THE ROLE OF MINDFULNESS IN AFFECTIVE FORECASTING

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to Kent State University in partial
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degree of Master of Arts

by

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Introduction

You have been invited to a party tonight along with a few peers. While trying to make your decision as to whether to attend, you might think about whether you will enjoy it or whether you will be counting down the seconds until you can bolt for the door. It is likely that your decision will be based on how much you surmise you will enjoy the party. Such a decision is based on a prediction of how you believe you will feel in some future scenario, and everyone is confronted with such decisions daily.

Affective forecasting is the name for this act of predicting one's future emotions (Wilson & Gilbert, 2003). The past decade of research on affective forecasting has shown that people are rather poor at predicting how they will feel following various life events. Research has shown that whether it be predicting how happy or sad one will be after Christmas celebrations (Buehler & McFarland, 2001), football games (Wilson, Wheately, Meyers, Gilbert & Axsom, 2000), receiving exam grades (Buehler & McFarland, 2001), election news (Gilbert, Pinel, Wilson, Blumberg & Wheately, 1998), tenure status (Gilbert, Pinel, Wilson, Blumberg & Wheately, 1998), or receiving results of psychological evaluations (Gilbert, Pinel, Wilson, Blumberg & Wheately, 1998; Wilson, Meyers, & Gilbert, 2001), people routinely mispredict how they will feel.

When predicting future affects, people tend to err concerning two components of affective forecasting: intensity and duration (Wilson & Gilbert, 2003). For instance, in
considering a divorce, a wife might predict that she will have an extremely negative
emotion (i.e., sadness) that will occur in the form of tears and suicidal thoughts
(intensity), and that her sadness will last for years (duration). In reality, however, it is
unlikely that a divorce will cause an emotion with the intensity and duration that she
predicts it will, as people often overestimate how future events will impact their future
well-being in terms of intensity and duration.

Most of the research concerning affective forecasting has concentrated on the
causes of these biases. Wilson and Gilbert have suggested two main reasons why people
are poor affective forecasters: immune neglect and focalism (Gilbert et al., 1998; Wilson
and Gilbert, 2003). Immune neglect occurs when people do not realize that they will
make bad events better for themselves by reshaping or reconstruing them in a more
positive light. For example, a student may predict she will be upset if she gets a
disappointing grade in a class, but when this actually happens, she will quickly
rationalize the scenario in a way that lessens the disappointment, perhaps by telling
herself that grades are very subjective. Wilson writes that people "do not appreciate the
extent to which they transform the events psychologically in a way that will blunt their
impact" (Wilson et al., 2000, pp. 882). This, in turn, impairs their ability to accurately
predict future affect following negative events. However, even if people are able to
suppress immune neglect, immune neglect only explains the propensity to err when
people are forecasting for negative affects and not positive affects, and so there is likely
another explanation for inaccurate affective forecasts, particularly following positive
events (Wilson et al., 2000).
A second source of inaccurate affective forecasting is focalism, which causes people to concentrate solely on the specific event and fail to realize other events will occur that will likely influence their emotions (Wilson et al., 2000). Focalism is a broader concept than immune neglect since it explains the propensity to err in forecasting both negative and positive events. Wilson et al. (2000) provided two possible explanations for focalism: the *distraction hypothesis* and the *affective competition hypothesis*. The distraction hypothesis suggests that other events occurring in people’s lives will dominate their thoughts, overshadowing the perceived importance of the event about which individuals were asked to predict their feelings. The recognition that other events will be co-occurring can lead individuals to moderate their affective forecasts concerning the event in question. The affective competition hypothesis suggests that emotions caused by other events will nullify the emotions caused by the event in question. With the distraction hypothesis, people are preoccupied by other events occurring simultaneously with the predicted event, whereas with the affective competition hypothesis, individuals are preoccupied by emotions that may occur due to events other than the predicted event.

Since most of the affective forecasting research has concentrated on replicating the phenomenon and understanding the causes behind these inaccurate predictions, there has been little research examining how the accuracy of affective forecasting can be improved. One exception is Wilson et al. (2000), who tried to increase accuracy in affective forecasting by having participants complete a daily diary leading up to a football game. Some participants estimated the number of hours spent on 10 activities and also report the activities they thought they were likely to do on the day of a football
game, prior to making a forecast of their emotions following the game. This task was intended to reduce errors resulting from focalism, specifically the distraction hypothesis bias by bringing to mind other events that may affect their lives at the same time. Other participants were not asked to consider other events and just forecasted their emotions. Individuals made more accurate affective forecasts when they considered all events than individuals who were only thinking about the football game when making their forecast.

