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Self-interest may not be entirely in the interest of the self: Association between selflessness, dispositional mindfulness and psychological well-being

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Abstract

The association between mindfulness and selflessness is firmly grounded in classical Indo-Sino-Tibetan contemplative traditions, but has received limited empirical attention from Western researchers. In Buddhism, the relationship between mindfulness and the self is of central concern to the cultivation of well-being. Mindfulness is believed to encourage insight into the truly insubstantial nature of the self, an understanding that is thought to encourage well-being. The present study explores these relationships, attending to dispositional mindfulness, the self as it exists on a continuum from self-centered to selfless, and psychological well-being. Results indicate a positive relationship between selflessness, dispositional mindfulness, and psychological well-being. It appears that construing the self as interdependent and interconnected with a broader social, natural, and cosmic context is linked with greater psychological well-being and dispositional mindfulness. Path analyses revealed that selflessness mediated the relationship between dispositional mindfulness and psychological well-being.

Keywords

Mindfulness; Dispositional Mindfulness; Well-being; Self; Selflessness

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Data Sharing

Data deposited in the Open Science Framework open repository: <https://osf.io/457pj/>

Introduction

Many domains of psychological research are concerned with self-transcendence, or the desire to move beyond one's current self-configuration (Wayment & Bauer, 2008). The realization of more adaptive self-configurations is believed to be a cornerstone of well-being (Berkovich-Ohana & Glicksohn, 2016; Dambrun & Ricard, 2011; Hadash et al., 2016). Yet, the relationship between the self and well-being remains insufficiently specified. Mindfulness, from an early Buddhist perspective, is believed to be intimately linked with more adaptive self-configurations and well-being (Gyamtso, 1988; Macy, 1991). Specifically, mindfulness is thought to release individuals from the suffering associated with behaving as if the self were "single, permanent and independent" (Gyamtso, 1988, p.19). In other words, recognizing the deep interdependence of all things, or *selflessness*, is believed to encourage well-being. This study will explore associations between selflessness, well-being and dispositional mindfulness. To this end, selflessness will be introduced first and then situated in relation to well-being. Then, mindfulness will be connected to both selflessness and well-being.

Selflessness

Modern conceptualizations generally parcel the self into a minimal self, or "a consciousness of oneself as an immediate subject of experience, unextended in time" (Gallagher, 2000, p. 15) and a narrative self, or "a more or less coherent self (or self-image) that is constituted with a past and a future in the various stories that we and others tell about ourselves" (Gallagher, 2000, p. 15), with some theorists proposing a nested structure in which the minimal self gives rise to the narrative self through emergent neural processes (Damasio, 2010). The present study will uphold these definitions, but confine itself exclusively to examination of the narrative self. While the narrative self is believed to be one of the most universal human experiences (Wayment & Bauer, 2008), considerable variation in intra- as well as interpersonal self-configurations exists. Dambrun and Ricard (2011) propose three interrelated markers of variance in interpersonal self-configurations: the degree to which the self is treated as an entity that is 1) real (i.e., reified), 2) solid (i.e., entified), and 3) independent. At one pole of this self-configuration continuum, the self is experienced as sharply defined, solid and independent. At the opposing pole, the self is experienced as lacking reification and entification, fundamentally interconnected and arising from a dynamic, interactive network (Dambrun & Ricard, 2011) – a self enmeshed with all things. Dambrun and Ricard (2011) suggest that individuals who tend towards the former can be classified as "self-centered", and those inclined towards the latter can be labeled "selfless".

Self-centeredness and selflessness are reflected in individual estimations of social, environmental and cosmic interconnection (Dambrun & Ricard, 2011). Two distinct lines of research have been developed to examine the self in relation to others as well as the self in relation to all things. With respect to social interconnection, Markus and Kitayama (1991) observed variation in degrees of social affiliation, illuminating a divergence between self-construals that are independent (i.e., the self "as a unique and independent social agent"; Wayment & Bauer, 2008, p.127) and those that are interdependent (i.e., the self is "connected to others, so that the self is defined, at least in part by important roles, group

