STATES OF AWARENESS AND THEIR ASSOCIATIONS WITH WELL-BEING

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KELLY ERICKSON

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Approved By:

Dustin Wood, Ph.D., Advisor
Janine Jennings, Ph.D., Chair
Tammy Cashwell, Ph.D.
Eranda Jayawickreme, Ph.D.
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ABSTRACT

Many different types of awareness have been discussed within the literature under various labels. Additionally, these different types of awareness have been associated with both positive and negative well-being outcomes. The main purpose of this research was to investigate the degree to which different types of awareness are associated with well-being relative to each other. Furthermore, the valences of different types of awareness were examined for insight into the awareness–well-being associations. This research first proposed a broader set of three awareness categories than previously delineated, referred to as *states of awareness*. Three questions then were investigated using the three state of awareness categories: (a) What are the relationships between the three states of awareness? (b) What is the prevalence of each state of awareness’ positive, neutral, and negative valence? (c) How is each state of awareness, in conjunction with its three valences, associated with well-being? This study utilized a Daily Reconstruction Methodology design (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004) and analyzed both between- and within-person differences. Overall, initial support was found for the three states of awareness as distinct categories, the negative and positive valences of inward and activity awareness had the greatest associations with well-being, and outward self-awareness, overall, had the greatest association with well-being. The results of, and implications for, the three state of awareness categories and awareness–well-being associations are discussed.
INTRODUCTION

We can guide our awareness in a number of directions. We can broadly, for example, attend to our thoughts, attend to others’ opinions, or become completely absorbed in our present context. Many of these different types of awareness have been associated with both positive and negative behaviors and well-being outcomes. Awareness focused inward on one’s own thoughts and feelings, for instance, has been associated with increased dispositional mindfulness (Harrington, Loffredo, & Perz, 2014) as well as increased obsessive–compulsive disorder (Jostes, Pook, & Florin, 1999) and negative affect (Fejfar & Hoyle, 2000). It does not appear to be known, however, which types of awareness have a greater propensity to be associated with positive or negative well-being outcomes relative to the others.

To illustrate, it has been argued that psychological states that involve a lower-than-usual degree of egoic self-awareness, called hypo-egoic states, are associated with higher well-being (Leary & Guadagno, 2011). Hypo-egoicism refers to psychological states that entail minimizing self-awareness as well as paying little attention to other’s evaluations of the self (Leary & Diebels, 2013). As a result, it may be that awareness directed inward on oneself is more detrimental to well-being relative to an awareness directed on one’s current activity.

The main purpose of this study was to begin to illuminate which types of awareness have the greatest relationships with high or low well-being. This preliminary research specifically looked at how different types of awareness were associated with a positive, neutral, and negative valence for insight into the awareness–well-being relationships. It was hypothesized, for example, that two types of awareness could have a
similar relationship with well-being, however one might often manifest in a positive and negative valence, whereas the other might often manifest in a more neutral valence.

In order to investigate awareness in a more comprehensive manner, a broader set of three awareness categories than previously delineated first were proposed. This research then examined the relationships among the valences of the three awareness categories and between the valences of the awareness categories and well-being.

In what follows, it is reviewed how this study formed and defined the three state of awareness categories. It is also reviewed how the types of awareness categorized under each state of awareness have been associated with positive and negative behavioral processes and well-being outcomes. Finally, well-being is defined and the questions investigated in this research are discussed.

**States of Awareness: Definitions and Associations with Well-being**

*Awareness* can be defined as a “voluntary intensified level of generic vigilance allowing an individual to monitor a broad array of stimuli with a rather course-grained detail resolution” (Brown & Ryan, 2003; Sauer et al., 2011, p. 1559). It is similar to, but distinct from, *attention* which entails a more intentional focusing “on a restricted range of stimuli with a more fine-grained detail resolution” (Brown & Ryan, 2003; Sauer et al., 2011, p. 1559).

A component of awareness is self-awareness. Self-awareness is when one is aware of and/or reflects on the experience of perceiving and processing stimuli that are self-relevant (Morin, 2011). Self-awareness has been recognized to be bidirectional in nature. It has been proposed that awareness is either on the self to the exclusion of any
outside stimuli, labeled as objective self-awareness, or on the self with the incorporation of outside stimuli, labeled as subjective self-awareness (Ickes, Wicklund, & Ferris, 1973).

Currently, it appears that these two self-awareness categories are the only broad categories pertaining to awareness within literature. In order to research awareness in a more comprehensive and organized way, this study grouped together existing awareness constructs within the literature that were similar in their nature (e.g., Helgeson & Fritz, 1999; Nakamura & Csikszentmihalyi, 2002). It was found here that the awareness constructs that have been studied in the literature may loosely fall into three broad awareness categories: two categories based off of the objective and subjective self-awareness categories and a third entailing awareness only of others present or the current activity.

These three broad categories are collectively referred to here as states of awareness. The three states of awareness were labeled as: inward self-awareness, defined as awareness only of the self; outward self-awareness, defined as awareness of others’ opinions with regard to oneself; and activity awareness, defined as awareness only of others present or the current activity. These three state of awareness labels were created for the purpose of having a more neutral and broad description for the awareness constructs from the literature that were grouped under each category. It was further hypothesized that these states of awareness exist along a continuum between awareness solely focused inward on the self (oblivious to any outside stimuli) and awareness solely focused on the external world (oblivious to any internal stimuli). Inward self-awareness was designed to capture the former, activity awareness the latter, and outward self-
awareness was designed to capture awareness that falls between the previous two states of awareness.

The constructs of inward and outward self-awareness used in this study encompass both an awareness of one’s thoughts (or lack thereof) and feelings in the present as well as an awareness of one’s awareness that affords evaluation. The former is often called experiential awareness or experiential consciousness which entails the contents of ongoing experience (Schooler & Mauss, 2010). The latter is often referred to as meta-consciousness or metacognitive awareness and can be defined as one’s explicit awareness of the current contents of thought (Schooler et al., 2011). We can be aware of our experiences through experiential awareness, however meta-awareness is necessary in order to be aware of the nature (i.e., positive or negative valence) of the experiences (Schooler & Mauss, 2010). Additionally, although there is a lack of self-reflection in activity awareness, it is still possible to be aware of one’s well-being in activity awareness. People are aware of, for example, their relative degree of happiness after being immersed in an activity compared to reflecting on themselves (Schooler & Mauss, 2010). Each state of awareness and the processes behind its manifestation into a positive, neutral, and negative valence are discussed below.

**Inward self-awareness.** The empirical study of self-awareness dates back to at least the 1970s when self-awareness was conceived to manifest in two main ways: an inward direction and an outward direction (Duval & Wicklund, 1972; Ickes et al., 1973). The concept of *inward self-awareness* was largely inspired by the former. Inward self-awareness encompasses the constructs of objective self-awareness, private self-consciousness (Duval & Wicklund, 1972; Fenigstein, Scheier, & Buss, 1975), agency
(Bakan, 1966), and unmitigated agency (e.g., Helgeson & Fritz, 1999). The constructs of objective self-awareness and private self-consciousness are associated with self-observation and self-criticism. The construct of agency entails focusing on oneself and the construct of unmitigated agency entails focusing on the self in such a manner that results in the extreme exclusion of others (Helgeson & Fritz, 1999). This category was labeled inward self-awareness because all of these constructs, objective self-awareness, private self-consciousness, agency, and unmitigated agency, entail the process of focusing awareness inward on oneself and being unaware of any outside stimuli.

Consequently, inward self-awareness is defined herein as when awareness is directed inward on the self; the self is the object of its own attention (Duval & Wicklund, 1972). When inwardly self-aware, people can be, for example, aware of their thoughts, aware of their lack of thoughts, or aware of their emotions. The different emotional valences associated with inward self-awareness may arise from an individual’s judgment on their thoughts and feelings (i.e., meta-awareness). Examples of different evaluative cognitions that a person might be aware of when inwardly self-aware may be: ‘Good job me for my productivity today’ and ‘That was a brilliant insight’ (positive valence); ‘Maybe the reason why I got angry was because of my tendency to…’ and ‘I know what I’ll do, I’ll put a sticker on my steering wheel to remind myself to lock the car’ (neutral valence); ‘I was idiotic to leave the car unlocked,’ and ‘You came up with one good insight, but that isn’t good enough’ (negative valence). As further described below, the positive and neutral valence of inward self-awareness may be driven by processes associated with self-insight and reflection, and the negative valence by processes associated with rumination.
Associations with well-being. Broadly, the well-being outcomes associated with inward self-awareness stem from two aspects of self-awareness: greater rumination (the compulsive focus on one’s distress), negative affect, and psychoticism on the one hand, and greater perceived self-complexity (the degree of identity diversity) on the other hand (Darvill, Johnson, & Danko, 1992; Davies, 1996; Fejfar & Hoyle, 2000). There have been many attempts to capture this dichotomous outcome of inward self-awareness, however, agreement remains to be reached (Creed & Funder, 1998; Fejfar & Hoyle, 2000; Grant, Franklin, & Langford, 2002; Trapnell & Campbell, 1999). Roughly, inward self-awareness has been described as having a negative ‘rumination side’ and a positive ‘insight/reflection side.’

The rumination side has been positively associated with maladjusted self-functioning characteristics, such as nervous tension, distress, and aggressive non-conformity (Nystedt & Ljungberg, 2002) as well as diagnoses of obsessive–compulsive disorder, social phobia, and panic disorder (Jostes et al., 1999). The literature on unmitigated agency also complements these findings. Unmitigated agency has been associated with a host of negative characteristics, such as being hostile, cynical, greedy, and arrogant as well as greater distress, lower self-esteem, and negative social interactions (Helgeson & Fritz, 1999). It has also been found to be associated with poorer health behavior and higher rates of cancer and suicide (Helgeson & Fritz, 1999).

The insight/reflection side of inward self-awareness accounts for a more neutral and positive awareness of one’s emotional state (Creed & Funder, 1998; Nystedt & Ljungberg, 2002). It has been associated with the curious, philosophical, reflective, contemplative, meditative, and introspective aspects of the Big Five dimension of
Openness, which consists of having wide interests, being imaginative and insightful, etc. (Trapnell & Campbell, 1999). Not surprisingly, the insight/reflection side of inward self-awareness has been associated with dispositional mindfulness or, the “tendency to engage in a state of consciousness characterized by awareness and non-judgmental acceptance of present-moment experiences” (Harrington et al., 2014, p. 15; Ryan & Brown, 2003).

In one mindfulness study, university students were administered a self-report measure of dispositional mindfulness, insight/reflection inward self-awareness, and psychological well-being. Correlational analyses revealed that mindfulness and insight self-awareness were positively correlated with each other and with psychological well-being. It also was found that bootstrapping regression analyses supported a model where insight/reflection inward self-awareness was a partial mediator of the mindfulness-psychological well-being relationship (Harrington et al., 2014). The insight/reflection side of inward self-awareness has been found to be unrelated, or have slightly negative associations with the same maladjusted characteristics as described for the rumination side of inward self-awareness such as nervous tension and aggressive non-conformity (Nystedt & Ljungberg, 2002).

More generally, inward self-awareness has also been associated with greater complexity of one’s internal self (Davies, 1996). Self-complexity is an index of the “multiplicity and diversity of various aspects of a person’s identity” (Davies, 1996, p. 114). This was found by having participants first take the Self-Consciousness Scale (Fenigstein et al., 1975) and then organize items representing aspects of internal identity (e.g., “my personal and moral standards”) into groups that the participants thought belonged together. The complexity of sorting was determined by using an information-
theoretic construct representing the number of independent, non-overlapping dimensions underlying the groupings produced in the sorting task (Davies, 1996). Additional research has found that greater self-complexity can, for example, buffer against setbacks in one domain of life due to the diversification of sense of worth (Campbell, 1990; Linville, 1987). Research on agency also supports these findings. Agency has been associated with reduced depression and reduced anxiety (Holahan & Spence, 1980) as well as enhanced self-esteem (Carlson & Baxter, 1984).

**Outward self-awareness.** The concept of *outward self-awareness*, largely pulled from the second way in which self-awareness has been conceived to manifest (Duval & Wicklund, 1972; Ickes et al., 1973). Outward self-awareness has also been called participative self-awareness and public self-consciousness (Duval & Wicklund, 1972; Fenigstein, Scheier, & Buss, 1975). These two constructs entail an awareness of other’s thoughts and opinions when self-aware. As a result, it was labeled outward self-awareness to capture the awareness directed outward on others when also self-aware. As compared to inward self-awareness, the concept is not as well represented in the literature, potentially in part because there has been less theoretical agreement over the dimensions of the outward self-awareness construct (Creed & Funder, 1998; Fenigstein et al., 1975; Nystedt & Ljungberg, 2002).

