SELF-AWARENESS AND CONSTRUCTIVE FUNCTIONING: REVISITING "THE HUMAN DILEMMA"

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Self-awareness—the capacity to focus attention on oneself, and thus to self-evaluate—has a bad reputation in social-clinical psychology because of its ties to negative affect, depression, suicide, and dysfunction. Using Rollo May's (1967) analysis of "the human dilemma," we outline self-awareness's beneficial contributions to psychological functioning. Without self-awareness, people could not take the perspectives of others, exercise self-control, produce creative accomplishments, or experience pride and high self-esteem. Research suggests that the positive and negative facets of self-awareness are reconciled when people have reasonable self-standards and when they are optimistic about meeting their standards.

Self-awareness—the ability to focus attention on self as an object (Carver, 2003; Duval & Silvia, 2001)—has had a major influence on the intersection of social and clinical psychology. Since Duval and Wicklund (1972) showed that self-focused attention promotes self-evaluation, a massive amount of research has connected self-awareness to aversive, dysfunctional, and problematic outcomes (Ingram, 1990; Wells & Matthews, 1994). It's no surprise, then, that a glance at how self-awareness is treated in the social-clinical literature reveals self-awareness theories of depression (Pyszczynski & Greenberg, 1987), alcoholism (Hull, 1981), and socially irresponsible behavior (Prentice-Dunn & Rogers, 1989); models of how self-awareness increases negative affect and reduces well-being (Fejfar & Hoyle, 2000; Mor & Winquist, 2002); and discussions of how self-awareness promotes suicide, masochism, and self-destructive behavior (Baumeister, 1991).

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The outlook for self-awareness is bleak, to be sure, but not unrealistic. All of the theories just listed are well reasoned and supported by research. If there were ever a variable to be avoided in everyday life, self-awareness would seem to be it. But before we banish self-awareness, we might do well to remember Rollo May's (1967) seminal analysis of self-awareness and human functioning. Our goal in this article is to rehabilitate self-awareness's reputation in social-clinical psychology, using May's ideas as a guide. Certainly self-awareness has a guilty conscience—its role in dysfunction is clear. But its redeeming qualities, its contributions to constructive human functioning, are just as significant.

In this article, we hope to illuminate some of self-awareness's contributions to the good life and constructive functioning, using examples from the research literature. Then we'll consider some ways in which the positive and negative aspects of self-awareness can be reconciled, thus synthesizing what May (1967) called "the human dilemma."

THE HUMAN DILEMMA

Rollo May (1967) anticipated a lot of research with his book *Psychology and the Human Dilemma*. May argued that a person's biggest problem is reconciling what he labeled "the human dilemma." This dilemma is our capacity for self-awareness:

> *The human dilemma is that which arises out of a man's capacity to experience himself as both subject and object at the same time*. Both are necessary—for the science of psychology, for therapy, and for gratifying living. (May, 1967, p. 8).

When we focus attention on ourselves, we experience our selves as objects. We can thus appraise our qualities like we appraise other people and inanimate objects. This form of experience has broad and negative consequences. As May notes, "If . . . I set out to deal with myself as 'pure object,' fully determined and manipulatable, I become driven, dried up, affectless, and unrelated to my experiences" (p. 9). Seeing the self as an object reminds us that we have boundaries and flaws, that we can be controlled and manipulated just like other objects, that outside forces impinge on what we do and thus constrain our sense of self-determination. In contrast, experiencing self subjectively is pleasant, a flow state of rich affective experience, boundlessness, and feelings of self-determination; people lose a sense of self as an object that can be controlled and constrained.

So what's the dilemma? We already know that self-awareness has maladaptive effects. The quandary, according to May (1967), is that

dealing with ourselves as "pure subject" is also maladaptive. Life has real constraints and real boundaries:

> If I try to act as "pure subject," free and untrammeled by the finite requirements of traffic lights and the engineering principles of how fast my car can negotiate the curve, I of course come to grief—and generally not so nobly or theatrically as Icarus. (p. 9)

The dilemma, then, is that both modes of experience are detrimental and essential. Human life is thus lived within a dialectic, a tension between the benefits and costs of different experiences of self. Already we see a contrast to modern social-clinical theorizing on self-awareness. May agrees that self-awareness can lead to needless self-criticism, but asserts that self-awareness ultimately is essential for constructive living. Avoiding self-awareness, according to May, should not be the goal. Instead, people need to achieve a synthesis of the objective and the subjective states—they need to maximize their gain and minimize their suffering from self-awareness. Unfortunately, May had few specific suggestions on how to accomplish this.