memberships, or relationships” (Cross et al., 2000, p.791). In concert with this distinction, Dambrun and Ricard (2011) assert that individuals tending toward independent self-configurations can be understood as self-centered whereas individuals tending toward interdependent self-configurations are more selfless—a distinction echoed by Wayment & Bauer (2008). With respect to broader conceptualizations of interconnection, DeCicco and colleagues’ (2007, 2010) metapersonal self construct may further reflect a selfless self-configuration. The metapersonal self is characterized by “a sense of one’s identity that extends beyond the individual or personal to encompass wider aspects of humankind, life, psyche or the cosmos” (DeCicco & Stroink, 2007, p.84). In alignment with the interpersonal self, construing the self as connected to all things can be interpreted as an additional indication of selflessness (Dambrun & Ricard, 2011). Empirical evidence supports the conceptual pairing of the interdependent and metapersonal selves, with positive associations observed between these two constructs (DeCicco & Stroink, 2007; Hanley & Baker, Under Review; Mara, DeCicco & Stroink, 2010).

Well-Being

The two, orthogonally structured self-configurations -- self-centeredness and selflessness -- are believed to differentially correlate with psychological (i.e., eudaimonic) well-being (e.g., Dambrun et al., 2012). Psychological well-being is described as an enduring, values-focused form of well-being, frequently operationalized across six domains: 1) self-acceptance, 2) positive relationships with others, 3) personal growth, 4) purpose in life, 5) environmental mastery, and 6) autonomy (Ryff, 1989). In short, selflessness is thought to be more strongly linked psychological well-being than self-centeredness. Wayment and Bauer (2008) suggest that self-centeredness results in unrelenting, exhaustive, and ultimately ineffectual efforts to distinguish the self as special and unique (and by implication, achieve hedonic pleasure as a result of this pursuit). Selfless individuals are thought to be propelled by more eudaimonic motives, exhibiting a tendency to maintain equanimity in the ebb and flow of transitory emotions (Dambrun & Ricard, 2011) and thereby remaining committed to overarching, personal values despite distractions or obstacles (Ryan & Deci, 2001). Preliminary evidence appears to support these claims. A positive relationship between the interdependent self-construal and psychological well-being has been observed (Hanley & Baker, Under Review). Similarly, the metapersonal self has been found to be positively associated with psychological well-being (Hanley & Baker, Under Review). In light of these findings, selflessness—operationalized through social, environmental and cosmic interconnectedness — appears to be theoretically and empirically linked with psychological well-being.

Mindfulness

Emerging empirical evidence also suggests an association between selflessness and mindfulness (Hanley & Baker, Under Review; Leary et al., 2008; Mara, DeCicco & Stroink, 2010). Kabat-Zinn (1994) defines mindfulness as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (p.4). Dispositional mindfulness is the tendency to display an intentional, present moment attentional stance in daily life (Thompson & Waltz, 2007) and is frequently operationalized by the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006). The FFMQ is a five-factor scale measuring two mindful meta awareness skills (observing and describing) along with three mindful self-

regulatory skills (acting with awareness, non-reacting, and non-judging). Correlational evidence suggests that both the interpersonal self-construal (Hanley & Baker, Under Review) and the metapersonal self (Hanley & Baker, Under Review; Mara, DeCicco & Stroink, 2010) are positively associated with dispositional mindfulness. Furthermore, dispositional mindfulness has been linked with adaptive self-referential beliefs, such as self-compassion (Wayment & Bauer, 2008), as well as with greater self-concept clarity (Hanley & Garland, 2017) and self-concept flexibility (Hanley et al., 2015).

The proposed association between mindfulness and selflessness is rooted in classical Indo-Sino-Tibetan contemplative traditions, mindfulness was viewed as the vehicle by which one might cultivate the requisite attentional stability (shamatha) and insight (vipassana) necessary to realize the basic interdependence of the self. In Buddhism, the relationship between mindfulness and the self is of central concern to the cultivation of wellbeing (e.g., Vago & Silbersweig, 2012), as suffering is believed to stem from the desire for permanence and the self is conceived as insubstantial and impermanent (Gyamtso, 1988; Waldron, 2003). Maintaining beliefs about the permanence of the self and acting in the world as if the self were an enduring entity is believed to lead to suffering (Gyamtso, 1988; Macy, 1991; Waldron, 2003). Indeed, Waldron (2003) asserts that the self, from the Buddhist perspective, is “actually a complex construct generated by misunderstanding, forged by emotional attachments, and secured by endless egocentric activities” (p.3). Almaas’ (2016) extends this line of thought, more definitively stating that “seeing oneself as an entity with independent existence, agency, and ownership is the primary obstacle to spiritual enlightenment and is the repository of human suffering, misery and ignorance” (p.15). Mindfulness combats these reifying and entifying tendencies by encouraging insight into the transitory nature of the self (MacKenzie, 2016; Vago & Silbersweig, 2012) – a view of the self as interdependent and impermanent that has parallels to modern systems theoretical models (Macy, 1991; Maturana & Varela, 1987; Varela et al., 1991). It may be that individuals naturally disposed towards mindfulness inherently grasp the insubstantiality of the self, contributing to greater psychological well-being.