Outward self-awareness is defined herein as the state in which a person becomes aware of another’s perspective with regard to the self (Duval & Wicklund, 1972). This can entail, for example, an individual’s awareness of another’s reaction toward the self, or another person’s general reaction that the individual then compares to his or her own self. As with inward self-awareness, the different emotional valences associated with
outward self-awareness may arise from an individual’s judgment on their thoughts and feelings (i.e., meta-awareness). Examples of different evaluative cognitions that a person might be aware of when outwardly self-aware may be: ‘I’m excited for Suzy to see my sweater’ and ‘It is not clear if that was a compliment or a criticism, but I’ll take it as a compliment’ (positive valence); ‘I wonder what Suzy will think of my sweater’ and ‘That was a harsh reaction from Bobby; I’m guessing he’s in a bad mood’ (neutral valence); ‘Mom is going to think I was an idiot for leaving the car unlocked’ and ‘That was a harsh reaction from Bobby; maybe what I said was idiotic’ (negative valence). It may be that the positive and neutral valence of outward self-awareness, as further described below, are driven by processes associated with self-insight and reflection and the negative valence by processes associated with obsessive and neurotic characteristics.

*Associations with well-being.* Outward self-awareness shares some of the same positive and negative well-being outcomes as inward self-awareness such as obsessive–compulsive disorder, social phobia, and panic disorders (Jostes et al., 1999). Outward self-awareness also was found to be associated with a more complex understanding of the self in relation to others through the same study that found inward self-awareness was associated with inward self-complexity (Davies, 1996).

Uniquely, high degrees of outward self-awareness have been associated with Neuroticism (Darvill et al., 1992) and negative well-being outcomes such as bulimia and shame (Darvill et al., 1992; Jostes et al., 1999). Reduced outward self-awareness, however, has been associated with the subsequent diminished ability to distinguish one’s own thoughts and feelings from others (Lysaker, Dimaggio, Buck, Carcione, & Nicolo, 2007).
**Activity awareness.** Activity awareness is defined as awareness only of others who are present, or the current ongoing activity. This category significantly pulled from the concept of flow which has been defined as when “individuals are fully involved in the present moment” (Nakamura & Csikszentmihalyi, 2002, p. 89). Flow is characterized by intense and focused concentration on what one is doing in the present moment. It is a merging of action and thought, a loss of self-reflection and awareness of oneself as a social actor, and a sense that one can control one’s action. It entails a distortion of temporal experience (i.e., time generally passed faster than normal) and an intrinsic reward of doing, rather than achieving (Nakamura & Csikszentmihalyi, 2002).

Activity awareness also pulls from the concepts of communion (Bakan, 1966) and unmitigated communion (Helgeson & Fritz, 1999). Communion emphasizes connection with others and forming relationships (Helgeson, 1994; Helgeson & Fritz, 1999). This focus on others, however, can become an extreme fixation on their interests, needs, and priorities (Bauer & Wayment, 2008). This more extreme type of behavior has been labeled unmitigated communion (Helgeson & Fritz, 1999) and involves placing others’ needs before one’s own and worrying excessively about others’ problems (Helgeson & Fritz, 1999).

Both communion and unmitigated communion are largely discussed in the literature as personality characteristics. They are characteristics, however, which emphasize and prioritize relationships with others. Consequently, individuals who are high on communion and unmitigated communion presumably spend a significant portion of their time with their awareness directed on other people. Although the constructs of communion and unmitigated communion encompass more than just awareness processes,
the two constructs lend support for the activity awareness category as well as help define the category. The two constructs also bring insight into how activity awareness might be associated with well-being outcomes.

This category was labeled activity awareness to capture the awareness processes when active and largely unaware of the self which flow, communion, and unmitigated communion all share. Although there is a lack of self-reflection in activity awareness, the affect associated with the activity can be noted after the activity as well as can possibly be noted vaguely during it (Schooler & Mauss, 2010). The positive and neutral valence of activity awareness may be driven largely by processes associated with varying degrees of flow and communion, and the negative valence primarily by processes associated with unmitigated communion. Whether or not flow or unmitigated communion arises, however, seemingly depends on individual preferences for different activities as well as the degree to which the situation itself is positive or negative. It seems reasonable, for example, that if an individual hates test taking and is confronted with an exceedingly difficult exam, the associated activity awareness would be highly negative. The same situation might result in positive activity awareness for an individual who enjoys taking exams or for an individual who is reasonably challenged by an exam. A neutral valence, depending on the situation and personal preferences, might entail being aware solely of passing cars while on a bike ride.

*Associations with well-being*. It has been argued that a good life is one that is characterized, in part, by complete absorption in what one does (i.e., being in flow; Nakamura & Csikszentmihalyi, 2002, p. 89). It also has been found that a host of positive well-being outcomes are associated with being connected with others (i.e., communion;
Helgeson, 1994). Conversely, it has been argued that complete absorption in others’ lives can result in a loss of identity (i.e., unmitigated communion; Bauer & Wayment, 2008; Helgeson & Fritz, 1999). The well-being associations with both are each discussed in turn.

When in flow, researchers have said that individuals operate at full capacity (c.f. de Charms, 1968; Deci, 1975; White, 1959). According to the flow model, experiencing flow encourages a person to persist at, and return to, an activity because of the experiential rewards it promises and thereby fosters the growth of skills over time (Nakamura & Csikszentmihalyi, 2002). Several studies in line with this model have found flow to be associated with commitment and achievement during high school years (Carli, Delle Fave, & Massimini, 1988; Nakamura, 1988). One study, for example, found the greater the flow and the less the anxiety associated with a talent resulted in continued commitment to that talent four years later (Csikszentmihalyi, Rathunde, & Whalen, 1993). A second study found that the greater the flow students experienced at the start of a mathematics class, the better their performance at the end of the course (Csikszentmihalyi et al., 1993). Correlational data has also found that the time spent in flow is associated with self-esteem (Wells, 1988).

Additionally, communion has been related to higher relationship satisfaction (Antill, 1983) and social self-esteem (Hawkins, Turell, & Jackson, 1983) as well as greater social support. Communion also has been inversely associated with aggression (Horwitz & White, 1987) and alcoholism (Zeldow, Clark, & Daugherty, 1985).

Unmitigated communion, on the other hand, has been associated with greater distress partly because such people become overly involved in others’ problems and
hence take on others’ distress as their own (Fritz & Helgeson, 1998; Helgeson & Fritz, 1998). As a result, unmitigated communion has been related to poorer health behavior (Helgeson & Fritz, 1999). Additionally, it has been associated with providing support without necessarily perceiving it to be available and with more negative interactions with others (Helgeson & Fritz, 1999).

Having defined the three state of awareness categories and described the rationale behind their positive, neutral, and negative valences, the next section defines well-being and describes the rationale behind measuring both eudemonic and hedonic well-being.

**Well-being: Definitions and Measurement**

Studies have found well-being to be a complex, multi-dimensional construct (Jayawickreme, Forgeard, & Seligman, 2012; Su, Tay, & Diener, 2014). Theories of well-being fall into two main domains: hedonic accounts and eudemonic accounts. Hedonic well-being concerns positive affect, negative affect, and life satisfaction; whereas eudemonic well-being concerns meaning and purpose.

Hedonic well-being is perhaps the most widely used construct in the well-being field (Jayawickreme et al., 2012; Seligman, 2011; Su et al., 2014). It is most commonly determined through subjective well-being, positive affect, and negative affect measurements (e.g., Diener, Emmons, Larsen, & Griffin, 1985; Watson, Clark, & Tellegen, 1988). Hedonic approaches are more data-driven and have been argued to be the ‘gold-standard’ measure of human happiness (Kashdan, Biswas-Diener, & King, 2008). They also have been criticized, however, for being too simplistic (Jayawickreme, Pawelski, & Seligman, 2008). Researchers have argued that an individual’s judgment alone is not a sufficient well-being measure (Jayawickreme et al., 2008).
Eudemonic accounts of well-being generally focus on how close individuals are to reaching their full potential (i.e., flourishing; Seligman, 2011). Eudemonic approaches can be described as more top-down (Kashdan et al., 2008), often determined through measurement of constructs such as self-acceptance, relatedness, autonomy, competence, meaning, purpose in life, and personal growth (Ryan & Deci, 2000; Ryff 1989, 1995).

There is much research to suggest that these two well-being accounts are independent constructs. Two factor solutions of eudemonic and hedonic items, for example, consistently have been found to be more valid than 1-factor solutions (e.g., Compton, Smith, Cornish, & Qualls, 1996; Keyes, 2005; Keyes, Shmotkin, & Ryff, 2002; McGregor & Little, 1998). Additionally, researchers have found construct validity by examining whether the two factors are associated with different meaningful well-being outcomes (e.g., Waterman, 1993; 2007). Finally, research controlling for shared variance has demonstrated construct specificity of hedonic and eudemonic indicators (e.g., McGregor & Little, 1998).

Consequently, in order to best capture well-being, this study measured both hedonic and eudemonic well-being. Doing so is supported by research indicating the usefulness of combining the two accounts (e.g., Keyes et al., 2002). Not only have the two accounts been found to be highly correlated latent constructs (Keyes et al., 2002), research has suggested that hedonic and eudemonic processes work best in tandem (Kashdan et al., 2008). Priming positive emotions under the right conditions, for example, can lead to enhanced beliefs about the presence of a meaningful life (King, Hicks, Krull, & Del Gaiso, 2006). Additionally, it has been found that for those with a strong purpose in life, extreme negative affect typically is not linked with suicidal ideations (Heisel &
Flett, 2004). Given these findings, this study ran analyses separately for hedonic and eudemonic well-being as well as analyses with the two aggregated (c.f. Keyes et al., 2002; Su et al., 2014), to see if awareness was differentially associated with these three well-being constructs.

**Summary and Study Overview**

Many different types of awareness and the ways in which they appeared to fall into three broad state of awareness categories were discussed within this literature review. The processes behind the different types of awareness, how they have been associated with well-being, and how they might map onto a positive, neutral, and negative valence within each state of awareness were also discussed. Although each state of awareness has been associated with both positive and negative well-being processes and outcomes, the question remains as to the relative degree to which each state of awareness is associated with high and low well-being.

Additionally, a limitation in previous studies is that they are almost universally done at the between-person level of analysis. A limitation in between-person analyses is that once a relationship among two variables is identified between persons, it is often inferred that the relationship holds true within a person. This is not always the case, however. Within-person approaches may reveal different answers than between-person approaches reveal, because variables may vary across people for different reasons than they vary within a person across occasions (Robinson, 1950).

Within-person approaches assess each individual on multiple occasions and compare those occasions to each other, one individual at a time (Fleeson, 2007). Often psychologists are primarily interested in within-person processes because they reveal how
the mind works. Psychologists, however, tend to more frequently use between-person approaches because they are more practical (Fleeson, 2007). The same kinds of questions can be addressed by both within-person and between-person approaches (e.g. Marco, Neale, Schwartz, Shiffman, & Stone, 1999; Mroczek & Almeida, 2004; Fleeson, Malanos, & Achille, 2002).

Consequently, the purpose of this research was to illuminate which states of awareness, compared to the others, have the greatest relationship with high and low well-being at both between- and within-person levels of analysis. More specifically, this research investigated the valences of states of awareness for insight into the awareness–well-being relationships. Additionally, this research investigated the prevalence of the three states of awareness to illuminate whether there is a relationship between the prevalence of a state of awareness and well-being. Finally, this research investigated the relationships between the states of awareness to illuminate how distinct the three categories are.

In this study between-person is referred to herein as person-level and within-person is referred to herein as episode-level. Person-level analyses, for example, made it possible to analyze how the trait well-being of a participant corresponded with his/her awareness in general. Relative to person-level analyses, episode-level analyses illuminated how states of awareness and well-being covaried within the same person at different moments in time. For the reasons outlined in the previous paragraph, this research focused more strongly on interpreting episode-level analyses. This research, however, also interpreted person-level analyses to illuminate the differences in the two levels of analyses and to provide a source of comparison to the current literature.
This study contributed to the literature in at least five main ways. The first is that this study compared inward and outward self-awareness processes more broadly than previously has been done in the literature. There is research, for example, comparing inward and outward self-awareness processes for specific well-being outcomes, such as neuroticism, social phobia, and bulimia (Darvill et al., 1992; Jostes et al., 1999; also see Fenigstein et al., 1975; Nystedt & Ljungberg, 2002; Scandell, 1998). There does not appear to be research, however, comparing the relative degree to which inward and outward self-awareness processes are associated with more general well-being.

The second contribution is that this research studied awareness in a broader fashion than has previously been done, by adding the third activity awareness category. The third contribution is that this research compared the nature of the three states of awareness by specifically looking at how frequently each category tended to manifest in its positive, neutral, and negative valence. This study looked at, for example, whether one state of awareness had a greater tendency, compared to the other two states of awareness, to manifest in its negative valence. The fourth contribution is that this research measured both hedonic and eudemonic well-being. It appears that much of the awareness–well-being literature only measured hedonic well-being

The fifth contribution of this research is that it collected and analyzed data at both the person and the episode level. It appears as though the majority of the awareness and well-being research, if not all of the awareness research, has been conducted at the person level; i.e., through trait measurements. Broadly, trait measurements entail asking participants, for example, generally how they direct their awareness and generally about their well-being. In addition to measuring participants’ general well-being, this study
asked participants to identify their awareness and well-being in specific situations. The importance of this research lies in the long term goal of bringing insight into how we might improve our well-being through awareness processes. Knowing which states of awareness, and which valences of the states of awareness, have the greatest association with high and low well-being may eventually help inform well-being interventions. Specifically, the results of this study may illuminate which awareness processes interventions should foster versus discourage.

