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Self-Structure and Emotional Experience

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Abstract

Two studies examine individual differences in affective reactivity by linking emotional experience to cognitive self-structure. Consistent with the view that individuals with an evaluatively compartmentalized self-structure are emotionally reactive, we find that evaluative compartmentalization is associated with the experience of, and desire for, high-arousal positive affect, whereas evaluative integration is associated with the experience of low-arousal positive and negative affect and the desire for low-arousal positive affect. Although compartmentalized individuals are less granular in their tendency to report experiencing both high- and low-arousal affect (cf. Feldman Barrett, 2004), they are strongly differentiated in their perceptions of high-arousal states as positive and low-arousal states as negative. Thus, compartmentalized individuals' reactivity may be explained by their preference for high-arousal positive states and the "breadth" of their emotionality (e.g., the tendency to experience sadness and nervousness at the same time).

Keywords

self-knowledge; self-structure; arousal; affect valuation; emotional granularity

Although psychology research has a rich history of studying outcomes such as coping (e.g., Lazarus & Folkman, 1984), emotion regulation (e.g., Gross, 2002), and self-esteem stability (e.g., Kerns, 2003) by focusing on the *cognitive* response to both good and bad circumstances, research actually is fairly quiet on how underlying *affective* responses differ across people. The present paper incorporates a model of affective reactivity that identifies individuals who are prone to experience (and who prefer to experience) high-arousal emotions. Accordingly, these strong emotional reactions may create cognitive demands that make self-regulation more challenging.

The present model of *affective reactivity* is derived from research on evaluative self-organization (Showers, 2002), and holds that individual differences in the ways people process information about the self are associated with distinctive qualities of their emotional experience (Ditzfeld & Showers, 2011; 2013). Because this model assumes that emotional people can be extremely happy just as easily as they can be extremely sad or anxious, it shares common themes with Larsen and Diener's (1987) *affect intensity* model. However, here affective reactivity is linked to the cognitive organization of the self. We propose that different evaluative self-organizations are associated with tendencies to experience high-versus low-arousal affect; and also with preferences for different levels of positive affective arousal (or happiness "styles"; e.g., Tsai, 2007). We also test individual differences in the

ways people process emotional experiences by examining semantic representations of affect states (Feldman, 1995; Feldman Barrett, 2004).

Individual Differences in the Experience of Emotions

The core features of emotion are the dimensions of valence (pleasantness or unpleasantness) and arousal (low or high; Feldman Barrett, 2006a; Russell, 2003; Russell & Feldman Barrett, 1999). At any moment in time, a person feels relatively positive at low-to-high levels of arousal (calm to excited), or relatively negative at low-to-high levels of arousal (sluggish to nervous). The *affect circumplex* is the circular structure created from emotional states that fall on the dimensions of valence and arousal (Figure 1; cf. Russell, 2003). These affective qualities may stem from neurobiological processes and may reflect actual physiological experiences, not just conceptual representations of affective states (Feldman Barrett, 2004; 2006b). Although everyone operates from an affective core, only a handful of studies have attempted to describe how individuals' experiences may differ at that core (e.g., Feldman, 1995; Feldman Barrett, 2004; Feldman Barrett, Quigley, Bliss-Moreau, & Aronson, 2004). These studies largely focus on people's descriptions of their emotional experiences, in terms of discrete affect versus clusters of affect states, as a component of extreme emotionality. However, little is said about the possible differences in reactivity at the affective core. Here, we suggest that some affective cores indeed do burn hotter than others. And with these hotter cores comes higher arousal and less stable affect (i.e., *affective reactivity*), creating a distinctive experience of emotion that guides self-regulation.¹

Evaluative Self-Structure

The model of evaluative self-structure focuses on how people organize positive and negative beliefs when describing the self (Showers, 1992; 2002). The self is assumed to be multidimensional, consisting of self-knowledge categories (i.e., self-aspects) that people activate when thinking about the self in terms of different traits, roles, states, and domains (cf. Markus & Wurf, 1987; Linville, 1985). The evaluative organization model identifies two types of self-structures labeled compartmentalization and integration. Examples are shown in Figure 2.

Evaluative Compartmentalization

Individuals with compartmentalized self-structures isolate their positive from their negative attributes by organizing them into separate self-aspects (Showers, 2002). For example, a compartmentalized person may have a positive self-aspect category (e.g., "when I am at home"), that contains only positive beliefs about the self (e.g., *happy, optimistic, comfortable, confident, and organized*). As long as positively valenced self-aspects are salient, these individuals should access primarily positive self-beliefs. Conversely, when negatively valenced self-aspects are salient, compartmentalized individuals should access primarily negative self-beliefs. For example, a compartmentalized person who views the "work self" as particularly negative will have access to mostly negative beliefs (e.g., *hopeless, sad and blue, uncomfortable, and insecure*) when at work. Indeed, whether compartmentalization affords psychological benefits (e.g., high self-esteem and extremely positive mood) or negative consequences (e.g., low self-esteem and extremely negative mood) rests heavily on the contextualized self-aspects that are salient (Showers & Zeigler-Hill, 2007). As such, compartmentalized structuring may leave individuals emotionally

¹The present model of affective reactivity extends previous theorizing on self-organization, which has highlighted the possibility that a compartmentalized or integrative self-structure may influence affective experience, rather than suggesting that such affect originates in distinctive affective cores. The affective reactivity model is a theoretical perspective consistent with, but not explicitly tested by, the present correlational studies.

vulnerable, as has been supported by tests of self-esteem stability (Zeigler-Hill & Showers, 2007) and recovery from sad mood (Showers & Kling, 1996).

Evaluative Integration

Individuals with integrative self-structures have a mixture of positive and negative self-attributes within each self-aspect (Showers, 2002). For example, an integrative individual may also have the self-aspect “me at work,” but it contains both positive and negative self-content (e.g., *uncomfortable* and *insecure*, but also *happy* and *organized*). Integrative individuals’ structures do not depend on attribute valence and, therefore, are more resilient to the activation of negative beliefs (Showers, Abramson, & Hogan, 1998). Even though each self-aspect typically has some negative content, there is also positive content, which buffers the impact of any negative thoughts or feelings. However, when positive self-beliefs within a context are activated, there are also some negative self-beliefs available, which means that individuals with integrative structures typically do not experience as high self-esteem and as extreme positive mood as those with compartmentalized selves. As such, integration can be considered a structure of emotionally stable people. Indeed, integration has been associated with less extreme mood states and moderate self-esteem levels (Showers, 1992), resilience to sad mood induction (Showers & Kling, 1996), and relatively stable self-esteem (Zeigler-Hill & Showers, 2007). Although negative integratives generally show more positive self-esteem and mood than do individuals with negatively compartmentalized selves, we have suggested that negative integratives may still be struggling to resolve conflicting feelings associated with the positive and negative attributes within a given self-aspect category, whereas positive integratives may have achieved that resolution (Showers, Zeigler-Hill, & Limke, 2006).

One additional feature of the evaluative self-organization model is moderation by the overall positivity or negativity of a person's self-concept. This is assessed in two ways: (1) the relative importance of positive and negative self-aspects (*differential importance*; Pelham & Swann, 1989) and (2) the proportion of negative self-beliefs in the self-concept. When a person has either high differential importance (positive self-aspects relatively important) or a high proportion of positive attributes, the self-structure is said to be positively compartmentalized or positively integrative. Conversely, low differential importance (negative self-aspects relatively important) or a high proportion of negative attributes is recognized as negative-compartmentalization or negative-integration. These two measures are correlated; the one that is the most appropriate moderator of compartmentalization depends on the context and the sample. One distinction may be that differential importance is sensitive to degrees of positivity, whereas the proportion of negatives is sensitive to degrees of negativity (see Ditzfeld & Showers, in press).²

Cognitive-Affective Mechanisms Underlying Self-Structure

Previously, we have suggested that compartmentalization of the self may be motivated by goals of self-enhancement (aim to deny, minimize, or ignore any negative self-aspects), whereas integration may stem from goals of self-accuracy or realism (maintain access to negative self-beliefs, but minimize their impact; Showers, 2002). Expanding on this, the present work postulates an affective reactivity mechanism, one that might be physiologically-based, and might underlie compartmentalized self-structures. Recent studies show that compartmentalized individuals, like people in induced happy and sad emotional states, rely on emotional response categorization in processing emotional stimuli (Ditzfeld &

²Because the indices of differential importance and proportion of negatives have continuous scales, the terms positive- or negative-compartmentalization (and positive- or negative-integration) are relative. Because most people have relatively positive self-concepts, a person whose positive and negative self-aspects are equally important would be considered relatively negative.