In spite of the plausibility of this thesis, little empirical work has specifically addressed associations between dispositional mindfulness, the self, and psychological well-being. The present study will attempt to explore these relationships, attending to Dambrun and Ricard’s (2011) conceptualization of the self as it exists on a continuum from self-centered to selfless; we hypothesized that these poles would represent maladaptive psychological dispositions and greater psychological well-being, respectively. Two methods of statistical inquiry were used in this pursuit. First, confirmatory factor analysis was used to explore whether a latent, selflessness variable would emerge from the interdependent and metapersonal self measures. Second, path analysis was used to test whether the latent, selflessness variable would mediate the relationship between dispositional mindfulness and well-being.

Method

Participants and Procedures

Participants were recruited from a large Southeastern University's College of Education research subject pool. Of the 1175 students that began this study, 980 completed all measures, yielding a completion rate of 83%. The majority of participants identified as American (75%), and additional demographics are reported in Table 1. Approval from the University's institutional review board was received for this study.

Each participant completed this study online in a single administration session. The questionnaires used in this study were part of a larger investigation of the relationship between dispositional mindfulness and the self. Participants took approximately 27 minutes to complete the entire survey battery.

Measures

Dispositional mindfulness was measured with the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006), a 39-item self-report assessment designed to measure five mindfulness facets: *observing, describing, acting with awareness, non-reacting, and nonjudging*. A 5-point Likert scale is used to measure individual items with higher scores indicative of greater dispositional mindfulness.

Psychological well-being was measured with the Scales of Psychological Well-Being (SPWB; Ryff, & Keyes, 1995), an 18-item self-report assessment designed to measure six domains of psychological well-being: *self-acceptance, purpose in life, environmental mastery, positive relations, personal growth, and autonomy*. A 7-point Likert scale is used to measure individual items with higher scores indicative of greater psychological well-being.

We employed a confirmatory factor analytic procedure to establish a latent *selflessness* variable with the items from the Relational-Interdependent Self-Construal Scale (RISC; Cross et al., 2000) and the Metapersonal Self Scale (MPS; DeCicco & Stroink, 2007). The RISC is an 11-item measure of the degree to which respondents believe themselves to be interdependent with others ("When I think of myself, I often think of my close friends or family also."), while the MPS is a 10-item measure of respondents' beliefs that their sense of self extends to include all things, including non-human others ("I see myself as being extended into everything else."). Both scales are measured on 7-point Likert scales (1="Strongly Disagree", to 7="Strongly Agree"), with higher scores reflecting a greater sense of interconnection. We chose to combine items from these scales to generate a latent selflessness variable that could robustly assess the degree of self-other connectivity across a wide array of domains.

Results

Basic Statistics

Basic statistics for each of the primary variables of interest along with bivariate correlations are reported in Table 1. To correct for multiple comparisons, we set the threshold for statistical significance at the $p < .001$ level. Mean scores for each of the four scales are

consistent with previously reported means in samples with similar characteristics (e.g., Baer et al., 2008; Cross & Morris, 2003; DeCicco & Stroink, 2007; Ryff & Keyes, 1995).

Confirmatory Factor Analysis

Confirmatory factor analysis was performed to create a selflessness variable using AMOS 24. Latent factors for each of the two, self scales, -- Relational-Interdependent Self-Construal Scale and Metapersonal Self Scale -- were created, from which a second-order selflessness factor was then derived (Figure 1). The overall model fit was excellent (CFI=.97, TLI=.95, RMSEA=.05, SRMR=.06), and all items loaded significantly onto their respective factors.