Researchers have also begun examining individual differences that may account for affective forecasting accuracy. Dunn, Brackett, Ashton-James, Schneiderman, & Salovey (2007) examined emotional intelligence (EI) as a predictor of individual differences in the accuracy of affective forecasts. Emotional intelligence has been conceptualized in the literature in two distinct ways: as a singular ability or as a mixture of related but distinct skills. Ability models propose that emotional intelligence is a form of intelligence that encompasses abilities to manage emotions (e.g., Mayer & Salovey, 1997). Mixed models conceptualize EI as involving a wide range of skills, such as being competent, persistent, and having self-control (e.g., Bar-On, 1997). Ability models rely on performance measures whereas mixed models rely on self-report measures. The ability model of EI has been less criticized. The most accepted definition of EI is Mayer and Salovey’s (1997) ability-based conceptualization of emotional intelligence, which refers to the way in which people use emotions to guide and inform their thinking. Individuals high in emotional intelligence are better able to perceive, understand, and manage their own and other’s emotions. There are four components of EI: perception of emotions, use of emotions to facilitate thought, understanding emotions, and management of emotions.
The fourth component, emotion management, has been likened to the “most sophisticated ability” (Fiori, 2009). Dunn et al. (2007) found that emotion management was the component that best explained the relationship between EI and forecasting ability. Individuals who score high on the EM component may have the ability to recognize that they will regulate their emotions in regards to affective events.

Although Dunn et al. (2007) found that emotional intelligence was a meaningful predictor of accurate affective forecasts, this one factor of emotional management may not be the best unique predictor of accurate forecasts. Individuals who are strong in the ability of emotion management are able to recognize how emotions work following situations, such as realizing that there are internal and external influences on how individuals react following emotional experiences. The emotion management domain measures how individuals manage emotions, so there is a controlling aspect inherent in this definition. The definition of emotion management is that individuals are able to recognize and regulate their emotions.

In contrast, mindfulness, a concept that is distinct from EI, places emphasis on awareness of emotions and thoughts and this awareness is thought to facilitate one’s well-being and may be a better predictor of affective forecasting accuracy than emotion management. Mindfulness has its roots in Eastern philosophy and religions, specifically Buddhist & Hindu traditions. More recently, mindfulness has become a non-secular practice of many Westerners. Current Western definitions of mindfulness state that mindfulness involves a nonjudgmental acceptance of one's emotions and thoughts while being present-centered (Bishop et al., 2004). Bishop, Lau, Shapiro, Carlson, Andersen,
Camody, et al. (2004) operationally defined mindfulness as having two components: 1) self-regulated attention on immediate experiences and, 2) adoption of an open and accepting outlook on life. Though definitions of mindfulness differ, most emphasize an awareness of feelings and thoughts, observation of these feelings and thoughts, and acceptance without judgment of these feelings and thoughts (Baer, Smith, & Allen, 2004; see also, Dimidijian & Linehan 2003; Ryan & Brown, 2004).

Mindfulness allows a person to understand that although negative thoughts and affects may occur, they are not permanent or a part of the person’s identity. Baer (2003) states that an important concept of mindfulness practice is the "realization that most sensations, thoughts, and emotions fluctuate, or are transient, passing by like waves in the sea.” Mindfulness is thought to allow a person to respond to events more reflectively, rather than without thinking (Bishop et al., 2004).

This means that, in everyday life, some people will be more mindful of their thoughts and emotions than others. Since the awareness that one's emotions are fleeting is inherent to the definition of mindfulness (i.e., one who is mindful will hold this belief to some degree), holding such a belief could be extremely useful in making accurate affective forecasts. That is, some of the complications of accurately predicting one's future emotions, such as focalism and immune neglect, may be counteracted to the degree that a person is aware of the fleeting nature of emotions. People who are mindful should be able to "overcome" these hurdles to accurate affective forecasting because they should be predicting with an increased awareness, supported by more accurate observations of their thoughts and feelings. Such awareness and acceptance of their emotions should
allow them to recognize emotions as fleeting and not detrimental to their overall well-being.