Showers, 2011; 2013; cf. Niedenthal, Halberstadt, & Innes-Ker, 1999). That is, compartmentalized individuals selectively attend to the emotional qualities of stimuli in making concept categorizations and similarity judgments for emotional faces.

One possible explanation for these findings is that affective reactivity lies at the heart of compartmentalization. Compartmentalized individuals may react to emotional events from an affective core that responds more strongly (i.e., with greater arousal) than that of individuals with integrative structures. Given these aroused responses, attention is directed to one's emotions in an attempt to regulate thoughts and actions (e.g., Carver, 2004). As attention is directed to high-arousal emotions (e.g., "Why do I feel so excited?"), these emotional reactions influence the kinds of beliefs about the self that are accessed. That is, *feeling* extremely positive (negative) leads to *thinking* extremely positively (negatively) about the self. This perspective is consistent with research suggesting that people often monitor their current affect in order to inform their self-evaluations (C. Brown & McConnell, 2009; J. Brown, Dutton, & Cook, 2001; Leary & Baumeister, 2000). Evaluative integration, on the other hand, is consistent with a muted affective core. Individuals with these structures are less prone to the high-arousal emotions that characterize people with compartmentalized structures, thereby affording access to both positive and negative self-content across contexts. Because their activated self-beliefs are not bound by a common emotional valence, their self-evaluations are less contingent on their reactions to situations or events (Zeigler-Hill & Showers, 2007). Accordingly, their emotions are relatively even-keeled. For people with integrative structures, happiness takes the form of low-arousal positive affect (e.g., calm, relaxed), so that feelings do not fluctuate as dramatically and the self maintains a balance of positive and negative beliefs.

Hence, reactivity in this model is treated similarly to what Larsen and Diener (1987) describe as affect intensity (i.e., between-person differences in degree of stimulation for positive and negative stimuli), which is different from a circumplex view that treats intensity as the distance from a person's subjective baseline (i.e., within-person variations in the distance from the circumplex origin across time; cf. Reisenzein, 1994). We suggest that compartmentalized and integrative individuals have different affective "home bases" (Kuppens, Oravecz, & Tuerlinckx, 2010) that are relatively high and low in arousal, respectively. For example, although integrative individuals might experience different levels of calm (i.e., experience calm more or less *intensely* at different times), compartmentalized individuals' intense states are likely high-arousal states (e.g., excitement or enthusiasm). That is, compartmentalized individuals do not feel such intense calm because their "intense" feelings are high-arousal; as such, calm is similar to boredom, and hence they should rate experiencing low-arousal feelings relatively infrequently.

Overview

A basic hypothesis that follows from the affective reactivity model is that compartmentalization of the self will be associated with the experience of, and preference for, high-arousal affect states. Study 1A incorporates measures from *affect valuation theory* (Tsai, 2007; Tsai, Knutson, & Fung, 2006). Tsai and colleagues show individual differences in preferred affect, namely that some individuals prefer high-arousal to low-arousal positive affect. Evaluative compartmentalization is predicted to be associated with preferences for high-arousal positive affect and integration with preferences for low-arousal affect. Furthermore, for typical affective experience, compartmentalization is predicted to be associated with experiencing relatively more high-arousal than low-arousal positive and negative states, with the opposite predicted to be true for integratives.

Follow-up data were used to examine two additional measures of affective experience that highlight the distinction between high- and low-arousal emotions, namely (1) emotional granularity of self-reported affect (Study 1B); and (2) emotional granularity of individuals' semantic representations of affect states (Study 2; cf. Feldman Barrett, 2004). For Study 1B, compartmentalization is predicted to be associated with less differentiated reports of typical affect, such that people cluster feelings primarily by valence (i.e., a *valence focus*), which Feldman Barrett (2006a) links to strong emotions. In Study 2, using a separate sample, semantic representations of affect states are examined in order to test whether findings for emotional granularity of self-reported affect are due to the failure of compartmentalized individuals to distinguish high- and low-arousal affective states in terms of their cognitive representations.

Study 1A: Affect Valuation

Tsai (2007) suggests that the extent to which one values the experience of high-arousal positive (HAP) versus low-arousal positive (LAP) affect is an important individual difference that can lead to behaviors intended to evoke those ideal states, such as preferring high-arousal or low-arousal activities. This research has focused on cultural differences, most notably between European Americans and Hong Kong Asians, showing that European Americans prefer HAP affect whereas Hong Kong Chinese prefer LAP affect (e.g., Tsai et al., 2006). These cultural differences are proposed to stem from factors related to interpersonal social goals (influence versus adjustment; Tsai, Miao, Seppala, Fung, & Yeung, 2007), differences in rearing styles (Tsai, 2007), media influences (Tsai, Louie, Chen, & Uchida, 2007), and religion (Tsai, Miao, & Seppala, 2007). The present study examines individual differences in self-reported actual and ideal affect within a largely European American sample, predicting that individuals with compartmentalized selves will report experiencing and preferring HAP affect, but that individuals with integrative selves will report experiencing and preferring low-arousal affect.

Note that because the affective reactivity model is “symmetric” (i.e., it applies to both positive-compartmentalized and negative-compartmentalized individuals) the basic prediction here is a main effect, after the proportion of negative self-beliefs is controlled to account for the positive correlation of compartmentalization with that measure. However, to examine both valence and structure, and to account for the possible distinction between “struggling” and “resolved” integratives, both differential importance and proportion of negatives are tested as moderators of the basic compartmentalization effect (cf. Showers et al., 2006).

Method

Participants

Three hundred five students enrolled in Psychology classes at a large Midwest U.S. university participated voluntarily in order to receive partial credit toward their research exposure requirement. They completed the measures as part of two larger studies. Sample 1 included 139 students (109 females) and Sample 2 included 166 students (106 females). Samples are combined because there were only slight procedural differences (described below).

Ages represented in the combined samples were 18 (41%), 19 (33%), 20-23 (22%), and older (4%). Racial/ethnic composition was 70% White, 6% Asian, 6% Hispanic, 5% Black, 4% Native American, 2% Hawaiian/Pacific Islander, 5% Other, and 2% Unreported.

Measures

Self-Descriptive Card Sort—The self-descriptive card sorting task was adapted by Showers (1992) from Linville (1985; 1987). Participants are given a deck of 40 cards, each with a single attribute printed on it. Each attribute is either positive or negative in valence and potentially self-descriptive. Half of the cards contain positive content (e.g., *confident, friendly, organized*) whereas the other half contain negative content (e.g., *tense, lazy, isolated*). Participants are instructed to “think of the different aspects of yourself and your life and sort the cards into groups where each group describes an aspect of yourself and your life.” They may use as many or as few attributes as they feel are descriptive of the self across their self-aspect groups. Hence, attributes can be included in multiple self-aspect groups. For additional details, see Showers and Kevlyn (1999).

Evaluative self-structure (phi): Compartmentalization is an index of the way individuals organize positive and negative content in their card sorts, measured with a phi coefficient (Cramer, 1945/1975; Everitt, 1977). Phi scores are based on a chi-square statistic such that the organization of a person's attributes is compared to an organization that would be expected if the cards were sorted without regard for their positive or negative valence. The chi-square calculation uses the expected frequencies (based on the number of negative attributes in a card sort) and observed frequencies (based on the actual number of negative attributes in each self-aspect), then phi is normalized by dividing by the total number of attributes in the card sort (N):

$$\phi = \sqrt{\frac{\chi^2}{N}}$$

Phi scores range from 1 (perfectly compartmentalized), where each self-aspect group consists of uniformly positive or uniformly negative attributes, to 0 (perfectly integrative), where positive and negative attributes are equally distributed across self-aspect groups. Individuals fall on a continuum from relatively compartmentalized to relatively integrative.

Proportion of negative attributes (neg): This is an index of how much negative content is used in describing the self. Neg is calculated for each individual's card sort by dividing the number of negative attributes by the total number of attributes used.

