

Roles, Affective States, and the Good/Bad Me: Self-Aspect Descriptions and the Malleability of Evaluative Organization of Self-Knowledge

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Abstract

The evaluative organization of self-knowledge refers to the manner in which individuals organize self-relevant knowledge (Showers, 1992). This model includes a continuum that ranges from perfect compartmentalization (i.e., organizing positively and negatively valenced self-beliefs into separate self-aspects) to perfect integration (i.e., organizing positively and negatively valenced self-beliefs into the same self-aspects). The results of current project extend the work on evaluative organization of self-knowledge in two ways. First, the results of Study 1 provide evidence that types of self-aspects are related to evaluative organizational styles. Second, the results of Study 2 suggest that evaluative organization is flexible. The second study also found that, as individuals become more compartmentalized under typical external conditions, changes in evaluative organization are linked to indices of psychological health.

The evaluative organization of self-knowledge refers to the manner in which individuals organize self-relevant knowledge (Showers, 1992). For almost two decades, Showers and others (e.g., Showers, Abramson, & Hogan, 1998; Showers & Kevlyn, 1998; Showers & Larson, 1999) examined the association between evaluative organizational styles and various emotional and relational consequences such as depression, self-esteem, disordered eating, and liking/loving of a romantic partner. More recently, Showers (2002) proposed that evaluative organization is flexible. Moreover, Showers, Limke, and Zeigler-Hill (2004) suggested that this flexibility (often a side-effect of cognitive behavioral therapy) is beneficial. These theoretical advances contain implicit questions. However, researchers and clinicians must first understand how types of naturally-used self-aspect categories are linked to styles of evaluative organization before they will be able to create instructions and tasks that can be used to teach this flexibility. Thus, the current study tests the ideas that (a) evaluative organization of self-knowledge *is* flexible (i.e., can change over time), and that (b) changes in evaluative organization of self-knowledge produce desirable consequences after linking self-structure to the types of self-aspects individuals use to describe themselves to types of evaluative organization.

Multiple Self-Aspects

Theorists have long proposed that the self is multidimensional or multifaceted (e.g., Baumeister, 1998; Epstein, 1973; Linville & Carlston, 1994; Markus & Wurf, 1987). As such, individuals create and maintain differentiated views of themselves to describe their different domains or to fit different contexts (e.g., Cantor, Markus, Niedenthal, & Nurius, 1986; Higgins, 1987; Kihlstrom & Cantor, 1984; Marsh, 1986; McConnell, 2011; Sedikides & Brewer, 2001).

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In reviewing and summarizing three decades of research on self-aspects, McConnell (2011) proposed the Multiple Self-Aspects Framework (MSF) to describe how these multiple views of the self are represented in memory. He suggested that these context-dependent aspects of the self each represent meaningful distinct pieces of knowledge about the self. Moreover, each aspect is associated with self-attributes that can contain several different types of self-relevant descriptive information such as traits, behaviors, affective responses, and physical characteristics. McConnell, Rydell, and Brown (2009) argued that current contextual factors and affective experiences increase the accessibility of different self-aspects at different times, making the currently activated self-aspects the most likely to impact individuals' current self-evaluations and emotional experiences at any given time. Similarly, Showers (1992) believed that it is not only the content of these aspects but also their organization relative to other self-relevant information that matters for self-evaluation.

Evaluative Organization of Self-Knowledge

Original model. At the most basic level, evaluative organization of self-knowledge concerns how the organization of self-knowledge influences the accessibility of specific beliefs about the self (for a review, see Showers & Zeigler-Hill, 2003). Although most individuals have self-concepts that contain mostly positive content (e.g., Schwartz & Garamoni, 1986), the majority of individuals also have at least some important negative beliefs about themselves, and the manner in which these negative beliefs are distributed across the self-concept may determine their impact (Showers, 2000).

