cherishing others over oneself, and defining the self with respect to relationships with others.

On the other hand, we propose that the rapid fight-or-flight mental schemas and action tendencies of individuals with high attachment avoidance, cultivated in a familial atmosphere that forces early maturation and self-reliance, will be relatively compatible with the independent self-construal. We reason that such acts will be congruous with the values of individuality, distinction, independence, clear-cut interpersonal borders, and personal salvation that typify this cultural self-construal (Cross & Gore, 2003; Markus & Kitayama, 1991; Oyserman, 2011; Ting-Toomey & Chung, 2005; Triandis, 1989). The early experiences of individuals with high attachment avoidance have taught them that they cannot rely on their significant others for help in times of need, so they have learned to avoid further rejection by deactivating their attachment system and maintaining high psychological distance from their attachment figures, ignoring attachment needs, avoiding intimacy, self-disclosure, and interdependence (see Mikulincer & Shaver, 2016). We expect that the egotistical rapid fight-or-flight behavior, such as running for one’s own life without waiting for others and not tying one’s salvation to anyone else, will be relatively compatible with an independent self-construal where materialism, self-reliance, and standing up for oneself are valued. Conversely, we propose that the sentinel behavior of individuals with high attachment anxiety will be less attuned to such a cultural self-construal because they are more likely to be considered as intrusive and as violations of personal space, interpersonal boundaries, and individuality.

**Overview of the Present Research**

Although the adaptive advantages of insecure attachment have been studied in the contexts of reproductive fitness and group survival, to the best of our knowledge how insecure attachment can be differentially compatible with cultural self-construals remain chiefly as uncharted territory in attachment research. To fill this gap, we experimentally manipulate independent versus interdependent self-construals to investigate if insecure
attachment is evaluated as differentially compatible with these cultural self-construals. To simulate real life insecure attachment behaviors, we employ scenarios depicting sentinel (typical of attachment anxiety) and rapid fight-or-flight (typical of attachment avoidance) reactions to situations of danger and ask participants to evaluate the insecure attachment behaviors in these stories.

Although different cultural contexts (i.e. individualist/independent vs. collectivist/interdependent) are usually associated with different countries (e.g. Western European/North American vs. Eastern Asian) (e.g. Hofstede et al., 2010), empirical evidence shows that people do have the mental schemas for both independent and interdependent self-construals and can consider themselves from different perspectives, namely the individualistic ‘me’ self and the collectivistic ‘us’ self (e.g. Oyserman et al., 2002; Singelis, 1994). Moreover, multiculturalism makes both independent and interdependent self-construals even more accessible in mind (Cross & Gore, 2003). Thus, regardless of the cultural context they live in, any individual can be led to manifest the characteristics of either a more independent or more interdependent view of self through the activation of these available mental schemas via priming (i.e. bringing to mind) of different cultural self-construals (for reviews see Oyserman & Lee, 2007, 2008). Based on this paradigm, we experimentally manipulate the independent variable, self-construal, by priming either independence or interdependence. We investigate the effects of these experimental conditions on the dependent variable, evaluation of insecure attachment behaviors (i.e. anxious/sentinel and avoidant/rapid fight-or-flight) vis-à-vis attachment tendencies.

First, we expect a main effect of cultural self-construal on the evaluation of insecure attachment behaviors. Building on Friedman and colleagues’ (2010) cultural fit hypothesis, we predict that the mental schemas and action tendencies associated with insecure attachment that are in line with cultural self-construal will be evaluated more favorably, suggesting higher cultural compatibility. Specifically,

**Hypothesis 1:** Under the interdependence prime, anxious/sentinel behaviors will be evaluated more positively (as compared to the independence prime) as they are more compatible with the interdependent self-construal. In contrast, under the independence prime, avoidant/rapid fight-or-flight behaviors will be evaluated more positively (as compared to the interdependence prime).

Second, we expect a two-way interaction effect of attachment anxiety and avoidance on the evaluation of insecure attachment behaviors. Based on SDT, we hypothesize that people will evaluate the insecure attachment behaviors that are in line with their own attachment orientations more leniently. Specifically,

**Hypothesis 2:** Participants high on avoidance will evaluate avoidant/rapid fight-or-flight behaviors more positively and anxious/sentinel behaviors more negatively (as compared to participants low on avoidance). In contrast, participants high on anxiety will evaluate anxious/sentinel behaviors more positively and avoidant/rapid fight-or-flight more negatively (as compared to participants low on anxiety).

