

Individual differences in self-discrepancies and emotional experience: Do distinct discrepancies predict distinct emotions?

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[Ann G. Phillips](#) & [Paul J. Silvia](#) (2010). Individual differences in self-discrepancies and emotional experience: Do distinct discrepancies predict distinct emotions? *Personality and Individual Differences*, 49(2), 148–151.

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Abstract:

Self-Discrepancy Theory (SDT) proposes that ideal-self discrepancies predict dejection/depression and ought-self discrepancies predict agitation/anxiety, but individual differences research has rarely found clear support for this pattern. After considering methodological and statistical reasons for these mixed findings, the present research tested SDT's predictions using a multivariate structural equation model with latent predictors and outcomes ($n = 245$ college students). SDT was broadly but incompletely supported: ought discrepancies uniquely predicted anxious affect, but both ideal and ought discrepancies predicted depressed affect.

Keywords: self-discrepancy theory | emotion | self-theories | self-regulation | structural equation modeling | personality | psychology

Article:

1. Introduction

The self-concept is intimately tied with emotions, and several self-theories consider how emotions relate to discrepancies between the current self-concept and idealized versions of the self (Carver and Scheier, 1998, Duval and Silvia, 2001 and Duval and Wicklund, 1972). Self-Discrepancy Theory (SDT; Higgins, 1987) proposes a model that distinguishes between kinds of self-goal discrepancies and kinds of emotions. According to SDT theory, people have three self-domains: the ideal, ought, and actual selves. The ideal self is a representation of the person someone would like to become and includes the ultimate goals for oneself. The ought self is a representation of who someone should or ought to become and includes duties and obligations. The actual self is who the person currently is. The theory predicts that discrepancies between the

ideal and actual selves predict dejection (depression-related emotions), and discrepancies between the ought and actual selves predict agitation (anxiety-related emotions).

SDT research has an experimental branch, which manipulates the situational accessibility of discrepancies (e.g., Higgins, Bond, Klein, & Strauman, 1986), and an individual differences branch, which measures natural variation in discrepancies (e.g., Higgins, Klein, & Strauman, 1985). Unlike the experimental literature, the accumulated individual differences literature reveals inconsistent support for SDT's predictions. First, the discriminant validity of ideal and ought discrepancies is often suspect (Gonnerman et al., 2000, Heppen and Ogilvie, 2003, Ozgul et al., 2003, Phillips and Silvia, 2005, Phillips et al., 2007 and Tangney et al., 1998). Research usually finds correlations between ideal and ought discrepancies over .50 and often as high as .80; researchers are thus occasionally forced to combine them into a single factor. Second, the unique relationships between ideal and ought self-discrepancies and dejection and agitation do not typically appear. Many researchers have found that both ideal and ought selves predicted both dejection and agitation (Bruch et al., 2000, Gramzow et al., 2000, Ozgul et al., 2003, Phillips and Silvia, 2005 and Tangney et al., 1998).

Methodological and statistical issues may be behind these mixed findings. First, many studies have had relatively small sample sizes for individual differences work, usually less than 100 people. Second, most studies included only one measure of self-discrepancies, The Selves Questionnaire (Higgins et al., 1985). Although this questionnaire is widely-used, relying on a single scale to measure an individual-differences construct makes it difficult to disentangle true trait variance from scale-specific method variance. Using different measures and applying latent variable models would allow researchers to model trait variance and method variance separately.

Third, the assessment of emotion has often consisted of short, ad hoc scales of unknown validity. In six studies (Boldero & Francis, 2000, Experiments 1, 2, 4, and 5; Higgins, Shah, & Friedman, 1997, Experiments 1 and 2), for example, affect measures included only four items each for dejection and agitation. In two experiments (Higgins et al., 1997, Experiments 3 and 4), mood measures included only two items each for dejection and agitation. Variations in ad hoc measures likely contribute to the variability in support for SDT. Recent researchers have thus shifted to using established measures with more evidence for score validity. For example, dejected and agitated affect map onto depressive affect and anxious affect, and researchers have thus used well-known measures of depression and anxiety to study SDT's predictions (e.g., Bruch et al., 2000).

Finally, the statistical strategy used to test SDT's predictions is old-fashioned. The early research used waves of partial and double-partial correlations. For example, the unique effects of ideals on dejection would be tested by partialing oughts from ideals, partialing agitation from dejection, and then correlating ideals and dejection (Higgins et al., 1985). This awkward strategy has many limitations. In particular, it does not estimate a single simultaneous model that accounts for the covariance of the predictors, the covariance of the joint outcomes, and the simultaneous effects of the predictors on the outcomes. Multivariate structural regression models are easier to run than they were 25 years ago.

