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A comparison of retrospective self-report versus ecological momentary assessment measures of affective lability in the examination of its relationship with bulimic symptomatology

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ABSTRACT

Affective lability has been linked to several maladaptive behaviors (Anestis et al., 2009; Coccaro, 1991). Methodology for measuring affective lability varies and includes retrospective self-report and ecological momentary assessment (EMA). In this study, we sought to test these methodologies by examining which better predicted binge eating episodes and general eating disorder symptoms in a sample ($n = 131$) of women diagnosed with bulimia nervosa (BN). We hypothesized that, while the two forms of measurement would be correlated with one another and predict binge eating episodes, EMA affective lability would be the stronger predictor. Results supported several hypotheses. Specifically, both EMA affective lability and retrospective self-report affective lability significantly predicted global eating disorder symptoms, even when controlling for depression, age, body mass index, and level of education, EMA affective lability exhibited a significantly stronger correlation with binge eating episodes than did retrospective self-report affective lability, and EMA affective lability predicted number of binge eating episodes on any given day controlling for the same list of covariates. Limitations include the use of a clinical sample that may limit the generalizability of our findings. Findings highlight the importance of affect in such behavior.

Affective lability, defined as the degree to which an individual experiences frequent shifts in emotional valence and intensity, has been the subject of substantial research attention. Prior studies have reported that affective lability is significantly related to aggressive behavior, substance abuse, excessive reassurance seeking, suicide in older adults, and borderline personality disorder (Anestis et al., 2009; Coccaro, 1991; Ebner-Priemer et al., 2007; Simons & Carey, 2006; Turvey et al., 2002). In each of these studies, the authors posited that individuals who experience consistently unstable and rapidly shifting emotions are compelled to regularly engage in emotion regulatory behaviors. Due to this chronic need to regulate negative emotions, actions capable of offering quick resolutions to undesired affective states become highly valued and, as a result, such individuals engage in behaviors that, while maladaptive in the long term, offer an immediate reduction in negative affect.

In addition to the outcomes listed above, high levels of affective lability have been found to predict binge eating and purging (Benjamin & Wulfert, 2005). This finding is consistent with Heatherton and Baumeister's (1991) model of binge eating, which posits that the behavior serves as a distraction from aversive self-awareness and a strategy for immediate regulation of negative emotions. Although the Benjamin and Wulfert (2005) study represents the only publication we know of that directly measures affective lability in dysregulated eating behaviors, the finding is consistent with prior research indicating that difficulties in regulating affect play a pivotal role in initiating and sustaining such symptoms (Anestis, Selby, & Joiner, 2007; Anestis, Selby, Fink, & Joiner, 2007; Fischer, Anderson, & Smith, 2004; Fischer, Smith, & Anderson, 2003; Smyth et al., 2007) and, as such, further exploration into this relationship appears to be a potentially valuable endeavor. In order to effectively do so, however, a better understanding regarding how best to assess affective lability is required.

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Affective lability is typically measured through retrospective self-report questionnaires. In such measures, participants are asked to report the degree to which they tend to experience rapid and extreme shifts in particular emotions (e.g., anger, sadness). These measures conceptualize affective lability as a stable, trait-like characteristic, thus indicating that individuals are consistent in the degree to which they experience frequent shifts in affective states. Multiple self-report measures of affective lability have been developed and utilized in empirical studies, with some garnering more attention and providing more valid and reliable information than others.

The Affective Lability Scale (ALS; Harvey, Greenberg, & Serper, 1989), one of the most commonly utilized measures, includes 54 items and has been shown to predict a variety of dysregulated behaviors, including methamphetamine and alcohol use (Simons, Oliver, Gaher, Ebel, & Brummels, 2005), and to distinguish between daily and occasional nicotine users (Dvorak & Simons, 2008). Oliver and Simons (2004) developed a short form of the ALS, consisting of eighteen items. In developing this shorter version, the authors reported that they did not replicate the factor structure of the original scale, but that the shorter form demonstrated adequate temporal stability.

The Dimensional Assessment of Personality Pathology – Basic Questionnaire (DAPP-BQ; Livesley, Jackson, & Schroeder, 1992) offers another self-report measure of affective lability with its Affective Lability subscale. This measure is utilized to examine the degree to which individuals exhibit a variety of personality characteristics. In one study utilizing the Affective Lability subscale, Anestis et al. (2009) found that, in a sample of 134 women meeting criteria for a current DSM-IV diagnosis of bulimia nervosa (BN), affective lability predicted the degree to which participants engaged in multiple dysregulated behaviors (e.g., self-injury, risky sexual behavior), even when controlling for general impulsivity and symptoms of depression. In other words, the tendency to experience rapidly fluctuating emotions appears to be related to the tendency to utilize a variety of maladaptive, dysregulated behaviors in a sample of women who regularly binge eat and purge. Because the authors controlled for general impulsivity, these findings cannot be better accounted for by a simple tendency to not think before acting. Instead, the importance of the variability of affect in the use of such behaviors was highlighted.

