

A Facet-Level Analysis on the Associations between Mindfulness and Attachment Styles

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Practicing mindfulness generally results in improved psychological health, behavioral regulation, and relationship functioning. Attachment style describes how children and adults respond to relationship stress. A recent correlational study by Shaver, Lavy, Saron, and Mikulincer (2007) demonstrated direct links between facets of mindfulness and attachment styles in a sample of adults who volunteered to participate in a meditation retreat trial. The current study tested if these associations can be generalized to a college sample of 204 undergraduate students who were not involved in a meditation trial. Results largely replicated Shaver's findings and indicated relationships between facets of mindfulness and attachment styles in college students. Findings highlight the possibility that mindfulness and attachment styles may share common underlying processes. Implications for theory and clinical practice of mindfulness are discussed.

Mindfulness can be defined as the nonjudgmental awareness of what is taking place in the present moment (Brown & Ryan, 2003; Dimidjian & Linehan, 2003; Kabat-Zinn, 1994; Marlatt & Kristeller, 1999). Interventions utilizing mindfulness skills training in a clinical setting have been developed (Baer, 2003) demonstrating that the practice of mindfulness leads to a variety of positive physical and psychological health outcomes. Because its usefulness has largely been established based on treatment outcome studies, little is known about how early life experience and development impacts subsequent levels of mindfulness. Understanding the associations between facets of mindfulness and attachment style is one way to address this gap in the literature. This is an important research question because it may highlight the importance of promoting secure attachment style early in life, given its association with higher levels of mindfulness.

Mindfulness as a Multi-faceted Construct

Mindfulness as a psychological construct has primarily been examined in the context of clinical research. Practices associated with mindfulness, such as transcendental meditation, were introduced into Western treatments for psychological problems (Candelent & Candelent, 1975) and substance abuse (Shafii, Lavelly, & Jaffe, 1975) as early as the 1970s. In recent years, interests in mindfulness research have grown rapidly in clinical psychology (Hayes, Follette, & Linehan, 2004) and across the disciplines of psychology and neuroscience (Davidson & Lutz, 2008). Research demonstrates that mindfulness is associated with a variety of positive outcomes, including lower stress reactivity, improved mental and physical health, greater relationship satisfaction, improved responses to relationship conflict, and improved self-regulation (Brown & Ryan, 2003; Brown, Ryan, & Creswell, 2007). In addition, a range of mindfulness practices (i.e., techniques for increasing mindfulness) are associated with improved outcomes for a variety of physical and mental health problems, including depression, alcohol use, and chronic pain (Baer, 2003).

Despite its clinical utility, one persistent issue in the field of mindfulness research is the generation of an adequate operational definition and corresponding measurement methods of the construct. To date, different researchers have defined mindfulness in various ways (e.g., Bishop, Lau, Shapiro, Carlson, & Anderson, 2004; Kabat-Zinn, 1994; Linehan, 1993). Moreover, existing

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measurements of mindfulness have focused on self-report questionnaires and the proliferation of self-report measures has complicated assessment and construct definition (see Baer, Smith, & Allen, 2004 for a review). As such, one debate in the field has to do with the overarching question, ‘Which aspects of the construct of mindfulness are related to which correlates/outcomes?’ An emerging perspective takes a multi-dimensional facet approach, with facets corresponding to separate dimensions of the mindfulness construct that are derived statistically through factor analysis, rather than based on observation or theory alone (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006).

The current study defines mindfulness as the awareness of the present moment in a nonjudgmental manner, and recognizes five different facets of mindfulness including: (1) nonreactivity to inner experience, such as refraining from impulsive reactions, (2) observing and attending to sensations, perception, thoughts, and/or feelings, such as paying attention to the intensity/location/duration of bodily sensations or the pitch/volume/tone quality of sounds, (3) acting with awareness, concentration, and nondistractedness, such as engaging fully in one’s current activity with undivided attention, (4) describing and labeling with words, such as applying words to describe one’s thoughts or emotions nonjudgmentally, and (5) nonjudging of experience, such as refraining from judgments or self-criticism about having an experience (Baer et al., 2006). Using the multi-facet approach, this study explores whether individual dimensions of the mindfulness construct have differential associations with different attachment styles.