Differential importance (DI): Adapted from Pelham and Swann (1989), DI is an index of how important individuals view their positive self-aspects relative to their negative self-aspects. For each self-aspect group created, participants rate how important, positive, and negative that aspect is to them on a 7-point Likert scale. DI is the correlation between how important and how positively versus negatively (difference scores) they rate their self-aspect groups. Hence, scores range from -1 to 1 with positive scores indicating that positive self-aspects are viewed as more important and negative scores indicating that negative self-aspects are viewed as more important.

Self-Reported Actual and Ideal Affect—The two scales of the affect valuation index (AVI; Tsai et al., 2006) were used to measure the kinds of affective states individuals most typically and ideally experience. For the measure of ideal affect, participants rate how much they would like to “ideally feel this way (on average)” for each of 25 affective states on a 1 (*very slightly or not at all*) to 5 (*extremely or all of the time*) scale. For the measure of actual affect, participants rate how much they “typically feel this way (on average),” for the same affective states. Tsai et al. drew the 25 affect items from the eight octants that make up the affect circumplex, accounting for both valence and arousal (or activation) of affect states

(Russell & Feldman Barrett, 1999). Figure 1 displays each item in regard to the octant to which it belongs.

Procedure

Sample 1: Participants returned for the second session of a two-session study. In this session they completed the self-descriptive card-sorting task, followed by a questionnaire packet containing the AVI scales and a variety of other self-report measures that are not pertinent to the present study.³

Sample 2: All measures were completed in one laboratory session. Participants first preformed a short computer task, followed by the self-descriptive card-sorting task, and a questionnaire packet. This packet contained the AVI scales as well as other measures having to do with close relationships. Results for the computer task (triad concept task) are reported by Ditzfeld and Showers (2011); results pertaining to dyadic relationships are reported by Thomas, Ditzfeld, and Showers (2010).

Results

Sample

Consistent with previous research (Showers & Kevlyn, 1999), participants were excluded from analyses if their card sorts did not contain at least 3 self-aspect groups ($n = 6$) and 2 negative attributes ($n = 19$). This proportion of exclusions (9%) is typical in this research. An additional 7 participants were excluded because of incomplete responses to AVI (6) or differential importance (1) scales. Overall, 273 participants were included in the focal analyses.

Ipsatization

Previous research using the AVI scales has accounted for individual differences in response styles by using ipsatized scores when analyzing ideal and actual (typical) affect (Tsai, Miao, Seppala, et al., 2007). For ipsatization, *z*-scores are calculated *within individuals* so that an individual's response to an item is weighted in comparison to all of that person's responses in an overall item set. For the current analyses, responses were ipsatized within subsets of 10 positive (actual or ideal) or 9 negative (actual) affect items. Hence, this ipsatization captures the relative (within-person) tendencies of individuals to experience (and idealize) affect states that vary by arousal (e.g., more excited than calm), rather than to account solely for response bias.⁴

For focal analyses, individuals' ipsatized scores were averaged for the high-arousal positive (HAP) octant, the low-arousal positive (LAP) octant, the high-arousal negative (HAN) octant, and the low-arousal negative (LAN) octant for participants' actual affect ratings. Only HAP and LAP were used for ideal affect ratings.

Descriptive Statistics

Table 1 presents intercorrelations and descriptive statistics for the measures used in the focal analyses. Proportion of negative attributes was arcsine transformed to reduce skew (Cohen, Cohen, West, & Aiken, 2003). As expected, compartmentalization was positively correlated both with greater proportions of negative attributes (i.e., relatively high negative self-

³Additional data from these participants are reported in Ditzfeld and Showers (2013a). The present sample size includes 16 fewer participants because the AVI measure was added when the study was ongoing.

⁴We ran the same analyses reported here using an ipsatization across all 25 affect items. The findings replicate the significant results reported here with the exception of actual LAP, for which the $\Phi \times \text{Neg}$ interaction was only marginally significant, $\beta = -.11, p = .10$.

content), $r = .40$, $p < .001$, and with higher differential importance (i.e., viewing positive self-aspects as most important), $r = .14$, $p < .05$ (cf. Zeigler-Hill & Showers, 2007).

For positive affect, people reported greater experience of moderate-arousal positive (P; $M = .40$) than of either HAP ($M = -.05$) or LAP ($M = -.27$) states. However, for negatively valenced states, they reported experiencing more LAN ($M = .33$) than either HAN ($M = -.13$) or moderate-arousal negative (N; $M = -.33$) affect. In other words, people report that they typically feel *happiness* more than either *excitement* or *calm*; whereas feeling *dull* is more typical than *nervous* or *sad*. Note that sad is considered a moderate (rather than low) arousal state on the circumplex.

Focal Analyses

Consistent with previous research on evaluative self-structure, analyses utilized a hierarchical multiple regression procedure in which ideal (HAP, LAP) and actual (HAP, LAP, LAN, HAN) affect scores, respectively, were regressed onto measures of compartmentalization (ϕ), proportion of negative attributes (neg), and differential importance (DI). The main effect variables (ϕ , neg , and DI) were mean-centered for testing interactions of subsequent steps (cf. Aiken & West, 1991) and entered on Step 1. On Step 2, all two-way interactions for the main effect variables were entered. On Step 3, the 3-way interaction of these predictors was entered.⁵ Results from these analyses are displayed in Table 2.

Ideal Affect

High-arousal positive—There was a significant main effect of ϕ , $\beta = .13$, $t = 1.98$, $p < .05$, qualified by a significant $\phi \times \text{Neg}$ interaction, $\beta = .25$, $t = 3.67$, $p < .001$, cumulative $R^2 = .07$. Figure 3 (left panel) presents the predicted values for this interaction, which shows that the effect is due to negative-integratives' low preference for HAP states.

Low-arousal positive—Although there was not a significant main effect of ϕ , $\beta = -.10$, $t = -1.41$, $p = .16$, there was a significant $\phi \times \text{Neg}$ interaction, $\beta = -.25$, $t = -3.62$, $p < .001$, $R^2 = .06$. Figure 3 (right panel) shows that negative-integratives stand out with a greater preference for LAP affect.

Looking across the two figures, individuals with both positive- and negative-compartmentalized structures, as well as positive-integratives, prefer HAP to LAP affect. It is only individuals with negative-integrative structures who prefer LAP to HAP affect.

Actual Affect

High-arousal positive—There was a significant zero-order correlation between ϕ and HAP affect, $r = .14$, $p < .03$ (Table 1), which remained after being entered on Step 1 of the regression, ϕ , $\beta = .14$, $t = 2.12$, $p < .04$, $R^2 = .02$. As predicted, evaluative compartmentalization was associated with reporting relatively more HAP affect than was evaluative integration. There were no other significant main effects or interactions.

Low-arousal positive—A weak negative zero-order correlation in the predicted direction between ϕ and LAP, $r = -.10$, $p < .12$, increased when neg and DI were controlled in Step 1 of the regression, $\beta = -.14$, $t = -2.05$, $p < .05$. This effect was qualified by a significant ϕ

⁵Preliminary comparisons showed no differences between samples for ϕ , DI, or neg , $|r|s < .26$, $ps > .80$; actual HAP, HAN, and LAN, $0.4 < |r|s < 1.4$, $ps > .18$; and ideal HAP, $t = 1.21$, $p = .23$. Ideal and actual LAP were greater in Sample 2 ($M_{\text{ideal}} = -.33$; $M_{\text{actual}} = -.21$) than in Sample 1 ($M_{\text{ideal}} = -.44$; $M_{\text{actual}} = -.35$), $t = -2.28$, $p < .03$ and $t = -2.47$, $p < .02$, respectively; however, including Sample as a moderator in the regressions did not affect any of reported findings for ideal or actual LAP.

× Neg interaction, $\beta = -.27$, $t = -4.02$, $p < .001$, cumulative $R^2 = .08$, such that negative-integratives reported experiencing relatively more LAP affect and mirrored the ideal affect ratings above.

Low-arousal negative—There was a significant negative correlation between phi and LAN, $r = -.16$, $p < .01$, which was also significant on Step 1 of the regression, $\beta = -.15$, $t = -2.17$, $p < .04$, $R^2 = .03$. Integration was associated with reporting relatively more LAN affect. There were no other significant main effects or interactions.