Path Analysis

The first multivariate path analysis (Figure 2), exploring the basic mediation model, revealed selflessness was a significant partial mediator of the relationship between dispositional mindfulness and psychological well-being ($\chi^2=781.61$, $df=172$, $p<.001$; CFI=.95; RMSEA=.06; SRMR=.06). Dispositional mindfulness had significant direct effects on both selflessness and psychological well-being, as well as a significant indirect effect on psychological well-being through selflessness. Selflessness also had a significant direct effect on psychological well-being. This basic mediation model accounted for 48% of the variance in psychological well-being.

The second multivariate path analysis (Figure 3), deconstructing dispositional mindfulness into its constituent facets, also indicated that selflessness functioned as a significant, partial mediator of the relationship between the dispositional mindfulness facets and psychological well-being ($\chi^2=1087.02$, $df=254$, $p<.001$; CFI=.93; TLI=.91; RMSEA=.06; SRMR=.07). Only the dispositional mindfulness facets observing and describing had significant, direct effects on selflessness at the strictest level of significance, along with significant indirect effects on psychological well-being via selflessness. Only the dispositional mindfulness facets acting with awareness and non-judging were significantly associated with psychological well-being at the most stringent significance level. The mindful facet model accounted for 55% of the variance in psychological well-being.

A sensitivity analysis including age and sex in the models did not change the significance or valence of the observed associations.

Discussion

Beliefs about the self are central to estimations of well-being. Traditionally, western psychologists have examined the content of self-relevant beliefs as predictors of psychological health. However, it also appears that beliefs about the nature of the self (e.g., insubstantial, impermanent, and interdependent) may be associated with well-being (e.g., Dambrun & Ricard, 2011; Gyamtso, 1988; Macy, 1991). Results from this study indicate a positive relationship between selflessness, dispositional mindfulness, and psychological well-being (Figures 2 and 3). As such, construing the self as interdependent and interconnected with a broader social, natural, and cosmic context (i.e., greater selflessness) appears to be linked with greater psychological well-being and dispositional mindfulness.

Selflessness and Psychological Well-Being

In the present sample, more selfless individuals reported greater psychological well-being. This finding suggests that believing the self to be inherently interconnected with all things may be more psychologically advantageous than construing the self as a discrete, independent entity. Dambrun and Ricard (2011) posit that selflessness promotes a harmonious way of being, encouraging respect for all things and thus a willingness to act in the collective best interest. They conclude that “selflessness establishes a circle in which psychological activity favors stable and authentic happiness and this happiness reinforces the harmony principle ... this way of functioning will be self-reinforcing” (p.146). While the cross-sectional nature of this study’s design does not allow for rigorous testing of this causal claim, our results appear to support the foundational proposition that selflessness is associated with greater eudaimonic well-being. Comparatively, construing the self as substantive, imbued with desires and aversions in the service of self-preservation, may result in unending acquisitive pursuit – a “vicious cycle of frustrations, suffering, and alienation” (MacKenzie, 2016, p.109) coupled with decreased well-being. Hypothetically, when one’s well-being is dependent on a strictly defined and delimited sense of identity, emotional and behavioral expectations must be met to protect the self and limit challenges to self-concept; otherwise, suffering (and craving for one’s desires) may result (Rahula, 1959). Given the unpredictable nature of experience, efforts to maintain a rigid, preconceived notion of the self are futile and apt to produce negative emotions. Indeed, self-discrepancy theory (Higgins, 1987) has spurred a substantial body of literature (e.g., Phillips & Silvia, 2005; Phillips, Silvia & Paradise, 2007; Renaud & McConnell, 2007) revealing that discrepancies between the current self and various, idealized self-configurations are correlated with specific negative emotions (e.g., agitation or dejection). Furthermore, a sharply defined sense of self stands in stark contrast with the multitude of “others”, with which the self-centered individual is in perpetual competition for finite resources. This self vs. other mentality situates the self-centered individual in opposition to his or her social environment, likely increasing alienation while limiting the development of the type of meaningful relationships that are often the cornerstones of psychological well-being. Thus, considerable theoretical support exists for the observed relationships between selflessness and psychological well-being in this study.