Finally, we expect a three-way interaction effect of attachment anxiety and avoidance and cultural self-construal on the evaluations of insecure attachment behaviors. We predict that a cultural self-construal that is compatible with a specific insecure
attachment behavior will have an intensifying effect on the positive appraisal of this behavior when it is congruent with the individual's own attachment orientation and have an attenuating effect on the negative appraisal of the same behavior when it is incongruent with the individual's own attachment orientation. Specifically,

Hypothesis 3a: Participants high on anxiety will evaluate anxious/sentinel behaviors more positively when they are under the interdependence prime (as compared to the independence prime). In contrast, participants high on avoidance will evaluate avoidant/rapid fight-or-flight behaviors more positively when they are under the independence prime (as compared to the interdependence prime).

Hypothesis 3b: Participants high on anxiety will evaluate avoidant/rapid fight-or-flight behaviors less negatively (i.e., be more lenient) when they are under the independence prime (as compared to the interdependence prime). In contrast, participants high on avoidance will evaluate anxious/sentinel behaviors less negatively (i.e., be more lenient) when they are under the interdependence prime (as compared to the independence prime).

Method

Participants

An a priori power analysis was conducted to determine the sample size for the study, following the procedures recommended by Cohen (1988). The minimum sample size needed to detect the moderate effect size of .40, which is commonly obtained in independence-interdependence priming studies (Oyserman & Lee, 2008), with the recommended power of .80 (Cohen, 1988), was calculated as 158 by using the G-Power software (Version 3.1) (Faul et al., 2007). Accordingly, 172 undergraduate students in a Turkish University were recruited from introductory psychology courses and rewarded with extra course credit for engaging in an online study. Eight (4.50%) participants failed the priming task and were therefore excluded from further analyses, leaving a total of 164 participants (54.30% female; $M_{Age} = 21.84; SD_{Age} = 1.63; Range_{Age} = 18–32$) in the final sample.

Materials and Procedure

Experiences in Close Relationships Questionnaire (ECR)

Adult attachment orientations of participants (i.e. attachment avoidance and attachment anxiety) were measured by the ECR (Brennan et al., 1998). The ECR, which measures adult attachment in the context of romantic relationships, was chosen as the instrument to tap into attachment orientations following Ein-Dor and colleagues’ methodology (e.g. Ein-Dor et al., 2011a; 2011b; Ein-Dor & Perry, 2014; Ein-Dor & Perry-Paldi, 2014). The ECR comprises of two 18-item scales, one measuring attachment avoidance (e.g. “I prefer not to show a partner how I feel deep down”) and the other measuring attachment anxiety (e.g. “I worry about being abandoned”). The attachment avoidance subscale reflects an individual’s discomfort with closeness and the attachment anxiety subscale reflects an individual's concern about abandonment. Participants were asked to rate the items on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The ECR has been adapted to Turkish, examined in terms of its factor structure in Turkish
samples, and shown to have good construct validity (Sümer, 2006). Both subscales were found to be reliable in the current sample ($\alpha_{\text{Avoidance}} = .91$, $\alpha_{\text{Anxiety}} = .91$).

To calculate the prevalence of different attachment styles in the current sample, the participants were categorized into the four attachment groups by using K means cluster analysis on the two dimensions of the ECR, namely attachment avoidance and anxiety. While 50 participants (30.49%) were categorized as securely attached, 42 (25.61%), 36 (21.95%), and 36 (21.95%) participants were categorized as dismissing, preoccupied, and fearful, respectively. These prevalence rates are somewhat in line with the trends found in previous studies conducted in Turkey. For example, Sümer (2006) found prevalence rates of 30.52%, 22.06%, 25.74%, and 21.68% for secure, dismissing, preoccupied, and fearful attachment styles, respectively.

**Independence versus Interdependence Priming**

To manipulate the independent variable of the study (i.e. independent self-construal vs. interdependent self-construal), participants were randomly primed with either independence or interdependence via the pronoun-circling task developed by Gardner et al. (1999) after they filled out the attachment measure (i.e. ECR). In this task, participants are asked to circle the pronouns in a paragraph depicting a visit to a city. The paragraph was adapted to Turkish by following translation and back-translation procedures. The pronouns to be circled in this paragraph were first person singular pronouns, such as “I, me, my, and mine” in the independence condition, and first person plural pronouns, such as “we, us, our, and ours” in the interdependence condition.