High-arousal negative—There were no significant main effects or interactions involving HAN. However, as E. Harmon-Jones, C. Harmon-Jones, Amodio, and Gable (2011) point out, the HAN octant contains the conflicting approach-avoidance states of hostile (activation) and nervousness/fear (withdrawal). Because previous work (Showers & Boyce, 2008) alludes to the possibility that compartmentalization may be associated with anxious-withdrawal (nervousness) and integration with hostile-approach responses, we ran separate regressions using ipsatized scores for each of the three items as criterion variables. Indeed, there was a marginally significant association in the predicted direction between compartmentalization and self-reports of nervousness, $\beta = .13$, $t = 1.86$, $p = .064$ (two-tailed), and between integration and hostility, $\beta = -.12$, $t = -1.89$, $p = .082$ (two-tailed). Note that DI was significantly associated with greater reports of hostility, $\beta = .17$, $t = 2.72$, $p < .01$; no other main effects or interactions (nor any effects using the *fearful* item) approached statistical significance ($ps > .14$).

Unique Effects for Ideal Versus Actual Affect

Because actual HAP and LAP were significantly correlated with the respective ideal ratings (see Table 1), we repeated the analyses of ideal affect, controlling for actual affect, and vice versa. When ideal HAP (LAP) was examined controlling for actual HAP (LAP), the significant Phi × Neg interactions persisted (ideal HAP: Phi × Neg, $\beta = .23$, $t = 3.50$, $p = .001$; ideal LAP: Phi × Neg, $\beta = -.14$, $t = -2.17$, $p = .031$). When ideal HAP or LAP was controlled in the analyses of actual HAP or LAP affect, the phi main effects were lost (actual HAP: Phi, $\beta = .10$, $t = 1.57$, $p = .12$; actual LAP: Phi, $\beta = -.10$, $t = -1.60$, $p = .11$), but the Phi × Neg interaction for actual LAP persisted, $\beta = -.18$, $t = -2.77$, $p = .006$. For actual HAP, the effect of ideal HAP constituted full mediation (95% CI for indirect effect did not include zero [0.01, 0.23] in Preacher and Hayes' [2008] bootstrapping technique).

Thus, phi's association with actual affect only partially accounts for its effects for ideal HAP and LAP, suggesting that the association of self-structure with desire for high or low arousal is at least partly independent of actual experience. Interestingly, the full mediation of phi's association with actual HAP by ideal HAP suggests that compartmentalized individuals' preference for feelings of elation and excitement may drive the likelihood of actually experiencing those emotions.

Discussion

Consistent with predictions, individuals with evaluatively compartmentalized selves reported experiencing more HAP affect than did integrative individuals. Moreover, individuals with relatively integrative self-structures tended to report experiencing more LAP and LAN affect. When reporting on ideal affect states, both compartmentalized and positive-integrative individuals preferred ideal HAP to ideal LAP, whereas negative-integratives reported low desire for HAP and relatively high desire for LAP.

These findings are consistent with a view of compartmentalized individuals as affectively reactive. They report experiencing high levels of HAP and prefer it to LAP. Integratives'

self-reports of LAN affect are consistent with the view that their less reactive emotionality and motives for realism allow them to acknowledge both positive and negative attributes without overreacting. Negatively integrative individuals appear to actively seek out ideal affective states that are LAP, but not HAP. One possibility is that negative integratives actually find HAP states to be uncomfortable if, for example, high arousal magnifies any associated negative self-beliefs (e.g., feelings of excitement activate closely associated insecurities and self-doubt).

An unanticipated finding was that, within the HAN affect cluster, compartmentalized individuals tended to report nervousness, whereas integratives reported hostility. Whereas nervousness is the response of a person who lacks control, hostility may be the response of someone who takes control (Carver & E. Harmon-Jones, 2009). Hence, unregulated negative affect may not only create a more extreme emotional experience for compartmentalized individuals, it may also initiate a broader range of different kinds of feelings (e.g., sadness and nervousness and loneliness). This latter kind of emotionality has been termed low *emotional granularity* (or low *emotional clarity*), and has been linked to difficulties in emotion regulation (Feldman Barrett, 2006a; Gohm & Clore, 2000; Thompson, Dizén, & Berenbaum, 2009). To elaborate on the emotional differences of individuals with compartmentalized or integrative self-organization, Study 1B examines the granularity of their affective experience.

Study 1B: Emotional Granularity

Emotional granularity is conceptualized as the tendency to experience discrete emotions as opposed to multiple or undifferentiated emotions (Feldman Barrett & Bliss-Moreau, 2009). Individuals with high emotional granularity boil down their emotional reactions to specific discrete emotions (sadness *or* anger *or* regret), whereas individuals with low emotional granularity are less differentiated, meaning that they experience either multiple emotions at the same time or generally undifferentiated positive or negative states. Because of their high arousal, compartmentalized individuals may be experiencing multiple affect states in the same context and have difficulty reporting their feelings in terms of a single discrete emotion. This suggests that compartmentalized individuals will be low in emotional granularity. Therefore, a follow-up analysis of the data collected in Study 1A examined the association between self-structure and the differentiation of discrete emotions in the measures of self-reported affect. We predicted that individuals with compartmentalized self-structures would show less differentiation within the different types of positive and negative emotions represented on the affective circumplex.

Method

To measure emotional granularity, each person's 25 raw (non-ipsatized) ratings of typical affect states were entered into a multidimensional scaling analysis to test the proximity of each affect state (e.g., sadness) to the other states (nervous, happy, etc.). Low granularity is the tendency for a person's states to cluster together by valence (or by arousal) instead of separating them in the circular pattern shown on the affect circumplex displayed in Figure 1.

Results

Multidimensional Scaling Analyses

Borrowing from Feldman Barrett's (2004) methodology, the analyses involved scores derived from individual differences multidimensional scaling (INDSCAL; Carroll & Chang, 1970), using an ALSCAL procedure (Takane, Young, & DeLeeuw, 1976). All participants' ratings were used to calculate the distances that separate affect states in "group space"

(Halberstadt & Niedenthal, 1997). Here, the space was restricted to only two dimensions interpreted to represent valence and arousal, the two primary components of affect (Russell & Feldman Barrett, 1999). Overall, affect states fell into a circular pattern revolving around the valence and arousal dimensions (similar to Figure 1) and the model-solution provided a good fit ($stress = .11$, $RSQ = .95$).

The INDSCAL technique calculates individual weights for each participant, indicating the extent to which a person's ratings relied on the dimensions derived from the "group space" solution. A high weight on Dimension 1 (valence) indicates that the person tends to feel positive states (happy, excited, calm) equally and negative states (sad, lonely, nervous) equally, and mostly one at the exclusion of the other (e.g., tends to feel more positive than negative); this configuration is *valence focused*. A high weight on Dimension 2 (arousal) indicates greater emotion differentiation based on the arousal qualities of affect states (e.g., experience sadness more so than nervousness); this configuration is *arousal focused*. High emotion granularity typically corresponds to a lower weight for valence because people use arousal qualities of affect in addition to valence in describing their affect states (Feldman Barrett & Bliss-Moreau, 2009). Ratings here were based on valence more so than on arousal (valence weights, $M = .34$; arousal weights, $M = .15$).

Individuals' INDSCAL weights for valence and arousal, respectively, were regressed onto measures of phi, neg, and DI in the same hierarchical multiple regression procedure in Study 1A. Table 3 (top) presents these regression results.

Valence Focus—As predicted, there was a significant main effect of phi, $\beta = .19$, $t = 3.06$, $p < .003$. Compartmentalization was associated with a *high* valence focus, meaning that they tend to experience either an array of positive states or an array of negative states, but not both. There was also main effects of neg, $\beta = -.42$, $t = -6.85$, $p < .001$, and DI, $\beta = .12$, $t = 2.17$, $p < .04$. People with more positive self-concepts tend to be valence focused, presumably because their emotional experiences generally are positive.