Mindfulness, Selflessness and Psychological Well-Being

Selfless individuals also evidenced greater dispositional mindfulness, providing correlational support for the Buddhist belief that mindfulness encourages insight into the true nature of the self as impermanent, interdependent, and interconnected (Dambrun & Ricard, 2011; Hanh, 2003). Indeed, Tang, Hozel & Posner (2015) posit that altering the sense of self may be one of the primary mechanisms of mindfulness. These findings are consonant with theoretical (Berkovich-Ohana & Glicksohn, 2014; Tang et al., 2015; Vago, 2014) and empirical evidence indicating that the cultivation of mindful states decreases self-referential self reports (Dambrun, 2016; Hadash et al., 2016) as well as neurological activity associated with self-referential cognition (e.g., Dor-Ziderman et al., 2013; Farb et al., 2007). Furthermore, correlational evidence suggests that dispositional mindfulness is linked with broad conceptualizations of the self, such as the metapersonal self or the allo-centric identity (Leary et al., 2008; Mara, DeCicco & Stroink, 2010). To elaborate on these prior findings,

path analyses in this study revealed that selflessness mediated the relationship between dispositional mindfulness and psychological well-being, and two dispositional mindfulness facets, observing and describing, were found to uniquely impact the relationships between dispositional mindfulness, selflessness and psychological well-being. The observing facet represents a tendency to attend to interoceptive and exteroceptive sensation in the present moment, and the describing facet reflects one's capacity to differentiate between various internal experiences. Hadash et al. (2016), suggest that these two facets can be understood to measure the capacity for meta-awareness. Meta-awareness denotes the ability to remain aware of subjective experience without overidentification with internal phenomena (i.e., experiencing thoughts, emotions and physical sensations as transient and ephemeral, lacking substantiality). In this way, meta-awareness may discourage self-entification and reification by limiting instances in which mental events are experienced as emerging from the self or are experienced as extensions of the self. Indeed, mindfulness practice that explicitly teaches practitioners to decouple mental events from the self (e.g., labeling a cognitive mental event as simply "a thought" instead of "I am having a thought") has been shown to increase experiences of selflessness (Hadash et al., 2016). By extension, bringing mindful attention (i.e., meta-awareness) to internal experiences may support an understanding of mental self-configurations as nothing more than mental events themselves. Thus, the self "may become less substantial and engrossing allowing for dissident indication with it – that is when the functioning of Me [the narrative self] can be observed, then one is clearly not that Me [narrative self]" (Wayment & Bauer, 2008, p.77).

Conclusion

While theoretically consistent and promising, these results should be interpreted with caution given some methodological limitations. Principally, the combined use of the Relational-Interdependent Self-Construal Scale and Metapersonal Self Scale to measure selflessness is a novel use of these two instruments. Despite theoretical support for the use of these scales in this manner (Dambrun & Ricard, 2011), and solid psychometric data on the combined scale in the present study, continued exploration of the internal and external validity of the combined "selflessness" scale would be valuable. Secondly, this study's sample, consisting largely of young adult, Caucasian females, may limit the generalizability of results. Future explorations of the associations between dispositional mindfulness, selflessness and well-being would benefit from exploring these relationships in more diverse samples. Additionally, a lack of information on participants' mindfulness practice involvement (e.g., meditation, yoga) limits the accuracy with which this sample can be characterized. Future studies should measure participants' involvement with mindfulness practices that may more directly expose them to the construct of selflessness. It may also be helpful to clarify whether differential relationships are observed between selflessness, dispositional mindfulness and the six domains of psychological well-being. Using a longer form of the Scales of Psychological Well-Being in future studies should allow for such exploration. Finally, given evidence of the impact of mindfulness practice on the experience of self (Farb et al., 2007; Hadash et al., 2016) and data showing that self-dissolution significantly mediates the effect of mindfulness on happiness (Dambrun et al., 2016), future experimental studies could also address whether the practice of mindfulness facilitates what

Wayment and Bauer (2008) propose as increasingly adaptive transformations of self-configuration, from selfish, to other oriented, to a selfless interdependence.

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Highlights

This study explored dispositional mindfulness, selflessness and well-being.

More mindful and more selfless individuals reported greater well-being.