**Exposure to Sentinel and Rapid Fight-or-Flight Behavior**

After completing the priming task, participants were asked to read two short vignettes created for this study, which were presented in a randomly counterbalanced order (see Supplemental Materials for the English translations of the scenarios). We devised the vignettes with an effort to reflect the everyday life threat situations, as done by Ein-Dor et al. (2011a) in their original study. Ein-Dor and colleagues (2011a) used life threat situations (e.g. being exposed to a predator in the woods) in their studies to activate the attachment behavioral system as this system is theorized as an evolutionarily adaptive survival mechanism that gets activated when there is any kind of physical threat in the environment (e.g. predators, hunger, illness) (Bowlby, 1969/1982, 1973, 1980). Building on this, other empirical studies that aim at activating the attachment behavioral system also uses threat primes (such as stimuli associated with death, fear, loss) (e.g. Dewitte et al., 2008; Mikulincer et al., 2000, 2002). We also incorporated the scenarios generated by participants of Anafarta-Şendağ (2009) studies in our vignettes as a locally relevant reference while creating the vignettes. In her studies, Anafarta-Şendağ adapted the Knowledge of Secure Base Script-Prompt Word Outline Method (KSBS; Waters & Rodrigues, 2002) into Turkish, which is a narrative assessment technique that aims to measure participants’ level of knowledge regarding the secure base script by asking them to write a story from a set of prompt words provided by the researchers. The stories generated by participants for the “Berna and Emre's Camping Trip” theme were taken as a reference in preparing the two vignettes for this study, as this theme included various threatening situations.
In the first vignette, depicting sentinel reactions to threat (typical of attachment anxiety), a group of friends are on a camping trip sitting around a fire. While everyone is enjoying themselves, the main character, Deniz (Deniz is a gender-neutral name in Turkish, it was selected to make sure the actions of the characters were not judged with respect to gender roles) is on the edge of the seat, afraid that something will happen to them in this remote place. Deniz eventually hears a sound through the bushes and screams “Run!” Everyone starts to run in panic. In this vignette, typical sentinel behavior is depicted in Deniz’s general anxious attitude, hypervigilance to threat cues (being the only one to hear the sound from the bushes), and alarming everyone else.

In the second vignette, illustrating typical rapid fight-or-flight reactions to danger (typical of attachment avoidance), again a group of friends are on a camping trip, but this time they are trying to set up the tents. Unfortunately, a strong wind comes up, knocking down all their tents. While everyone is trying to reerect the tents, the main character, Deniz, says it’s too windy to set up tents and leaves the group to find another place to stay. In this vignette, typical rapid fight-or-flight behavior is depicted in Deniz’s avoidance of the common problem, unwillingness to cooperate on a collective solution, and walking away to find personal salvation without waiting for or caring about the others.

These vignettes were evaluated by 28 undergraduate psychology students in a pilot study and were regarded as logical and akin to real life situations. The participants’ assessments of the two vignettes on these two qualities did not differ in a statistically significant way (\(t(27) = −.13, p = .897\) and \(t(27) = .09, p = .930\), respectively). The participants of the pilot study also provided open-ended descriptions for the vignettes and the main characters. These were coded to reflect whether they included descriptions that contained elements of typical anxious characteristics/sentinel behaviors (i.e. being constantly on the lookout for threat cues, being hypervigilant about threat, being likely to warn others about potential risks) and avoidant characteristics/rapid fight-or-flight behavior (i.e. being overly independent, acting without taking others into consideration, looking for personal salvation rather than thinking of others). These codings revealed that the open-ended descriptions of the first vignette did match anxious characteristics/sentinel behaviors (e.g. “anxious,” “hypervigilant,” “agitated,” “worried,” “tense,” “suspicious,” “careful,” “observant,” “cautious,” “danger-oriented,” “good at detecting threats”). In a similar fashion, the open-ended descriptions of the second vignette matched avoidant characteristics/rapid fight-or-flight behavior (e.g. “individualist,” “independent,” “self-ordained,” “selfish,” “acts on their own without thinking about others,” “do not feel much group identification”).