The model of evaluative organization (Showers, 1992) refers to a structural dimension of the self-concept with the extremes of the continuum referred to as *evaluative compartmentalization* and *evaluative integration*. In compartmentalized self-concept structures, positive and negative self-beliefs are separated into distinct aspects of the self, such that each aspect contains primarily positive or primarily negative beliefs about the self. Individuals with compartmentalized self-concept structures who have relatively positive beliefs about themselves are said to be *positive compartmentalized*. These individuals are expected to report high levels of self-esteem and low levels of depression because (a) they have relatively few negative self-beliefs, or (b) their negative self-beliefs have been relegated to relatively unimportant aspects of their self-concepts, limiting their accessibility. However, if individuals with compartmentalized self-concept structures have large proportions of negative self-beliefs, or if their negative self-aspects are perceived to be more important than their positive self-aspects, they are said to be *negative compartmentalized*. It is expected that the accessibility of their negative self-beliefs will result in low levels of self-esteem and high levels of depression. The terms *positive integrative* and *negative integrative* are used to refer to individuals with integrative self-concept structures that have important positive self-aspects or important negative self-aspects, respectively. Although individuals with integrative self-concept structures will not experience the same benefits of high self-esteem and lack of depression as individuals who are positively compartmentalized, they do not suffer the consequences associated with negative compartmentalization.

Links to self-aspects. Evaluative organization was first proposed as including a motivational mechanism (self-enhancement leads to compartmentalization; self-protection leads to integration; cf. Showers, 1992, 1995). However, more recently, a cognitive-affective mechanism has also been proposed (Ditzfeld & Showers, 2011). It assumes that individuals who use compartmentalization are more emotionally reactive or sensitive to positive and negative feedback of the self. The intensity of their feelings leads them to construct self-aspects based on the emotional quality of their knowledge. That is, valence is the salient aspect used to sort self-relevant information. In contrast, individuals who use integration are less reactive to positive and negative feedback and experience more muted emotions, so it may be easier for them to generate self-aspect categories based on other pieces of information (e.g., external dimensions such as roles or relationships) than it would be for compartmentalized individuals. Ditzfeld and Showers examined the predictions of both models and found support for the cognitive-affective mechanism. Specifically, they argued that even a motivational mechanism may be based in the emotional response categorization (cf. Niedenthal, Halberstadt, & Innes-Ker, 1999). That is, the emotionally reactive dispositions of compartmentalized individuals may create within them a need to self-enhance.

Individuals are motivated to categorize or organize self-relevant information so that the resulting patterns may be used to form the basis of future judgments, decisions, and predictions about the self (Markus, 1977). Evaluation is the primary dimension of meaning (e.g., Osgood, Suci, & Tannenbaum, 1957), and people tend to group objects and events together because they evoke a similar emotional response (Halberstadt & Niedenthal, 1997). Thus, using an evaluative dimension for self-knowledge organization supports the premise that individuals are motivated to continuously evaluate the self (e.g., Tesser, 1986) based on salient positive and negative information. Thus, attributes within categories should be more closely associated than are attributes between categories. By using a compartmentalized self-concept structure as a baseline (or default) style, the self-concept

system continuously reorganizes itself to promote a compartmentalized structure because it is the structure that is the least complex (Vallacher, Nowak, Froehlich, & Rockloff, 2002). In this way, compartmentalized self-structures may be associated with internally-based self-aspect categories (e.g., “How I feel about myself on good days”).

Because integration is more difficult than compartmentalization, the range of situations in which integration may be appropriate (or chosen to use by individuals) may be limited (Showers & Kevlyn, 1999). However, individuals who are motivated to use an integrative structure may be willing to cope with salient negative beliefs by making structural associations among beliefs that are contextual-, behavioral-, or role-based instead of linked merely by semantic association, which is the basis of a compartmentalized structure (Showers, 1995; Showers & Larson, 1999). For example, an individual who has important negative characteristics that cannot be ignored may choose to define herself by the roles she plays such as “mother” (including both positive and negative characteristics) instead of linking all of her good qualities together and all of her bad qualities together. Although research on this link is quite limited, available evidence supports two specific organizational types. For example, those who compartmentalized generated more self-evaluative (affective-based) aspects (e.g., “Things I would like to be,” or “Sad”) than did subjects who did not compartmentalize (Showers, 1992, Studies 2 and 3). In contrast, those who compartmentalized generated fewer miscellaneous activities aspects than individuals who integrated (Study 3). Thus, integrative self-structures may be associated with externally-based self-aspect categories (e.g., “me as a student”).