There were significant two-way interactions among all three variables. The phi interactions, $\Phi \times DI$, $\beta = .16$, $t = 2.51$, $p < .02$, and $\Phi \times Neg$, $\beta = .14$, $t = 2.19$, $p = .03$, cumulative $R^2 = .22$, showed that positively compartmentalized (high DI) individuals are especially valence-focused, whereas negatively integrative (high neg) individuals are especially low on valence-focus. The $DI \times Neg$ interaction, $\beta = -.17$, $t = -2.62$, $p < .01$, showed that people with very positive self-concepts (high DI, low neg) were substantially more valence-focused than others. The three-way interaction was not significant.

Arousal Focus—Again, there was a significant main effect of phi, $\beta = -.13$, $p < .05$. Compartmentalization was associated with a *low* arousal-focus, meaning that they report both high- and low-arousal emotions on this absolute (non-ipsatized) measure.⁶ There was also a significant main effect of neg, $\beta = .37$, $t = 5.80$, $p < .001$, such that people with negative self-concepts tend to distinguish among states by affective arousal more so than do people with positive self-concepts. There was not a significant main effect of DI, but there was $\Phi \times DI$ interaction, $\beta = -.14$, $t = -2.05$, $p < .04$, cumulative $R^2 = .14$. Positively compartmentalized individuals had especially low arousal-focus, which accords with their high valence focus. No other effects were significant.

⁶The apparent discrepancy between the findings of Studies 1A and 1B with respect to the experience of low-arousal emotions for compartmentalized individuals is due to the use of ipsatized versus absolute ratings. Study 1A, using ipsatized scores, finds that compartmentalized individuals experience more HAP, whereas integrative individuals experience more LAP. Study 1B, using absolute ratings, finds that compartmentalized individuals experience both HAP and LAP, whereas integrative individuals experience LAP and LAN.

Discussion

The granularity analyses suggest that compartmentalized individuals are less differentiated in their self-reported emotional experience than are integrative individuals. Their negative (and positive) emotions encompass high- and low-arousal emotions equally, which is a prototype for emotional people. Indeed, valence focus has been associated previously with affect intensity (Larsen & Diener, 1987), extraversion/neuroticism, self-esteem instability, and even bipolar disorder (Feldman Barrett, 2006a; Pietromonaco & Feldman Barrett, 2009; Suvak, Litz, Sloan, Zararini, Feldman Barrett, & Holfmann, 2011). The present results are consistent with Study 1A: Compartmentalized individuals, especially those who are positively compartmentalized, with their high valence focus and low arousal focus, report experiencing a variety of high-to-low arousal positive and negative states, whereas integratives' reports are more granular, in that they claim to experience primarily low-arousal states. However, the present analyses cannot distinguish whether compartmentalized individuals' low granularity represents a tendency to experience multiple affect states (e.g., experience discrete and distinguishable feelings of multiple emotions such as sadness, loneliness, and nervousness) either simultaneously, or with equal frequency; or whether they simply fail to discriminate discrete emotional states semantically (e.g., simply feel "bad," meaning that the negative feeling is an undifferentiated blur that leads them to endorse any relevant negative emotion word). To assess this latter possibility, we adapted a task previously used by Feldman Barrett to measure individual differences in the semantic differentiation of affect states.

Study 2: Affect Similarity Task

In this task, participants rate the similarity between pairs of emotional states that vary in both level of arousal and valence (Feldman, 1995; Feldman Barrett, 2004). This measure tests individuals' ability to discriminate different types of affect states semantically, regardless of how they experience them. For example, people with high valence focus on the granularity task may endorse multiple emotions at varying levels of arousal either because they truly experience these emotions as distinct states, or because they fail to differentiate between them, assuming they are all connected to the global experience of feeling "good" or "bad." In the latter case, differences in granularity do not arise from different affective experiences, but rather from differences in the understanding of emotion concepts, as evidenced by similarity ratings. Importantly, Feldman Barrett (2004) finds weak or no correlations between emotional experience ratings and semantic similarity ratings.

Although Study 1B showed that self-reports of typical emotional experience in compartmentalized individuals are valence-focused, our prediction is that they will be no more valence-focused in the semantic representation of affect than will integrative individuals. In contrast to Study 1B, we predict a positive correlation between compartmentalization and arousal focus for the semantic representation of affect. Even though Study 1B showed that compartmentalized individuals are low on arousal focus for their self-reported experience (i.e., they experience both high and low-arousal emotions), we believe they are sensitive to the distinct qualities of these emotional experiences (e.g., they distinguish idle from active). Moreover, given their preference for high-arousal affect (as shown in Study 1A), compartmentalized individuals should associate high-arousal states with positive feelings (e.g., active with happy) and low-arousal states with negative feelings (e.g., idle with unhappy). This means that they will be high arousal-focused (and, by extension, more granular) in their semantic representation of affect states despite being low arousal-focused and low granular in their self-reported affective experience.

Method

Participants

Sixty-two students (38 females) enrolled in psychology classes at a large Midwest U.S. university participated voluntarily in order to receive partial credit toward a research exposure requirement. Ages represented in the sample was 18 (44%), 19 (37%), 20-23 (17%), and older (2%). Race/ethnic composition was 69% White, 11% Black, 11% Asian, 5% Native American, 2% Hispanic, and 2% Other.

Measures

Similarity Ratings for Affect States—Participants rated the similarity of 16 affect states, presented in pairs. Items were selected to represent the eight octants of the affect circumplex (two items per octant; Feldman Barrett & Russell, 1999; Larsen & Diener, 1992). Participants were told, “For this task, we want you to think about how you experience emotions. Specifically, we want to know how similar you feel one feeling state is compared to another feeling state.” Participants rated each pair of emotions on a scale from 1 (*not at all similar*) to 7 (*extremely similar*). Whereas prior research simply asks participants to “rate the similarity” (e.g., Feldman Barrett, 2004), we used more detailed instructions to direct participants’ attention to their personal experience rather than to colloquial usage or basic qualities of the words. Each of the 16 items was paired once with each other item for a total of 118 similarity judgments (2 pairs were excluded because they were syntactic opposites; e.g., happy/unhappy).

This task was programmed onto computers using Inquisit™ software, which presented each item-pair in random order. The left- or right-hand side presentation of the items in each pair was also random.

Self-Descriptive Card Sort—The procedures for the self-descriptive card sorting task and the self-aspect ratings, from which the self-structure variables of compartmentalization (ϕ), neg, and DI are derived, were the same as described for Study 1.

Procedure—Participants attended a single laboratory session in which they completed the self-descriptive card-sorting task and differential importance ratings, followed by several tasks on the computer, including the similarity ratings for affect states.⁷

Results

Sample

Of 62 participants, data from 4 individuals were excluded due to invalid values of ϕ (as explained for Study 1). The analyzed sample was 58 participants (36 females).

Multidimensional Scaling Analyses

Again, following Feldman Barrett's (2004) methodology, scores derived from multidimensional scaling analyses. In this case, group and individual “space” distances were calculated by using each participant's 16×16 similarity judgment matrix, which captures semantic proximities (how closely an affect state maps onto to experiences of other states) rather than proximities derived from the relative occurrences of those states. Analyses were restricted to two dimensions, interpreted as valence and arousal. Overall, the ALSCAL procedure showed that affect states fell into a circular pattern revolving around the valence

⁷These measures were extracted from a larger study (Ditzfeld, 2012; Study 1).

and arousal dimensions (similar to Figure 1) and the model-solution provided a good fit ($stress = .14$, $RSQ = .91$).

The INDSCAL technique showed that valence was particularly important in this sample (valence weights, $M = .92$, $SD = .05$; arousal weights, $M = .21$, $SD = .09$). Hence, high weights on the arousal dimension indicate relative attention to the arousal qualities of affect states (i.e., relatively arousal focused) rather than a tendency to make similarity comparisons based solely on those features (i.e., to the exclusion of valence). No participant had a higher weight for the arousal dimension than the valence dimension.

Scaling Analyses—Individuals' INDSCAL weights for valence and arousal, respectively, were regressed onto measures of phi, neg, and DI, in the same hierarchical multiple regression procedure used before (Table 3, bottom). The zero-order correlations for these variables appear in Table 4. As predicted, the regressions showed that arousal was particularly important in the similarity judgments of individuals with compartmentalized self-structures, resulting in a main effect of phi, $\beta = .35$, $t = 2.23$, $p = .03$, for the arousal weights. Compartmentalized individuals used the qualities of arousal in their ratings more so than did integratives. There was also a significant main effect of neg, $\beta = -.35$, $t = -2.30$, $p < .03$, $R^2 = .13$. People with relatively positive self-concepts attend to the arousal qualities of affect more so than do individuals with relatively negative self-concepts. Neither the DI main effect nor any interactions were significant. There were no significant effects in the valence regression, which is consistent with the prediction that there would be only modest differences in semantic representations based on valence; namely, differences stemming solely from discriminating positive from negative states.

