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What is This?

Tall, Dark, and Stable: Embodiment Motivates Mate Selection Preferences

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Can the qualities people desire in a mate shift according to the stability or instability of their physical state? In this investigation, we examined whether physical instability motivates people to seek partners who provide a sense of psychological stability—for instance, by demonstrating reliability. Theories of embodied cognition propose that knowledge is stored in memory as multimodal representations, and these representations can include information about bodily states (for a review, see Barsalou, 2008). For example, the concept "bed" might include information about one's sleeping posture, so the bodily state of lying down may activate cognitions related to "bed," and vice versa. Research on embodied cognition has shown that bodily states affect people's perceptions of others; in one study, holding a warm—rather than a cold—drink led participants to perceive another person as interpersonally warmer (Williams & Bargh, 2008). Given such findings, we expected that experiencing physical instability—a common, but unstudied, somatic experience—would activate the construct of instability more generally and would affect participants' perceptions, leading them to interpret other people's romantic relationships as relatively unstable. We further hypothesized that the experience of physical instability would affect not only people's perceptions (cognitions) but also their preferences, which reflect underlying motivational concerns (Higgins, 2012, chap. 2).

Bowlby (1988) proposed that the attachment system evolved to provide infants with a sense of safety and security, especially in stressful times. As Ainsworth demonstrated (1979), infants left in an uncertain environment seek out their caregivers, who provide a sense of security and stability. Because adult relationships have also been shown to serve as a source of security (Collins & Feeney, 2000), we hypothesized that adults who experience physical instability will, like infants who encounter an uncertain environment, seek security from relationship partners and will therefore be attracted to potential romantic partners who promise psychological stability (Chappell & Davis, 1998).

Note that we made opposing predictions for perceptions and preferences: We expected that physical instability would lead people to perceive less stability in other people's relationships, but to prefer more stability-promoting traits in their own potential relationship partners. Broadly speaking, we extended embodied-cognition research by (a) studying the effects of physical instability; (b) examining preferences for potential mates, in response to researchers' call for important and "action-relevant" outcomes (Meier, Schnall, Schwarz, & Bargh, 2012, p. 711); and (c) distinguishing between cognitive and motivational effects.

Method

Forty-seven romantically unattached undergraduates (25 men, 22 women; mean age = 21.08 years) were randomly assigned to either a physically unstable condition or a physically stable condition. In the physically unstable condition, participants sat at a slightly wobbly table and chair: The wobble was achieved by shortening two of the chair's nonadjacent legs by approximately ¼ in. and securing a small pebble to the bottom of one table leg. In the physically stable condition, participants sat at an identical, but stable, table and chair. We administered demographic and filler questionnaires to ensure that participants had experienced the furniture's instability (or stability) before they completed the dependent measures.

To determine whether physical instability—like other somatic cues (e.g., warmth)—can affect people's perceptions, we asked participants to judge other people's relationship stability. Participants rated the likelihood that the marriages of four well-known couples (e.g., Barack and Michelle Obama: married 19 years, two children) would break up in the next 5 years (1 = *extremely unlikely to dissolve*, 7 = *extremely likely to dissolve*). We reverse-scored and averaged responses to create an index of perceived stability (α = .60).

Participants indicated their preferences for various traits in a potential romantic partner (1 = *not at all desirable*, 7 = *extremely desirable*). We included traits that would provide a sense of psychological stability (*trustworthy, reliable*) or instability (*spontaneous, adventurous*), as well as traits with less relevance to instability (*loving, good with money, funny, supportive*). Pilot testing (*n* = 27), and a linear contrast,

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confirmed that the stability traits were perceived as providing more psychological stability, safety, and security (1 = *relatively unstable*, 9 = *relatively stable*) than the stability-neutral traits, which were, in turn, rated as providing more stability than the instability traits (stability traits: $M = 8.23$, $SD = 1.30$; stability-neutral traits: $M = 7.51$, $SD = 1.31$; instability traits: $M = 4.50$, $SD = 1.67$), $F(1, 26) = 101.81$, $p < .001$. We reverse-scored the instability-trait items and created two composites: preference for stability traits (vs. instability traits; α = .50) and preference for stability-neutral traits (α = .65). Finally, we assessed participants' moods (e.g., *annoyed, happy*; 1 = *not at all*, 9 = *a great deal*).