Selflessness mediated the relationship between mindfulness and well-being.

The meta-awareness mindfulness facets were uniquely linked with selflessness.

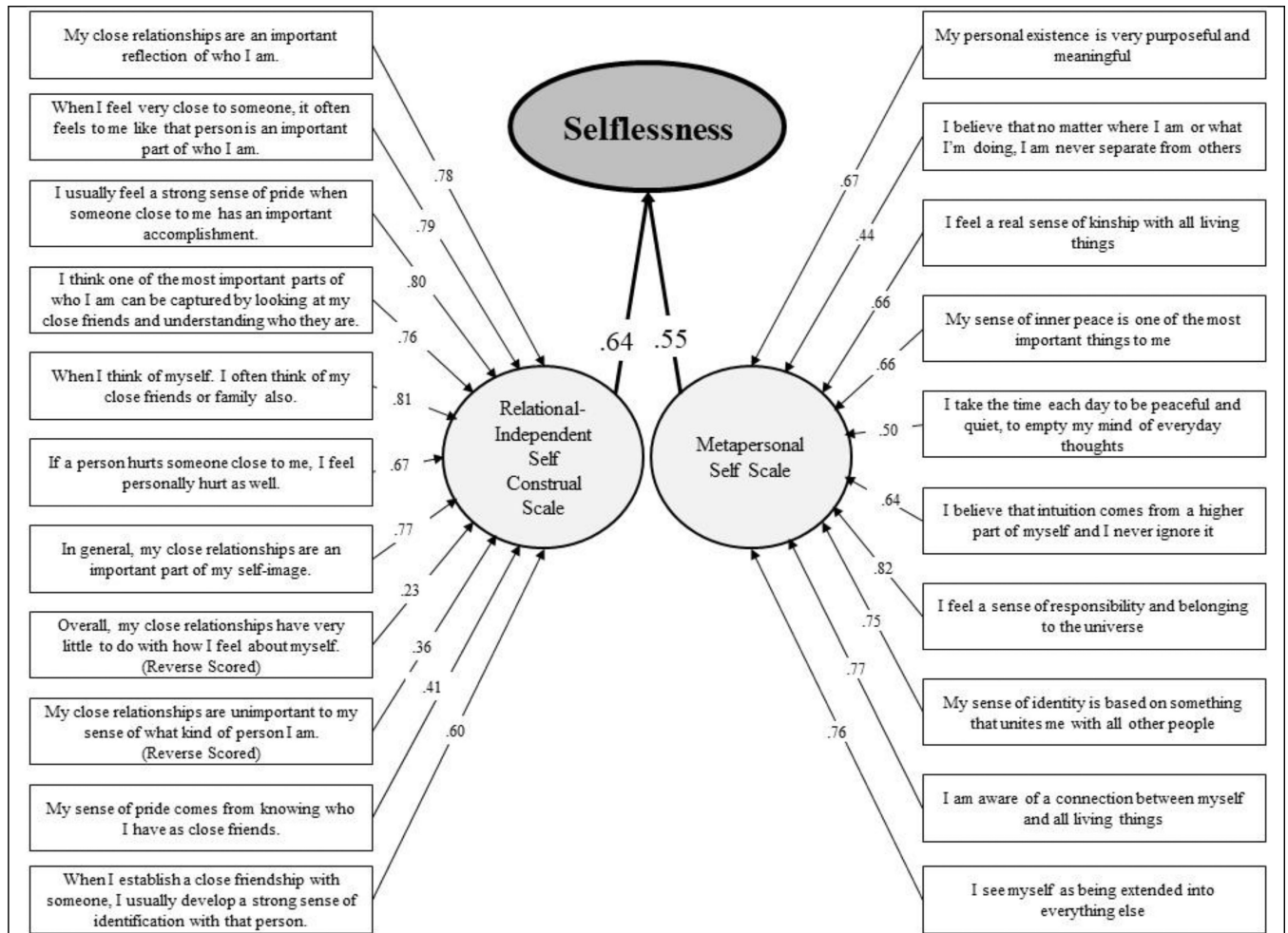


Figure 1. The selflessness second-order confirmatory factor analysis path diagram indicating two first-order factors loading onto a single second-order selflessness factor. All loading are significant at the $p < .001$ level