Octant Analyses

Although the INDSCAL results suggest that compartmentalized individuals have an arousal focus, the accuracy of that interpretation depends on the extent to which differentiation occurs strictly along the arousal dimension. One concern is that this effect is due to differentiation of specific emotion states rather than to a general arousal dimension. To explore this possibility further, we conducted a series of analyses on pairwise octant comparisons to see whether specific octants accounted for the INDSCAL result. In these analyses, similarity ratings between two items from one octant (e.g., HAP: excited, elated) and two items from another octant (e.g., LAN: dull, sluggish) were averaged, and then regressed onto measures of phi, DI, and neg (as before). All possible octant pairs were tested in a total of 28 regressions. Significant effects involving phi (i.e., a phi main effect or a $\Phi \times DI$ interaction) were obtained for 8 of these regressions. Specifically, there were significant phi main effects in 6 regressions, and there were 2 additional regressions with significant $\Phi \times DI$ interactions. Regression results are shown pictorially to ease interpretation: Figure 4 presents the phi regression coefficients for similarity ratings of octant pairs that involve either high arousal (HA) or low arousal (LA); Figure 5 presents the phi regression coefficients for all other octant pairs (i.e., those of same or opposite valence). Reported are the unique main effects of phi, which indicate the relationship between compartmentalization and similarity judgments between octants. In the case of a $\Phi \times DI$ interaction, the level of DI at which the slope was significant is reported.⁸

Arousal Octants—Figure 4 highlights similarity ratings for high- and low-arousal states. Compartmentalized individuals perceived high- and low-arousal states (active versus idle) as

⁸Zero-order correlations between phi and similarity among octants showed approximately the same patterns as the multiple regression analyses. Multiple regression analyses are reported because they control for proportion of negative self-attributes and include the $\Phi \times DI$ interactions.

less similar than did integratives, $\beta = -.39, t = -2.55, p < .02$. Moreover, compartmentalized individuals viewed LA states as more similar to negative states (inactive versus unhappy, $\beta = .32, t = 2.16, p < .04$) and less similar to positive states (inactive versus happy, β [high DI] $= -.67, t = -3.08, p < .005$). That is, they associate low-arousal states (inactive, idle) with negative feelings. Compartmentalization was also associated with rating HA states as less similar to negative states (e.g., HA-N, $\beta = -.34, t = -2.14, p < .04$; HA-LAN, $\beta = -.34, t = -2.06, p < .05$). That is, they do not associate high-arousal states (active) with negative feelings (unhappy, dull). Taken together, compartmentalized individuals associate high-arousal states with pleasant feelings (feeling “good”) and low-arousal states with unpleasant feelings (feeling “bad”). This was also supported by a positive relationship between similarity comparisons for HA and HAP items (e.g., active versus excited) and compartmentalization, although the relationship was only marginally significant, $\beta = .28, t = 1.75, p < .09$.

Valence Octants—As Figure 5 shows, compartmentalization was associated with finding positive states to be particularly dissimilar from negative states, regardless of level of arousal. The strongest negative associations involving compartmentalization were for similarity ratings of items with similar arousal qualities, but opposite valence (e.g., nervous versus excited; HAN-HAP, $\beta = -.42, t = -2.75, p < .01$ and LAN-P, $\beta = -.46, t = -3.00, p < .005$). Note that self-structure (ϕ) was not associated with similarity ratings across negative (HAN-LAN, HAN-N, LAN-N) or positive (HAP-LAP, HAP-P, LAP-P) octants varying in arousal, β s $< .13$. In other words, individuals with integrative and compartmentalized structures do not show semantic differences in their representations of high- and low-arousal valenced states. This suggests that even though compartmentalization was associated with experiencing high- and low-arousal positive and negative states to the same degree in Study 1B, those effects are not due to a failure to discriminate those emotions.

Discussion

For the similarity judgments, both scaling and octant analyses suggest that, in comparison to individuals with an integrative self-structure, compartmentalized individuals do distinguish emotional states by level of arousal, indicating that the feelings engendered by high-arousal states are generally distinct from those associated with low arousal. Both compartmentalized and integrative individuals rely most strongly on the valence dimension in discriminating the emotions of the affect circumplex. However, octant analyses indicate that the arousal focus of compartmentalized individuals is likely due to the tendency to see neutrally-valenced high-arousal states (active, surprised) as less negative than do integratives. Similarly, compartmentalized individuals see low-arousal states (inactive, idle) as less positive (i.e., less similar to states like happy and satisfied) than do integrative individuals. These results are consistent with the findings from Study 1A that show a preference among compartmentalized individuals for HAP states, whereas integrative individuals prefer LAP states.

In contrast to the results for the arousal dimension, any differences between compartmentalized and integrative persons for the valence dimension are modest. The octant analyses show a tendency for compartmentalized individuals to be more sensitive to valence within (but not across) arousal levels, preferentially discriminating (relative to integratives) HAP from HAN and LAP from LAN. However, as shown by the scaling results, compartmentalized individuals actually are less sensitive to valence in their semantic representations of affect experiences using the traditional scaling technique.

These results suggest that the Study 1B findings showing that compartmentalized individuals are less differentiated in their self-reported experience of emotions of varying levels of arousal do not stem from a lack of conceptual differentiation. Compartmentalized individuals cognitively differentiate the experience of high- and low-arousal positive and negative states at least as well as do integrative individuals. Moreover, they are not put off by neutral high-arousal states and see them less negatively than do integrative individuals; they also see them as less similar to neutral low-arousal states that, to them, are further from the basic positive states of happiness and satisfaction. Taken together, Study 1B and Study 2 suggest that compartmentalized individuals do experience multiple states in their emotions, consistent with the view that they are flooded with affect, either because their affective reactivity alerts them to multiple features of an emotional experience, bringing multiple features above threshold, or because their emotional self-aspects activate those features via a cognitive process.

General Discussion

These findings indicate that compartmentalization is associated with the *relative* experience of high-arousal positive affect and a preference for HAP states, compared to integration. Conversely, integration is related to the *relative* experience of low-arousal affect and valuing of LAP states. Furthermore, analyses of emotional granularity indicate that, in absolute terms, people with compartmentalized selves (1) report *experiencing* multiple emotions with a variety of high- to low-arousal positive and negative affect to the same degree, while preserving a *conceptual distinction* among those states, (2) associate high-arousal states with feeling “good” and low-arousal states with feeling “bad,” and (3) view high- and low-arousal positive states as particularly distinct from respective negative states.

Thus, individuals with compartmentalized self-structures seem to fit the prototype of people who are “emotional” or, according to Larsen and Diener's (1987) usage, affectively intense. They experience and desire greater excitement than do integratives. When they are in an emotional state, reactive compartmentalizers might experience multiple feelings (anger, anxiety, and sadness) during a single emotional event. Moreover, they perceive high-arousal states relatively positively and low-arousal states relatively negatively, as compared to more integrative persons. This is consistent with findings showing that individuals who are valence-focused experience affect more intensely and have less stable self-esteem (Feldman Barrett & Bliss-Moreau, 2009; Pietromonaco & Feldman Barrett, 2009).

Self-Structure and Happiness

The current data may begin to touch on the mystery of what it means for different individuals to feel “happy.” The path to happiness is paved in feelings of excitement and joy for some people (those with compartmentalized selves), but paved in feelings of calm and contentment for others (those with integrative selves). This is the same distinction that is made by Tsai (2007). However, whereas the latter work highlights the role of culture, we focus on the possibility of an affective predisposition, consistent with our previous work on emotional response categorization (Ditzfeld & Showers, 2011; 2013a). Our working hypothesis is that compartmentalized individuals react to events with high-arousal emotions, experiencing affect that may precede cognition (Zajonc, 1980; 1984) and that may influence the way their emotions are “constructed” (Feldman Barrett, 2006b). Given compartmentalized individuals' high-arousal emotionality, they often *think* and *feel* really “good” or really “bad” about the self because evaluatively-consistent self-beliefs (e.g., tense, insecure, unsuccessful *or* capable, successful, confident) are easily accessible. Note that it may be especially important for compartmentalized individuals to experience positive (e.g., exciting) events fairly frequently because the alternatives, low-arousal or neutral events (e.g., feeling bored), are associated with negative emotions in their conceptual

representation. In this sense, they may be sensation seekers (cf. Zuckerman, 1994; 2007), individuals who can tolerate the risk of high-arousal negative affect in exchange for the hope of elation or excitement.