One does not need to complete mindfulness training to be considered mindful. Kabat-Zinn (2003) described mindfulness as "an inherent human capacity and we are all mindful to one degree or another, moment by moment". Several questionnaires (see Baer, Smith, & Allen, 2004; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Walach, Bucheld, Buttenmuller, Kleinknunt, & Schmidt, 2006) have been developed to test a person's mindfulness, and these measures do not require that one has a background in the practice. The Five Factor Mindfulness Questionnaire (Baer et al., 2006) separates mindfulness into five distinct factors: observing, describing, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience. Two factors that may play a substantial role in accurate affective forecasts are observing and acting with awareness. The observe factor asks individuals to rate how often they “pay attention to how my emotions affect my thoughts and behaviors” and “notice how foods and drinks affect my thoughts, bodily sensations, and emotions”. The observe factor asks individuals how often they notice and attend to internal and external experiences, such as sensations, emotions, and the outside environment. Being able to attend to internal and external environment should allow individuals to understand how their emotional experiences tend to ebb and flow. The other factor, acting with awareness, assesses how individuals attend to their activities of the moment. Individuals are asked how often they “find it difficult to stay focused on what’s happening in the present” and find themselves “doing things without paying attention”. Being able to act with awareness and stay focused on
the present should enable individuals to avoid falling prey to focalism.

The concept of mindfulness may be unique in its ability to allow individuals to be aware of their emotions without necessarily controlling them or evaluating the inappropriateness of certain emotions. Thus, the current study seeks to examine whether people who are more mindful will make more accurate affective forecasts. Specifically, I predict that people who observe their emotions more (observe factor) and those who act with awareness of their emotions more (aware factor) should make more accurate affective forecasts than those lower in these tendencies. I tested these hypotheses in two studies by asking individuals to predict their emotions before events, assessing their mindfulness using the Five Factor Mindfulness Questionnaire, and by asking them after the event to report on their current emotions.

Study 1: Reactions to Sporting Events

In the first study, I used major sporting events as the events to which individuals would provide their affective forecasts. I hypothesized that individuals who are more mindful, and specifically more observant and aware, should more accurately predict their happiness following a sporting event.
Method

Participants

Eighty-one undergraduate students participated in the study in exchange for course credit. An additional ninety participants were recruited from internet message boards. Recruitment was aimed at those interested in the sporting event. Overall, the 171 participants (86 males) ranged in age from 17-57 (M = 21.33), and were primarily Caucasian (46.46%), Asian (32.39%), and African-American (8.45%).

Procedure

Participants were contacted before major sporting events. The sporting events were either major sporting events (the NBA finals) or rivalry football games (Michigan State versus Ohio State; Pittsburgh Steelers versus Cleveland Browns). Participants were asked to predict their affective forecasts and then completed measures assessing their mindfulness (see Appendix A). For the NBA finals, participants completed the survey after the first two games of the series were played until the day of the last game. For all football games, participants completed the questionnaire two to three days before the football game was played.

Two days after the conclusion of the game or series, participants were contacted via email to fill out an online survey that asked about their experienced affect. Thirty-five participants did not provide follow-up data. I examined to see if there were differences
between participants who provided follow-up data and those who did not and I found no significant differences.

Measures

*Forecasted Affect.* Affective forecasts were assessed using two questions. Participants were asked how happy they would be two days after the game if their team won and how happy they would be two days after the game if their team lost. Happiness was rated 1 (“not at all happy”) to 9 (“extremely happy”).

*Experienced Affect.* Two days after the events, participants were asked to rate their current happiness on a 9-point scale, ranging from not at all happy (1) to extremely happy (9).

*Mindfulness.* Mindfulness was assessed using the Five Factor Mindfulness Questionnaire (FFMQ; Baer et al., 2006). The FFMQ was completed following participants’ reports of affective forecast. The FFMQ is 39-item scale that examines five distinct factors of mindfulness using a 5-point Likert scale. Reliabilities for the factors ranged from $\alpha = .80$ (observe factor) to $\alpha = .91$ (nonjudge factor). Correlations between the factors were small, ranging from $r = -0.18$ between the observe and the nonjudge factors to $r = .44$ between the nonjudge and awareness factors. Table 1 shows the correlations among the FFMQ factors, as well as forecasts and experienced affect.
Results

To test whether any of the aspects of mindfulness predicted forecasting accuracy, I entered the five facets of mindfulness into a regression predicting absolute accuracy. Absolute accuracy was calculated as the absolute difference between an individual's predicted happiness and experienced happiness (see Dunn et al., 2007). Thus, greater accuracy is represented by a smaller absolute difference score. Table 2 presents a summary of descriptive statistics for all major study variables.