**Evaluations of Sentinel and Rapid Fight-or-Flight Behavior**

After reading each vignette, participants were asked a series of questions for evaluating the sentinel/rapid fight-or-flight behavior they had just been exposed to on 7-point Likert scales. These questions constituted the dependent variables of the study and tapped into how acceptable participants regarded the insecure attachment behavior (i.e. appraisal of behavior), how likeable they found the character (i.e. appraisal of character), and how likely they would be to follow this character if they were in a
similar situation (i.e. probability of own compliance). Higher scores on all of these variables signaled more positive evaluations of the behavior. For purposes of brevity, all the pertinent information about the factor and reliability analyses of these variables has been presented in Table 1.

**Results**

The hypotheses were tested via hierarchical moderated regression analyses, where a dummy coded variable for priming conditions was created. Following the procedures described by Aiken and West (1991), the independent variable (i.e. prime for either independent or interdependent self-construal) and the predictor variables (i.e. attachment anxiety and avoidance) were first mean-centered, and then two and three-way interaction terms were computed by multiplying centered variables with each other. Age was entered into the hierarchical regression analyses in the first step to control for its effects as it was significantly correlated with the outcome variables in scenario 2 (the correlations between age and appraisal of behavior, appraisal of character, and probability of own compliance for scenario 2 are $r = .21\, p = .008$, $r = .17\, p = .031$, and $r = .12\, p = .164$, respectively), attachment anxiety and avoidance and prime were entered in the second step, and finally the two and three-way interaction terms of attachment anxiety and avoidance and prime were entered in the third step. The interaction terms of attachment anxiety and avoidance served to capture participants who are high versus low on both of these dimensions and correspond to the four-category structure of attachment styles. Finally, in order to depict the significance and patterns of interactions, simple slope tests were employed and interactions between the variables were plotted by generating simple regression equations of a given dependent variable at low (i.e. one standard deviation below the mean) versus high (i.e. one standard deviation above the mean) levels of the predictor variables, following the methods of Aiken and West (1991).

No significant main effect of prime emerged on any of the outcome variables (see Table 2), failing to offer support for Hypothesis 1. Yet, for scenario 2 (depicting avoidant/rapid fight-or-flight behavior), a significant three-way interaction between attachment avoidance and anxiety, and prime was identified for appraisal of behavior ($\beta = -.17, \, p = .034$). The simple slope tests revealed that when both attachment avoidance and anxiety were low (i.e. secure), participants who were primed with independence scored significantly higher on their evaluations of favorability as compared to participants who were primed with interdependence ($t(156) = -2.10, \, p = .038$) (see Figure 1a). Although this was an unexpected result, it can be taken to suggest typical avoidant/rapid fight-or-flight behaviors are evaluated more positively under the independence prime when both dimensions of attachment insecurity are low, hence it could be interpreted as offering some indirect support for Hypothesis 1.

Significant two-way interaction effects of attachment avoidance and anxiety were found for appraisal of behavior ($\beta = .28, \, p = .001$), appraisal of character ($\beta = .29, \, p < .001$), and probability of own compliance ($\beta = .21, \, p = .012$) for scenario 1 (depicting anxious/sentinel behavior). The simple slope tests revealed the same pattern for all these variables: When attachment anxiety was low, higher levels of attachment avoidance (i.e. dismissing avoidant) was related to lower scores for favorability as compared to participants who were primed with independence (Figure 1b).
to lower levels of attachment avoidance ($t(160) = -2.46, p = .015$; $t(160) = -2.04, p = .043$; $t(160) = -1.98, p = .050$; $t(160) = -2.40, p = .018$). For purposes of brevity, this common pattern of interaction is illustrated for appraisal of behavior in Figure 2. When put together, these results offer support for Hypothesis 2 in showing that people with high attachment avoidance tend to evaluate typical anxious/sentinel behaviors less positively.