In the present research, we sought to provide a stronger test of SDT's individual differences predictions by accounting for some of the measurement, design, and statistical issues that have appeared in past work. First, we measured self-discrepancies with three different scales that have been used in recent research. This allowed us to model, and thus to separate, trait variance and scale-specific variance. Second, we used established scales of depressive and anxious affect, thus avoiding ad hoc measures of unknown score validity. And third, we applied multivariate structural equation models to simultaneously estimate the model that represents SDT's predictions, thus avoiding the cumbersome process of conducting a series of pairwise partial correlations between observed variables.

2. Method

2.1. Participants and procedure

A total of 245 undergraduate students—approximately 70% women—at the University of North Carolina at Greensboro participated for credit toward a research option. Participants completed a battery of questionnaires in groups of 8–50.

2.2. Materials

2.2.1. Self-discrepancy measures

People completed three measures of self-discrepancies. The first measure was a version of the Selves Questionnaire developed by Carver, Lawrence, & Scheier (1999). For this scale, people write adjectives describing the ideal self and the ought self and then rate how discrepant the actual self is from the ideal or ought self, using 7-point scales. The second measure was a visual-analog scale of global discrepancy judgments developed by Heppen & Ogilvie (2003). Participants are shown a large circle that represents the ideal self, and they are asked to mark a box that represents how close or far they are from it; this is repeated for the ought self. The third

measure was an adjective-rating scale used by Ozgul et al. (2003; see also Tangney et al. (1998)). Participants rated the actual, ideal, and ought selves on a list of 20 adjectives, using 7-point scales. Discrepancy scores were computed as the averaged differences between ideal and ought selves and the actual self. These scales have been used primarily with undergraduate samples, so we expected that they would be appropriate for the current sample.

2.2.2. Depression and Anxiety Stress Scales (DASS)

The DASS (Lovibond & Lovibond, 1995) is a self-report measure of subjective emotional experience developed to discriminate depressive from anxious symptoms. Its depressive anhedonia and anxious arousal subscales load onto depression and anxiety factors more cleanly than other measures of depressive and anxious affect (Antony, Bieling, Cox, Enns, & Swinson, 1998). We used the 21 item short version, which shows nearly identical psychometric properties as the original (Antony et al., 1998, Beuke et al., 2003 and Brown et al., 1997).

2.2.3. Mood and Anxiety Symptom Questionnaire (MASQ)

The MASQ is a self-report measure of subjective emotional experience designed to assess Watson and Clark's tripartite model of anxiety and depression (Clark and Watson, 1991 and Watson et al., 1995). For this study, we included the depressive anhedonia and anxious arousal subscales (Keogh and Reidy, 2000 and Reidy and Keogh, 1997), which map onto the constructs of dejected and agitated affect posited by SDT (Bruch et al., 2000).

3. Results and discussion

3.1. Analytic strategy

All analyses were conducted with Mplus 5.21. Full-information maximum likelihood (ML) estimation with robust standard errors was used for all models except for tests of model constraints, which used ordinary ML. There were few missing observations: over 93% of the participants had no missing scores. All indicators were centered at zero. Reliability for the latent variables was estimated via maximal reliability, which yields an H statistic that is analogous to Cronbach's alpha (i.e., varies from 0 to 1) but is more suitable for latent variables (Drewes, 2000 and Hancock and Mueller, 2001). Several indicators were formed from averages of items or from parcels of items because our sample size was not large enough to allow item-level indicators for all the variables.

3.2. Confirmatory factor models

We first considered confirmatory factor analyses (CFA) of the self-discrepancies and the affect variables. For the self-discrepancies, we specified a latent ideal variable and a latent ought variable. Each variable had three indicators, one for the rating scale (Carver et al., 1999), the visual-analog scale (Heppen & Ogilvie, 2003), and the adjective scale (Ozgul et al., 2003). The factor variances were fixed to 1. Because these scales involved different methods, we modeled scale-specific variance by allowing the residuals to covary by scale (i.e., a correlated-trait, correlated uniqueness kind of multitrait-multimethod model; Brown, 2006). The model fit for this CFA was good, $\chi^2(5) = 5.40$, $p = .37$, CFI = .99, RMSEA = .018 (90% CI: .001 to .092), SRMR = .022. Construct reliability was higher for ideal ($H = .80$) than for ought ($H = .67$), but both were acceptable. It is worth noting that constraining the correlation between ideal and ought to 1 significantly worsened model fit ($p < .0001$), indicating that ideal and ought were distinct factors despite their high latent correlation ($r = .77$).