Attachment Styles

Attachment theory and research developed primarily through the work of John Bowlby (1982), a British psychiatrist and psychoanalyst, and Mary Ainsworth, an American developmental psychologist (Ainsworth & Bowlby, 1991). Bowlby (1982) argued that attachment experiences early in life influenced an individual’s experience in a variety of contexts (most saliently in relationships) throughout the life span constituting a fundamental aspect of personality. Based on Bowlby’s theory, Ainsworth systematically studied individual differences in the attachment responses of infants. She eventually developed a standardized measurement protocol and a corresponding classification system for categorizing normative, (i.e., secure) attachment and dysfunctional attachment (i.e., insecure). The insecure attachment categories were (1) anxious-resistant, where the child exhibited extreme distress upon separation from the primary caregiver/parent and ambivalence towards the parent upon reunion, and (2) avoidant, where the child exhibited low levels of distress upon separation from the primary caregiver/parent and indifference to or avoidance of the parent upon reunion (Ainsworth, Blehar, Waters, & Wall, 1978).

With the continuation of empirical research, attachment theory has been significantly revised and expanded. For example, Shaffer (2007) argued that attachment theory has become the dominant approach to understanding early social development. In addition, the application of attachment theory has been extended to explain different styles of interpersonal relationships among adults (Hazan & Shaver, 1987; Fraley, 2002). Subsequent studies have focused on assessment of attachment security along two continuous dimensions of anxiety and avoidance (Brennan, Clark, & Shaver, 1998). These studies have generally found that adults high in attachment avoidance tend to minimize the importance of close relationships and respond to relationship stress by withdrawing and avoiding. In addition, adults high in attachment anxiety tend to be preoccupied with potential abandonment and respond with great anxiety when relationship security and closeness are threatened. On the other hand, securely attached adults (low in avoidance and anxious attachments) respond flexibly and adaptively to relationship stress and report high levels of satisfaction and connection in their relationships. Decades of correlational and experimental priming studies have demonstrated that attachment security in adults is related to a range of psychological and health-related variables, including relationship quality, depression and anxiety, somatic symptoms, and work performance (Mikulincer & Shaver, 2007).

Relationship between Mindfulness and Attachment Styles

Mindfulness is a state of mind in which attention is directed in an open and flexible way to the present moment (Brown & Ryan, 2003; Dimidjian & Linehan, 2003; Kabat-Zinn, 1994; Marlatt & Kristeller, 1999). In terms of psychological function, mindfulness involves the deployment or regulation of attention to present experience in a manner that is not distorted by negative thoughts, and where the impact of negative emotion is minimized (Brown & Ryan, 2003; Brown et al., 2007). The tradition of mindfulness has also produced a well-articulated set of methods for teaching mindfulness, contributing to the embrace of mindfulness teachings by clinical psychologists (Baer, 2003).

Attachment theory describes a similar set of self and emotion regulatory functions that are situated within a specific interpersonal and developmental context (Shaffer, 2007). In particular, secure attachment appears to have specific features in common with a mindful state of awareness. For example, both serve a self-regulatory function in the face of threats, and both involve flexible openness to the moment, rather than preoccupation with threat (as in attachment anxiety) or avoidance of threat (as in attachment avoidance). In addition, secure attachment nurtured by positive parenting practices appears to have much in common with mindfulness, including attentiveness and tempered reactivity (Laranjo, Bernier, & Meins, 2008),

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and suggests a sequence in which mindful parents may produce securely attached children, who in turn may become mindful and securely attached adults and parents.

Only a few studies have empirically evaluated the relationship between mindfulness and attachment. Shaver, Lavy, Saron, and Mikulincer (2007) reported data from 70 experienced adult meditators who participated in an intensive full-time meditation training retreat for three months. Attachment anxiety and attachment avoidance predicted all five facets of mindfulness, as assessed by Baer's (2006) five-facet assessment, accounting for 10 to 38 percent of the variance in mindfulness. Taken together, attachment avoidance and anxiety accounted for 42% of the variance in the total mindfulness scores. In addition, Walsh and colleagues (2009) studied trait anxiety, attachment anxiety and avoidance, attentional control, and mindfulness in two separate correlational studies involving 127 psychology students and university staff members. With the exception of attachment avoidance, mindfulness scores were predicted by trait anxiety, attentional control, and attachment anxiety. Finally, in a sample of psychology undergraduates, securely attached individuals reported significantly higher levels of mindfulness than insecurely attached individuals (Cordon & Finney, 2008).