The Present Study

To investigate the relationships between the states of awareness, the valences of states of awareness, and the states of awareness and well-being, this study utilized the Daily Reconstruction Methodology design (DRM; Kahneman et al., 2004), an experienced sampling methodology. Specifically, within the DRM design participants were asked to reflect on their previous day and break the day into naturally occurring episodes. Participants then were asked the same group of questions with regard to each episode. The first reason for using a DRM design was because it provided a direct and detailed insight into awareness–well-being associations. Second, it could provide an alternative perspective on awareness–well-being relationships relative to that found in the literature; a majority of the studies previously mentioned measured awareness and well-being in their trait-like forms.

Awareness was measured in the DRM through nine items: a positive, neutral, and negative form of each state of awareness. The three valences of each state of awareness, referred to herein as awareness facets, were averaged to form their respective state of
awareness. In this study, these nine awareness facets and their three states of awareness as well as well-being were compared to each other in the following three main questions.

**Question 1: What are the relationships among the three states of awareness?**

*What are the relationships among the awareness facets within and between each state of awareness?* There were three main purposes behind examining the relationships among the states of awareness and among the awareness facets. First, examining the relationships among the three states of awareness would bring insight into how distinct each state of awareness is from the others. If each state of awareness is a distinct awareness process, there would be a relatively low correlation between all three. As a source of comparison, previous research contrasting inward and outward self-awareness processes has found that the correlations between the two processes range from as low as .14 (Darvill et al. 1992) to as high as .43 (Jostes et al., 1999) with many correlations in between (e.g., $r_s = .23 \& .26$; Fenigstein et al., 1975).

Second, this question would illuminate which states of awareness are more related to the others. It was proposed here that inward and activity awareness are at two ends of the awareness continuum with outward self-awareness in between. As a result, this hypothesis would be supported if outward self-awareness had the greatest relationship with both inward and activity awareness, and that there was a smaller relationship between inward and activity awareness.

Third, examining the relationships of the awareness facets within and between each state of awareness could illuminate which awareness facets participants most frequently oscillate between. A greater association between positive inward and neutral inward self-awareness, for example, compared to positive inward and neutral outward
self-awareness would suggest that participants more frequently oscillated between different valences of the same state of awareness relative to different valences of different states of awareness. If participants more frequently oscillated between awareness facets of the same state of awareness, this could indicate that each state of awareness represents a distinct underlying construct. valid positive, neutral, and negative valence.

More comprehensively, a positive correlation between any two of the nine awareness facets would indicate that they are highly related, which could be interpreted as: (a) they are of the same state of awareness, (b) participants did not differentiate strongly between them, and/or (c) participants often flipped back and forth between both of them over the span of the episode. A correlation of zero would indicate that the two awareness facets are not systematically related and thus are a part of distinct categories. A high negative correlation would indicate that if one awareness facet increases in prevalence, the other decreases in prevalence, and vice versa. This could be interpreted as: they are components of the same state of awareness (e.g., the positive and negative awareness facets of inward self-awareness) and/or they are components of two different states of awareness (e.g., the positive awareness facet of activity awareness and the negative awareness facet of inward self-awareness).

**Question 2: How prevalent is each awareness facet and each state of awareness?**

There were three main purposes to examining the prevalence of awareness facets and states of awareness. The first was to illuminate the prevalence of each awareness facet in relation to the nine others. The second was to illuminate which awareness facets were the most prevalent within their respective state of awareness. The third was to illuminate how prevalent each state of awareness was in relation to the three others. Additionally, the
findings from this question could be compared to the awareness–well-being results to illuminate how the prevalence of an awareness facet may correspond with the awareness facet’s association with well-being.

It was hypothesized here that activity awareness and outward self-awareness would be the first and second most prevalent states of awareness, with inward self-awareness being the least prevalent. This was based on findings that work is the most prevalent activity of the average person’s average day and talking with others is one of the second most prevalent activities (Killingsworth & Gilbert, 2010). It has also been found that we spend roughly 40 percent of our time in our own thoughts (Killingsworth & Gilbert, 2010). As a result, it also was hypothesized that the prevalence of inward self-awareness may be only marginally lower compared to the prevalence of outward self-awareness.

Finally, it was hypothesized that, on average, each state of awareness would manifest in its neutral and positive valence more frequently than its negative valence. This hypothesis was based on the theory that people want to feel pleasant emotions when immediate benefits outweigh future benefits (Tamir, 2009). The additional aspect of this theory, however, was that when future benefits outweigh immediate benefits, people prefer to feel useful emotions, even if they are unpleasant (Tamir, 2009). Consequently, it was hypothesized that the negative valence would be only marginally lower compared to the neutral and positive valences.

**Question 3:** How is each awareness facet and state of awareness associated with well-being? Do these associations change when analyzing eudemonic and hedonic well-being separately? This question investigated which awareness facets and which states of
awareness have the greatest association with high and low trait and episodic well-being. Additionally, this question examined eudemonic and hedonic well-being separately to provide insight into whether states of awareness and awareness facets are associated with different aspects of well-being.

It appeared that, within the literature reviewed, inward self-awareness may have a greater tendency to manifest in its negative valence compared to activity awareness. As a result, it was hypothesized that activity awareness would be associated with the highest overall well-being and inward self-awareness would be associated with the lowest overall well-being. It was hypothesized that these associations would remain the same for hedonic well-being due to the immediate pleasure that arises from engaging in processes such as flow. The highest eudemonic well-being, however, would have a relatively greater association with the positive and neutral valences of inward awareness, due to the role of reflection in identifying meaning and purpose in one’s life (Ryan, Huta, & Deci, 2008).

Finally, further insight into the awareness–well-being relationships could be gained from comparing these results to the prevalent results of the previous question. Doing so could illuminate whether there is an association between the prevalence of an awareness facet and relative degree to which it is associated with well-being.
METHOD

Participants

Participants consisted of 200 undergraduates (51% female, age $M = 19.23$) from introductory psychology classes at Wake Forest University. Participants signed up for the study online via SONA and were granted 0.5 credits in compensation for their participation.

Procedure

This study was advertised on SONA as a 30 minute survey that entailed reflecting on one’s day. The only requirement was that participants bring their own laptops. Participants were tested in groups in a classroom. Upon arriving they signed a consent form and then were provided a short URL which took them to the Qualtrics survey. The first part of the Qualtrics survey entailed trait measures and the second part entailed the Daily Reconstruction Method (DRM; Kahneman et al., 2004). The survey ended with a debriefing describing the purpose of the study.

If participants left questions blank on any part of the survey and tried to proceed to the next page, Qualtrics generated a message informing participants of the number of questions left blank on that page. The message gave participants the option to stay on the page and answer them or to proceed. Additionally, for all parts of the survey, the ordering of items within their respective sections was randomized for each participant. In each episode, for example, participants first always were asked nine questions about their awareness and then two questions about their well-being, however the ordering of the nine awareness questions and of the two well-being questions were randomized.
Measures

**Day Reconstruction Method (DRM).** The DRM (Kahneman et al., 2004) offers an inclusive study of everyday events (i.e., the entire day is accounted for) in a manner that minimizes reporting biases. The intent of the method is to provide an accurate picture of the experience associated with activities and circumstances. At the start of the DRM, participants were asked to reconstruct the previous day into a series of episodes (the instructions used in this study were almost verbatim from the instructions used in Kahneman et al. (2004)). The instructions were as follows:

**First:** Reflect back on your day yesterday - from the time you woke up to the time you went to sleep. Think of the day as a continuous series of scenes or episodes in a film. Go ahead and visually break up your day into these ‘episodes.’

**Second:** In the boxes below, give each episode a brief sentence description *(for example, ‘getting ready in the morning’, ‘in biology class’, ‘talking on the phone with my mom’, or ‘at lunch with my friend’).*

*(The episodes people identify usually last between 15 minutes and 2 hours. Indications of the end of an episode might be going to a different location, ending one activity and starting another, or a change in the people you are interacting with.)*

Qualtrics randomly selected eight episodes from the episodes that participants generated *(M = 12.8, SD = 3.34).* For each of the eight episodes, participants first were asked “How long did this episode last?” and were provided with a drop down menu of ten time segments ranging from 15 minutes to four hours. Participants then were asked a series of questions (the same questions for each episode). Two main sections of questions were relevant to this study. The first section entailed nine questions which asked
participants how frequently they engaged in the nine awareness facets described below under *States of awareness measures*. The second section entailed two questions, the eudemonic and hedonic episodic well-being measures, described below under *Episodic well-being measures*. (View Appendix B for a screen shot of these questions in an example episode.)

*States of awareness measures*. The three states of awareness, broken into their negative, positive, and neutral awareness facets, were represented in the nine items displayed in Table 1. Participants were asked, “During this episode, how frequently were you doing the following?” and were provided with a five point Likert scale next to each of the nine awareness facet items: 1 = *not at all*, 2 = *some of the time*, 3 = *half of the time*, 4 = *a lot of the time*, 5 = *most of the time*.

Table 1
*The Nine Awareness Facet Items.*

<table>
<thead>
<tr>
<th>Inward Self-Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative</strong>: In my own head, reflecting critically/ negatively on myself.</td>
</tr>
<tr>
<td><strong>Positive</strong>: In my own head, reflecting positively myself.</td>
</tr>
<tr>
<td><strong>Neutral</strong>: In my own head, reflecting neutrally on myself.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outward Self-Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative</strong>: Thinking that I’m being perceived critically/negatively by others.</td>
</tr>
<tr>
<td><strong>Positive</strong>: Thinking that I’m being perceived positively by others.</td>
</tr>
<tr>
<td><strong>Neutral</strong>: Thinking that I’m being perceived neutrally by others.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative</strong>: Being engrossed in what I was doing/ the person I was with and feeling negative about it.</td>
</tr>
<tr>
<td><strong>Positive</strong>: Being engrossed in what I was doing/the person I was with and feeling neutral/positive about it.</td>
</tr>
<tr>
<td><strong>Neutral</strong>: Being engrossed in what I was doing/the person I was with and feeling neutral about it.</td>
</tr>
</tbody>
</table>
**Awareness facet and state of awareness item construction.** Several initial calculations were made to prepare the awareness facet data for the analyses in this research, as well as to compute reliability statistics. Specifically, the data was prepared in order to conduct analyses at the person-level (between-person) as well as at the episode-level (within-person).

In order to prepare the data for person-level analyses, the mean of each awareness facet rating was calculated across each participant’s eight episodes. This resulted in nine within-person means, one for every awareness facet. To construct the three states of awareness, the nine awareness facet means then were collapsed into their respective state of awareness, resulting in three states of awareness means. The negative, positive, and neutral inward self-awareness facet means, for example, were averaged to calculate the inward self-awareness state of awareness. These nine awareness facet means and three state of awareness means were used in all person-level analyses below.

In order to prepare the data for episode-level analyses, the between-person variance first was removed from the awareness facet variables and then the variables were standardized. The reason for removing the between-person variance was because this research was primarily interested in within-person effects. Although between-person variance does not significantly skew within-person interpretations at the person-level, between-person variance at the episode-level can result in misleading within-person interpretations. Additionally, the variables then were standardized in order to obtain standardized coefficients in linear mixed model analyses.

The between-person variance was removed from the awareness facet variables using the following procedure: (a) A linear mixed model analyses was conducted for each
awareness facet variable, with the awareness facet entered in as the dependent variable and participants entered in as the predictor variable. (b) The residuals from these analyses were saved as variables. A residual is what the model is unable to predict; which is the within-person variance with the between-person variance removed. (c) The residuals were standardized to result in nine new variables of standardized awareness facet ratings.

To calculate within-person standardized state of awareness means, the standardized awareness facet ratings were collapsed into their respective states of awareness. These nine standardized awareness facet variables and the three state of awareness means were used in all episode-level analyses.

In order to obtain the reliability of each awareness facet, intraclass correlations first were calculated using the episode-level residuals and then inputed into the Spearman Brown prophecy formula to calculate alphas. The alphas apply to the person-level awareness facet mean scores and are an estimate of how predictably participants engage in awareness. Each awareness facet was internally consistent with an alpha coefficient greater than .71 ($M = .77$).

*Episodic well-being measures.* The purpose of the episodic well-being measures was to capture well-being in a manner that was more directly tied to awareness within an episode. The episodic well-being measures entailed two questions asked in tandem with every episode. Participants were prompted with “During this episode:” which was followed by the two well-being questions. Eudemonic episodic well-being was measured by asking participants: “Did some aspect of it resonate with you in a meaningful way?” Hedonic well-being was measured by asking participants: “Were you happy?”
Participants rated their level of eudemonic and hedonic well-being separately, on a Likert scale from 1-5: 1 = not at all, 2 = very minorly, 3 = somewhat, 4 = yes, 5 = very much so.