In the following sections, we'll see what social-clinical research has to say about self-awareness. In the spirit of May's analysis, we'll consider both positive and negative consequences of self-awareness. After exploring both sides of the dialectic, we'll examine some ways to maximize the benefits of self-awareness and thus resolve the human dilemma.

MALADAPTIVE ASPECTS OF SELF-AWARENESS

Self-awareness's maladaptive aspects have been reviewed in detail elsewhere (Pyszczynski, Hamilton, Greenberg, & Becker, 1991), so we'll note only the highlights here. Smith and Greenberg (1981) were the first to observe links between self-focused attention and depressive symptoms. A lot of work since then has shown that self-awareness can exacerbate the experience of negative events and eventually lead to a "depressive self-focusing style" (Pyszczynski & Greenberg, 1987). Indeed, reducing self-awareness via distracting activities improves well-being (Brockner & Hulton, 1978; Nix, Watson, Pyszczynski, & Greenberg, 1995). Theories of depression emphasizing rumination also accord a large role to self-focused attention (Nolen-Hoeksema, 1991).

Recent studies on emotional disorders implicate self-awareness as a culprit. A wide variety of affective disorders develop in part because people focus on their internal states (Wells & Matthews, 1994) and because self-awareness might bias the interoception process (Silvia &

Gendolla, 2001). Self-observation, in conjunction with other processes, lays the groundwork for obsessive preoccupations with internal experience. Self-awareness also correlates with neuroticism, which is essentially the trait of chronic unhappiness (Trapnell & Campbell, 1999). Evidence like this led Ingram (1990) to argue that self-awareness plays a broad role in psychopathology. His review shows that a wide variety of disorders are instigated and maintained by chronic self-awareness.

In Baumeister's (1991) escape theory of suicide, self-awareness promotes attempts at self-destruction. When people's experiences fall short of their expectations, they often blame themselves. This self-critical tendency is exaggerated when people are highly self-aware (Duval & Wicklund, 1973). People can become locked in a cycle of self-criticism and rumination, leading to ever more desperate attempts at mood repair. This basic cycle underlies other self-destructive behaviors, such as binge eating, masochism, alcoholism, and drug use, as people search for ways to reduce self-awareness and its resulting self-criticism (Baumeister, 1991; Hull, 1981).

Self-awareness also decreases intrinsic motivation and interest (Plant & Ryan, 1985). Research on flow experiences finds that a primary component of optimal experience is reduced self-awareness (Csikszentmihalyi, 1990; Csikszentmihalyi & Figurski, 1982). When self-awareness is increased, the person feels less integrated with the activity, and the intensity of positive affect declines (Silvia, 2002a, 2002b). Self-awareness also plays a role in social anxiety and shyness (Spurr & Stopa, 2002; Woody, 1996) and in making people feel "alienated from interaction" (Goffman, 1967).

CONSTRUCTIVE ASPECTS OF SELF-AWARENESS

Given these dysfunctional processes, how does self-awareness enhance constructive functioning? Here we consider the brighter side of self-awareness: how it enables perspective-taking, self-control, creative accomplishments, and high self-esteem.

PERSPECTIVE-TAKING

Without self-awareness, people could not recognize that their perspectives might differ from another's perspective (Shibutani, 1961). A person cannot comprehend that self and others differ—that others might have different needs, thoughts, and properties—without first comprehending that the self exists as a bounded, situated entity. Perspective-taking is thus essential for negotiating the thicket of social interaction (Goffman, 1967; Shibutani, 1961) and for conveying information about

the self to other people (Schlenker, 2003). Increased perspective-taking promotes empathic responses to the plights of others (Batson, 1991); failed perspective-taking promotes viewing others in terms of their usefulness for the egocentric person's goals (Wicklund, 1999).

Developmental research shows that the appearance of perspective-taking depends on the emergence of self-awareness. As children begin showing signs of self-awareness—such as mirror self-recognition and linguistic self-reference (Kagan, 1981)—they behave less egocentrically. Indeed, some measures of self-awareness are based on perspective-taking. For example, one task measures whether the child can deceive another person; another test measures whether the child assumes that others share the child's hidden knowledge (Lewis, 1990). And after the development of self-awareness, children are no longer indifferent to the distress of their peers. They begin responding to others' distress with confusion and eventually with acts of empathy and consolation (Denham, 1998).