Table 3 presents the results of this regression. One facet of mindfulness, nonjudging of experience, was the sole significant predictor of forecasting accuracy ($\beta = - .21$), $t(136) = 2.19$, $p = .03$. Individuals who endorsed being able to nonjudgmentally evaluate their affects were more accurate in predicting their future affect. All other facets of mindfulness did not significantly predict accuracy, $p$’s > .05.
Table 1. Correlations for Major Study Variables for Study 1

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<tr>
<td>1- Nonreact</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td>2- Observe</td>
<td>0.13</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>3- Aware</td>
<td>0.20**</td>
<td>-0.02***</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>4- Nonjudge</td>
<td>0.27***</td>
<td>-0.17*</td>
<td>0.44***</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>5- Describe</td>
<td>0.23**</td>
<td>0.18*</td>
<td>0.43***</td>
<td>0.30***</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Forecasted Affect</td>
<td>0.05</td>
<td>-0.04</td>
<td>0.01</td>
<td>0.18*</td>
<td>0.10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Experienced Affect</td>
<td>0.07</td>
<td>0.00</td>
<td>0.04</td>
<td>0.07</td>
<td>0.07</td>
<td>0.72***</td>
<td>--</td>
</tr>
</tbody>
</table>

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

Table 2. Descriptive statistics for Study 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast Affect</td>
<td>6.77</td>
<td>2.50</td>
</tr>
<tr>
<td>Experienced Affect</td>
<td>6.43</td>
<td>1.45</td>
</tr>
<tr>
<td>Absolute Accuracy</td>
<td>2.14</td>
<td>1.67</td>
</tr>
<tr>
<td>Nonreact</td>
<td>3.09</td>
<td>0.71</td>
</tr>
<tr>
<td>Observe</td>
<td>3.56</td>
<td>0.72</td>
</tr>
<tr>
<td>Aware</td>
<td>3.38</td>
<td>0.84</td>
</tr>
<tr>
<td>Nonjudge</td>
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<td>0.98</td>
</tr>
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<td>Describe</td>
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Table 3. Regression Analysis Predicting Forecasting Accuracy for Study 1 (n = 136)

<table>
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<tr>
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<th>SE</th>
<th>$\beta$</th>
<th>t</th>
<th>Significance</th>
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<tr>
<td>Winners/Losers</td>
<td>1.06</td>
<td>0.26</td>
<td>0.33</td>
<td>4.06</td>
<td>0.000</td>
</tr>
<tr>
<td>Nonreact</td>
<td>0.09</td>
<td>0.18</td>
<td>0.04</td>
<td>0.51</td>
<td>0.609</td>
</tr>
<tr>
<td>Observe</td>
<td>0.10</td>
<td>0.19</td>
<td>0.05</td>
<td>0.54</td>
<td>0.587</td>
</tr>
<tr>
<td>Aware</td>
<td>0.15</td>
<td>0.19</td>
<td>0.08</td>
<td>0.75</td>
<td>0.453</td>
</tr>
<tr>
<td>Nonjudge</td>
<td>-0.36</td>
<td>0.16</td>
<td>-0.21</td>
<td>2.19</td>
<td>0.030</td>
</tr>
<tr>
<td>Describe</td>
<td>0.20</td>
<td>0.18</td>
<td>0.11</td>
<td>1.11</td>
<td>0.270</td>
</tr>
</tbody>
</table>

Note: Winners/Losers refer to whether the participants were predicting a loss (coded 1) or a win (coded 2).
Discussion

The present study provides some preliminary evidence that one facet of mindfulness, nonjudging of experience, may be related to forecasting accuracy. This facet measures how individuals relate to their emotions and thoughts, either by tending to evaluate in them in terms of appropriateness or tending to let them pass unevaluated. Individuals who endorse this factor tend not to criticize themselves for having irrational thoughts or feelings. Holding a non-evaluative stance toward one’s emotions may enable one to regulate those emotions. In recent work by Baer et al. (2006), the nonjudging of experience factor was the factor of mindfulness that most negatively correlated with thought suppression and emotion regulation. Thus, this factor may be tapping into not controlling one’s emotions, but rather experiencing emotions as they occur without evaluating them as good or bad.

The event under investigation (sporting event) is one that occurs fairly often, especially for individuals who may be the most invested in their outcomes. It is possible that mindfulness affects forecasts differently for events that occur only occasionally. For example, even those people who are not particularly mindful may be able to see a pattern, such as their team losing week after week, yet they continue to live quite happily (and continue rooting for their losing team). This scenario is less likely with an event that occurs occasionally, such as a political election. In these kinds of events, being able to forecast an emotion accurately is less likely to be based on people’s past experiences with
those events. Rather, with rare events, more mindful individuals may be operating with the understanding that *all* emotions are fleeting, regardless of the nature of the triggering event or experience. Thus, being mindful may enable individuals to make an accurate forecast based on their general knowledge of emotions, rather than their past experience with similar events.