Results

A one-way analysis of variance (ANOVA) revealed that, as predicted, participants in the physically unstable condition perceived less stability in other people's relationships ($M = 4.80$, $SD = 1.12$) than did participants in the physically stable condition ($M = 5.55$, $SD = 0.84$), $F(1, 43) = 6.28$, $p = .016$, $\eta_p^2 = .13$ (Fig. 1). These results suggest that physical instability activates the concept of instability more broadly.

More important, physical instability affected preferences: A one-way ANOVA revealed that participants in the physically unstable condition reported a greater desire for stability traits in a partner ($M = 5.00$, $SD = 0.78$) than did participants in the physically stable condition ($M = 4.38$, $SD = 0.72$), $F(1, 45) = 8.18$, $p = .006$, $\eta_p^2 = .15$ (see Fig. 1). No differences between conditions emerged in preference for stability-neutral traits, $F < 1$, or in mood, except that participants in the physically unstable condition felt happier than participants in the physically stable condition, $F(1, 40) = 4.44$, $p = .041$, $\eta_p^2 = .10$. Two analyses regressing preferences and perceptions onto

Fig. 1. Mean perception of other people's relationship stability and mean preference for stability (vs. instability) traits in a potential mate as a function of physical stability condition. Error bars represent standard errors of the mean.

happiness and condition indicated that happiness was unrelated to either outcome ($ts < 1$).
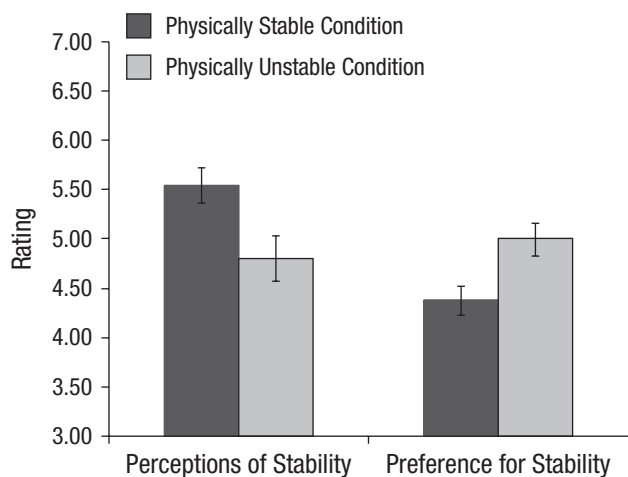
Discussion

Our study confirms that subtle bodily experiences affect not only people's perceptions of others, but also their preferences in others: Participants who experienced physical instability perceived less stability in other people's relationships and desired more stability in their own potential partners than did participants who did not experience such instability. Moreover, pilot testing suggested that participants in the physically unstable condition did not simply prefer more positive traits; using a Likert-type scale (1 = *relatively negative/undesirable/not very fun*, 9 = *relatively positive/desirable/very fun*), 24 participants rated the traits in the stability composite as being marginally less positive ($M = 7.19$, $SD = 0.94$) than the traits in the stability-neutral composite ($M = 7.44$, $SD = 0.81$), $t(23) = 1.89$, $p = .071$. Consequently, we concluded that physical instability altered participants' motivation to seek psychological stability rather than their motivation to seek positively valenced traits.

Mate selection is often viewed as a process that reflects long-term goals rather than in-the-moment psychological needs. The present study suggests that mate preferences may shift with transient bodily states created by the physical environment. By examining the important outcome of preferences in mate selection (Meier et al., 2012), this study extends previous findings suggesting that the physical world can affect preferences for movie genres (Hong & Sun, 2012) and cleansing products (Zhong & Liljenquist, 2006). We suspect that previously studied physical states may also motivate mate selection: For example, given that physical dirtiness is linked to moral impurity (see Lee & Schwarz, 2011), examining dating profiles in a physically dirty environment might motivate people to seek out moral puritans. Additionally, because perceived power is associated with feeling tall (Duguid & Goncalo, 2012), feeling short—as when seated in a lowered chair—could increase the attractiveness of high-status mates.

Our results also suggest that embodied cues can affect motivation, because participants' preferences (for stability) likely reflected their goals (to achieve stability). Insofar as goals and motivational states are represented as cognitive structures (Kruglanski et al., 2002), those structures should be represented—much like any other cognition—through sensorimotor information (Barsalou, 2008). Indeed, we suspect that one reason cognition may become embodied is to ensure that one's needs—which may arise from physical states—are met through goal pursuit. Embodied motivation, then, is a fruitful avenue for future research.

Declaration of Conflicting Interests

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