Whereas Tsai (2007) highlights the importance of cultural norms, the present model suggests that affective reactivity, including the preference for high-arousal emotional states, may be (in part) a matter of temperament. That is, there may be a physiological basis for the kinds of reactivity documented here, that creates affective predispositions that could potentially emerge even before they could be shaped by cultural norms and learned self-regulatory strategies (cf. Kagan, 2010; Kagan & Snidman, 2004). Nonetheless, the present work likely converges with what Tsai suggests are the behavioral consequences of HAP and LAP preferences (i.e., motives/enjoyment for different activities). Whereas an integrative person might delight in reading a book while surrounded by peaceful scenery (a characteristically Asian ideal), a compartmentalized person might find more pleasure in an active lifestyle (e.g., exercising), that characterizes the European American ideal. Interestingly, some of these social and cultural influences might be responsible for pushing people down the wrong path to happiness. For example, integrative persons may feel pressured to find and experience affect that is of the Western ideal, but not their own. As such, they may feel emotionally confused and unsatisfied when they do not feel the euphoria that was promised after reaching a hard-earned goal.

One remaining question is whether the differences in ideal states between compartmentalized and integrative individuals are due to a third variable, such as the distinction between *interpersonal* and *intrapersonal* goals. For example, Tsai, Maio, Seppala, Fung, et al. (2007) show that differences in ideal HAP versus LAP relate to European Americans' goals of *influencing* others versus Chinese Asians' goals of *adjusting* to others, respectively; hence, we might hypothesize that compartmentalized individuals would endorse the intrapersonal goals associated with a relatively independent self-construal, whereas integrative individuals are relatively interdependent. Although recent research links compartmentalization to greater contingencies of self-worth, lower perceived authenticity of self-aspects, and poor access to global self-evaluations (Showers, Ditzfeld, & Zeigler-Hill, 2013), preliminary analyses of measures of interdependence collected in our lab, including the Self-Construal Scale (Singelis, 1994) and the Relational-Interdependent Self-Construal Scale (Cross, Bacon, & Morris, 2000), have not shown any significant associations with compartmentalization or integration.

New-Look Evaluative Self and Other Self-Concept Models

The evaluative self-structure model shares common features and is related to other popular self-models; namely, *multiple self-aspect framework* (MSAF; McConnell, 2011). Both models construe the self as multifaceted and hierarchical (e.g., Markus & Wurf, 1987), with accessible content as context-dependent (Ditzfeld & Showers, 2013b). Moreover, both models utilize similar methodology (cf. Zajonc, 1960) and share similar origins from *self-complexity* (Linville, 1985, 1987). Hence, these models often overlap in their abilities to predict behavioral outcomes. Interestingly, research on self-complexity obtains results consistent with the present model, showing that individuals low in self-complexity are more apt to listen to their affect (C. Brown & McConnell, 2009). Although the conceptual model of self-complexity (Linville, 1985, 1987) does not account for the positive or negative content of self-beliefs, compartmentalization does tend to be negatively correlated with self-complexity ($r = -.26, p < .001$; Study 1). C. Brown and McConnell found that, whereas individuals with high self-complexity were motivated by the presence of a self-discrepancy (induced by failure feedback), individuals with low self-complexity were motivated by negative affect *per se*. Thus, the process of affective reactivity outlined here for

compartmentalized individuals also may apply to those low in self-complexity and thereby explain the affect extremity captured in Linville's model.

Limitations

One important limitation of Studies 1A and 1B is the reliance on self-reports of experienced affect and affect valuation, rather than on experience sampling or physiological assessments. Another limitation of our studies is the reliance on college student samples. This methodology may only provide context-specific tests of phenomena related to self-organization. For example, the complexity of college students' lives may afford compartmentalization, with different emotional causes or consequences than would be the case for older adults. Lastly, associations between evaluative self-organization and actual affect ratings, although statistically significant, had relatively small effect sizes. However, it is not surprising that these correlations were modest in strength considering that they involved *within-valence* distinctions rather than distinctions for level of overall positive versus overall negative affect (like those assessed by the PANAS scale, Watson, Clark, Tellegen, 1988).

Conclusion

These studies support an individual differences model of affective reactivity, which may underlie the cognitive structure of the self. Compartmentalized individuals, who segregate positive and negative self-beliefs by valence are highly reactive, experiencing and desiring HAP affect; whereas integrative individuals are more even-keeled, desiring LAP affect and experiencing more LAN. Consistent with the prototype of an emotionally reactive person, granularity analyses show that compartmentalized individuals' affective experience is characterized by multiple discrete emotions, encompassing a range of arousal levels. However, compartmentalized individuals' ability to differentiate these emotions in a similarity judgment task was comparable to that of integrative individuals, suggesting that they experience multiple rather than undifferentiated affect states. Interestingly, compartmentalized individuals viewed high-arousal states such as active and surprised as less similar to negative emotions than did integrative individuals; they also viewed low-arousal states such as inactive as more negative. We propose that compartmentalized individuals' tolerance for high-arousal states is associated with an underlying physiological reactivity that drives their evaluative categorizations as well as their high-arousal affect, whereas integrative individuals' lack of experience with high-arousal states may make them especially uncomfortable states that are to be avoided. Finally, integratives' preference for calm and more frequent experience of low-arousal negative states may facilitate the evaluative integration of their cognitive self-organization.

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Figure 1.

Affect items used in Study 1 displayed within an affect circumplex (cf. Russell & Feldman Barrett, 1999; Larsen & Diener, 1992). The affect items and their octant structure come from Tsai et al. (2006).

Evaluatively Compartmentalized Self-Structure

<i>With Family</i>	<i>At Work/School</i>	<i>With Friends</i>	<i>Bad Situations</i>	<i>Love/With Romantic Partners</i>	<i>Sports/Hobbies</i>	<i>Failure</i>
Needed Comfortable Friendly Lovable Giving	Hardworking Communicative Mature Interested Optimistic Capable Successful Organized Independent	Outgoing Confident Immature Happy Energetic Fun & Entertaining	Tense Insecure Sad & Blue Isolated Disorganized Indecisive Weary Irritable	Lovable Comfortable Needed Happy Confident Fun & Entertaining Communicative Mature Giving	Successful Outgoing Energetic Confident Fun & Entertaining Communicative Capable	Irritable Tense Insecure Indecisive Like a Failure Incompetent Isolated Sad & Blue Disorganized

Evaluatively Integrative Self-Structure

<i>With Friends</i>	<i>Studying</i>	<i>In General</i>	<i>With New People/In New Situations</i>	<i>By Myself</i>	<i>When Angry</i>
Communicative Immature Fun & Entertaining Comfortable Energetic Happy Lovable Lazy Giving Friendly Confident Irritable Needed Self-centered	Independent Comfortable Capable Intelligent Lazy Sad & Blue Hopeless Tense Mature Irritable Disorganized Inferior Incompetent Weary Like a Failure	Communicative Energetic Interested Happy Outgoing Lazy Indecisive Tense Isolated Inferior Uncomfortable Insecure	Independent Fun & Entertaining Comfortable Interested Happy Outgoing Lazy Giving Friendly Mature Irritable Disorganized Needed Self-Centered Insecure	Sad & Blue Unloved Mature Irritable Isolated Capable Comfortable Successful Hardworking Organized Independent Lazy	Disagreeing Confident Self-Centered Unloved Independent Immature Sad & Blue Organized Insecure Energetic Irritable Isolated Tense

Figure 2.

Examples of actual participants' compartmentalized ($\phi = .96$; $\text{neg} = .33$; $\text{DI} = .73$) and integrative ($\phi = .32$; $\text{neg} = .52$; $\text{DI} = -.12$) card sorts (Study 2). White boxes contain self-aspects and dark boxes contain self-beliefs.