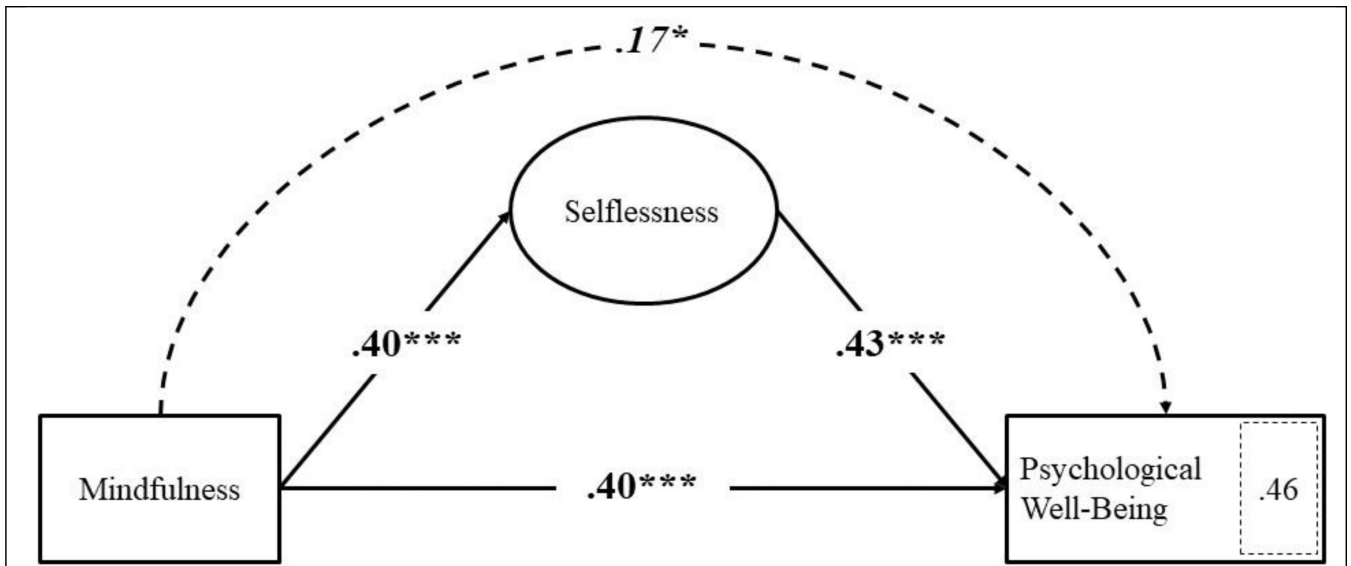


Figure 2. Standardized basic mediation model. The dotted line represents the significant indirect effect of dispositional mindfulness on psychological well-being via selflessness. The number in the dotted box to the right of each endogenous variable is the percentages of variance explained by this model for that variable.