Experiments directly show how situational changes in self-awareness affect perspective-taking (Stephenson & Wicklund, 1983). In one study, people were asked to draw an *E* on their foreheads (Hass, 1984). When people were made more self-aware, they drew the *E* from the perspective of an observer rather than from the self's perspective. In another study, participants sat facing another person and tried to guide the person through a maze (Stephenson & Wicklund, 1984). High self-awareness reduced perspective-taking errors, such as saying "right" to refer to the other person's left. In sum, self-awareness enables perspective-taking when viewed developmentally (Kagan, 1981) and situationally (Hass, 1984).

SELF-CONTROL

The price of civilization might not be repression, as Freud contended, but it is certainly circumscription. Living among social groups brings many benefits, and people are expected to repay these benefits through their conduct. Sociologists remind us that the goals of society are furthered when people internalize the society's standards and feel pride and shame when they meet and fall short of them (Shibutani, 1961). Self-awareness enables people to internalize standards of conduct, appraise whether or not they're meeting them, and reflect upon their actions in light of broader principles. Self-awareness is thus a cornerstone of self-control.

Research on deindividuation illustrates how self-awareness can restrain antisocial impulses (Postmes & Spears, 1998). Increasing self-focused attention makes people less likely to cheat on tests, steal candy,

and lie about standardized test scores (see Diener, 1979; Prentice-Dunn & Rogers, 1989; Pryor, Gibbons, Wicklund, Fazio, & Hood, 1977, Study 2), presumably because self-aware people try to align their activity with their internalized standards for honesty (see Carver, 2003). Increasing self-awareness also reduces the diffusion of responsibility; self-aware people are more likely to step forward and take responsibility for helping someone in need (Wegner & Schaefer, 1978).

CREATIVE ACHIEVEMENT

Self-awareness enables creative achievements, but how it does so is not obvious. In fact, a lot of laboratory research finds that self-evaluating reduces creativity. Amabile's (1996) research, for example, shows how circumstances that promote self-evaluation—criticism, deadlines, monitoring, and judgments—will reduce creativity. Experiments that directly manipulate self-evaluation find negative effects on creativity. In a study by Szymanski and Harkins (1992), for instance, people generated creative uses for a knife. High self-evaluation reduced the creativity of the responses.

But perhaps a distinction should be made between college students making collages in the lab and the profound creative achievements that initiate new disciplines and change cultures. Such accomplishments do not come about by intrinsic motivation alone—being interested in the topic, being in states of flow, and experiencing positive emotions are not enough (Feist, 1998; Rathunde, 1999; Russ, 1993). Instead, some theories of creativity argue that true creative accomplishment requires self-criticism. Martindale (1999) proposes that creativity has two facets: a process of divergent thinking, and a process of evaluating the self's output. Many ideas—such as ideas for novels, poems, paintings, or experiments—are not worth implementing. Self-criticism enables creative products by identifying the good ideas and weeding out the bad ideas. Likewise, not all finished products are worth revealing to others. After creating something, people need to judge it (Csikszentmihalyi, 1996). Is the self's creative product new or derivative, complete or unfinished, meritorious or trivial? Congruent with this approach, case studies of creative artists show that creative products nearly always represent the culmination of long periods of revision and effort (Csikszentmihalyi, 1996; Graham & Harris, 1994).

Creativity might best show the synthesis of Rollo May's objective and subjective modes of experience (cf. Rathunde, 1999). In some circumstances, self-awareness is necessary to further the creative process. Continuously low self-awareness would prevent the self-criticism needed to judge one's creative actions in relation to one's standards. Continuously high self-awareness would stunt the creative process by inhibiting the

subjective state needed for creating new products (Runco, 1991). By allowing people to critique their ideas, evaluate their works-in-progress, and appraise their finished products, self-awareness enables people to go beyond first drafts and half-formed ideas.