Three-way interaction effect of attachment avoidance and anxiety, and prime was significant for appraisal of behavior ($\beta = -.17, p = .029$), and appraisal of character ($\beta = -.24, p = .002$) for scenario 1 (depicting anxious/sentinel behavior). The simple slope tests revealed that when the level of attachment avoidance was high and attachment anxiety was low (i.e. dismissing avoidant), participants who were primed with interdependence scored marginally significantly higher on appraisal of behavior ($t(156) = 1.68, p = .094$) and significantly higher on appraisal of character ($t(156) = 2.31, p = .022$) as compared to participants under the independence prime. For purposes of brevity, this common pattern of interaction is illustrated for appraisal of behavior in Figure 3(a) and 3(b). Taken together, these results support Hypothesis 3 b, indicating that people with high attachment avoidance evaluate anxious/sentinel behaviors more leniently when they are under the interdependence prime, as opposed to when they are under the independence prime. These results suggest that the interdependent self-construal that is compatible with the anxious/sentinel behavior has an attenuating effect on the default negative appraisal for this insecure attachment behavior due to its incongruence with participants’ own avoidant attachment tendency (see results above offering support for Hypothesis 2).

**Discussion**

Even though there is important work investigating the adaptive advantages of insecure attachment in the contexts of reproductive fitness and group survival (e.g. Belsky et al., 1991; Chisholm, 1996; Ein-Dor et al., 2010), how insecure attachment can be
differentially compatible with different cultural self-construals remains unstudied. This domain is arguably an important one to examine as prior research has shown that insecure attachment presents significant cultural variation (e.g. Schmitt et al., 2004). To fill this gap, in the present study we experimentally manipulated cultural self-construals to investigate if these self-construals affect the evaluation of insecure attachment behaviors vis-à-vis the individual's own attachment orientation. The results provided partial support for our predictions in showing that cultural self-construals and individual attachment tendencies play a role in the evaluations of insecure attachment behaviors.

The results failed to yield the expected main effect of self-construal prime on the evaluations of insecure attachment behavior, so the first hypothesis did not receive support. Yet, the moderation analyses revealed that secure participants evaluated behavior in the avoidant scenario more favorably when they were under the independence prime as compared to when they were under the interdependence prime. As securely attached individuals score low on both dimensions of insecurity, the fact that this effect emerged for them could arguably be interpreted as an indirect support to the idea that self-construal may have a unique effect on how people regard insecure attachment behaviors regardless of their own insecurities. Although this finding should be taken very cautiously as it emerged for only one of the outcome variables, it can be an indication that rapid fight-or-flight behaviors associated with attachment avoidance may be evaluated as more tolerable by an independent self-construal. Such a result would be in line with Friedman and colleagues' (2010) cultural fit hypothesis.

Table 2. Hierarchical Regression Analyses for the Evaluations of Insecure Attachment Behaviors as Predicted by Attachment Tendencies and Cultural Self-Construal Prime.

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<td>.07 .07 (.08)</td>
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<td>[.12, .42]</td>
<td>.21* 32* (.13)</td>
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<td>[−.94, −.05]</td>
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<tr>
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<td>.05</td>
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Outcome variables: Appraisal of behavior, appraisal of character, and probability of own compliance for Scenarios 1 and 2.

*p < .10, ’p < .05, ”p < .01, ’’’p < .001.

The results failed to yield the expected main effect of self-construal prime on the evaluations of insecure attachment behavior, so the first hypothesis did not receive support. Yet, the moderation analyses revealed that secure participants evaluated behavior in the avoidant scenario more favorably when they were under the independence prime as compared to when they were under the interdependence prime. As securely attached individuals score low on both dimensions of insecurity, the fact that this effect emerged for them could arguably be interpreted as an indirect support to the idea that self-construal may have a unique effect on how people regard insecure attachment behaviors regardless of their own insecurities. Although this finding should be taken very cautiously as it emerged for only one of the outcome variables, it can be an indication that rapid fight-or-flight behaviors associated with attachment avoidance may be evaluated as more tolerable by an independent self-construal. Such a result would be in line with Friedman and colleagues’ (2010) cultural fit hypothesis.
and the related findings: The form of attachment insecurity that is in line with the self-construal is seen as less problematic and tolerated more because it fits this mental representation of the self in a better way, and in turn is associated with less adverse outcomes. Previous findings showing that relationship behaviors which are reported
as negative are more likely to be the ones that are incompatible with the self-construal also provide support to this conjecture (e.g. Lavy et al., 2009). In this case, when we primed our participants with independence and hence evoked an independent self-construal in their minds, the selfish, yet problem-focused coping strategies depicted in the rapid fight-or-flight behaviors of the avoidant character were evaluated more favorably, arguably because they were perceived to be a better fit to the primed independent self-construal, which values direct confrontation, overt communication, and solution-oriented strategies (Ting-Toomey & Chung, 2005). The primed independent self-construal that cherishes self-sufficiency and regards the individual as a disjoint agent (Markus & Kitayama, 1991) appears to have led to a higher approval of the avoidant character who acts on their own.

