



## Self-Awareness and the Regulation of Emotional Intensity

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*People often regulate their feelings by striving for particular emotional states. The self-regulation of emotions should be influenced by self-awareness, which is a primary instigator of self-regulation. Because the outcome of self-regulation depends, in part, on the relevant comparison standards, self-focus will have a flexible effect on emotional intensity depending on the standard. But an earlier view (Scheier & Carver, 1977) argues that self-focused attention will always amplify emotional intensity because self-focus makes emotional states more salient. An experiment tested these different predictions. Participants were pre-selected for extreme emotionality standards: One group felt that emotions should be unregulated, and the other group felt that emotions should be inhibited. All persons were led to feel happy; self-focus was then manipulated using a large mirror. Consistent with the self-regulation view, persons with “inhibition” standards were significantly less happy when highly self-focused. Persons with “no regulation” standards, in contrast, were unaffected by high self-focus; the two groups didn’t differ when self-focus was low. Some implications for the intersection of self-awareness and emotional experience are considered.*

All known cultures socialize the expression of emotions in children (Izard, 1977; Tomkins, 1962, 1991). Children quickly learn these social rules as well as rudimentary regulation strategies for modifying an emotion’s intensity or quality (Denham, 1998). By the time the child reaches adulthood, he or she has a complex set of standards describing how emotions “ought” to be expressed or suppressed in a given social situation. Emotion regulation also becomes commonplace as people try to self-regulate their feelings to match the social world’s complex demands (Erber, 1996; Gross, 1998).

The self-regulatory nature of emotion regulation suggests the relevance of objective self-awareness (Duval & Silvia, 2001; Silvia & Duval, 2001a). Past research shows that orienting attention on the self initiates an automatic comparison process in which features of the self are viewed against relevant standards (Duval & Wicklund, 1972; Scheier & Carver, 1983). If self and standards are discrepant, people will generally try to reduce the discrepancy by working toward the standard, although under certain circumstances they will avoid (Duval, Duval, & Mulilis, 1992), make defensive attributions for the problem (Silvia & Duval, in press-b), or change the standard toward the self (Duval & Lalwani, 1999).

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In this perspective, emotionality standards represent goal states for which people strive when highly self-focused. Some standards are generally shared and disseminated within a culture. In contemporary American culture, for example, some standards specify a state of increased happiness (e.g., being cheery when receiving a gift or encountering a good friend); other standards specify a negative affective state (e.g., when one must deliver bad news or commiserate with close others); and many other standards specify a neutral state (e.g., when one must interact with a stranger; Erber, 1996). Individuals also differ in their emotionality standards acquired during socialization, depending on cultural influences and parental emotionality (Denham, 1998; Parkinson, 1995; Tomkins, 1965).

The self-regulation view predicts that self-focus will have variable effects on the intensity of an emotional state—the specific effect will depend on the relevant standard against which the self is compared. A different prediction is made by earlier research. Scheier and Carver (1977) suggested that self-focused attention will amplify emotional intensity because it enhances and clarifies internal experiences. The “salience view” thus predicts that self-focus will have fixed effects on emotional intensity. Two experiments tested this position.<sup>1</sup> In one study (Scheier & Carver, 1977, Study 1), male participants viewed slides of nude women and rated the attractiveness of the women. High self-focus amplified attractiveness ratings. In a second study (Scheier & Carver, 1977, Study 3), participants read positive or negative mood-induction statements. Self-focus amplified negative affect, but not positive affect.

A closer look at the experimental evidence, however, suggests that it may in fact support the self-regulation explanation. Scheier and Carver’s (1977) studies had demand properties that probably created a situational standard for appropriate emotional responses (Brockner, Hjelle, & Plant, 1985). In the first study, participants were instructed to focus on their affective reactions to the slides before making their judgments. In the second study, participants were given the Velten (1968) statements, asked to self-induce the mood, asked later to continue self-generating the mood, and then given a questionnaire containing only mood related items. Given such salient situational standards to feel emotional, high self-focus may have increased emotional intensity because of self-regulation rather than increased salience.