Importance of flexibility. Although compartmentalization has been linked to vulnerabilities in the literature (i.e., when things go bad, these people suffer negative consequences; e.g., Showers, 1992; Zeigler-Hill & Showers, 2007), the cognitive-affective mechanism suggests that teaching people who compartmentalize to override their tendencies to categorize based on valence might reduce the impact of negative traits on emotion (see also Showers et al., 2004; Showers & Zeigler-Hill, 2007). That is, if the basis for compartmentalization is cognitive (and not just motivational), it may be more feasible to train individuals to override their natural categorical responses, resulting in changes in motivational strategies and, consequently, changes in psychological consequences.

Specifically, the idea that compartmentalized organization is advantageous when positive self-aspects are salient whereas evaluative integration is advantageous when negative self-aspects are salient suggests the possibility that self-organization itself may change depending on whether positive or negative aspects and attributes are most salient at the time (Showers, 1992). Because most people construct their lives to maximize the salience of their positive attributes, it is likely that many individuals rely on positive compartmentalization as a baseline form. However, taking a dynamic view of evaluative organization of self-knowledge (cf. Showers, 2002), when negative attributes become salient (for example, as a result of stressful life events), then organization of the self may become more integrative to minimize the effect of these salient negative beliefs. If concerns about negative aspects of the self should fade over time, then the self-structure may become re-compartmentalized to take advantage of the relative benefits of compartmentalization when positive aspects are salient.

The dynamic model of evaluative organization of self-knowledge (cf. Showers, 2002) emphasizes the utility of integration either as a short-term strategy or as a long-term alternative for those individuals who cannot successfully compartmentalize their negative attributes. Some individuals who have a positive-compartmentalized basic strategy may remain rigidly compartmentalized in the face of stressful events that increase the perceived importance of their negative self-aspects. If they do not change the category structure of their self-beliefs when negative attributes are made salient, they should be flooded with the contents of their negative compartments and should experience strong negative mood and low self-esteem.

To date, evidence that people shift to more integrative knowledge structures in an attempt to cope with salient negative attributes comes primarily from a study of people's perceptions of their romantic partners (i.e., a study of partner structure rather than self-structure; Showers & Zeigler-Hill, 2004). However, the use of integrative self-structures has also been associated with stressful life events. Specifically, integrative self-structures characterize college students who report high levels of sexual maltreatment before age 15 (Showers, Zeigler-Hill, & Limke, 2006). Similarly, in non-maltreated college students, evaluative integration is associated with growing up in a single-parent household, where the experience of a complex or stressful environment may encourage integrative thinking (Limke, Zeigler-Hill, & Showers, 2003).

Understanding the importance of flexibility for the improvement of psychological health, Showers and colleagues (2004) proposed a model of structural self-change in psychological treatment. They suggested that flexibility in the evaluative organization of self-knowledge corresponds to the flexibility that cognitive theories of personality espouse (cf. Cervone & Shoda, 1999). That is, the self-concept lies not only in individuals' preferences for compartmentalized or integrative self-structures, nor in the ease with which individuals can shift from compartmentalization to integration (or vice versa), but also ultimately in the specific pairing of self-structure to context, ideographically perceived and encoded (see also Cervone, 2004; Merrill & Strauman, 2004; Shoda &

Smith, 2004). Thus, models of the self must take reciprocal dynamics into account, allowing self-structure to influence thoughts, feelings, and behavior, as well as the converse (Bandura, 1986).