PRIDE AND HIGH SELF-ESTEEM

One side of the relationship between self-awareness and self-evaluation receives the most attention. Research usually focuses on how falling short of standards is a source of negative affect and how this might be a starting point for later problems (Baumeister, 1991). Yet meeting standards is a source of positive affect—seeing the self as the cause of success leads to positive feelings of pride and is thus a basis of self-esteem (Duval & Silvia, 2001; Weiner, 1985). Early research found that manipulating self-awareness per se does not automatically lead to negative affect. When people are congruent with their standards, their mood becomes more positive (Ickes, Wicklund, & Ferris, 1973) and they prefer to stay in self-focusing situations (Greenberg & Musham, 1981; Steenbarger & Aderman, 1979). Indeed, self-awareness boosts self-esteem following success because it increases the tendency to attribute causality to self (Duval & Wicklund, 1973). For instance, Duval and Silvia (2002, Study 3) gave people success feedback on a cognitive task. When self-awareness was high, people experienced higher state self-esteem in response to their success. This increase was mediated by self-attributions for the success event: Self-awareness increased internal attributions for success, which in turn increased self-esteem.

Developmental research illustrates further how self-awareness is critical for feelings of pride. Heckhausen (1987) studied how the emotional aspects of achievement develop in young children. He found that young children displayed neither pride nor shame upon succeeding or failing at a task. Instead, they simply expressed interest or boredom, either enjoying the task for its own sake or finding it tedious. When self-awareness developed and children became capable of self-evaluation, shame and pride became apparent. Children then showed anticipated shame and pride in response to tasks that evoked expectations of success and failure, and their performance led to achievement-related emotions. Success caused feelings of pride and the development of a self-theory of competence.

RESOLVING THE HUMAN DILEMMA

Our review of social and clinical research shows that self-awareness can have adaptive and maladaptive effects. Rollo May (1967) emphasized

that synthesizing the objective and subjective modes of self-experience was a challenge; failing to reconcile this dialectic is a common source of suffering. Yet May did not describe how people can organize these opposing features and thus maximize the benefits of self-awareness. Based on research since May's writings, several resolutions of the human dilemma can be proposed.

Trapnell and Campbell (1999) offer a possible resolution rooted in the study of individual differences in self-awareness. They noted a "paradox of self-consciousness," namely, that dispositional self-awareness correlates with positive and negative outcomes. To reconcile this paradox, they distinguished between two types of dispositional self-awareness: *rumination* and *reflection*. In their view, "Rumination provides a summary conception of self-attentiveness motivated by perceived threats, losses, or injustices to the self. Reflection provides a summary conception of self-attentiveness motivated by curiosity or epistemic interest in the self" (p. 297). In short, opposing effects might reflect different types of self-awareness.

Although some research supports the rumination-reflection distinction (e.g., Joireman, Parrott, & Hammersla, 2002), it is not the way to resolve the disparate effects of self-awareness. First, it applies only to individual differences in self-awareness, and thus it cannot explain how contextual factors moderate the effects of self-awareness. Second, the proposal that good and bad outcomes result from good and bad types of self-awareness strikes us as a weak explanation (see Wicklund, 1990). Many variables have opposing effects when they interact with other variables. Social influence attempts can create compliance or reactance (Brehm, 1966); similarity can cause attraction or rejection (Taylor & Mettee, 1971); novelty can create feelings of interest or anxiety (Silvia, in press). Researchers have not concluded from these findings that there must be two types of social influence, two types of similarity, or two types of novelty. These findings represent interactions, not paradoxes. The key is to identify and understand the interacting variables, not to split one variable into two types.

Positing a curvilinear, inverted-U relationship between self-awareness and adaptive functioning is another possible resolution. Perhaps low and high levels of self-awareness lead to maladaptive functioning, whereas intermediate levels promote constructive functioning. Although intuitive, this approach is too vague to resolve our dilemma. Unless we know why there is an inverted-U function, a curvilinear model does not explain the disparate effects of self-awareness. Furthermore, an intermediate level of self-awareness is not always optimal. If a person succeeds, high self-awareness would boost self-esteem more than moderate self-awareness would (Duval & Silvia, 2002, Study 3). In this case,

high self-awareness would be better than moderate self-awareness. Conversely, after failing an unsolvable test, low self-awareness would be better—high self-awareness would lead to lower self-esteem and persistence at an unsolvable task. In this case, low rather than moderate self-awareness would be optimal.