Therefore, Study 2 examines whether a national, occasional event will allow individuals who are mindful to make more accurate affective forecasts. By using the 2008 presidential election, I are able to examine whether it is the ‘nonjudge’ factor of mindfulness that is most helpful in all situations when forecasting affect or whether other factors of mindfulness, such as the aforementioned ‘observe’ and ‘aware’ factors will be unique predictors of accuracy.
Study 2: The Election Study

Method

Participants

Two hundred and twenty participants completed either a paper packet questionnaire or an online questionnaire. The study was described to participants as one that investigated their thoughts about the upcoming presidential election and their overall feelings. Demographic information was available only for the online sample. These 109 online participants (85 females) ranged in age from 18-45 (M = 23.30) and were primarily Caucasian (78.89%), African-American (8.25%), or biracial (7.34%).

Procedure

Participants were contacted beginning two weeks prior to the 2008 Presidential Election Day to predict their affective forecast for two weeks after the sporting event. Participants rated their current happiness and predicted happiness at 2 weeks after Election Day, and then completed the Five Factor Mindfulness Scale (Baer et al. 2006). Other questionnaires were also given to participants at this time, assessing emotions and motivations, but were not used in these analyses (see Appendix B). Two weeks after Election Day, participants were contacted via email to fill out an online survey. Previous
studies have used a similar paradigm, with the forecast being either for two weeks (Dunn et al., 2007) or one month (Gilbert, Pinel, Wilson, Blumberg & Wheately, 1998) after a major political election. Thirty-two participants failed to provide follow-up data, leaving an overall sample of 188 participants. There were no significant differences between those individuals who provided complete data compared to those who did not.

Measures

Forecasted Affect. Affective forecasts were assessed using two questions. Participants were asked to check the name of the candidate they most wanted to see win the presidential election. The choices given were “John McCain/ Sarah Palin (Republican)” or “Barack Obama/ Joe Biden (Democrat)”. Participants were then asked to rate how happy they thought they would be two weeks after the election if the Republican candidates (McCain/Palin) won. The next question asked how happy they’d be two weeks after the election if the Democrats candidate (Obama/Biden) won. Given the outcome of the election, the latter question was used as the measure of forecasted affect. Both questions used the same 9-point scale, ranging from not at all happy (1) to extremely happy (9).

Experienced Affect. Two weeks after Election Day, participants were asked to rate their current happiness on a 9-point scale, ranging from not at all happy (1) to extremely happy (9).

Mindfulness. Mindfulness was assessed using the Five Factor Mindfulness Questionnaire (FFMQ; Baer et al., 2006). The FFMQ is 39-item scale that examines five
distinct factors of mindfulness using a 5-point Likert scale. Reliabilities for the factors ranged from $\alpha = .80$ (observe factor) to $\alpha = .91$ (nonjudge factor). Correlations between the factors were small, ranging from $r = -0.13$ between the observe and the nonjudge factors to $r = .46$ between the nonjudge and awareness factors. Table 4 shows the correlations among the FFMQ factors, as well as forecasts and experienced affect.
Results

Affective forecasting was again calculated by taking the absolute difference between one’s forecast and one’s experienced happiness. Participants who preferred the Democratic candidates are heretofore referred to as ‘winners’ (n = 46) and those participants who preferred the Republican candidates are heretofore referred to as ‘losers’ (n = 42). Table 5 presents the descriptive statistics for all major study variables.

As in Study 1, a regression was conducted to assess whether any of the factors of mindfulness predicted affective forecasting accuracy (see Table 6). None of the mindfulness factors significantly predicted forecasting accuracy, p’s > .10. However, the winners were more accurate in their affective forecasts than losers, t(188) = 96.15, p < .001. For winners, one factor of mindfulness, describe, was the sole factor that predicted accuracy, t(146) = 92.39, p = .018. For individuals who were predicting an election win for Barack Obama, being able to describe emotions and thoughts, led individuals to be more accurate in their affective forecasts (see Table 7). For losers, none of the mindfulness factors significantly predicted forecasting accuracy, p’s > .10 (see Table 8).
Table 4. Correlations among Major Study Variables in Study 2.

<table>
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<tr>
<td>1- Nonreact</td>
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<tr>
<td>2- Observe</td>
<td>-0.08</td>
<td>--</td>
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</tr>
<tr>
<td>3- Aware</td>
<td>0.34 ***</td>
<td>-0.03 ***</td>
<td>--</td>
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</tr>
<tr>
<td>4- Nonjudge</td>
<td>0.23 ***</td>
<td>-0.13 *</td>
<td>0.46 ***</td>
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<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>5- Describe Forecasted</td>
<td>0.26 ***</td>
<td>0.14 *</td>
<td>0.29 ***</td>
<td>0.23 ***</td>
<td>--</td>
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<td>--</td>
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<tr>
<td>6- Affect Experienced</td>
<td>0.07</td>
<td>0.01</td>
<td>0.06</td>
<td>-0.07</td>
<td>0.03</td>
<td>--</td>
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</tr>
<tr>
<td>7- Affect</td>
<td>0.12</td>
<td>0.10</td>
<td>0.17</td>
<td>0.16</td>
<td>0.22 **</td>
<td>0.11</td>
<td>--</td>
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</table>