Episodic well-being item construction. Initial calculations were performed, exactly as were done for the awareness facet item construction, to prepare the episodic well-being data and to calculate the reliability of the episodic well-being measure.

In order to prepare the data for person-level analyses, the mean for each episodic well-being rating was calculated across each participant’s eight episodes. This produced a hedonic episodic well-being mean and a eudemonic episodic well-being mean. These two means were then averaged to create an overall episodic well-being mean. These three means, the hedonic mean, the eudemonic mean, and the overall mean, were used in all person-level analyses.

In order to prepare the data for episode-level analyses, the between-person variance was removed from the three well-being means and the variables were standardized through the same process used for the awareness facets. These three standardized episodic well-being means were used in all episode-level analyses. Likewise, the same process used to calculate awareness facet reliabilities was used to calculate the reliability of the hedonic and eudemonic episodic well-being items. The alpha for eudemonic episodic well-being alpha was .72 and for hedonic episodic well-being was .66.

Trait well-being measure. Trait well-being was measured at the beginning of the study, before the start of the DRM, through an expanded version of the Brief Inventory of Thriving (BIT; Su et al., 2014), located in Appendix A. The BIT was utilized in this study because it was designed to capture both eudemonic and hedonic
constructs. The original BIT is a ten-item questionnaire that captures seven main
dimensions of well-being that have been proposed in well-being theory: (a) supportive
and meaningful relationships (“There are people I can depend on to help me”), (b)
interest and engagement in daily activities (“In most activities that I do, I feel energized”),
(c) a sense of mastery and accomplishment (“I can succeed if I put my mind to it”), (d)
feelings of control and autonomy (“The life choices I make are not really mine” (R)), (e)
meaning and purpose in life (“My life has a clear sense of purpose”), (f) optimism (“I
expect more good things in my life than bad”), and (g) participative well-being in the
form of high satisfaction and positive feelings (“I feel happy most of the time”).

The first six dimensions, which entail eight items, are representative of
eudemonic well-being. The seventh dimension, which entails two items, is representative
of hedonic well-being. The BIT was devised to assess well-being in research and health
settings. It has excellent psychometric properties and exhibits convergent validity with
existing measures of psychological well-being and discriminant validity with measures of
ill-being (Su et al., 2014).

The original BIT was expanded in order to more proportionally capture hedonic
well-being. Since the BIT is a shortened version of the more expansive Comprehensive
Inventory of Thriving (CIT; see Su et al., 2014), this study incorporated the additional
seven hedonic well-being items from the CIT (for a total of 17 items; eight eudemonic
and nine hedonic). Participants rated each item on a Likert scale from 1-5: 1 = strongly
disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

Trait well-being scale construction. Similar to the initial calculations made for
awareness facets and episodic well-being, initial calculations were made to the trait well-
being items. For analyses at the person-level, the means for eudemonic trait well-being and hedonic trait well-being were calculated by averaging their respective items. The mean for overall trait well-being was calculated by averaging all 17 items. Although trait well-being was not used at episode-level analyses, the same process for calculating awareness facet reliabilities was used to calculate the reliabilities of the three trait well-being means. The overall, eudemonic, and hedonic trait well-being means were internally consistent with alpha coefficients of .94, .92, and .86, respectively.
RESULTS

All analyses in this study were run at both the person- and episode-levels. This research, however, focused more strongly on interpreting episode level analyses due to the way in which they, relative to person-level, illuminated how states of awareness and well-being covaried within the same person at different moments in time. Described in a different way, values within the variables at the person-level were averages, whereas the values within variables at the episode were largely raw ratings. As a result, the person-level state of awareness variables were the average of three awareness facet means whereas, at the episode-level, the state of awareness variables were the average of the three awareness facet ratings.

Descriptive Statistics

The data from all 200 participants were included in this study. Participant’s high response rate likely was due to the Qualtrics program informing participants when they missed a question. To illustrate, there were 1,600 responses for half of the awareness facets, and a range of 1,599 to 1,597 for the other half. These numbers indicate that every participant filled out all eight of their episodes and that missing data was due to a few randomly skipped questions.

The descriptive statistics for the duration of the episodes and the trait and episodic well-being measures are displayed in Table 2. Time was calculated across all 1,600 episodes. The descriptive statistics of, and relationships between, the two well-being measurements are discussed below.
Table 2
*Descriptive Statistics for Time and Well-being Measures.*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>1.07</td>
<td>.33</td>
</tr>
<tr>
<td>Trait WB: Overall</td>
<td>3.63</td>
<td>.37</td>
</tr>
<tr>
<td>Trait WB: Eudemonic</td>
<td>4.02</td>
<td>.53</td>
</tr>
<tr>
<td>Trait WB: Hedonic</td>
<td>3.28</td>
<td>.28</td>
</tr>
<tr>
<td>Episodic WB: Overall</td>
<td>2.98</td>
<td>.56</td>
</tr>
<tr>
<td>Episodic WB: Eudemonic</td>
<td>2.59</td>
<td>.74</td>
</tr>
<tr>
<td>Episodic WB: Hedonic</td>
<td>3.36</td>
<td>.57</td>
</tr>
</tbody>
</table>

*Note:* The unit of Time is in hours. ‘WB’ = well-being.

**Well-being measurements.** In order to illuminate whether there were differences in the mean rates between hedonic and eudemonic well-being with their respective trait and episodic well-being measures, the means in Table 2 were compared. For the trait well-being measurement, the average participant rated his/her eudemonic well-being higher than his/her hedonic well-being. Yet, for the episodic well-being measurement, participants, on average, rated their hedonic well-being higher than their eudemonic well-being in each episode.

It was further determined whether there was a statistical difference between these hedonic and eudemonic well-being means within their respective measures. Two paired sample t-tests revealed that the eudemonic trait well-being mean was significantly higher than the hedonic trait well-being mean, \( t(199) = 26.82, p < .001 \), and the hedonic episodic well-being mean was significantly higher than the eudemonic episodic well-being mean, \( t(199) = -15.67, p < .001 \).

These results suggest that participants significantly rated their eudemonic well-being higher than hedonic well-being when reflecting on their general well-being, and
rated their hedonic well-being higher than eudemonic well-being in episodes. Differences in the items between the two measurements, however, could be driving these results. A consequence of the differences in these results was that they could influence differences in the awareness–well-being results. Specifically, eudemonic trait well-being could have greater associations with awareness relatively to hedonic trait well-being, and vice versa for hedonic episodic well-being compared to eudemonic episodic well-being, due to the differences in the two measurements.

In order to determine if the trait and episodic well-being measurements were capturing the same underlying constructs, the two well-being measures were correlated. The results are displayed in Table 3. The correlations between episodic and trait eudemonic well-being as well as between episodic and trait hedonic well-being were relatively quite low. This is significant as these results indicate that the two hedonic and two eudemonic measurements may not be measuring the same underlying constructs. Consequently, differences in well-being–awareness associations at the episode-level vs. the person-level could be driven by the differences in the two hedonic and two eudemonic measurements.¹

¹ In order to further analyze the differences between the trait and episodic well-being measurements, the two measurements were correlated at an item level. It was found that the hedonic episodic well-being item was significantly correlated with all 17 trait well-being items, rs > .151, p < .033. More specifically, the hedonic episodic well-being item’s five highest correlations, rs > .422, were with five of the hedonic trait well-being items (#s 10, 13, 14, 16, 17 in Appendix A). It was found, however, that the eudemonic episodic well-being item was only significantly correlated, rs < .228, p < .05, with six of the trait well-being items (#s 10, 13, 14, 15, 16, 17). Five out of six of these hedonic trait well-being items are the same items that hedonic episodic well-being had the highest correlations with. These results suggest that the eudemonic and hedonic episodic well-being items and the majority of the hedonic trait well-being items are measuring similar underlying constructs and that the eudemonic trait well-being items are measuring a different underlying construct.
Table 3
*Correlations between the Episodic and Trait Well-being Measures at the Person-Level.*

<table>
<thead>
<tr>
<th></th>
<th>Episodic WB</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall</td>
<td>Eudemonic</td>
<td>Hedonic</td>
</tr>
<tr>
<td>Trait WB: Overall</td>
<td>.27***</td>
<td>.11</td>
<td>.38***</td>
</tr>
<tr>
<td>Trait WB: Eudemonic</td>
<td>.29***</td>
<td>.13</td>
<td>.41***</td>
</tr>
<tr>
<td>Trait WB: Hedonic</td>
<td>.18*</td>
<td>.07</td>
<td>.26***</td>
</tr>
</tbody>
</table>

*Note: ‘WB’ = well-being. †Episodic = average episodic well-being, calculated at the person-level. * = p < .05, ** = p < .01, *** = p < .001.*

**Relationships among States of Awareness and Awareness Facets (Q1)**

In order to begin to illuminate the relationships among the nine awareness facets as well as three states of awareness four correlation analyses were run: two at the person-level (Tables 4 and 5) and two at the episode-level (Tables 6 and 7). Table 4 displays the correlations between the three state of awareness means at the person-level and Table 5 displays the nine awareness facet means. Table 6 displays the correlations between the three standardized state of awareness means at the episode-level and Table 7 displays the correlations between the nine standardized awareness facet ratings.

As mentioned, for these analyses the episode-level correlations would reveal the relationships among the states of awareness within a participant and the person-level correlations would reveal the relationships between participants. At the person-level, it may have been that the size of the correlations were inflated in these analyses because of averaging the awareness facets. In order to further examine and unpack the associations among awareness facets and states of awareness, the following two sections compared: (a)
the correlations of states of awareness and (b) the correlations of awareness facets within vs. between states of awareness.

Table 4
Correlations Between the Three States of Awareness Calculated at the Person-Level.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inward SA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Outward SA</td>
<td>.83***</td>
<td></td>
</tr>
<tr>
<td>3. Activity A</td>
<td>.71***</td>
<td>.67***</td>
</tr>
</tbody>
</table>

Note: $N = 200$. ‘SA’ = self-awareness. ‘A’ = awareness. * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 5
Correlations between the Nine Awareness Facets Calculated at the Person-Level.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Inward SA: negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.Inward SA: positive</td>
<td>-.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.Inward SA: neutral</td>
<td>.24**</td>
<td>.42***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.Outward SA: negative</td>
<td>.78***</td>
<td>.04</td>
<td>.29***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.Outward SA: positive</td>
<td>-.05</td>
<td>.79***</td>
<td>.39***</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.Outward SA: neutral</td>
<td>.28***</td>
<td>.38***</td>
<td>.82***</td>
<td>.36***</td>
<td>.44***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.Activity A: negative</td>
<td>.69***</td>
<td>.05</td>
<td>.25***</td>
<td>.70***</td>
<td>.06</td>
<td>.26***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.Activity A: positive</td>
<td>-.10</td>
<td>.67***</td>
<td>.29***</td>
<td>.00</td>
<td>.63***</td>
<td>.26***</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>9.Activity A: neutral</td>
<td>.23**</td>
<td>.20**</td>
<td>.73***</td>
<td>.27***</td>
<td>.25***</td>
<td>.66***</td>
<td>.30***</td>
<td>.33***</td>
</tr>
</tbody>
</table>

Note: $N = 200$. ‘SA’ = self-awareness. ‘A’ = awareness. * = $p < .05$, ** = $p < .01$, *** = $p < .001$. 
Table 6
Correlations between the Three States of Awareness Calculated at the Episode-Level.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inward SA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Outward SA</td>
<td>.35***</td>
<td></td>
</tr>
<tr>
<td>3. Activity A</td>
<td>.28***</td>
<td>.36***</td>
</tr>
</tbody>
</table>

Note: Ns = 1600 to 1597. ‘SA’ = self-awareness. ‘A’ = awareness. * = p < .05, ** = p < .01, *** = p < .001.

Table 7
Correlations Between the Nine Awareness Facets Calculated at the Episode-Level.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Inward SA: negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.Inward SA: positive</td>
<td>-.06*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.Inward SA: neutral</td>
<td>.08**</td>
<td>.11***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.Outward SA: negative</td>
<td>.44***</td>
<td>-.06*</td>
<td>.07**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.Outward SA: positive</td>
<td>-.03</td>
<td>.46***</td>
<td>.01</td>
<td>.06*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.Outward SA: neutral</td>
<td>.05*</td>
<td>.10***</td>
<td>.24***</td>
<td>.12***</td>
<td>.21***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.Activity A: negative</td>
<td>.38***</td>
<td>-.08**</td>
<td>.08**</td>
<td>.31***</td>
<td>-.03</td>
<td>.06*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.Activity A: positive</td>
<td>-.14***</td>
<td>.45***</td>
<td>-.05</td>
<td>-.01</td>
<td>.48***</td>
<td>.09**</td>
<td>-.12***</td>
<td></td>
</tr>
<tr>
<td>9.Activity A: neutral</td>
<td>.00</td>
<td>.03</td>
<td>.26***</td>
<td>.03</td>
<td>.21***</td>
<td>.08**</td>
<td>.03</td>
<td></td>
</tr>
</tbody>
</table>

Note: Ns = 1600 to 1597. ‘SA’ = self-awareness. ‘A’ = awareness. * = p < .05, ** = p < .01, *** = p < .001.