The second hypothesis, predicting that participants would evaluate the insecure attachment behaviors which are in line with their own insecure attachment tendencies more favorably received partial support as the expected effects were observed only for participants with high attachment avoidance, but not for participants with high attachment anxiety. The results showed that participants who scored high on attachment avoidance evaluated the anxious scenario more negatively. These results align with the original findings by Ein-Dor and colleagues (2010) which showed that individuals who scored high on attachment avoidance have cognitive and behavioral tendencies in line with the rapid fight-or-flight script, and build on them by showing that people not only more readily process cognitive information regarding a behavior congruent with their own attachment tendencies but also judge the incongruent behaviors as less favorable. This finding is also in line with prior research that shows dissimilarity leads to dislike of others (e.g. Nangle et al., 1996; Norton et al., 2007).

The third hypothesis, predicting that the attachment orientations of people would interact with the effect of self-construal on their evaluations of insecure attachment
behavior also received partial support as the expected effects were observed only for participants with high attachment avoidance, but not for participants with high attachment anxiety. The results showed that participants who scored high on attachment avoidance were more tolerant of the anxious/sentinel behaviors when they were under the interdependence prime as compared to when they were under the independence prime. These results offered support to Hypothesis 3b, which stated that a cultural self-construal which is compatible with the specific insecure attachment behavior would
have an attenuating effect on the negative appraisal on this behavior when it is incongruent with the individual's own attachment orientation. These findings are in line with the abundance of findings in the social psychology literature showing people are predisposed to conform to the salient norm of a social context to fit in (see Cialdini & Goldstein, 2004 for a review). When in the mindset of an interdependent self-construal that is tolerant of anxious attachment behaviors, even people high on attachment avoidance, who possess the opposite tendencies, seem to be more likely to report attitudes more accepting of such behavior, which they normally disapprove of (see results offering support for the second hypothesis). These results can be taken to imply that the values of a particular cultural self-construal may have a relatively more impactful effect than those of individual attachment tendencies when it comes to evaluating other people’s insecure attachment behaviors. These findings also suggest that mental representations associated with distinct insecure attachment tendencies might become more available and accessible under cultural self-construals that are relatively more compatible with them. This might help explain why attachment avoidance and anxiety show different prevalence in different cultural contexts.

It is interesting that the hypotheses regarding attachment avoidance received support while the hypotheses regarding attachment anxiety did not. Even though we have experimentally manipulated cultural self-construal in our study, the predominant cultural context in which the study was conducted was a collectivist one. Research shows that attachment anxiety is more prevalent in collectivist cultures (e.g. Sagi et al., 1991; Schmitt et al., 2004; van IJzendoorn & Bakermans-Kranenburg, 2010), presumably because it is more compatible with the dominant cultural atmosphere, which is also the case in the Turkish context (e.g. Harma & Sümer, 2016; Özen et al., 2011; Selcuk et al., 2010; Sümer & Kağıtçıbaşı, 2010). This higher prevalence of attachment anxiety could have resulted in a diminished variance in the evaluation of anxious/sentinel behaviors, as they could be evaluated in a similar way by the participants since these behaviors are more compatible with the overreaching cultural context. Future studies conducted in different cultural contexts would be very helpful in disentangling this.

Of note, age emerged as a significant predictor of appraisal of behavior and appraisal of character in the avoidant scenario. This finding might be attributable to the fact that endorsement of independence values increase with time in emerging adults (Arnett, 2011). Our sample was a relatively young one, so it is plausible that participants became more accepting of the character who acted in a more independent and agentic manner in the avoidant scenario as they aged into emerging adulthood.