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

Table 5. Descriptive statistics for Study 2

<table>
<thead>
<tr>
<th>Variable</th>
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<th>SD</th>
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<td>Absolute Accuracy</td>
<td>2.14</td>
<td>1.67</td>
</tr>
<tr>
<td>Nonreact</td>
<td>3.09</td>
<td>0.71</td>
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<tr>
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<td>0.72</td>
</tr>
<tr>
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<td>3.38</td>
<td>0.84</td>
</tr>
<tr>
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<td>3.42</td>
<td>0.98</td>
</tr>
<tr>
<td>Describe</td>
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<td>0.86</td>
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Table 6. Regression Analysis Predicting Forecasting Accuracy for Study 2 (n = 188)

<table>
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<tr>
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<th>SE</th>
<th>β</th>
<th>t</th>
<th>Significance</th>
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</thead>
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<tr>
<td>Winners/Losers</td>
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<td>0.27</td>
<td>-0.42</td>
<td>-6.15</td>
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<tr>
<td>Nonreact</td>
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<td>0.02</td>
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Table 7. Regression Analysis Predicting Forecasting Accuracy for Study 2 for Winners (n = 146)

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<th>t</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>-0.09</td>
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Table 8. Regression Analysis Predicting Forecasting Accuracy for Study 2 for Losers (n = 42)

<table>
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<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonreact</td>
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<td>0.45</td>
<td>-0.08</td>
<td>-0.45</td>
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<td>0.19</td>
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In Study 2, individuals high in five facets of mindfulness did not make more accurate affective forecasts in regards to a presidential election. But individuals who were forecasting how they would feel following a victory were more accurate in their affective forecasts. Furthermore, among the winners, one factor of mindfulness – people’s ability to describe emotions – predicted greater affective forecast accuracy. The ‘describe’ factor broadly measures being able to find words to describe emotions and current feelings. Though it’s difficult to imagine one being able to describe emotions without also being aware of these emotions (these two factors were correlated $r = .32$ for the winners), the describe factor may allow individuals to more accurately assess feelings as they have more precise ways to describe their fluctuations of affect. However, in contrast to Study 1, this study did not find that the ‘nonjudge’ factor predicted the accuracy of affective forecasts.
The concept of mindfulness suggests that mindful individuals are able to remain present-centered during emotional experiences and be aware of emotions without reacting or judging these emotions. These abilities of awareness and non-judging that mindfulness promotes should enable individuals to make more accurate predictions of their future emotions. Mindful individuals may have the ability to resist falling prey to previously described pitfalls of inaccurate affective forecasting, such as remaining focused on the event under investigation and not considering other affects that also may influence future affect.

The current studies suggest that some aspects of mindfulness are associated with affective forecasting accuracy. In Study 1, one factor of mindfulness, nonjudging of emotions, emerged as the sole predictor of accurate affective forecasts for individuals forecasting their emotions concerning sporting events. In Study 2, another factor of mindfulness, describing of emotions, was the significant predictor of affective forecasts for individuals forecasting a positive event (i.e., a win for Democratic candidate). These findings suggest that different facets of mindfulness may be beneficial when one is predicting future affect. For events that do frequently occur, being accepting of one’s affect may be the key to correctly predicting future affect. Holding a nonjudgmental stance overall toward affect may be beneficial when events occur often because one can
base predictions one may experience both ‘bad’ and ‘good’ feelings often in response to events and, thus, come to the realization that these emotions are fleeting regardless of their valence. Being able to put feelings into accurate, descriptive words may be the important factor when the event seldom occurs (i.e., the national election). The use of exact words to describe one’s feelings may allow individuals to better understand how these feelings will occur the next time the event happens. For example, if an individual can accurately describe the exact feelings post election this may allow her to better remember her feelings for the next election.

These studies join other recent investigations of the factors that contribute to individual differences in people’s accuracy of affective forecasts. For example, Dunn et al. (2007) found that a performance-based measure of emotional intelligence predicted the accuracy of affective forecasts. However, Dunn et al. (2007) also found that a self-report measure of emotional intelligence was not related to accurate affective forecasts, suggesting that the nature of the measure of emotional intelligence may have been an important factor in their findings. The performance measure of emotional intelligence (Mayer-Salovey-Caruso Emotional Intelligence Test; MSCEIT, Mayer, Salovey, & Caruso, 2002) does not correlate highly with other self-reports of emotional intelligence, but individuals’ estimates of their performance on the MSCEIT were highly related to the self-report measure of emotional intelligence. Explanations for this may be that individuals with lower emotional intelligence lack the cognitive skills needed to report their emotional intelligence and those individuals high in emotional intelligence may be
underestimating their own higher levels of emotional intelligence relative to the emotional intelligence of others (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006).