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

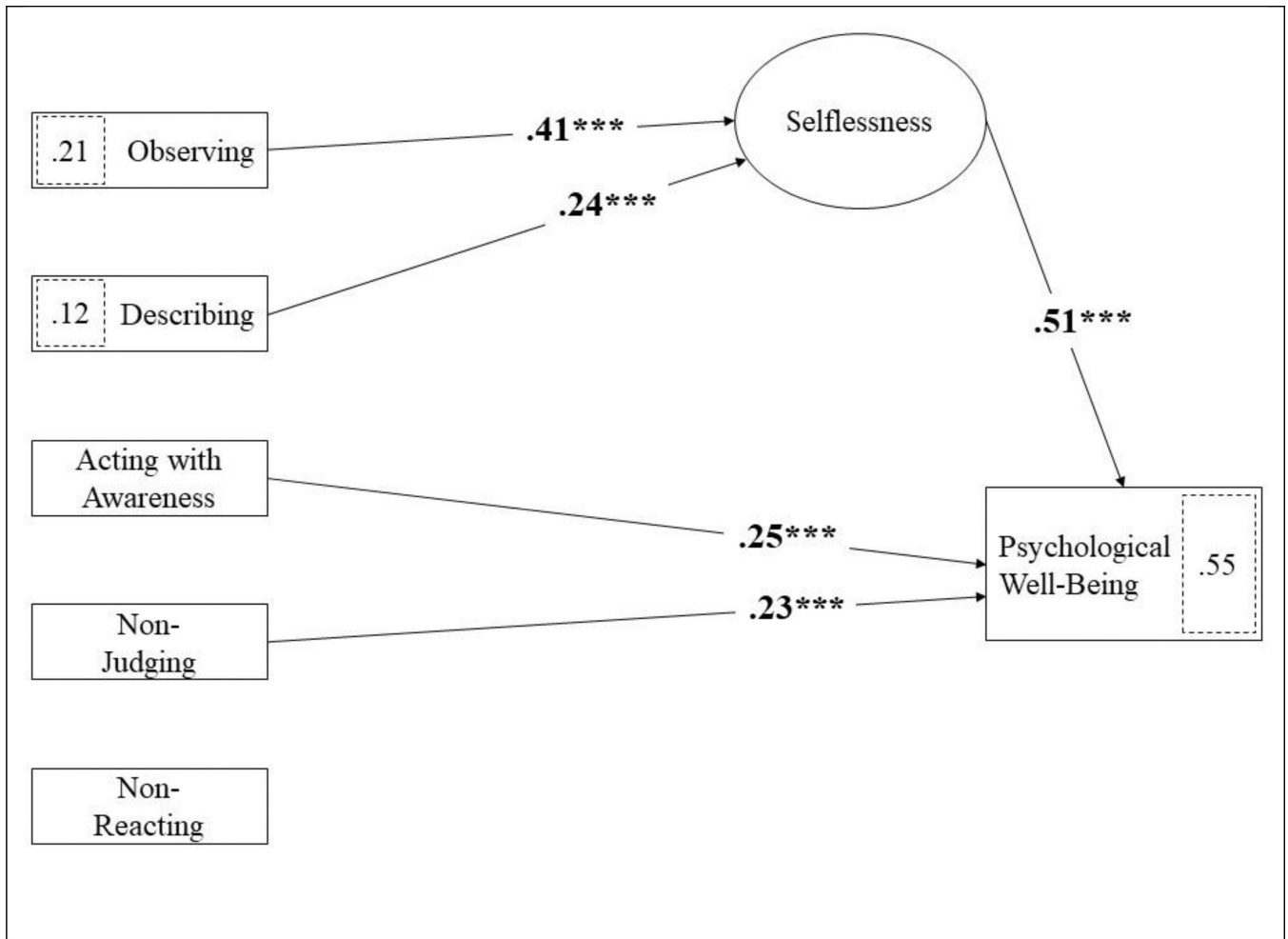


Figure 3. Standardized mindful facets model. The number to the left of the two exogenous variable is the significant, indirect effect of that variable on psychological well-being. The number in the dotted box to the right of the psychological well-being variable is the percentage of variance explained by this model.

*** $p < .001$.

Table 1

Participant Demographics (N=980)

Measure	
Age, $\bar{x} \pm SD$	20.84 \pm 3.66
Female, N (%)	696 (71%)
Race, N (%)	
American Indian/Alaskan Native	7 (1%)
Asian or South Asian	28 (3%)
African American	111 (11%)
Caucasian	660 (67%)
Latino	134 (14%)
Multiracial	31 (3%)
Other	9 (1%)
Marital Status, N (%)	
Single	948 (97%)
Married	24 (3%)
Divorced	7 (1%)
Family's Estimated Yearly Income, N (%)	
Under \$25,000	90 (9%)
\$25–49,999	150 (15%)
\$50–74,999	168 (17%)
\$75–99,999	175 (18%)
\$100–149,999	187 (19%)
Over \$150,000	200 (20%)

Correlation Matrix with Means, Standard Deviations, and Internal Reliability for each Variable of Interest

Table 2

Variable	FFMQ	RISC	MPS	Mean (SD)	α
1. Dispositional Mindfulness (FFMQ)	-			122.05 (14.78)	.84
2. Relational-Interdependent Self-Constructual Scale (RISC)	.33***	-		59.21 (9.81)	.87
3. Metapersonal Self Scale (MPS)	.15***	.28***	-	47.46 (10.36)	.89
4. Scales of Psychological Well-Being (SPWB)	.57***	.22***	.38***	92.92 (15.99)	.87

p < .001.