In summary, the relationship between mindfulness and attachment styles has only been studied by a small number of researchers, and not all have explored this relationship on the facet-level. Importantly, Shaver and colleagues (2007) demonstrated that the strength of the relationship between the two insecure attachment styles and mindfulness varies across different facets of mindfulness in a sample of experienced meditators. The purpose of the current study was to replicate the study by Shaver et al. (2007) using a college sample in which students may or may not be experienced meditators. The exploratory hypothesis of this study was to examine whether different facets of mindfulness relate differentially to either an anxious or avoidant attachment style.

Method

Participants

Participants were male and female undergraduates over the age of 18 and of diverse ethnic backgrounds, who were recruited from the psychology human subject pool at a large university located in the Pacific Northwest of the United States from January 2008 to March 2008. A total of 222 undergraduate students participated in this study. During data analyses, 18 participants were screened out because of invalid or missing demographic information, including age, gender and/or ethnicity. Finalized data analyses included 204 participants. General demographics of all participants were the following: 61.8% were female with mean age of 19.38 ($SD = 1.60$); 45.6% were Caucasian, 36.3% were Asian, 4.4% were Native Hawaiian or Pacific Islander, and 13.7% were mixed or others ethnicities. Previous

meditation experience was not required to participate in this study.

Procedure

Questionnaire packets were distributed to all undergraduate students who agreed to participate. All participants were then given an hour to complete the questionnaires and received extra course credit for their participation. Participants were allowed to leave anytime during the experiment and were debriefed following completion.

Measures

Questionnaire packets included demographic questions (i.e., age, gender, and ethnicity), the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006), and the Experiences in Close Relationships Scale (ECRS; Brennan, Clark, & Shaver, 1998). The FFMQ was used to measure the five different facets of mindfulness, including the ability to (1) observe, (2) describe, (3) act with awareness, (4) be nonjudgmental, and (5) be non-reactive. This scale, as well as the individual five facets, has shown to be reliable (observe: $\alpha = .74$, describe: $\alpha = .90$, act with awareness: $\alpha = .84$, nonjudging: $\alpha = .91$, nonreactivity: $\alpha = .72$, mindfulness total score: $\alpha = .88$). The ECRS was used to measure adult attachment style based around two factors analytically derived from the primary constructs of avoidance and anxiety.

Results

The aim of the present study was to investigate whether different facets of mindfulness correlate with anxious attachment style or avoidant attachment style. To understand the relationships between the five facets of mindfulness and attachment styles, we computed Pearson's correlations. In addition, multiple regression analyses were conducted to evaluate the strength of all five facets combined in predicting attachment styles.

Pearson's correlations between mindfulness subscales and attachment styles were used (see Table 1). Mindfulness total score was negatively correlated with both anxious attachment style ($r = -.34, p < .01$) and avoidant attachment style ($r = -.36, p < .01$). Observe was negatively correlated with avoidant attachment style ($r = -.19, p < .01$). Describe was negatively correlated with avoidant attachment style ($r = -.23, p < .01$). Acting with awareness was negatively correlated with anxious attachment style ($r = -.32, p < .01$) and avoidant attachment style ($r = -.29, p < .01$). Lastly, nonjudging was negatively correlated with anxious attachment style ($r = -.47, p < .01$) and avoidant attachment style ($r = -.25, p < .01$).

In addition, the variability of strength among the five facets in association with attachment styles also exists when all five facets were combined into a single model for predicting anxious attachment style and avoidant

Table 1

Pearson Correlation Coefficients Showing Links between Attachment Styles and Mindfulness Scores

Mindfulness Scores	Attachment Styles	
	Anxious Attachment	Avoidant Attachment
Nonreactivity	-.13	-.09
Observe	.12	-.19*
Describe	-.14	-.23*
Acting with awareness	-.32*	-.29*
Nonjudging	-.47*	-.25*
Total Score	-.34*	-.36*

Note. * $p < .01$.

attachment styles. In Table 2, multiple regression analyses show that observe ($\beta = -.15, p < .05$), acting with awareness ($\beta = -.18, p < .05$), and nonjudging ($\beta = -.19, p < .05$) were negatively associated with avoidant attachment style, while only acting with awareness ($\beta = -.20, p < .01$) and nonjudging ($\beta = -.38, p < .001$) were negatively associated with anxious attachment style. In practical terms, both anxious and avoidant attachment styles were associated with absent-mindedness at the present moment and the tendency to judge and self-evaluate one's experience. For avoidant attachment style, it was also associated with a lack of tendency to attend to one's bodily sensations and feelings.