As the findings detailed above indicate, self-report measures of trait affective lability appear to display reliable predictive associations with respect to behavioral outcomes. Individuals who are characterized by a trait-like tendency to experience chronically and rapidly shifting affective states are more likely to engage in a variety of dysregulated behaviors than are individuals whose emotions are more stable. At the same time, self-report measures of trait affective lability do not offer any insight into the degree to which individuals might experience changes in the extent to which their affective states are labile and, as such, whether or not periods of increased lability might lead to increases in the tendency to utilize dysregulated behaviors. Additionally, such measures rely upon individuals' abilities to accurately recall variability in emotions.

Larsen (1987) advocated using ecological momentary assessment (EMA) to measure affective lability, arguing that single measures of affective lability tend to measure the average extremity of mood change rather than the frequency of fluctuations between moods. As such, Larsen indicated that gathering repeated measures of current mood state could offer researchers and clinicians more flexibility in analytical approaches. By collecting measures of individuals' moods several times within and across days, researchers and clinicians are now able to objectively assess the degree to which participants actually experience frequent shifts in affective states, determine whether or not affective lability itself is a stable characteristic, and measure the degree to which fluctuations in affective states are temporally related to behavioral outcomes.

In one study utilizing EMA, Stein (1996) found that individuals with borderline personality disorder (BPD) exhibited greater affective lability than did control subjects. In this study, the authors collected 50 measures of current affective states over the course of ten days and found that participants diagnosed with BPD not only experienced higher average levels of negative affect, but also more frequent shifts between affective states. Within subject standard deviations across time points were used to measure affective lability, thus offering a measure of how much variability was present, on average, for each participant.

Using a different analytical approach that also relies upon EMA data collection, the Mean Square Successive Difference (MSSD), Woyshville, Lackamp, Eisengart, and Gilliand (1999) reported that patients in a mood disorder clinic experienced more affective lability than did non-psychiatric controls. The MSSD measures an individual's average difference from one time point to the next on a particular variable. In other words, rather than providing an aggregate measure of variability based on the mean score, the MSSD offers a measure of variability based on each time point and the point that immediately preceded it. These findings thus indicate that individuals suffering from mood disorders are more likely than healthy controls to experience frequent shifts in affect.

In a later study also using the MSSD to measure lability in affect, Bowen, Baetz, Hawkes, and Bowen (2006) reported that individuals with anxiety disorders experience significantly higher lability in negative affect and moderately more lability in positive affect than do non-psychiatric controls. Here, the authors distinguished between lability in positive and negative affect and found that frequent fluctuations in negative emotions were significantly more prominent in individuals with anxiety disorders than in healthy controls. As such, the findings indicate that lability in negative affect is particularly salient for individuals who suffer from clinically significant anxiety.

Ebner-Priemer et al. (2007) used the MSSD to measure affective lability in a sample of individuals diagnosed with BPD as well as a sample of healthy controls. In this study, the authors found that individuals with BPD did, in fact, experience significantly more affective lability than did healthy controls.

Given that both self-report trait questionnaires and EMA approaches have been the subject of substantial research attention, the utility in comparing the two approaches on the same outcome measures within a single sample appears to hold significant value. The self-report trait questionnaires offer significant pragmatic utility in that they are inexpensive, relatively quick to complete, and easy to score. Additionally, they have already been linked to a variety of dysregulated behavioral outcomes. EMA, on the other hand, while likely more expensive and certainly more difficult to utilize due to technical reasons, time requirements, compliance issues, and the statistical analyses required (Engel, Wonderlich, & Crosby, 2005), has been linked to a variety of psychological disorders and offers a unique ability to objectively and reliably measure the frequency of shifts in affective states. By comparing these two measurement approaches in a single sample, we hope to provide a basis upon which clinicians and researchers can decide which approach will best suit their needs and hypotheses for the particular outcome variables utilized in our study. Additionally, by comparing the utility of these two measurement techniques while examining the relationship between affective lability and dysregulated eating behaviors, we hope to expand upon the findings of Benjamin and Wulfert (2005).

To compare self-report trait questionnaires and EMA measurement approaches for affective lability, we employed data from 131