## The Present Study

The present study attempts to evaluate the diverging predictions made by the self-regulation and the salience approaches. I propose that self-focused attention influences emotion through a comparison process involving the self and standards concerning emotionality. There are several possible ways to test whether emotionality standards are operating in self-regulation. The present study uses a strategy developed by Carver (1975)—participants are selected based on pre-existing standards and then exposed to self-focusing circumstances. If standards are operating, then they will only influence action when self-focus is high. In his study, Carver selected persons who either supported or opposed the use of punishment in psychological research. These people then were asked to shock a confederate. The two groups didn’t differ when self-focus was low, despite being pre-selected for extreme qualities. But the two groups polarized when self-focus was high—the anti-punishment group gave fewer shocks and the pro-punishment group gave more shocks. A more recent study (Kallgren, Reno, & Cialdini, 2000, Study 3) found that personal standards concerning littering only influenced actual littering when self-focus was high; people with different standards littered equally when

self-focus was low. Although perhaps non-intuitive, this shows that standards aren't simply "behavior tendencies"—they are comparison points that only influence action when participating in self-regulation.

For the present study, I pre-selected individuals based on their general standards concerning the expression or inhibition of emotion. One group had standards indicating "no regulation." They felt that emotions should be freely expressed without attempts at modulation. A second group had standards indicating "inhibition." They felt that emotions ought to be minimized and attenuated. Self-awareness was then manipulated following an induction of happiness. Although any emotion would have sufficed, happiness was used because controlling one's happiness is a common goal in everyday emotion regulation (Erber, 1996). Past self-awareness research has also emphasized the influence of self-focus on negative affect (see Wells & Matthews, 1994). Not surprisingly, this emphasis is found in research on emotion regulation as well, which has historically focused on how people cope with distressing and depressing circumstances, not how people control happiness and contentment (Gross, 1999; Lazarus, 1966).

## **Predictions**

If self-focus simply makes emotions more salient, then there should be a sole main effect for self-focus—emotional intensity would be higher in the high self-focus conditions regardless of personal emotionality standards. But if self-focus initiates emotion regulation in accordance with emotionality standards, then there should be an interaction. The two emotionality-standard groups should be equally happy when self-awareness is low. Both groups would be experiencing the emotion with little regard for how they "should feel." But when self-focus is high, the two groups should show different patterns of happiness. High self-focus should not affect persons who feel that they ought to naturally express their emotions. If the standard specifies "no change," then self-focused people will not make efforts to regulate their emotional state—their level of happiness should thus be unchanged. Yet high self-focus should decrease emotional intensity among persons who feel that they ought to control and inhibit their emotional expressions.

## **Method**

### *Participants and Design*

Forty undergraduate women enrolled in Introductory Psychology participated as part of a research participation option.<sup>2</sup> Participants were assigned to either a high- or low-self-awareness condition in randomized blocks of eight.

### *Procedure*

Participants were pre-selected based on their standards concerning the appropriateness of emotionality. It was critical to have items concerning the "oughts" and "shoulds" surrounding emotion, not the frequency of emotional behaviors or what the person typically does. Measuring the behavior would simply measure past self-regulation outcomes. Past scales concerning emotional expression—such as the ambivalent emotional strivings questionnaire (King & Emmons, 1990), the emotional expressiveness questionnaire (King & Emmons, 1990), and the affect intensity

scale (Larsen & Diener, 1987)—were thus unsuited to the study’s purpose. Following Carver (1975) and Kallgren et al. (2000), a brief face-valid scale was constructed. Participants responded to a five-item scale during a mass testing session early in the semester:

- “People should freely express how they feel inside”
- “In general, it’s best to appear reserved and unemotional”
- “Emotions should be expressed spontaneously”
- “People shouldn’t seem like they are too happy”
- “It is best to conceal negative feelings around other people.”

Cronbach’s alpha for the scale was .61. Persons falling within the upper and lower quartiles were eligible for the study.

Upon arrival, participants were led to a private cubicle and seated at a table containing a large mirror covered with a thick cloth. The experimenter, who was blind to the participant’s scale score, explained that the study concerned how different types of creative abilities were correlated. The participant would complete several different creativity tasks, and the researchers would then see if creativity was general across many activities or limited to specific domains. The experimenter explained that the first creativity task tested linguistic and expressive creativity. Participants would be asked to generate a hypothetical event and describe it in writing, which would presumably reflect the ability to conjure and convey imaginary events. The second task involved asking participants to draw a self-portrait using a mirror. The experimenter briefly lifted a corner of the cloth to show participants the mirror, and restated that it would be used for the second task. Participants in fact only completed the first task.