The Five Factor Mindfulness Questionnaire (Baer et al., 2006) is a fairly new self-report measure of mindfulness and has not yet been used to predict many other concepts. Certain factors of the FFMQ have been shown to positively correlate with related concepts, such as openness to experience, self-compassion, and a self-report measure of emotional intelligence (Baer et al., 2006). Specifically, the two factors that showed the most promise in the current studies seem to be most closely tied with emotional intelligence. The describe factor was the most highly correlated factor to a self-report measure of emotional intelligence and the nonjudging of experience factor was highly negatively correlated with thought suppression and emotion regulation, two concepts related to emotional intelligence (Baer et al., 2006). Future research that examines the overlap between the factors of mindfulness and the factors of emotional intelligence may allow a clearer understanding of the similarities and differences between the two constructs of mindfulness and emotional intelligence.

On this basis, however, it is not clear that mindfulness is to be disregarded altogether as a predictor of affective forecasting accuracy. It may be that FFMQ does not tap into the trait of mindfulness, as some researchers have suggested. Rosch (2007) suggests that the FFMQ does not measure mindfulness in the Buddhist sense, and given that some of the questions seem to assess how much one is aware of their surroundings (“I am easily distracted”; “I find myself doing things without paying attention”), the scales might instead be measuring “Practicality or Relative Sanity or Reasonableness”
Despite this criticism, however, the FFMQ has been validated on both meditating and non-meditating populations and meditators report higher levels of scores on the FFMQ than non-meditators (Baer et al., 2008), which suggests the measure does tap into differences between those who have experience with the concepts of mindfulness versus those who do not. Future research could examine whether individuals who practice mindfulness are more accurate in their affective forecasts than non-meditators.

Future research could also examine whether mindfulness enables an individual to be more accurate in predicting a wide array of affects other than happiness. Though most affective forecasting research has focused on the happiness as the affect of interest, there may be more promise to the mindfulness construct as a predictor of other emotions, such as anger, frustration, joy, or gratefulfulness. Individuals who do not take a mindful stance toward emotions may be more prone to passing judgment on these emotions, considering them ‘bad’ or ‘good’, and also likely to not understand their duration or intensity as completely as more mindful individuals.

The present study adds to the short list of literature examining individual differences in affective forecasting. Understanding how individuals differ in the accuracy of their affective forecasts and discovering ways to improve accuracy, may allow individuals to make life decisions that are based less on what turn out to be inaccurate affective forecasts. If an individual can realize that he may feel nervous while attending a party, but, that this, nervousness will not be long-lasting or overwhelming, may allow him to make a decision to attend the party, rather than waffle back and forth between being too scared and wanting to attend. Mindfulness may be an important concept to
consider for future studies, specifically in terms of how these factors of mindfulness are related to other concepts such as emotional intelligence and emotion regulation in the domain of affective forecasting.
References


Intelligence Test (MSCEIT), Version 2.0. Toronto, Ontario, Canada: Multi-Health Systems.


Appendix A

1. How happy would you say you are these days?

1 2 3 4 5 6 7 8 9
Not Very Happy

2. Please circle the team that you hope wins this game.

Team A Team B

5. Four days from today, how happy will you be if Team A wins this game?

1 2 3 4 5 6 7 8 9
Not Very Happy

6. Four days from today, how happy will you be if the Team B wins this game?

1 2 3 4 5 6 7 8 9
Not Very Happy
Five-Factor Mindfulness Questionnaire

1. I perceive my feelings and emotions without having to react to them.
   1 2 3 4 5

2. I watch my feelings without getting lost in them.
   1 2 3 4 5

3. In difficult situations, I can pause without immediately reacting.
   1 2 3 4 5

4. When I have distressing thoughts or images, I am able just to notice them without reacting.
   1 2 3 4 5

5. When I have distressing thoughts or images, I feel calm soon after.
   1 2 3 4 5

6. When I have distressing thoughts or images, I “step back” and am aware of the thought or image without getting taken over by it.
   1 2 3 4 5