Relationships among states of awareness. In order to investigate whether the three states of awareness are distinct awareness processes, the correlations among the states of awareness in Tables 4 and 6 were compared. The correlations among the states of awareness at the person-level were high ($r_s \geq .67$). The correlations at the episode-level ($r_s \geq .28$), however, were of expected size. The person-level correlations suggest
that it is not possible to readily distinguish between the three states of awareness when comparing participants. The episode-level correlations, however, suggest that individual participant may perceive the states of awareness as three distinct awareness processes.

The episode-level state of awareness correlations were further examined to investigate how each participant oscillates between states of awareness within a situation. These analyses could illuminate whether awareness lies on a continuum between inward self-awareness and activity awareness, with outward self-awareness between the two. Outward self-awareness, in fact, did have the two highest correlations both of which were similar in magnitude ($rs = .35 & .36$). In order to determine whether there were significant differences between the three correlations, Steiger’s test of differences in dependent correlations was utilized (Steiger, 1980). The outward self-awareness correlations were not significantly different and there were significant differences between the inward–activity awareness and inward–outward self-awareness correlations ($Z = 2.66, p < .001$) and between the activity–outward self-awareness and activity–inward self-awareness correlations ($Z = -2.03, p = .002$). These results indicate that outward self-awareness has the same degree of relationship with inward and activity awareness, and that inward and activity awareness are related to less of an extent. Consequently, these results indicate that the three states of awareness categories may be distinguishable categories that lie along a continuum.

**Relationships among awareness facets.** In further analyzing the awareness facets, the main question of interest was: how do the awareness facets within their given state of awareness compare to the awareness facets between different states of awareness. Is the positive–negative inward self-awareness correlation larger or smaller, for example,
relative to the positive inward–negative outward self-awareness correlation? If the former was larger, this would reveal that participants more frequently oscillate between different valences within the same state of awareness. This could indicate that the three states of awareness are distinct categories. If the latter was larger, this would reveal that participants more frequently oscillate between different valences of different states of awareness. Also of interest here was whether participants most frequently oscillated between awareness facets of the same valence or different valence.

**Awareness facets within vs. between states of awareness: Initial calculations.** In order to make these comparisons, the following calculations were first made with the correlations in Tables 5 and 7: (a) The absolute averages were calculated for all awareness facet correlations from within their respective state of awareness (e.g., positive with negative inward self-awareness) and for all awareness facet correlations of opposite valence from different states of awareness (e.g., positive inward self-awareness with negative outward self-awareness). (b) The average correlations of the awareness facets within the same state of awareness were subtracted from the average correlations of awareness facets from different states of awareness. (c) These differences then were averaged. The reason for using the absolute averages was because the goal of this study was to investigate the magnitude of the associations between and within states of awareness. This would illuminate the extent to which participants oscillated between states of awareness vs. within the same state of awareness.

**Awareness facets within vs. between states of awareness: Results.** The average correlation of awareness facets within the same state of awareness (e.g., negative inward with positive inward self-awareness) was .10 at the episode-level, and .25 at the person-
level. The average correlation of awareness facets of opposing valences from different states of awareness (e.g., negative inward self-awareness with positive outward self-awareness) was .05 at the episode-level, and .20 at the person-level.

The awareness facet correlations within the same state of awareness (i.e., .10 and .25) then were compared with those from different states of awareness (i.e., .05 and .20). Two paired samples t-tests were run to see whether the two comparisons were significantly different at the episode- and person-levels. At the episode-level, the within state of awareness correlations were, on average, higher compared to the between states of awareness correlations ($M_{diff} = .04; SD = .04$), $t(8) = 3.40, p = .009$; however there was no significant difference at the person-level ($M_{diff} = .05; SD = .10$), $t(8) = 1.50, p = .172$.

The person-level correlations suggest that it is not possible to readily distinguish between the three states of awareness when comparing participants. The episode-level results, however, suggest that, in general, a participant oscillates among valences within the same state of awareness more than he/she oscillates between valences from different states of awareness. Consequently, these results may indicate further support for the state of awareness’ distinct underlying construct.

*Awareness facets of the same valence.* An additional aspect of these analyses is the relationship between awareness facets of the same valence. It was found that, on average, for both the person- and episode-levels, awareness facets of the same valence (i.e., between positive inward, outward, and activity awareness) had the highest overall correlations (episode-level $r = .36$; person-level $r = .72$). As evident by the size of the same valence correlations relative to the correlations of awareness facets within vs.
between states of awareness, these results indicate that participants oscillate most frequently across the three states of awareness via awareness facets of the same valence.

In summary, these results suggest that participants most frequently oscillated between different states of awareness via awareness facets of the same valence, however when participants oscillated between different valences, they were more likely to do so within a given state of awareness rather than between states of awareness.

**Prevalence of States of Awareness and Awareness Facets (Q2)**

In order to illuminate the prevalence of each state of awareness and each awareness facet, the mean rates were calculated and are displayed in Table 8. Of the three states of awareness, activity awareness was the most prevalent, followed by inward self-awareness and outward self-awareness. In order to determine whether these means were significantly different, a repeated-measures ANOVA was run and the overall model was found to be statistically significant, $F(2, 398) = 50.62, p < .001$. Pairwise comparisons revealed that the outward self-awareness mean was significantly lower from the inward self-awareness mean ($M_{diff} = -.206, p < .001$) and from the activity awareness mean ($M_{diff} = -.242, p < .001$). The inward and activity awareness means, however, were not significantly different ($M_{diff} = .035, p = .542$). These results indicate that participants engaged fairly equally in inward and activity awareness and engaged in outward self-awareness to a lesser extent.

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2 In order to determine whether the length of time an episode lasted influenced the overall prevalence of the nine awareness facets, each awareness facet rating was multiplied by the length of time of its respective episode. Weighting the awareness facets by time had no effect on the rank ordering of the awareness facets and had little to no effect on the numbers, relatively. Additionally, regression analyses revealed that time did not significantly moderate the relationship between awareness facets and any of the well-being constructs.
In order to determine which awareness facets were the most prevalent within their respective state of awareness, each awareness facet was ordered with respect to prevalence within its state of awareness. The positive awareness facets were the most prevalent within each state of awareness and the three negative awareness facets were the least prevalent. A repeated measures ANOVA was run with all nine awareness facets to determine whether there was a significant difference in prevalence between the awareness facets means within each state of awareness. The overall model was significant, $F(8, 1592) = 103.97, p < .001$, and pairwise comparisons revealed that all the awareness facet means within each state of awareness were significantly different ($ps < .02$). These results indicate that, when participants were in any state of awareness, they most frequently were in the state of awareness’ positive valence and least frequently in the negative valence.

Table 8
*Descriptive Statistics for States of Awareness and Awareness Facets.*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>States of Awareness:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity A</td>
<td>2.19</td>
<td>0.74</td>
</tr>
<tr>
<td>Inward SA</td>
<td>2.16</td>
<td>0.72</td>
</tr>
<tr>
<td>Outward SA</td>
<td>1.95</td>
<td>0.77</td>
</tr>
<tr>
<td><strong>Awareness Facets:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity A: positive</td>
<td>2.74</td>
<td>1.40</td>
</tr>
<tr>
<td>Inward SA: positive</td>
<td>2.50</td>
<td>1.24</td>
</tr>
<tr>
<td>Activity A: neutral</td>
<td>2.30</td>
<td>1.25</td>
</tr>
<tr>
<td>Outward SA: positive</td>
<td>2.27</td>
<td>1.28</td>
</tr>
<tr>
<td>Inward SA: neutral</td>
<td>2.24</td>
<td>1.15</td>
</tr>
<tr>
<td>Outward SA: neutral</td>
<td>2.06</td>
<td>1.19</td>
</tr>
<tr>
<td>Inward SA: negative</td>
<td>1.74</td>
<td>0.96</td>
</tr>
<tr>
<td>Activity A: negative</td>
<td>1.54</td>
<td>0.90</td>
</tr>
<tr>
<td>Outward SA: negative</td>
<td>1.53</td>
<td>0.85</td>
</tr>
</tbody>
</table>

**States of Awareness and Awareness Facet’s Relationships with Well-being (Q3)**

In order to investigate the relationships between awareness and well-being, correlation, regression, and linear mixed model analyses were conducted. The reason for examining the correlational relationships was to illuminate each state of awareness and each awareness facet’s full association with trait and episodic well-being. Simultaneous regression analyses were run at the person-level to illuminate the degree to which each state of awareness and awareness facet uniquely predicted trait well-being. Simultaneous regression illuminated which states of awareness and awareness facets were associated with well-being over and above the other states of awareness and awareness facet’s associations with well-being. Finally, linear mixed modeling analyses were run at the episode-level to illuminate the degree to which each state of awareness and awareness facet uniquely predicted episodic well-being. The reason for using linear mixed modeling analyses at the episode-level instead of simultaneous regression was to control for power inflation due to each person being represented eight times at the episode-level. The correlation, regression, and linear mixed model analyses are discussed in turn below.

**Correlation analyses.** In order to illuminate the full associations between well-being and awareness, the zero-order correlations were calculated between the three states of awareness and nine awareness facets and trait and episodic well-being. The correlations of trait and episodic well-being calculated at the person-level are displayed in Table 9. The correlations of episodic well-being calculated at the episode-level are displayed in Table 10.

The eudemonic and hedonic trait vs. episodic well-being correlations in Table 9 first were compared in order to greater illuminate the differences between person- and
episode-level results. After doing so, the trait well-being results calculated at the person-level and the episodic well-being results calculated at the episode-level were examined.

**Table 9**
*Correlations of the States of Awareness and Awareness Facets with Trait and Episodic Well-being at the Person-Level.*

<table>
<thead>
<tr>
<th>States of Awareness</th>
<th>Trait WB Overall</th>
<th>Eudemonic</th>
<th>Hedonic</th>
<th>†Episodic WB Overall</th>
<th>Eudemonic</th>
<th>Hedonic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inward SA</td>
<td>-.04</td>
<td>-.08</td>
<td>.04</td>
<td>.15*</td>
<td>.16*</td>
<td>.09</td>
</tr>
<tr>
<td>Outward SA</td>
<td>-.04</td>
<td>-.06</td>
<td>.00</td>
<td>.16*</td>
<td>.16*</td>
<td>.11</td>
</tr>
<tr>
<td>Activity A</td>
<td>.04</td>
<td>.02</td>
<td>.08</td>
<td>.19**</td>
<td>.18*</td>
<td>.14</td>
</tr>
<tr>
<td>Awareness Facets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inward SA: negative</td>
<td>-.37***</td>
<td>-.42***</td>
<td>-.21***</td>
<td>-.31***</td>
<td>-.14</td>
<td>-.43***</td>
</tr>
<tr>
<td>Inward SA: positive</td>
<td>.22**</td>
<td>.22**</td>
<td>.17*</td>
<td>.44***</td>
<td>.34***</td>
<td>.43***</td>
</tr>
<tr>
<td>Inward SA: neutral</td>
<td>-.01</td>
<td>-.06</td>
<td>.06</td>
<td>.07</td>
<td>.06</td>
<td>.06</td>
</tr>
<tr>
<td>Outward SA: negative</td>
<td>-.27***</td>
<td>-.30***</td>
<td>-.17**</td>
<td>-.19**</td>
<td>-.04</td>
<td>-.32***</td>
</tr>
<tr>
<td>Outward SA: positive</td>
<td>.16*</td>
<td>.16*</td>
<td>.12</td>
<td>.37***</td>
<td>.29***</td>
<td>.36***</td>
</tr>
<tr>
<td>Outward SA: neutral</td>
<td>-.07</td>
<td>-.09</td>
<td>-.01</td>
<td>.06</td>
<td>.04</td>
<td>.06</td>
</tr>
<tr>
<td>Activity A: negative</td>
<td>-.23**</td>
<td>-.28***</td>
<td>-.10</td>
<td>-.21**</td>
<td>-.04</td>
<td>-.36***</td>
</tr>
<tr>
<td>Activity A: positive</td>
<td>.20**</td>
<td>.22**</td>
<td>.13</td>
<td>.49***</td>
<td>.37***</td>
<td>.49***</td>
</tr>
<tr>
<td>Activity A: neutral</td>
<td>.03</td>
<td>-.01</td>
<td>.09</td>
<td>-.01</td>
<td>-.02</td>
<td>.00</td>
</tr>
</tbody>
</table>

*Note: N = 200. ‘SA’ = self-awareness. ‘A’ = awareness. ‘WB’ = well-being. †Episodic = average episodic well-being, calculated at the person-level. * = p < .05, ** = p < .01, *** = p < .001.*

**Person vs. episode-level results.** Due to the remarkably low correlations in Table 3 between the trait and episodic eudemonic and hedonic measures, the trait and episodic measures were both correlated with awareness at the person-level for direct comparison. As displayed in Table 9, it was found for eudemonic well-being that both trait and episodic measures were significantly associated with overlapping positive awareness facets. Eudemonic trait well-being, however, was also associated with negative awareness facets. It was found for hedonic well-being that the trait and episodic measures
were both significantly associated with overlapping positive and negative awareness facets. The hedonic episodic well-being measure, however, was significantly correlated with relatively more awareness facets.