For the emotions, we specified a latent Depressed Affect variable and a latent Anxious Affect variable. The respective depression and anxiety subscales from the DASS and MASQ were split into two parcels, yielding four indicators for each latent variable. The path to the first DASS indicator was fixed to 1 for each latent variable. The initial fit for this CFA was poor; modification indices indicated strong method covariances between the two MASQ depression indicators and the two MASQ anxiety indicators. These two residual covariances were thus added, which yielded good model fit, $\chi^2(17) = 30.99$, $p = .02$, CFI = .987, RMSEA = .058 (90% CI: .023 to .090), SRMR = .043. The latent correlation between Depressed and Anxious Affect was $r = .65$, which is typical (Beuke et al., 2003). Construct reliability was good for both Depressed Affect ($H = .93$) and Anxious Affect ($H = .90$).

3.3. Structural models

To test SDT's predictions, we estimated a multivariate structural model. Ideal and ought were the two predictors; Depressed Affect and Anxious Affect were the two outcomes, and their residual covariance was modeled. The effects of ideal and ought on both Depressed and Anxious Affect were estimated. Fig. 1 depicts the model. SDT predicts specific effects—only the ideal-depressed and ought-anxious paths ought to be significant. This model fit well, $\chi^2(66) = 122.79$, $p < .0001$, CFI = .966, RMSEA = .059 (90% CI: .043 to .075), SRMR = .061.

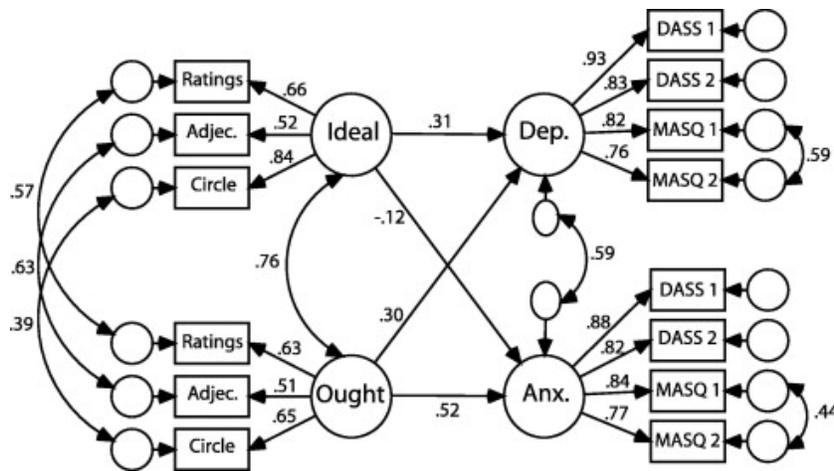


Fig. 1. Effects of self-discrepancies on depressive and anxious affect.

Regarding Depressed Affect, both ideal ($\beta = .314, p = .043$) and ought ($\beta = .302, p = .070$) had medium effect sizes; together they explained 33.6% of the variance in Depressed Affect. The significant effect of ideal is consistent with SDT, which predicts that discrepancies from ideal selves should predict dejected affect. The marginal effect of ought, however, is not consistent with SDT, which predicts a unique effect of ideal-self discrepancies.

Regarding Anxious Affect, ideal ($\beta = -.116, p = .461$) had a small and non-significant effect, but ought ($\beta = .522, p = .004$) had a large and significant effect; together they explained 19.2% of the variance. This pattern fits SDT's predictions: discrepancies from ought selves, but not from ideal selves, should explain agitated affect.

In summary, some of SDT's predictions concerning ideal and ought self-discrepancies were supported. First, ideal and ought discrepancies appeared as distinct constructs. This itself is notable, given that many studies did not find distinct ideal and ought variables (e.g., Gonnerman et al., 2000, Ozgul et al., 2003, Phillips and Silvia, 2005 and Tangney et al., 1998). Estimating latent variables from indicators that varied in measurement was thus an effective way to disentangle trait and method variance. Second, ideals and oughts did predict their respective affects, but these predictions were not unique in the manner predicted by SDT. Ideals predicted depressive affect, and oughts predicted Anxious Affect, but oughts also predicted depressive affect. Self-discrepancies thus predicted affective experience, but their effects were more diffuse than predicted by the theory.

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