### ***Happiness Induction***

The “first creativity task” was a happiness induction used in past research (Silvia, in press; Silvia & Abele, in press). Participants were asked to imagine a happy event and describe it in writing, which would ostensibly be coded for “linguistic and expressive creativity.” The experimenter left the room during the induction. Participants were asked to spend as much time as they wished and, when done, to contact the experimenter.

### ***Self-Awareness Manipulation***

When the participant had completed the happiness induction, the experimenter said that it was time for the second creativity task. After rummaging through his files (and covertly consulting a table stating the participant’s randomly assigned condition), he remarked that he needed to find additional copies of the test and that he would return shortly. In the high-self-awareness condition, the experimenter removed the cloth covering the mirror before leaving the room. The mirror’s reflective side faced the participant such that she couldn’t avoid seeing her face and upper body. This is a widely used and well-validated manipulation (Carver & Scheier, 1978). In the low-self-awareness condition, the experimenter left the mirror covered. The experimenter had been blind to condition up until the self-awareness manipulation.

### ***Measure of Emotional Intensity***

The experimenter returned after two minutes and handed the participant a “mid-study questionnaire.” Participants ranked their current mood on a 21-point

scale ranging from  $-10$  (very negative) to  $0$  (neutral) to  $+10$  (very positive). This item was embedded among filler items concerning creativity, personality, and day-dreaming.

Participants were probed for suspicion, debriefed, and thanked upon completion of the questionnaire. No participant showed sufficient suspicion to warrant exclusion.

## Results

### *Happiness Induction*

An analysis of the number of words written was conducted to see if people with different emotionality standards responded differently to the happiness induction. A one-way analysis of variance found no difference between the groups,  $F < 1$ . The number of words ranged from 142 to 224. This suggests that the induction was equivalent for the two groups.