The differences in awareness–well-being associations between the hedonic and eudemonic trait vs. episodic well-being measurements reflect the differences between the two well-being measures found in Table 3. These results suggest that the differences between the eudemonic and hedonic well-being measures in the awareness–well-being analyses in this section were due to the different scales used. Consequently, the results of both trait well-being at the person-level and episodic well-being at the episode-level were interpreted for all awareness–well-being analyses in this section.

*Trait well-being at the person-level.* At the person level, correlations between awareness and well-being can be interpreted as how participant’s awareness on average was associated with their trait well-being. With regard to the states of awareness, as shown in the left side of Table 9, there were no significant correlations between the three states of awareness and the three trait well-being constructs.

With regard to the awareness facets, as shown in the left side of Table 9, overall trait well-being and eudemonic trait well-being yielded similar results. The positive inward, activity, and outward awareness facets, listed in decreasing order of magnitude, had the strongest positive associations with well-being ($r_s \geq .16$). These associations can be interpreted as the more a participant engaged in positive inward, activity, and outward awareness on average, greater the participant’s trait well-being, or vice versa. Similarly, the negative inward, outward, and activity awareness facets, listed in decreasing order of magnitude, had the strongest negative associations with overall and eudemonic trait well-
being ($rs \leq -.23$). These associations can be interpreted as the more a participant engaged in negative inward, outward, and activity awareness on average, the lower the participant’s trait well-being, or vice versa. The pattern of correlations for hedonic trait well-being reflected that of overall and eudemonic trait well-being, however, the correlations were smaller with only the negative inward, positive inward, and negative outward awareness facets reaching significance.

*Episodic well-being at the episode-level.* At the episode level, correlations between awareness and well-being can be interpreted as how a participants’ awareness within a specific episode was associated with his/her rating of his/her well-being within the same episode. With regard to states of awareness, as shown in Table 10, the three states of awareness were significantly correlated with all episodic well-being constructs. Outward awareness had the greatest correlations between all well-being constructs ($rs \geq .16$), followed by activity awareness ($rs \geq .08$), and then inward self-awareness ($rs \geq .04$).

With regard to the awareness facets, there were two main trends in the results. The first was that the positive activity, outward, and inward awareness facets, listed in decreasing order of magnitude, had the strongest positive associations with all constructs of episodic well-being ($rs \geq .24$). The second was that the negative and neutral activity awareness and the negative inward self-awareness facets, listed in decreasing order of magnitude, had the strongest negative associations with overall and hedonic episodic well-being ($rs \leq -.11$), but not with eudemonic episodic well-being.
Table 10
*Correlations of the States of Awareness and Awareness Facets with Episodic Well-being at the Episode-Level.*

<table>
<thead>
<tr>
<th></th>
<th>Episodic WB Overall</th>
<th>Eudemonic</th>
<th>Hedonic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>States of Awareness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inward SA</td>
<td>.10***</td>
<td>.11***</td>
<td>.04</td>
</tr>
<tr>
<td>Outward SA</td>
<td>.23***</td>
<td>.21***</td>
<td>.16***</td>
</tr>
<tr>
<td>Activity A</td>
<td>.18***</td>
<td>.21***</td>
<td>.08**</td>
</tr>
<tr>
<td><strong>Awareness Facets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inward SA: negative</td>
<td>-.15***</td>
<td>.01</td>
<td>-.27***</td>
</tr>
<tr>
<td>Inward SA: positive</td>
<td>.34***</td>
<td>.24***</td>
<td>.31***</td>
</tr>
<tr>
<td>Inward SA: neutral</td>
<td>-.07**</td>
<td>-.06*</td>
<td>-.05</td>
</tr>
<tr>
<td>Outward SA: negative</td>
<td>-.04</td>
<td>.06*</td>
<td>-.13***</td>
</tr>
<tr>
<td>Outward SA: positive</td>
<td>.41***</td>
<td>.32***</td>
<td>.35***</td>
</tr>
<tr>
<td>Outward SA: neutral</td>
<td>.02</td>
<td>.01</td>
<td>.02</td>
</tr>
<tr>
<td>Activity A: negative</td>
<td>-.16***</td>
<td>.01</td>
<td>-.29***</td>
</tr>
<tr>
<td>Activity A: positive</td>
<td>.47***</td>
<td>.34***</td>
<td>.43***</td>
</tr>
<tr>
<td>Activity A: neutral</td>
<td>-.11***</td>
<td>-.04</td>
<td>-.14***</td>
</tr>
</tbody>
</table>

*Note: ‘SA’ = self-awareness. ‘A’ = awareness. ‘WB’ = well-being. * = p < .05, ** = p < .01, *** = p < .001.*

**Regression analyses of trait well-being at the person-level.** In order to investigate the degree to which awareness uniquely predicted trait well-being, the three states of awareness and nine awareness facets, separately, were used in six standard regression analyses to predict: (a) overall trait well-being, (b) eudemonic trait well-being, and (c) hedonic trait well-being. In these analyses, all nine awareness facets were entered as predictors of well-being simultaneously and likewise for all three states of awareness. All three prediction models were statistically significant with the awareness facets predicting well-being. When well-being was predicted by the states of awareness, however, none of the prediction models were statistically significant. The results are displayed in the left half of Table 11.
Table 11  
Standardized Coefficients of States of Awareness and Awareness Facets Predicting Well-being at the Person and Episode-Levels.

<table>
<thead>
<tr>
<th>States of Awareness</th>
<th>Trait WB: Person-Level</th>
<th></th>
<th></th>
<th>Trait WB: Episode-Level</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall</td>
<td>Eudemonic</td>
<td>Hedonic</td>
<td>Overall</td>
<td>Eudemonic</td>
<td>Hedonic</td>
</tr>
<tr>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
</tr>
<tr>
<td>States of Awareness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inward SA</td>
<td>-.10</td>
<td>-.17</td>
<td>.04</td>
<td>.00</td>
<td>.02</td>
<td>-.03</td>
</tr>
<tr>
<td>Outward SA</td>
<td>-.06</td>
<td>-.02</td>
<td>-.13</td>
<td>.19***</td>
<td>.15***</td>
<td>.16***</td>
</tr>
<tr>
<td>Activity A</td>
<td>.16</td>
<td>.15</td>
<td>.14</td>
<td>.12***</td>
<td>.15***</td>
<td>.03</td>
</tr>
<tr>
<td>Awareness Facets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inward SA: negative</td>
<td>-.33**</td>
<td>-.38**</td>
<td>-.18</td>
<td>-.06**</td>
<td>.03</td>
<td>-.15***</td>
</tr>
<tr>
<td>Inward SA: positive</td>
<td>.25*</td>
<td>.24</td>
<td>.22</td>
<td>.10***</td>
<td>.06*</td>
<td>.09***</td>
</tr>
<tr>
<td>Inward SA: neutral</td>
<td>-.06</td>
<td>-.11</td>
<td>.03</td>
<td>-.01</td>
<td>-.04</td>
<td>.02</td>
</tr>
<tr>
<td>Outward SA: negative</td>
<td>.01</td>
<td>.05</td>
<td>-.05</td>
<td>.02</td>
<td>.04</td>
<td>-.01</td>
</tr>
<tr>
<td>Outward SA: positive</td>
<td>-.03</td>
<td>-.04</td>
<td>.00</td>
<td>.22***</td>
<td>.19***</td>
<td>.17***</td>
</tr>
<tr>
<td>Outward SA: neutral</td>
<td>-.15</td>
<td>-.11</td>
<td>-.19</td>
<td>-.03</td>
<td>-.05</td>
<td>.00</td>
</tr>
<tr>
<td>Activity A: negative</td>
<td>-.03</td>
<td>-.07</td>
<td>.03</td>
<td>-.08***</td>
<td>.03</td>
<td>-.18***</td>
</tr>
<tr>
<td>Activity A: positive</td>
<td>.00</td>
<td>.05</td>
<td>-.07</td>
<td>.31***</td>
<td>.23***</td>
<td>.26***</td>
</tr>
<tr>
<td>Activity A: neutral</td>
<td>.21</td>
<td>.18</td>
<td>.23*</td>
<td>-.11***</td>
<td>-.04</td>
<td>-.15***</td>
</tr>
</tbody>
</table>

Note: Person-Level Ns = 200. Episode-Level Ns = 1600 to 1597. ‘SA’ = self-awareness. ‘A’ = awareness. ‘WB’ = well-being. β = standardized beta coefficient. Overall Trait WB: $R^2 = .194$; Eudemonic Trait WB: $R^2 = .230$; Hedonic Trait WB: $R^2 = .099$. * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

With regard to the awareness facet results, overall trait well-being was negatively predicted by the negative inward self-awareness facet and positively predicted by the positive inward self-awareness facet. Eudemonic trait well-being was also negatively predicted by the inward negative self-awareness facet. Hedonic trait well-being was positively predicted by the neutral activity awareness facet. These results can be interpreted as the negative and positive inward self-awareness facets and the neutral activity awareness facet uniquely explain a significant amount of trait well-being’s variance. Despite the findings that the nine awareness facets were highly correlated with the three trait well-being constructs (as displayed on the left side of Table 9), these results
indicate that the unique variance explained by many of the awareness facets was quite low. The most likely reason for this was that, as shown in Table 7, the awareness facets were highly correlated with one another.

**Linear mixed model analyses of episodic well-being at the episode-level.** In order to investigate the degree to which awareness predicted episodic well-being, episodes were nested within participants and used to predict three outcomes: (a) overall episodic well-being, (b) eudemonic episodic well-being, and (c) hedonic episodic well-being.

Regarding states of awareness, displayed in the right half of Table 11, outward self-awareness significantly positively predicted all three episodic well-being constructs, activity awareness significantly positively predicted overall and eudemonic episodic well-being, and inward self-awareness did not significantly predict any of the episodic well-being constructs. Regarding the awareness facets, all three well-being constructs were positively predicted by the positive inward, outward, and activity awareness facets. Overall and hedonic episodic well-being additionally negatively predicted the negative inward, negative activity, and neutral activity awareness facets. As with the regression analyses, these significant states of awareness and awareness facets can be interpreted as uniquely explaining a significant amount of episodic well-being’s variance.

A greater number of awareness facets, in general, significantly predicted episodic well-being compared to the regression analyses displayed in Table 11. Linear mixed model analyses were used to control for power inflation, however, the differences in the number of statistically significant predictions may still have been due to the fact that the episode-level had eight times the statistical power relative to the person-level.
Summary of awareness–well-being results. In order to illuminate the broad relationships between awareness and well-being, the results from the four correlational analyses, six regression analyses, and six linear mixed model analyses were compared. In what follows, the comparison of state of awareness results are discussed first followed by the comparison of awareness facet results, the comparison between prevalence and awareness–well-being results, and the eudemonic vs. hedonic well-being results.

Summary of state of awareness results. Overall, states of awareness were associated significantly with episodic well-being in all episode-level analyses and were not associated significantly with any trait well-being constructs in person-level analyses. This most likely was caused by the fact that, at the episode-level, the average positive correlations with trait well-being were larger relative to the average negative correlations ($rs = .36 & -.13$, respectively), whereas, at the person-level, the average positive correlations with episodic well-being were smaller relative to the negative correlations ($rs = .18 & -.26$, respectively). As a result, states of awareness’ associations with well-being were insignificant at the person-level, but not the episode-level. As discussed, this difference most likely was the result of the two different well-being measurements used at the episode vs. person-levels.

Specifically examining the results from the correlation and linear mixed model analyses at the episode-level indicated that outward self-awareness, followed by activity awareness, had the greatest relationship with high episodic well-being.

Summary of awareness facet results. Overall, the positive and negative inward self-awareness facets at the person-level and positive, neutral, and negative activity awareness facets at the episode level had the strongest relationships with high and low
well-being. More specifically, at the person-level, positive inward self-awareness had the greatest relationships with high trait well-being for all constructs. The same was true for negative inward self-awareness with regard low trait well-being. At the episode-level, positive activity awareness had the greatest relationships with high episodic well-being for all constructs. The results differed, however, with regard to low episodic well-being at the episode-level. The negative activity awareness facet had the greatest correlations with low episodic well-being, and the neutral activity awareness facet had the greatest predictive power of low episodic well-being for all constructs.