Discussion

The purpose of this study was to investigate whether different facets of mindfulness are associated with different kinds of insecure attachment style. The results supported the hypothesis that different facets of mindfulness would be differentially related to attachment styles. To such an

extent, the identification of differential relationships between attachment style and mindfulness on a facet level was consistent with the study by Shaver et al. (2007). In brief, both anxious and avoidant attachment style were significantly associated with lower mindfulness scores. Anxious attachment style was negatively associated with all facets of mindfulness except observe. Avoidant attachment style was significantly associated with all facets of mindfulness except nonreactivity.

However, findings of the present study differed in the sense that we found weaker associations between mindfulness and attachment styles. In particular, nonreactivity was not significantly related with either attachment style. One possible explanation for this pattern is the differences in participants in the two studies. Compared to the participants in Shaver et al.'s (2007) study who were all experienced meditators over the age of 50, we used college undergraduate students who may or may not have previous meditation experience. As non-meditators are often less familiar with accurately describing and labeling their feelings when compared to experienced meditators (Thompson & Waltz, 2007), it is possible that this difference in the sample partly accounted for the differences between our findings and Shaver's. Specifically, Thompson and Waltz (2007) argued that through meditation individuals learn to accept, describe, and label their emotions accurately enabling them to understand and express their emotional experience. They suggested that non-meditators may have a harder time accurately describing and labeling their emotions. This implies that the amount of meditation experience may affect the way participants comprehend the questionnaire items because of the relative lack of experience with meditation.

Several other limitations should be noted in the study. First, this study relied on the self-report method and may be vulnerable to response bias. Second, the data is correlational in nature and no causal relationship can be drawn. Third, all participants of the study were undergraduate students and information regarding their

Table 2

Multiple Regression Analysis Predicting Anxious Attachment and Avoidant Attachment Using Five Facets of Mindfulness

Variable	B	SE	B	P
Anxious Attachment				
Nonreactivity	-.449	.340	-.089	.189
Observe	.474	.266	.125	.076
Describe	-.045	.238	-.014	.852
Acting with awareness	-.769	.276	-.198**	.006
Nonjudging	-1.099	.201	-.377***	< 0.001
Avoidant Attachment				
Nonreactivity	.012	.373	.002	.975
Observe	-.584	.291	-.151*	.046
Describe	-.250	.263	-.078	.342
Acting with awareness	-.700	.306	-.175*	.023
Nonjudging	-.562	.219	-.189*	.011

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

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previous meditation experiences was not assessed. Thus, the generalizability of these findings remains to be tested and future studies should examine the potential effect of prior meditation experiences.

Despite its limitations, the present study adds to the current literature by demonstrating the relationship between attachment style and different facets of mindfulness. Mindfulness and attachment appear to capture related fundamental processes by which human beings self-regulate behavior and emotion. In this way, mindfulness and attachment share much in common. One immediate implication is to consider attachment style and mindfulness practice in clinical research and practice. An important area of future research is to examine if attachment style or level of mindfulness moderates treatment effects. Clinicians could then tailor treatments (i.e., using mindfulness) to individuals with different attachment styles.

From a developmental perspective, investigating the association between mindfulness and attachment may provide insight into how to raise emotionally healthy individuals from early stages of development. Further understanding of the relationship between mindfulness and attachment may suggest more effective ways of promoting long-term positive health outcomes and preventing childhood mental disorders. Future research might address whether attachment styles influence mindfulness skills or vice versa using longitudinal research methods. Specifically, mindfulness can be perceived on both sides of the attachment transaction. That is, mothers who produce infants with secure attachment should demonstrate mindful qualities and, as the correlational research suggests, infants who demonstrate a secure attachment should subsequently demonstrate higher degrees of mindfulness. These hypotheses should be directly assessed empirically. Following this line of theory, intervention researchers have initiated an exploratory study of mindfulness training as an intervention for increasing the chances of secure attachment between infant and mother (Bialy, 2006).

More generally, this study supports the utility of applying the facet model of mindfulness, as different facets of mindfulness have been shown to differentially associate with attachment styles. The facet structure of mindfulness can be useful when teaching such skills to patients in therapy. Furthermore, a facet-level analysis of mindfulness may provide a more accurate and precise account of how mindfulness relates to other psychological constructs in research studies. For instance, Evans, Baer, and Segerstrom, (2009) have demonstrated that the nonjudging and nonreactivity facets of mindfulness were predictive of persistence and self-regulation. Further research examining how mindfulness relates to other psychological constructs will inform how to integrate mindfulness training into clinical intervention.

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