Current Study

The theory of evaluative organization of self-knowledge provides a basis for understanding personality dynamics by capturing both stable tendencies and the potential for change. Its framework provides a model for treatment that focuses on the integrative process yet allows for individual differences in the need to learn either increased integration, compartmentalization, or flexibility in self-structure. Although a model for treatment that outlines this flexibility has been proposed (Showers et al., 2004), there is no empirical evidence to date regarding the applications of the theory of evaluative organization of self-knowledge to the therapeutic environment. Moreover, although some researchers have manipulated self-complexity (another component related to multiple self-aspects; e.g., Margolin & Niedenthal, 2000), no reliable method for manipulating evaluative organization has been developed.

To be useful to clinicians, proponents of the theory must be able to provide instructions that could be used to teach flexibility to clients so that integration can be used by individuals when beneficial. However, to be able to address this limitation (and to develop these necessary guidelines), three questions must first be answered. First, what is the “natural” link between evaluative organization and the self-aspects individuals naturally generate? Second, is evaluative organization flexible – that is, do instructions created to change styles create malleability of organizational styles? Finally, do structure changes resulting from the instructions provide predict positive outcomes?

STUDY 1

The purpose of Study 1 was to answer the following question: How is evaluative organization related to category use? It was predicted that externally-based categories would be linked to integration whereas internally-based categories would be linked to compartmentalization.

Method

Participants and Procedure

Participants were 382 undergraduates enrolled in introductory psychology courses who participated in return for partial fulfillment of a research participation requirement. Of these 382 participants, the data for 26 participants were excluded because they failed to complete the card sorting task ($n = 4$) or used fewer than two negative attributes ($n = 22$). The average age of the remaining 356 participants (108 males and 278 females) was 19.88 years ($SD = 3.79$) and their racial/ethnic composition was 70.23% White (not Hispanic), 8.09% Black or African American, 5.74% American Indian or Alaska Native, 7.83% Hispanic or Latino/a, 5.22% Asian, and 2.87% other race/ethnicity. Participants attended a single laboratory session in groups of four to 15 participants and were asked to complete the card sorting task followed by a set of questionnaires. Data collected in this study also included measures of depression, self-esteem, and other self-concept measures. Analyses investigating the link between evaluative organization and the vulnerability of the self-concept using these measures are not relevant for the purposes of this project and are reported elsewhere (cf. Limke, 2012).

Materials

Evaluative organization of self-knowledge. The card sorting task was used to assess how individuals organize information about themselves (Showers, 1992). Participants were given a deck of 40 cards each containing a potentially self-descriptive trait. The deck consisted of 20 positive attributes (e.g., outgoing, successful, mature, hardworking) and 20 negative attributes (e.g., unloved, isolated, tense, irritable). Participants were given the following instructions: “Your task is to think of the different aspects of yourself or your life, and then form groups of traits that go together, where each group of traits describes an aspect of yourself or your life” (see Showers & Kevlyn, 1999, for complete instructions). Participants were able to form as many groups as needed to represent the various aspects of their self-concepts, and they generated labels for each of these aspects. For each aspect, participants could use as many or as few attributes as desired. Attributes could be used in more than one group. Attributes that the respondents did not believe were self-descriptive did not have to be used. After completing the

card sorting task, participants indicated the positivity, negativity, and importance of each self-aspect generated during the card sorting task.

Evaluative organization (Phi). The measure of evaluative organization is a phi coefficient (or Cramer's V ; Cramer, 1946) based on a chi-square statistic. Phi is an index of the deviation from chance of the number of positive and negative attributes in each self-aspect based on the proportion of positive and negative attributes across the entire card sort. The expected frequencies represent chance values for organizing positive and negative attributes without regard for their valence. Phi can range from 0 (perfect integration: positive and negative attributes are evenly distributed across all self-aspects) to 1 (perfect compartmentalization: each self-aspect is either purely positive or purely negative). Further detail on the computation of phi is provided by Showers and Kevlyn (1999).