*Summary of prevalence vs. well-being results.* The awareness–well-being results were compared to those of the prevalence of awareness facets to illuminate whether there was a linear relationship between the prevalence of awareness facets and well-being. The positive inward and activity awareness facets were the two most prevalent awareness facets and they also had the greatest relationship with high trait and episodic well-being, respectively. Likewise, the negative inward self-awareness and neutral activity awareness facets were the most prevalent ‘negative’ awareness facets and they also both had the greatest relationship with low trait and episodic well-being, respectively. These comparisons suggested that there may be a linear relationship between the prevalence of an awareness facet and its association with well-being at the awareness facet level.

Contrary to these findings, it was also the case that outward self-awareness was the least prevalent state of awareness, and relatively, had the greatest relationship with well-being. This finding, however, may not contradict the linear relationship found for the awareness facets; it may simply point to the fact that averaging positive, negative, and
neutral facets into their respective states of awareness distorts the linear relationship between awareness prevalence and awareness–well-being relationships.

Summary of eudemonic vs. hedonic results. The eudemonic and hedonic well-being constructs, in general, were significantly related to awareness facets from all three states of awareness. This suggests that all three states of awareness are associated with both eudemonic and hedonic well-being. The variation within these results, however, implies that eudemonic and hedonic well-being uniquely are associated with different processes within each state of awareness.

Additionally, awareness facets at the person-level had higher correlations with eudemonic trait well-being relative to hedonic trait well-being; whereas the reverse was true at the episode-level. It is possible that these opposing results indicate that eudemonic well-being is more representative of trait well-being, and likewise for hedonic well-being in momentary situations. It is more likely, however, that these results are driven by differences in the two well-being measurements. In particular, the two hedonic and two eudemonic measurements are most likely not capturing overlapping variance.
DISCUSSION

The overarching purpose of this study was to begin to illuminate which types of awareness have the greatest relationships with high and low well-being. This preliminary research specifically looked at how states of awareness were associated with a positive, neutral, and negative valence for insight into the awareness–well-being relationships.

This research first investigated whether the three states of awareness proposed here were distinct categories, for which initial support was found. Specifically, the results of this study found that: (a) the degree to which the states of awareness were related to each other was similar to findings in the literature (e.g., Darvill et al., 1992; Fenigstein et al., 1975; Jostes et al., 1999), (b) outward self-awareness was equally associated with, and had the highest correlations with, inward and activity awareness which suggests that the three categories exist on a continuum, and (c) awareness facets of opposite valence had higher correlations when from within a state of awareness compared to when from different states of awareness. This third finding suggests that each category has a distinct underlying construct.

This research then investigated the relationships between states of awareness and well-being. The findings of this study suggest that two overarching conclusions can be drawn with regard to awareness and well-being. First, it may be that the tendency to oscillate between inward self-awareness and activity awareness in a consistently positive or negative valence has the greatest association with well-being. This conclusion was drawn from the following results: (a) awareness facets of the same valence shared the highest correlations, (b) the awareness facets of positive inward and activity awareness were the most prevalent of all awareness facets and had the greatest relationship with
high well-being, and (c) likewise, the awareness facets of negative inward and neutral activity awareness were the most prevalent of all the negatively associated awareness facets and had the greatest relationship with low well-being.

The second conclusion is that, although participants engaged in the inward and activity states of awareness the most often overall, the outward state of awareness may have the second greatest relationship with well-being. This conclusion was drawn from the following results: (a) outward self-awareness had the highest association with well-being relative to the other states of awareness, even though (b) inward self-awareness and activity awareness were the most prevalent states of awareness, and (c) awareness facets of opposite valence had higher correlations when from within a state of awareness compared to when from different states of awareness. This third result illustrates that, although participants may most frequently oscillate between states of awareness via awareness facets of the same valence, participant’s second most frequent tendency may be oscillating between valences within the same state of awareness; and outward self-awareness was the most prevalent state of awareness.

Finally, this research investigated whether there were differences in how states of awareness were associated with eudemonic vs. hedonic well-being constructs. The results of this study suggest that both eudemonic and hedonic well-being are associated with all three states of awareness, but also uniquely associated with varying valences within the states of awareness. This conclusion was drawn from the findings that, although there was variation in the associations between awareness facets and eudemonic vs. hedonic well-being, both well-being constructs were associated with awareness facets from all states of awareness.
In what follows, further interpretations and broader implications of these results are discussed, as well as the limitations of this study and future directions for this research.

**Further Interpretations**

**States of awareness as categories.** Initial support, as just mentioned, was found for the three state of awareness categories. The correlations between the states of awareness, however, were among the highest relative to those found within the literature (e.g., Darvill et al., 1992; Fenigstein et al., 1975; Jostes et al., 1999). One possible explanation for this is the long duration of the average episode in this study. Given that the average episode lasted an hour, the high state of awareness correlations may simply reflect that it is typical to oscillate between all states of awareness within a given hour. Presumably, if awareness was measured within a shorter time period, or even at a single moment, the relationships between the states of awareness would be lower.

A second possible explanation for the high correlations is that both valence and state of awareness were measured in the same survey item. It may be, for example, that one’s affect during a situation from the previous day is easier to recall compared to one’s direction of awareness. Phrased in a different way, it is possible that recalling and deciphering between the three states of awareness may be a more cognitively difficult task compared to recalling one’s affect. As a result, it is possible that the ratings of the nine awareness facets were more strongly determined by the valence of the episode rather than the specific state of awareness. This, in turn, may have inflated the correlations between the states of awareness.
Associations between well-being and inward vs. activity self-awareness. It appears to be unclear why the awareness facets with the greatest predictive power of trait well-being were the inward self-awareness facets, but, for episodic well-being, it was the activity awareness facets. One possible explanation is due to the differences in the trait and episodic well-being scales. The trait well-being scale, for example, had three negatively phrased items which were inwardly focused: “I feel negative most of the time,” “I experience unhappy feelings most of the time,” and “I feel bad most of the time” (Su et al., 2014). It may be that participants responded differently to these questions which increased trait, but not state, well-being’s relationship with the negative inward self-awareness facet. There were no noteworthy differences, however, between the scales to explain why the positive inward self-awareness facet had a greater propensity to predict high trait well-being relative to the positive activity awareness facet.

Another possibility is due to differences between the episode- and person-level analyses. It simply may be that inward self-awareness consistently had the greatest association with well-being between participants. It may be, however, that activity awareness consistently had the greatest association with well-being for individual participants.

Outward self-awareness regarding prevalence, well-being, and measurement. The outward self-awareness facets, with regard to both prevalence and relationship with high and low well-being, appeared to be of secondary importance relative to the inward and activity awareness facets. It could be argued that this is not surprising because outward self-awareness processes did not appear to be as well represented within the existing literature. Although the outward self-awareness facets were not the strongest
predictors of high and low well-being, the facets combined into the outward state of awareness, however, had the greatest relationship with high episodic well-being. This is most likely because the awareness facets of outward self-awareness tended to have moderate relationships with both high and low well-being. These results suggest that the literature would benefit from further recognizing outward self-awareness as an important awareness category for research.

Additionally, although it is possible that outward self-awareness is, in fact, the least prevalent state of awareness, it may be that outward self-awareness occasionally was rated as inward or activity awareness. It was hypothesized, and initial support was found, that outward self-awareness category falls between the inward and activity awareness categories on a continuum. As a result, the defining features of inward and activity awareness may appear more obvious to participants. Using inward self-awareness as an example, it may be that it is easier to recall whether or not one is focused on his/her own thoughts relative to recalling the content of what one is thinking about. Consequently, it is possible that participants tended to focus on whether they were in vs. out of their head for inward self-awareness, and not note that they were incorporating other’s perspectives/opinions (i.e., outward self-awareness) into their thoughts.

**Neutral activity awareness’ sporadic results.** There were several peculiar results associated with neutral activity awareness. The first was that the neutral activity awareness facet, instead of the negative activity awareness facet, had the greatest predictive power of low episodic well-being in the linear mixed model analyses. The second was that the neutral activity awareness facet had the overall second greatest predictive power of high trait well-being in the regression analyses. Furthermore, the only
similarity across the episode- and person-level predictive analyses was that the neutral activity awareness facet predicted hedonic well-being. The sporadic nature of the results may be due simply to chance.

**Parallel findings with the literature.** The results of this study appear to align with findings in the literature. It has been argued here that positive inward self-awareness encompasses self-insight and that positive activity awareness encompasses flow. Self-insight has been associated with a greater complexity of one’s internal self (Davies, 1996), which has been found to buffer against setbacks in one domain of life (Campbell, 1990), and flow has been found to have a significant positive impact on well-being (Nakamura & Csikszentmihalyi, 2002). Likewise, both the positive inward and activity awareness facets had the greatest positive relationships with well-being.

Similarly, it has been argued here that negative inward self-awareness encompasses rumination, and that negative activity awareness encompasses unmitigated communion. Rumination, as mentioned previously, has been found to have a significant negative impact on well-being (Leary & Gohar, forthcoming; Martin & Tesser, 1996; Mor & Winquist, 2002), and unmitigated communion has been found to lead to helping others to the detriment of oneself (Helgeson & Fritz, 1999). Likewise, both the negative inward and activity awareness facets had the greatest negative relationships with well-being.

Although the findings in this study appear to map onto findings within the literature, it is beyond the scope of the results of this study to conclude that the well-being processes and outcomes in the literature are captured by the three states of awareness. It is a reach to conclude that, for example, the well-being processes and
outcomes that have been equated with negative inward self-awareness have a greater negative relationship with well-being relative to the outcomes associated with negative outward self-awareness.

The results of this study are only preliminary findings suggesting that: (a) awareness may broadly be categorized into three, if not more, states of awareness and (b) these states of awareness vary in the degree to which they are related to well-being. In order to determine if the types of awareness from the literature represent the hypothesized awareness facets of the three states of awareness, it will be necessary to use the scales pertaining to each type of awareness in future studies. The currently low generalizability of this study’s results should be kept in mind as broader implications are discussed in the following section.

**Broader Implications.**

*Implications for awareness prevalence and well-being associations.* Comparing the awareness–well-being results to those of the prevalence of awareness facets suggested that there may be a linear relationship between the prevalence of awareness facets and well-being. This relationship has also been found in the literature (e.g., Kuppens, Realo, & Diener, 2008). These findings suggest that behavioral interventions that target the increase of positive awareness processes and decrease the prevalence of negative awareness processes may effectively increase well-being.

*Implications for eudemonic and hedonic well-being.* As has been discussed, it is hard to interpret the differences between eudemonic and hedonic well-being with regard to their associations with awareness due to differences within the two scales used. It was suggested that it is likely that eudemonic trait well-being was rated higher than
hedonic trait well-being, and vice versa for episodic well-being, due to scale differences. It is also possible, however, that participants rate eudemonic well-being higher when reflecting on their well-being in general and rate their hedonic well-being higher with respect to specific situations.

A further explanation, however, is that situationally based eudemonic well-being is a different construct than trait eudemonic well-being. In other words, it may be that what people find meaningful in situations is different than what they find meaningful when they are reflecting on their lives. More specifically, it may simply be that participants don’t readily distinguish between eudemonic and hedonic well-being in situations, however they do when reflecting on their lives generally. Although it does not appear that differences between trait and state eudemonic well-being have been studied, differences between trait and state have been found in other constructs such as authenticity (Lenton, Bruder, Slabu, & Sedikides, 2013).

It is additionally worth noting that there was both a fair amount of similarity between the eudemonic and hedonic well-being results, as well as a number of differences. This lends support to findings that eudemonic and hedonic well-being are highly related constructs (e.g., Keyes et al., 2002), but each additionally captures unique variance (e.g., Keyes, 2005; McGregor & Little, 1998; Waterman, 2007). As a result, these findings lend support to research which suggests it is beneficial to measure the two together (Kashdan et al., 2008). As future research fine tunes awareness measurements, more stable differences between eudemonic and hedonic well-being’s associations with awareness may emerge.
Implications for the theory of hypo-egoicism. Two findings from this research may partially contradict the theory of hypo-egoicism (e.g., Bauer & Wayment, 2008; Leary & Diebels, 2013; Leary & Guadagno, 2011): (a) that both the positive inward self-awareness facet and the outward self-awareness category were of the strongest predictors of high well-being and (b) the inward and activity states of awareness had relatively equal prevalence.

Hypo-egoic theory argues that there is a relatively high tendency for people’s self-focus to entail negative thoughts and self-reflections. As a result, it suggests higher well-being may arise from a greater tendency to direct awareness away from the self. The findings from this research suggest, however, that people may more frequently be inwardly self-aware in a positive, as opposed to a negative, manner. Additionally, the present research suggests that positive inward self-awareness processes have the greatest relationships with high trait well-being. Finally, the findings from this research suggest that being aware of others opinions when reflecting on the self may be beneficial for well-being. As a result, hypo-egoicism may only be an effective route for increasing well-being for people who have a greater tendency to engage in a negative, as compared to a positive, inward self-awareness.