**Limitations of the Present Research and Suggestions for Future Studies**

The results of the present research should be approached with caution due to certain limitations. A major limitation of the study is having manipulated cultural self-construals via priming. Although past research has shown that priming independence/interdependence is a fairly reliable method of activating different self-construals (see Oyserman & Lee, 2008), the results should be replicated in different cultural settings in future research. Relatedly, the present study did not include a control condition or manipulation check pertaining to the independence/interdependence priming, which could be
added to future studies. In addition, the insecure attachment behaviors were presented to participants by two vignettes created for this study. These vignettes were tested in a pilot study, nonetheless, the reliability and validity of these novel materials should be better assessed by further research, and more fine-tuned tools representing insecure attachment behaviors should be produced.

**Contributions and Implications of the Present Research**

Despite the impressive amount and eminence of research in the domain of attachment, adaptiveness of its insecure form has been widely neglected. Yet investigating this angle may be especially important now as recent findings suggest that the prevalence of attachment insecurity is on the rise (Konrath et al., 2014). Complementing the reproductive fitness (e.g. Belsky et al., 1991; Chisholm, 1996) and group survival (Ein-Dor et al., 2010) accounts, the major contribution of the present work is to offer an extension to the solution of the attachment paradox through the lenses of cultural self-construal compatibility.

The present research makes a significant contribution to the literature by empirically testing for the first time whether cultural self-construals have effects on how people judge insecure attachment. The results provided initial evidence that different types of insecure attachment behaviors are indeed regarded differentially as a function of cultural self-construal. Another contribution of the present study is that it produced two novel scenarios depicting typical anxious/sentinel and avoidant/rapid fight-or-flight behaviors and measurements for the evaluations of these behaviors, which could be utilized in future research.

Findings of the present research have important implications for how attachment orientations, particularly insecure attachment, are viewed from a cross-cultural standpoint. They provide preliminary evidence supporting the idea that not only does insecure attachment function as an early alarm and escape mechanism, but it does so in a culturally sensitive manner. The group level adaptive advantage of insecure attachment could extend beyond the domain of survival in the face of imminent threat. One such domain could be the work setting, as several studies show that attachment system can also be activated in the work context and different insecure attachment tendencies can predict differential outcomes (see Yip et al., 2018 for a review), especially when it comes to counter-work behavior, such as higher negative spillover for people high in attachment anxiety (e.g. Sumer & Knight, 2001) and lower capitalization on positive leadership efforts for people high in attachment avoidance (e.g. McClean et al., 2021). In a similar vein, group compositions heterogeneous with respect to attachment could also be more efficient in work settings with their complementary action tendencies: Members with high attachment anxiety could be helpful for detecting potential problems and dangers, members with high attachment avoidance could facilitate acting without too much deliberation and compromise, and secure members could act as leaders and coordinators (see Lavy et al., 2015). The cultural self-construal differences can have further implications on this front. Our findings suggest that individuals high on attachment anxiety (avoidance) would be better tolerated in work settings predominantly characterized by an interdependent (independent) self-construal,
hence their contributions may be better utilized in these respective ecologies. Moreover, as the members possessing the attachment orientation that is incompatible with the cultural atmosphere are tolerated to a lesser degree, this can pose a risk for them. These conjectures could help explain the repeated findings showing attachment anxiety (avoidance) is more prevalent in cultures that are typified with an interdependent (independent) self-construal.

All in all, one can argue that the study of adaptiveness of insecure attachment is a fruitful avenue for future research, especially in light of its important implications for group formation decisions. Contexts other than survival threat, as studied in this research, should be utilized as potential fields of investigation to achieve a more comprehensive picture.

**Note**

1. Another reason we offer these results as cautious support to the first hypothesis is because the predominant cultural self-construal is an interdependent one in the Turkish context (e.g., Harma & Sümer, 2016; Özen et al., 2011; Selçuk et al., 2010; Sümer & Kağıtçıbaşı, 2010). By creating an experimentally manipulated independent self-construal, we have aimed to simulate a mindset where the participants could temporarily view the world from a more independent self-construal. We take the results showing that when our participants were put under this independence prime, they evaluated avoidant behaviors (which are in line with independence) more favorably as indication that insecure attachment behaviors that are in line with a particular self-construal are better tolerated.

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**Data Availability Statement**

The data that support the findings of this study and are openly available in Open Science Framework at [https://osf.io/6ufcn/?view_only=a0a284112ee4458194c218cda85f81cf](https://osf.io/6ufcn/?view_only=a0a284112ee4458194c218cda85f81cf).
Disclosure Statement

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References