Differential importance (DI). Differential importance is a measure of the relative importance of positive and negative self-aspects (Pelham & Swann, 1989). Differential importance is captured by the within-subject correlation between participants' ratings of their self-aspects (i.e., positivity ratings minus negativity ratings) and the importance assigned to those self-aspects by the participants, rated on a scale of 1 to 7. Scores can range from -1 to 1, with positive scores indicating that positive self-aspects are considered to be more important than negative ones and negative scores indicating that negative self-aspects are considered to be more important than positive ones (Showers, 1992).

Proportion of negative attributes (Neg). The proportion of negative attributes is a measure of self-concept content that is calculated by dividing the number of negative attributes appearing in respondents' card sorts by the total number of attributes they used.

Results

The purpose of this study was to investigate the link between evaluative organization of self-knowledge and the types of aspects generated by participants. To do this, three researchers rated the use of affective-based and role-based self-aspects in each card sort generated by participants by discussing the nature of each label. Then, for each participant, the raters together generated the percentages that externally-based (e.g., situationally-, relationally-, role-, or temporally-based) and internally-based (affective- or goal-based) categories represented of the participants' self-descriptions.

Self-aspect categories and evaluative organization. To examine the link between evaluative organization of self-knowledge and the difference between proportion of externally- and internally-based categories, a hierarchical multiple regression was used in which compartmentalization (Phi; $M = .61$, $SD = .26$), differential importance (DI; $M = .40$, $SD = .48$), and overall percent of negative content in the self-description (Neg; $M = .28$, $SD = .16$) were entered on Step 1 to predict difference scores ($M = .36$, $SD = .76$). All two-way interactions were entered on Step 2 and the three-way interaction between Phi, DI, and Neg was entered on Step 3. All predictor variables were centered for the purpose of testing interactions (cf. Aiken & West, 1991).

The model for Step 1 was significant ($R^2 = .13$, $p < .001$). That is, compartmentalization, differential importance, and negativity accounted for 13% of the variability in the difference between the proportions of externally-based and internally-based self-aspect categories. Specifically, there was a main effect of compartmentalization, $\beta = -.35$, $t(353) = -6.52$, $p < .001$, such that as compartmentalization increased, participants reported a lower proportion of externally-based self-aspect categories compared to their internally-based self-aspect categories. The models for Step 2 and Step 3 did not significantly add to the variability predicted by the model in Step 1.

Discussion

The results of Study 1 suggest that there is a clear link between the types of self-aspect categories individuals use to organize information about the self and the evaluative organizational style that results. Specifically, Phi (the measure of compartmentalization) predicted the difference score of the proportion of externally-based to internally-based self-aspect categories. In other words, individuals with compartmentalized self-structures were likely to use a relatively high proportion of self-aspect categories that reflected internally-based dimensions (such as valence of traits, future goals, or things they do not like about themselves). Moreover, individuals with integrative self-structures were likely to use a relatively high proportion of self-aspect categories that reflected externally-based dimensions (such as when they are with specific people, in specific environments, or are assuming specific roles). This finding provides empirical support to the cognitive-affective mechanism model of evaluation organization (cf. Ditzfeld & Showers, 2011).

This study provides an important step in the ultimate goal of the project: to establish clear guidelines for therapists in enhancing the flexibility of evaluative organization to promote good psychological health. However, questions still remain. First, how flexible is evaluative organization? That is, can instructions provided regarding the use of self-aspect categories change evaluative organizational styles? Second, if changes occur, do these changes in evaluative organization result in advantages in psychological health? Thus, Study 2 provided an experimental manipulation of self-aspect category use to determine effects on evaluative organizational style and psychological adjustment.