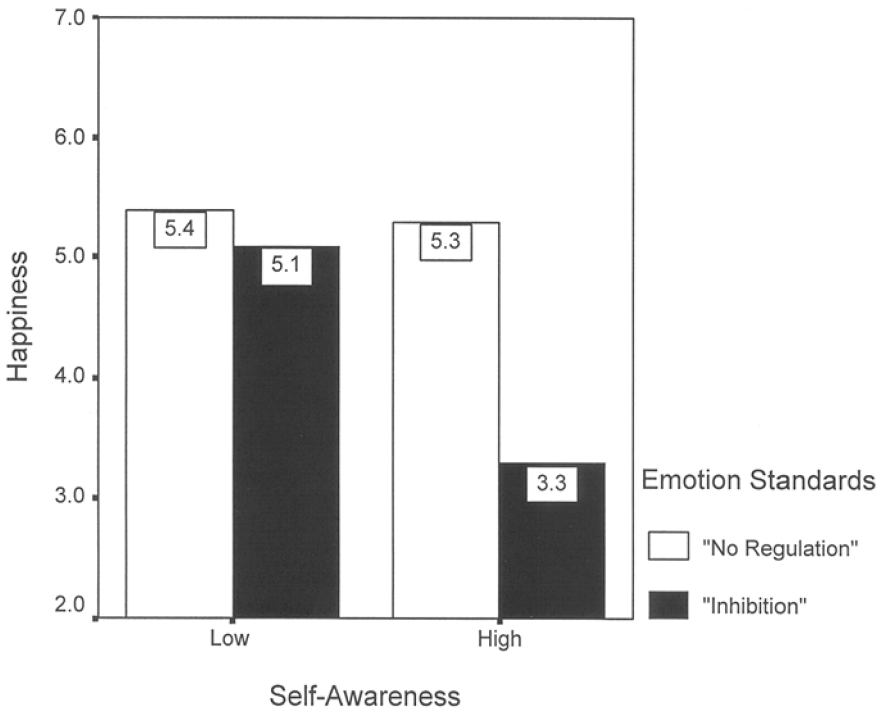
### *Emotional Intensity*

A three-versus-one interaction contrast was conducted to test the prediction that emotional intensity would only decline among highly self-focused persons with inhibition standards. This contrast was significant,  $F(1, 36) = 7.62, p < .009$ . Figure 1 presents the pattern of means. Consistent with the self-regulation view, high self-focus led to a significant drop in emotional intensity among those who felt emotions ought to be suppressed,  $t(18) = 2.1, p < .05$ . Yet high self-focus had no effect on persons who felt that emotions should be freely expressed,  $t < 1$ . Persons with different emotionality standards had equally intense emotions when self-focus was low,  $t < 1$ , yet they differed significantly when self-awareness was high,  $t(18) = 2.6, p < .02$ .

## Discussion

How does self-awareness influence the intensity of emotional experiences? Scheier and Carver (1977), in a paper that anticipated the current interest in cognition and emotion, argued that self-focused attention will amplify emotional intensity because it enhances the clarity and salience of emotional states. Yet, as might be expected from an action-control mechanism, self-awareness apparently has a more flexible relation to emotional intensity. People have intricate sets of standards concerning emotion. Like other standards, they only participate in self-regulation to the extent that attention is oriented internally (Duval & Silvia, 2001). Self-awareness should thus only influence emotional intensity inasmuch as a relevant standard specifies a certain emotional change.

This hypothesis was tested by inducing happiness and then examining the effects of self-awareness on persons with different emotionality standards. As predicted, emotional intensity was an interactive function of self-awareness and emotionality standards. High self-awareness significantly dampened the intensity of happiness among persons who felt that they ought to suppress their emotions. This reflects attempts to be consistent with personal standards. High self-awareness didn't affect the intensity of happiness among persons who felt they ought to freely and spontaneously express emotions. This standard specifies that emotions should be



**FIGURE 1.** Effects of self-awareness and emotionality standards on the intensity of happiness.

naturally expressed and unregulated, so happiness was unaffected. Note that it doesn't specify that emotions should be amplified in intensity; this was not the prediction. In fact, pretesting failed to find more than a few people with such amplification standards, probably because the cultural socialization of emotion virtually always involves the attenuation of affect (Tomkins, 1962, 1965, 1991).

The two emotionality-standard conditions didn't differ when self-focus was low. This might seem counterintuitive, given that participants were preselected for extreme standards. Yet research fails to find such differences when self-focus is low, even when there are extreme pre-existing standards (Carver, 1975; Gibbons, 1978; Kallgren et al., 2000) or experimentally-induced standards (Duval & Lalwani, 1999). Self-awareness theory predicts this because it assumes that standards are simply representations of possible self-states—they are not traits or what people "tend to do." Standards only influence action inasmuch as they participate in self-to-standard comparison processes, which require self-awareness (Carver & Scheier, 1998; Duval & Silvia, 2001; Duval & Wicklund, 1972).

Scheier and Carver (1977) argued that self-awareness was influencing the salience of an emotion, not the emotion's actual intensity. Self-reported affect might differ, but the actual emotions should not (Scheier, Carver, & Matthews, 1982). In contrast, I am arguing that self-awareness influences the emotion's actual intensity. A recent review has argued that the salience position is unsupported (Silvia & Gendolla, 2001). And several experiments found that self-awareness simultaneously influences self-reported affect as well as facial expressions and physiological measures of affect (Kleck et al., 1976; Lanzetta, Biernat, & Kleck, 1982). This strongly

suggests that the influence of self-awareness on emotional experience extends beyond subjective salience and self-reports.

## Notes

1. I won't review Scheier and Carver's (1977, Studies 2 and 4) additional studies on private self-consciousness (Fenigstein, Scheier, & Buss, 1975). Later research found that depression, which correlates highly with private self-consciousness, was actually causing the amplified emotional intensity (Ingram, 1989).

2. Only females participated because the composition of the participant pool at the time didn't allow equal numbers of men and women. Although the genders surely differ in some of their internalized oughts and in the contents of the self-concept, research has never found gender differences in the general mechanisms and processes of self-awareness and self-regulation (Carver & Scheier, 1998; Duval & Silvia, 2001).

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