7. When I have distressing thoughts or images, I just notice them and let them go.
   1 2 3 4 5

8. When I’m walking, I deliberately notice the sensations of my body moving.
   1 2 3 4 5

9. When I take a shower or a bath, I stay alert to the sensations of water on my body.
   1 2 3 4 5

10. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
    1 2 3 4 5

11. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
    1 2 3 4 5

12. I notice the smells and aromas of things.
13. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.

14. I pay attention to how my emotions affect my thoughts and behaviors.

15. I find it difficult to stay focused on what’s happening in the present.

16. It seems I am “running on automatic” without much awareness of what I’m doing.

17. I rush through activities without being really attentive to them.

18. I do jobs or tasks automatically, without being aware of what I’m doing.

19. I find myself doing things without paying attention.

20. When I do things, my mind wanders off and I’m easily distracted.

21. I don’t pay attention to what I’m doing because I’m daydreaming, worrying, or otherwise distracted.

22. I am easily distracted.

23. I’m good at finding the words to describe my feelings.

24. I can easily put my beliefs, opinions, and expectations into words.

25. It’s hard for me to find the words to describe what I’m thinking.

26. I have trouble thinking of the right words to describe what I’m thinking.
27. When I have a sensation in my body, it’s hard for me to describe it because I can’t find the right words.

28. Even when I’m feeling terribly upset, I can find a way to put it into words.

29. My natural tendency is to put my experiences into words.

30. I can usually describe how I feel at the moment in considerable detail.

31. I criticize myself for having irrational or inappropriate emotions.

32. I tell myself that I shouldn’t be feeling the way I’m feeling.

33. I believe some of my thoughts are abnormal or bad and I shouldn’t think that way.

34. I make judgments about whether my thoughts are good or bad.

35. I tell myself I shouldn’t be thinking the way I’m thinking.

36. I think some of my emotions are bad or inappropriate and I shouldn’t feel them.

37. I disapprove of myself when I have irrational ideas.

38. Usually when I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.
Appendix B

1. Which of these candidates would you MOST like to see win the presidential election?
   ___ John McCain / Sarah Palin (Republican)
   ___ Barack Obama / Joe Biden (Democrat)

2. Two weeks after the election, how happy do you think you will be if the Republican candidates McCain/Palin win the election?

   1 2 3 4 5 6 7 8 9
   Extremely Sad
   Extremely Happy

3. Two weeks after the election, how happy do you think you will be if the Democratic candidates Obama/Biden win the election?

   1 2 3 4 5 6 7 8 9
   Extremely Sad
   Extremely Happy

4. How LIKELY do you think it is that your preferred candidate will win the election?

   1 2 3 4 5 6 7
   Extremely UNLIKELY
   Unsure
   Extremely LIKELY

5. Which statement best reflects your feelings about Barack Obama (D)?

   1 2 3 4 5 6 7
   Obama would be an EXTREMELY BAD
   Obama would be an EXTREMELY GOOD
6. Which statement best reflects your feelings about John McCain (R)?

1 2 3 4 5 6 7
McCain would be an EXTREMELY BAD President

7. Which statement best reflects your feelings about Joe Biden (D)?

1 2 3 4 5 6 7
Biden would be an EXTREMELY BAD Vice President

8. Which statement best reflects your feelings about Sarah Palin (R)?

1 2 3 4 5 6 7
Palin would be an EXTREMELY BAD Vice President

9. Which statement BEST describes WHY you support your preferred candidates?
(Circle your answer)

a. I really like them, and really dislike the other party's candidates.
b. I kind of like them, but really dislike the other party's candidates.
c. I like both party's candidates, but prefer my candidates a little more.
d. I dislike both party's candidates, but dislike my candidates a little less.

10. How would you describe your interest in the presidential election campaigns?
11. How would you describe your interest in national affairs?

1 2 3 4 5 6 7
Not at all interested Extremely Interested

12. In the past month, how much have you tried to persuade other people to vote for the candidate that you prefer?

1 2 3 4 5 6 7
Not at all
Every chance I get

13. Are you a member of any political clubs or organizations? (Circle your answer)

Yes No

14. Do you currently volunteer or work for any political campaigns? (Circle your answer)

Yes No

15. Do you support the current Presidential administrations’ (i.e., George W. Bush’s) handling of the country? (Circle your answer)

Yes No

16. With which political party do you best identify or consider yourself a member?

Republican Democrat Independent
Libertarian Green Reform
Other
17. How much of your close friends and family support the candidate who you support? (circle one)

<table>
<thead>
<tr>
<th>0%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
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<td>None or nearly none of my close friends and family</td>
<td>About half of my close friends and family</td>
<td>All or almost all of my close friends and family</td>
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18. Have you already voted in this election?

Yes    No

Using the scale below, please rate your affect by circling the number that best describes your mood right now.

1  2  3  4  5  6  7  8  9
Not at all Happy
Extremely Happy