STUDY 2

The purpose of Study 2 was to answer two primary questions. First, can evaluative organization be changed? It was predicted that by giving participants daily instructions via cellular phone text messages, they would experience changes in evaluative organization assessed two weeks later. Second, do changes in evaluative organization of self-knowledge predict changes in psychological adjustment? Based on studies highlighting the vulnerabilities associated with compartmentalization (e.g., Limke, 2012; Zeigler-Hill & Showers, 2007), it was predicted that increases in integration would be associated with lower levels of depression, higher levels of self-esteem, and lower levels of psychosomatic symptomatology.

Method

Participants

Fifty undergraduates enrolled in introductory psychology courses participated in return for partial fulfillment of a research participation requirement. Of these 50 participants, the data for four participants were excluded because they used fewer than two negative attributes in one of the two card sorting tasks (i.e., Session 1 or Session 2). The average age of the remaining 46 participants (15 males and 31 females) was 21.07 years ($SD = 5.48$) and their racial/ethnic composition was 63.04% White (not Hispanic), 19.57% Black or African American, 2.17% American Indian or Alaska Native, 8.70% Hispanic or Latino/a, and 6.52% Asian.

Materials

Evaluative organization of self-knowledge. Participants completed the card sorting task at each of two laboratory sessions held two weeks apart. This task was the same as that used in Study 1 (cf. Showers, 1992) and provided indices of compartmentalization, differential importance, and proportion of negative attributes.

Psychological adjustment. Participants completed the Beck Depression Inventory (BDI; Beck, 1967) as an assessment of their current levels of depression. In the current sample, internal consistency was moderately high, $\alpha = .87$. Participants also completed the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) as a measure of their self-esteem. In the current sample, internal consistency was moderately high, $\alpha = .89$. Finally, the participants completed the Brief Symptom Inventory (Derogatis & Spencer, 1982) as a measure of overall symptomatology. The global severity index (the total measure of symptomatology for the scale) had very high internal consistency in the current sample, $\alpha = .97$.

Evaluative organization manipulation. Participants were randomly assigned to receive one of three messages to manipulate evaluative organization: compartmentalization, integration, or control. The three messages were as follows:

Compartmentalization. Think about yourself on a “good day.” For example, you may be feeling on top of the world because of a good grade, a new relationship, or winning a prize. Now think about the different traits or characteristics that you would use to describe yourself on those days. When you are finished, I want you to think about yourself on a “bad day.” For example, you may be feeling down and blue because you failed an exam, broke up with a relationship partner, or lost an important competition. Now think about the different traits or characteristics that you would use to describe yourself on those days. Make sure that each time you think about yourself, you engage in this type of “on a good day/on a bad day” thinking.

Integration. Think about the different roles in life that you play. For example, you may be a son or daughter, a student, a friend, a worker, a husband or wife, or a father or mother. Now think about the different traits or characteristics that you would use to describe yourself in each of those roles. Remember that nothing is all-bad or all-good. Each of your roles probably contains both positive and negative traits and behaviors. Thus, each time you think of yourself negatively (e.g., “as a student, I procrastinate too

much), try to think about something positive as well (e.g., “however, I am engaged in class discussions). Make sure that each time you think about yourself, you engage in this type of “yes, but” thinking.

Control. Natural enemies pose the greatest hazard to birds using man-made houses. Iron poles used for mounts or a sheet metal guard encircling trees or wooden poles will help protect birds from cats and squirrels. Houses suspended from wires beyond the jumping range of these predators can be effective. Ubiquitous English sparrows and starlings can prove exasperating to those seeking to attract native species to bird houses. Only by persistent harassment can these pests be eliminated. Often sparrows can be trapped inside the houses during the night. But remember: any relaxation of the war against starlings and sparrows will find them re-established. Starlings usually will not inhabit boxes within 10 feet of the ground. If pests can be eliminated and birds find the house satisfactory, the only requirement remaining is cleaning the interior periodically. So, get busy with your hammer.