Limitations and Future Directions

There are several limitations present in the current study that are worth noting. First, this study did not utilize a fully comprehensive categorization of states of awareness; as such categorization currently does not appear to exist. Consequently, it is possible that participants added additional states of awareness into the existing three states of awareness. An additional state of awareness, for example, may entail being in
one’s own head thinking about things other than the self (i.e., mind wandering or daydreaming). It has been estimated that we spend 40-50% of our mental activity during waking hours mind wandering/day dreaming and that we are less happy when we are doing so (Killingsworth & Gilbert, 2010). It may be that participants’ ratings of inward self-awareness included times when they were mind wandering. If so, this may have increased the prevalence of inward self-awareness, specifically increasing the prevalence of the negative inward self-awareness facet. It will be advantageous for future research to develop a comprehensive categorization of awareness utilizing a bottom up process.

An additional limitation may have been measuring states of awareness and valences in the same survey item (i.e., through the awareness facets). As mentioned, it is possible that participants focused more strongly on the valence of the state of awareness, rather than the state of awareness itself, when rating each of the nine awareness facets. Consequently, findings of this study may more strongly reflect the importance of valence as opposed to differences in states of awareness. Future research might benefit from first asking about a participant’s state of awareness in a situation and then asking about the valence of that state of awareness.

A limitation with regard to the interpretation of this study’s results is that the type of situation was not taken into account. The following example illustrates the importance of this: it may be more adaptive in a particularly negative situation to engage in one of the negative awareness facets. A negative form of awareness in a negative situation might be a more self-protective approach that aids one’s well-being in the long term. One of the best ways to understand the relationships between states of awareness and well-being may be to investigate the causal relationship between situational features, awareness, and
well-being. It may be, for example, that a negative event accounts for the majority of the variance in a negative awareness–low well-being association. Additionally, factors such as personality characteristics may also account for the majority of the awareness–well-being associations.

A related limitation is that the nature of this study does not allow for causal interpretations. An underlying hypothesis of this research is that awareness processes cause changes in well-being. It is possible, however, that the causal relationship generally flows from factors such as situational features and personality characteristics to well-being and then to awareness processes.

It also is important to note that the awareness prevalence results in this study have limited generalizability. The mean rate results are a product of the specific sample utilized, as well as how it was measured (e.g., in this case, the specific DRM episodes a student reported may have influenced the states of awareness that were most prevalent). It may be, for example, that the average working adult spends a larger portion of his or her day focused on work as compared to the relatively varied life style of a student. If so, the average working adult may engage in activity awareness more than inward self-awareness, even though it was found here that activity and inward self-awareness were similarly prevalent. As a result, findings pertaining to the mean rate of states of awareness may not be generalizable beyond how students directed their attention on a given day. This limitation can be addressed by future studies measuring awareness mean rates in samples of varying ages.

One of the most valuable next steps in this research may be to develop a comprehensive categorization of states of awareness. This comprehensive categorization
can then be used to investigate whether the types of awareness found in the literature can be captured under the valences of several broad categories of awareness. Additionally, this comprehensive categorization can be used to investigate how additional factors, such as situational features and personality characteristics, may play a role in moderating the associations between awareness and well-being outcomes. The extent to which people use self-talk, for example, may partially explain individual differences in state of awareness prevalence (Morin & Everett, 1990). It also may be that emotions play a causal or mediating role in awareness–well-being relationships. It was found, for example, that negative emotions increased attention on the self (Rochat, Billieux, & Van der Linden, 2012). Investigating situational characteristics may also illuminate how different states of awareness serve different functional purposes.
CONCLUSION

This study was initiated to preliminarily investigate which types of awareness have the greatest relationships with well-being. In order to address this question, a broader set of three awareness categories first were proposed. It then was investigated how these awareness categories were associated with a positive, neutral, and negative valence for insight into the awareness–well-being relationships. The findings of this study suggest that three overarching conclusions can be drawn. First, the three state of awareness categories proposed here may be distinct categories. Second, it may be that the tendency to oscillate between an awareness of one’s thoughts and an awareness of one’s present activity in a consistently positive or negative manner has the greatest association with well-being. Finally, an awareness of other’s opinions when self-reflecting, despite being the least prevalent awareness process, may have the second greatest association with well-being. These preliminary findings illustrate the importance of developing a comprehensive categorization of awareness in order to further investigate awareness–well-being relationships. This may be the next step towards bring insight into how we might improve our well-being through awareness processes.
REFERENCES


Su, R., Tay, L., & Diener, E. (2014). The development and validation of the Comprehensive Inventory of Thriving (CIT) and the Brief Inventory of Thriving


APPENDIX A

Below is an expanded version of the Brief Inventory of Thriving (BIT; Su, Tay, Diener 2014). Items included from the Comprehensive Inventory of Thriving are marked with an asterisk (*). Items 1-8 represent eudemonic well-being; items 9-17 represent hedonic well-being.

Please indicate your agreement or disagreement with each of the following statements using the scale below:

1 = strongly disagree
2 = disagree
3 = neither agree nor disagree
4 = agree
5 = strongly agree

Relationship
1. There are people who appreciate me as a person
2. I feel a sense of belonging in my community

Engagement
3. In most activities I do, I feel energized

Mastery
4. I am achieving most of my goals
5. I can succeed if I put my mind to it
6. What I do in life is valuable and worthwhile

Autonomy
7. My life has a clear sense of purpose

Optimism
8. I am optimistic about my future

Subjective Well-being
9. My life is going well
10. I feel good most of the time
11. In most ways my life is close to my ideal*
12. I am satisfied with my life*
13. I feel positive most of the time*
14. I feel happy most of the time*
15. I feel negative most of the time* (R)
16. I experience unhappy feelings most of the time* (R)
17. I feel bad most of the time* (R)
APPENDIX B

*Screen shot of the relevant questions asked for each of the eight randomly selected episodes.*

<table>
<thead>
<tr>
<th>The following questions pertain to your episode: <em>eating lunch with friends</em>.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>How long did this episode last?</th>
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<table>
<thead>
<tr>
<th>During this episode, how frequently were you doing the following?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>In my own head, reflecting positively on myself.</th>
<th>Not at all</th>
<th>Some of the time</th>
<th>Half of the time</th>
<th>A lot of the time</th>
<th>Most of the time</th>
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</thead>
<tbody>
<tr>
<td>Thinking that I'm being perceived neutrally by others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Thinking that I'm being perceived critically/negatively by others.</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinking that I'm being perceived positively by others.</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Being engrossed in what I was doing: the person I was with and feeling negative about it.</th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Being engrossed in what I was doing: the person I was with and feeling neutral about it.</td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In my own head, reflecting critically/negatively on myself</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Being engrossed in what I was doing: the person I was with and feeling positive about it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| In my own head, reflecting neutrally on myself. | | | | | |

<table>
<thead>
<tr>
<th>During this episode:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Were you happy?</th>
<th>Not at all</th>
<th>Very mildly</th>
<th>Somewhat</th>
<th>Yes</th>
<th>Very much so!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did some aspect of it resonate with you in a meaningful way?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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VITA

KELLY ERICKSON

Wake Forest University
1604 Aspen Way
Winston-Salem, NC 27106
erick13@wfu.edu
kellyerickson8@gmail.com

EDUCATION

2015  WAKE FOREST UNIVERSITY, Winston-Salem, NC
M.A., Psychology (anticipated Spring 2015)
GPA: 3.86

2011  DARTMOUTH COLLEGE, Hanover, NH
B.A., Psychology
GPA: 3.35

FELLOWSHIPS & SCHOLARSHIPS

2014  WAKE FOREST UNIVERSITY, GRADUATE COLLEGE FELLOWSHIP
Education scholarship and stipend – $44,364

2014  WAKE FOREST UNIVERSITY, SUMMER RESEARCH SCHOLARSHIP
Funding for summer research pursuits – $1,000

2013  WAKE FOREST UNIVERSITY, GRADUATE COLLEGE FELLOWSHIP
Education scholarship and stipend – $44,364

RESEARCH EXPERIENCE

2014  UNIVERSITY OF CALIFORNIA, BERKELEY: PSYCHOLOGY DEPARTMENT, Berkeley, CA
Research Collaborator with Dr. Aaron Fisher, PhD.
Co-authored a manuscript, under review at Clinical Psychological Science, which
examines the effect of worry on negative emotions in individuals with generalized
anxiety disorder through ecological momentary assessment data analyzed by dynamic
factor models.

2013-2014  WAKE FOREST UNIVERSITY: PSYCHOLOGY DEPARTMENT, Winston-Salem, NC
Research Collaborator with Dr. Dustin Wood, PhD.
Co-authored a manuscript which examines the prospective effects of physical
attractiveness and personality characteristic through item level coding and archival
analysis on longitudinal data from adolescent to adulthood.

2013-2015  WAKE FOREST UNIVERSITY: PSYCHOLOGY DEPARTMENT, Winston-Salem, NC
Research Assistant for Dr. John Petrocelli, PhD.
Designed several manipulations and collected and analyzed data for a study seeking to identify a link between counterfactual potency reduction and regret reduction. Paper presented at the Society of Experimental Social Psychology conference.

2012-2013 **Positive Psychology Center, University of Pennsylvania**, Philadelphia, PA
*Research Collaborator and Teaching Assistant for Dr. Gordon Bermant, PhD.*
Designed studies and collected and analyzed data on assertions of religiosity and spirituality vs. acceptance or rejection of dualism. Lectured for select classes and graded for the courses of *The Embodied Mind and Psych & Religion*.

2011 **The Greater Good: The Science of a Meaningful Life**, Berkeley, CA
*Research Intern for Jason Marsh, Editor in Chief*
Conducted topic and journal searches of the most recent research and publications on the topics of happiness, health, altruism, positivity, mindfulness, etc. for updates to the online magazine.

2010 **Norris Cotton Cancer Center**, Dartmouth Hitchcock Medical Center, NH
*Research Intern for Mark Hegel, PhD. and Kathy Lyons, PhD.*
Co-developed a rubric to qualitatively measure interview data, and co-published on the topic of interventions for breast cancer patients.

2010 **Dartmouth Psychiatry Research Center**, Lebanon, NH
*Research Intern for Mary Brunett, PhD. and Joelle Ferron, PhD.*
Conducted literature searches, reviewed and summarized articles, and analyzed results focused on the topic of smoking cessation.

**Relevant Work Experience**

2014-2015 **Wake Forest University: Psychology Department**, Winston-Salem, NC
*Undergraduate Teaching Assistant for Research and Methods*
Instructed weekly lab sections, graded homework, papers, and exams, etc.

2012-2013 **Kensington Management Services: Staffing to Non-Profits**, Philadelphia, PA
*Project Coordinator/Human Resource Assistant*
Coordinated services between behavioral care providers and clients: scheduled and conducted interviews for new staff, managed current staff, clients, and on call logistics, prepared documentation for service providers, maintained files.

2011-2012 **COMHAR Inc., Children's Services**, Philadelphia, PA
*Case Manager for The Home-School Connection: an early intervention behavioral program for low SES children.*
Scheduled and conducted intakes, team meetings, home/school visits. Handled paperwork, recorded, and input data. Communicated child’s behavioral regression/progress with the clinical team and school, provided resources for the client’s mother. Ensured that all needs were addressed regarding the child.

**Publications**


Wood, D. & Erickson, K. Manuscript in preparation (full draft available upon request). Relations between physical attractiveness and personality characteristics: From correlation toward causation.

**PRESENTATIONS**


**Erickson, K., & Wood, D.** (2014, May). *Physical attractiveness and personality: From correlation to causation*. Paper presented at the annual Wake Forest University First Year Graduate Colloquium, Winston-Salem, NC.


**Erickson, K., & Wood, D.** (2014, March). *Personality correlates and consequences of physical attractiveness*. Poster presented at the annual Wake Forest University Graduate and Postdoc Conference, Winston-Salem, NC.

**CONFERENCES & FURTHER EDUCATION**

**2014**

**INTEGREATIVE COMPLEXITY WORKSHOP**

*Training by Mark Pancer, PhD.*

Wake Forest University, NC

**2013**

**ADVANCES IN MEDITATION RESEARCH**

*Neuroscience and Clinical Applications*

New York City, NY

**2012, 2011**

**CENTER FOR MINDFULNESS**

*Annual Conference on Investigating and Integrating Mindfulness in Medicine, Health Care, and Society.*

Norwood, MA

**2011**

**INTERNATIONAL POSITIVE PSYCHOLOGY ASSOCIATION**

*2nd Annual World Congress on Positive Psychology.*

(Reported on behalf of the Greater Good Magazine)

Philadelphia, PA

**2010**

**NORTHERN INSIGHT MEDITATION CENTER**

*10 days of Vipassana Meditation (Insightful Meditation).*

Wat Rampoeng, Thailand
**PROFESSIONAL ORGANIZATIONS**

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<th>Year</th>
<th>Organization</th>
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<tr>
<td>2014-Present</td>
<td>ASSOCIATION FOR COGNITIVE AND BEHAVIORAL THERAPY, Member</td>
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<tr>
<td>2014-Present</td>
<td>ASSOCIATION FOR PSYCHOLOGICAL SCIENCE, Member</td>
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<tr>
<td>2011-Present</td>
<td>INTERNATIONAL POSITIVE PSYCHOLOGY ASSOCIATION, Member</td>
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