Figure 3.

Illustrates predicted values for the interaction of evaluative self-structure (ϕ) and proportion of negative content in self-descriptions for ideal high-arousal positive (left) and ideal low-arousal positive (right) affect ratings (ipsatized) at values 1 standard deviation above and below the means. Beta weights represent simple slope analyses (cf. Aiken & West, 1991).

*** $p < .001$

Figure 4.

Octant analyses for similarity judgments involving HA and LA octants, showing that compartmentalized individuals perceive LA as more similar to N, and HA as less similar to N and LAN. Beta coefficients represent the association between compartmentalization (ϕ) and similarity ratings for each octant pair, controlling for DI and neg. Negative β s indicate that greater compartmentalization of the self was associated with rating affect from one octant as *dissimilar* to the affect of another octant. For octant pairs that obtained a $\Phi \times DI$ interaction, the level of DI at which the slope is significant is listed. * $p < .05$; ** $p < .005$.

Figure 5.

Octant analyses for similarity judgments involving P and N octants, showing that compartmentalized individuals judge HAP and HAN as dissimilar, and LAN as less positive than do integratives. Beta coefficients represent the association between compartmentalization (phi) and similarity ratings for each octant pair, controlling for DI and neg. Negative βs indicate that greater compartmentalization of the self was associated with rating affect from one octant as *dissimilar* to the affect of another octant. For octant pairs that obtained a Phi × DI interaction, the level of DI at which the slope is significant is listed. For similarity ratings within same-valenced octants (e.g., HAN-LAN; HAP-LAP), all βs < .12, *ns*.

* $p < .05$; ** $p < .005$.

Table 1

Intercorrelations and Descriptive Statistics

	1	2	3	4	5	6	7	8	9	10	11	12
1. Compartmentalization (phi)	—											
2. Proportion of Negative Self-Beliefs (neg)	.40***	—										
3. Differential Importance (DI)	.14*	-.09	—									
4. Actual HAP	.14*	.03	.04	—								
5. Actual LAP	-.10	.07	-.07	-.56***	—							
6. Actual P	-.04	-.19**	.06	-.23***	-.45***	—						
7. Actual HAN	-.01	-.06	.06	.17**	-.10	.01	—					
8. Actual LAN	-.16**	-.10	.02	-.27***	.06	.20***	-.52***	—				
9. Actual N	.17**	.16**	-.08	.10	.04	-.21***	-.53***	-.45***	—			
10. Ideal HAP	.10	-.01	-.03	.32***	-.37***	.02	.03	-.09	.06	—		
11. Ideal LAP	-.05	.07	.02	-.22***	.42***	-.11	.02	.00	-.03	-.70***	—	
12. Ideal P	-.06	-.07	.01	-.10	-.13*	.12*	-.07	.12	-.04	-.26***	-.50***	—
Mean	.74	.31	.53	-.05	-.27	.40	-.13	.33	-.20	-.04	-.37	.53
Standard Deviation	.24	.15	.45	.53	.45	.46	.47	.45	.45	.51	.42	.41

Note. $N = 273$. LAP = low-arousal positive; HAP = high-arousal positive; P = positive; LAN = low-arousal negative; HAN = high-arousal negative; N = negative. Proportion of negative attributes was arcsine transformed (actual values: Proportion of negative attributes, $M = .30$, $SD = .14$). Correlations and descriptive statistics for affect states listed use ipsatized scores. Means and standard deviations for non-ipsatized scores: Actual HAP, $M = 3.28$, $SD = .75$; actual LAP, $M = 3.07$, $SD = .72$; actual P, $M = 3.68$, $SD = .83$; actual HAN, $M = 2.20$, $SD = .80$; actual LAN, $M = 2.65$, $SD = .81$; actual N, $M = 2.16$, $SD = .90$; ideal HAP, $M = 4.01$, $SD = .78$; ideal LAP, $M = 3.70$, $SD = .80$; ideal P, $M = 4.56$, $SD = .81$. Some sample sizes are smaller due to incomplete.

*
 $p .05$
 **
 $p .01$

 $p .001$

Table 2

Study 1A. Hierarchical Regressions for Ideal and Actual Affect States onto Measures of Compartmentalization (phi), Differential Importance (DI), and Proportion of Negative Attributes (neg)

Ideal Affect	HAP			LAP		
	R^2	sr^2	sr	R^2	sr^2	sr
Step 1	.02			.02		
Phi	.01*	.12*		.01		-.09
DI	.00	-.05		.00		.04
Neg	.00	-.06		.01		.10
Step 2	.07***			.06*		
Phi × DI	.00	-.00		.01		-.08
Phi × Neg	.05***	.22***		.05***		-.22***
Neg × DI	.00	-.03		.00		.04
Step 3	.07***			.06*		
Phi × DI × Neg	.00	.02		.00		.02
Actual Affect						
Step 1	.02			.03		
Phi	.02*	.13*		.01*	.02*	-.13*
DI	.00	.02		.00	.00	.03
Neg	.00	-.02		.01	.00	-.04
Step 2	.03			.08***	.04	
Phi × DI	.00	-.02		.00	-.05	
Phi × Neg	.00	.07		.06***	-.24***	
Neg × DI	.00	-.07		.00	.03	
Step 3	.04			.09***	.04	
Phi × DI × Neg	.00	.06		.01	.09	
				.00	.00	-.00

Note. $N = 273$. sr^2 is the proportion of unique variance of each predictor, beyond the variance of all other variables on that step. The sign of sr signifies the direction of the association between the predictor and criterion. Reported R^2 are cumulative.

100' *d*

10' *d*
**
50' *d*
*

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Hierarchical Regressions for Emotional Granularity Scores onto Measures of Compartmentalization (phi), Differential Importance (DI), and Proportion of Negative Attributes (neg)

Table 3

Self-Reported Affect Study 1B (<i>N</i> = 273)									
	Valence Focus				Arousal Focus				
	<i>R</i> ²	<i>sr</i> ²	<i>sr</i>		<i>R</i> ²	<i>sr</i> ²	<i>sr</i>		
Step 1									
	.18	***			.13	***			
Phi		.03	**	.17	**	.01	*	-.12	*
DI		.01	*	.12	*	.00		-.06	
Neg		.14	***	-.38	***	.12	***	.34	***
Step 2									
	.22	***			.14	***			
Phi × DI		.02	*	.14	*	.01	*	-.12	*
Phi × Neg		.01	*	.12	*	.00		.01	
Neg × DI		.02	**	-.14	**	.01		.08	
Step 3									
	.22	***			.14	***			
Phi × DI × Neg		.01		-.08		.00		-.00	

Affect Similarity Study 2 (<i>N</i> = 58)									
	Valence Focus				Arousal Focus				
	<i>R</i> ²	<i>sr</i> ²	<i>sr</i>		<i>R</i> ²	<i>sr</i> ²	<i>sr</i>		
Step 1									
	.05				.13	*			
Phi		.00	-.04		.08	*	.28	*	
DI		.01	-.12		.00		-.04		
Neg		.02	.13		.08	*	-.29	*	
Step 2									
	.09				.15				
Phi × DI		.00	-.06		.00		-.03		
Phi × Neg		.01	-.12		.01		.07		
Neg × DI		.03	.17		.01		-.08		

Note. sr² is the proportion of unique variance of each predictor, beyond the variance of all other variables on that step. The sign of sr signifies the direction of the association between the predictor and criterion. The three-way interaction term was not entered in Study 2 analyses due to an insufficient sample size.

100' *d*

10' *d*
**
50' *d*
*

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Table 4

Intercorrelations and Descriptive Statistics

	1	2	3	4	5
1. Compartmentalization (phi)	—				
2. Proportion of Negative Self-Beliefs (neg)	.40**	—			
3. Differential Importance (DI)	.30*	-.25	—		
4. Arousal Focus	.19	-.20	.15	—	
5. Valence Focus	-.03	.17	-.19	-.55***	—
Mean	.76	.29	.67	.21	.93
Standard Deviation	.23	.15	.32	.08	.05

Note. $N = 58$. Proportion of negative attributes was arcsine transformed (actual values: Proportion of negative attributes, $M = .29$, $SD = .14$).

*
 $p .05$
**
 $p .01$

 $p .001$