Procedure

Participants attended two laboratory sessions two weeks apart. Sessions were randomly assigned to one of three conditions: compartmentalization, integration, or control instructions. In the first session, all participants completed the card sorting task used to assess evaluative organization of self-knowledge. Once they were finished, they read instructions on a computer screen instructing them to think about themselves in terms of good/bad days (compartmentalization), think about themselves in terms of the roles they play (integration), or how to build a birdhouse (control).

For the next two weeks, participants received daily text messages to their cellular phones reminding them of these instructions. At the end of the two weeks, they returned to the laboratory and completed the card sorting task for a second time. When they were finished, they completed the Beck Depression Inventory (Beck, 1967), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), and the Brief Symptom Inventory (Derogatis & Spencer, 1982).

Results

The first purpose of Study 2 was to determine whether or not evaluative organization can be manipulated through directions given to participants. To do this, participants completed a card sorting task to assess evaluative organization. Then researchers randomly assigned participants to one of three conditions (compartmentalization, integration, or control) and provided instructions to participants about how to think about themselves (compartmentalization and integration) or how to build a birdhouse (control). After two weeks, participants completed a second card sorting task. Thus, a one-factor between-subjects analysis of variance (ANOVA) was used to examine differences in evaluative organization of self-knowledge following two weeks of instructions. There was no significant difference between participants given compartmentalization instructions ($n = 17$, $M = .57$, $SD = .22$), integration instructions, ($n = 14$, $M = .53$, $SD = .31$), and birdhouse construction instructions ($n = 15$, $M = .57$, $SD = .20$).

The second purpose of Study 2 was to determine if changes in evaluative organization were linked to psychological adjustment. A measurement of compartmentalization change was computed by determining the difference in compartmentalization (Phi) at Time 1 and Time 2. Thus, positive differences indicate an increase in integration whereas negative differences indicate an increase in compartmentalization. Simple linear regressions were performed to examine the association between changes in evaluative organization (Phi change) and indices of psychological adjustment (depression, self-esteem, and symptomatology). The models for self-esteem ($R^2 = .13$, $p = .02$) and symptomatology ($R^2 = .11$, $p = .03$) were significant. That is, changes in evaluative organization accounted for 13% of the variability in self-esteem and 11% of the variability in symptomatology. Specifically, in contrast to predicted effects, changes in evaluative organization significantly predicted self-esteem, $\beta = -.36$, $t(41) = -2.47$, $p = .02$, and symptomatology, $\beta = .34$, $t(41) = 2.30$, $p = .03$, such that as individuals became more compartmentalized from Time 1 to Time 2, self-esteem increased and symptomatology decreased.

Discussion

The results of Study 2 provide mixed results regarding the flexibility of evaluative organization of self-knowledge. First, there was no evidence that provision of instructions to participants produced expected changes in participants' style of evaluative organization of self-knowledge. That is, although Time 1 and Time 2 correlations of evaluative organization differed by instruction type (i.e., $r_{\text{compartmentalization}} = .67$, $r_{\text{integration}} = .55$, $r_{\text{control}} = .74$),

suggesting that receiving self-relevant instructions produced more change in evaluative organizational style than receiving control instructions, there was no manipulation check (or measure to determine adherence to the instructions given) included in the study. Thus, it is impossible to determine whether this lack of finding is the result of an inability to manipulate styles of evaluative organization, merely a reflection of participants' adherence to daily instructions, or even the somewhat small sample size.

Second, the results of this study suggest that, regardless of the manipulation condition, increasing compartmentalization from Time 1 to Time 2 is associated with positive adjustment outcomes, such as self-esteem and overall symptomatology. This finding challenges some of the recent work by Limke (2012) as well as Zeigler-Hill and Showers (2007) that indicate the vulnerability of compartmentalization and benefits of integration, highlighting two main questions. Why are changes linked to self-esteem and symptomatology but not depression? It is possible that changes in evaluative organization predict self-esteem and symptomatology only because the measures themselves include directions that are more sensitive to fluctuations in psychological adjustment over a short period of time. That is, instead of asking participants to think about themselves over the past two weeks (as many measures, including the Beck Depression Inventory, ask), participants rate how they feel now or felt in the past seven days. Thus, the additive effects of increasing compartmentalization may not be immediately noticed but are cumulative. Therefore, the benefits derived from increasing compartmentalization may not be evident across the entire two-week time span and instructions with a more immediate focus to identify advantages.

The next – and potentially more important – question involves the direction of the finding of change in evaluative organization. Why are changes in which participants become more compartmentalized rather than more integrative associated with positive benefits? Although not necessarily predicted by more recent research on evaluative organization of self-knowledge, these findings are consistent with the original research on evaluative organization of self-knowledge (cf. Showers, 1992; Showers et al., 1998) that suggest that when positive aspects or traits are important, compartmentalization is associated with more positive outcomes than integration. That is, although Showers (2002) and others (Showers et al., 2004) have proposed that teaching integration may be useful, integration may only be beneficial when there is a need to use it. More specifically, if there are no stressful life events or important negative traits or attributes that require the use of integration to cope, the use of extra cognitive resources and constant reminders of negative attributes may be detrimental to individuals' psychological health. In essence, it may be that teaching *flexibility* of styles of evaluative organization is more useful than merely *complete reliance* on integration as a useful technique.

General Discussion

The results of this project extend the work on evaluative organization of self-knowledge in two ways. First, the results of Study 1 provide evidence that the types of self-aspects individuals use to organize knowledge about the self are related to the styles (compartmentalization or integration) individuals use to categorize that knowledge. Specifically, the greater the proportion of externally-based rather than internally-based self-aspect categories, the greater the likelihood of using an integrative evaluative organizational style. In contrast, the greater the proportion of internally-based rather than externally-based self-aspect categories, the greater the likelihood of using a compartmentalized evaluative organizational style. Second, the results of Study 2 suggest (a) that evaluative organization is flexible, and (b) that, as individuals become more compartmentalized under typical external conditions, changes in evaluative organization are linked to indices of psychological health.

The implications of this line of research are considerable. For example, by examining the association between compartmentalization and the types of self-aspect categories that individuals use, clinicians may be able to exploit the proposed flexibility of this feature of the self-concept (cf. Showers, 2002; Showers et al., 2004). The current study was not successful in demonstrating a link between instructions and changes in organizational style, although the small sample size and low power may limit the ability to draw conclusions about null results. However, it is possible that inclusion of a manipulation check and larger sample size would show that, among participants who actively follow the directions given to them regarding self-aspect generation, instructions produce relevant changes in evaluative organizational style. Then, by teaching clients flexibility, naturally-compartmentalizing clients would be somewhat protected when negative events occur that affect the self in any individual role because, by switching to an integrative evaluative organizational style, individuals have important positive characteristics accessible as well (cf. Showers et al., 2004).

Answering these questions raises many more. For example, how is flexibility of evaluative organizational style naturally addressed in a therapeutic setting (specifically related to the inclusion of cognitive-behavioral techniques)? What is the role of the clinician in this process? In the same vein, what is the association between social support and evaluative organization (i.e., is integration or flexibility naturally learned in the process of coping

with trauma)? Can the effects of negative feedback be buffered through the practice of flexible organizational styles?

Although a few studies have examined how changes in cognitive distortions through cognitive-behavioral techniques may be responsible for the advantages associated with cognitive-behavioral therapy (e.g., Coleman & Casey, 2007; Hagedaars, van Minnen, & de Rooij, 2010; Szentagotai, Lupu, & Cosman, 2008), there is still a gap between empirical evidence (i.e., self-concept research) and the provision of treatment (i.e., clinical practice). Although it was demanded two decades ago that “behavior therapy needs cognitive science” (cf. Power, 1991, p. 20), this weakness is still evident. There is a need to connect theory to the treatment practices used by contemporary psychological clinicians.

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