An alternative approach is to specify the processes that moderate the effects of self-awareness. Instead of proposing good and bad kinds of self-awareness or arguing for optimal levels of self-awareness, we think it is more productive to identify the variables that determine the positive and negative effects of self-awareness. Several factors enable a productive synthesis of objective and subjective self-awareness.

First, people must have reasonable standards for themselves. Research on self-awareness and psychopathology shows that high standards are a risk factor for dysfunction (e.g., Carver & Ganellen, 1983). In Baumeister's (1991) suicide model, for instance, the first step toward self-destruction is feeling that life has fallen short of one's expectations. High expectations are less likely to be met. In Pyszczynski and Greenberg's (1987) model, high standards increase the chances of failing, which increases self-focusing upon one's liabilities. Olympian aspirations are rewarding when they are met, but it's hard to meet high standards all the time. People can feel pride upon meeting their standards, but perfectionistic standards more commonly lead to chronic self-criticism (Ellis, 1962). Setting reasonable standards and changing unreasonable standards to be more moderate (Dana, Lalwani, & Duval, 1997; Duval & Lalwani, 1999) are effective ways of maximizing the benefits of self-awareness.

How can people change their standards? This topic has received little attention in self-awareness research. Early theories of self-awareness did not consider when people change their standards (Carver & Scheier, 1981; Duval & Wicklund, 1972)—changing self and avoiding self-awareness received more attention. The updated theory of objective self-awareness (Duval & Silvia, 2001) argues that causal attributions determine whether people change standards, change self, or avoid self-awareness. When people experience a self-standard discrepancy, they make attributions for the cause of the discrepancy. If the discrepancy is attributed to the standard, the standard is seen as the cause of the problem and hence the thing that should be changed (Duval & Silvia, 2001, chap. 7). People will attribute failure to their standards when their attention is focused on the standard instead of on self (Dana et al., 1997), because focusing attention on an object makes the object more plausible as a cause for the event (Taylor & Fiske, 1978). Attribution to the standard leads people to change the standard to be closer to the self's level of performance (Duval & Lalwani, 1999).

Second, people must be optimistic about their ability to meet their standards. Feeling able to improve—both in the sense of having personal agency as well as specific pathways toward goals (Bandura, 1997; Maddux & Gosselin, 2003; Snyder, 2000)—contributes to motivation and mitigates against the experience of failure. People's rate of progress consistently appears as a moderator of the effects of self-awareness on goal pursuit. Early research found that high self-awareness promoted approach when people had positive expectancies and avoidance when people had negative expectancies (Carver, Blaney, & Scheier, 1979). Later research found that the rate of progress relative to the size of the discrepancy moderated approach versus avoidance (Duval, Duval, & Mulilis, 1992). Feeling optimistic, then, determines whether self-awareness leads people to persist in striving for their standards or to give up and avoid.

Optimism about future improvement also moderates how self-awareness influences reactions to failure. After failing, people can respond constructively (trying harder, practicing) or defensively (blaming others for failing, avoiding practice opportunities). Self-awareness can lead to constructive or defensive responses to failure, depending on whether people feel able to do better in the future. For example, self-awareness promotes both self-serving and self-blaming attributions for failure (Duval & Silvia, 2002; Silvia & Duval, 2001). In one experiment (Duval & Silvia, 2001a, Study 1), people received failure feedback on a self-relevant dimension. Some people were told they could improve; others were told they could not improve. When self-awareness was high, people who expected to improve blamed themselves for failing, whereas people who did not expect to improve blamed external factors for failure (see Figure 1). Likewise, self-awareness promotes scapegoating—blaming other people for one's own failure—when people feel unable to improve, but it leads to self-blame when people feel able to improve (Silvia & Duval, 2001b). Self-blame for failure, although detrimental to self-esteem in the short term (Duval & Silvia, 2002, Study 2), motivates people to change the self in constructive ways, such as through practicing (Duval & Lalwani, 1999).

Research on expectancies nicely demonstrates how contextual factors can determine whether self-awareness has adaptive or maladaptive effects. When people feel able to improve, high self-awareness leads to trying harder and taking responsibility for failing, which in turn lead to actual self-improvement and the resolution of problems (Silvia & Duval, 2004). In this case, high self-awareness is more useful than moderate or low self-awareness. When people feel unable to improve, however, high self-awareness leads to pinning the blame on other people and on the environment, avoiding attempts to practice, and giving up early. In this
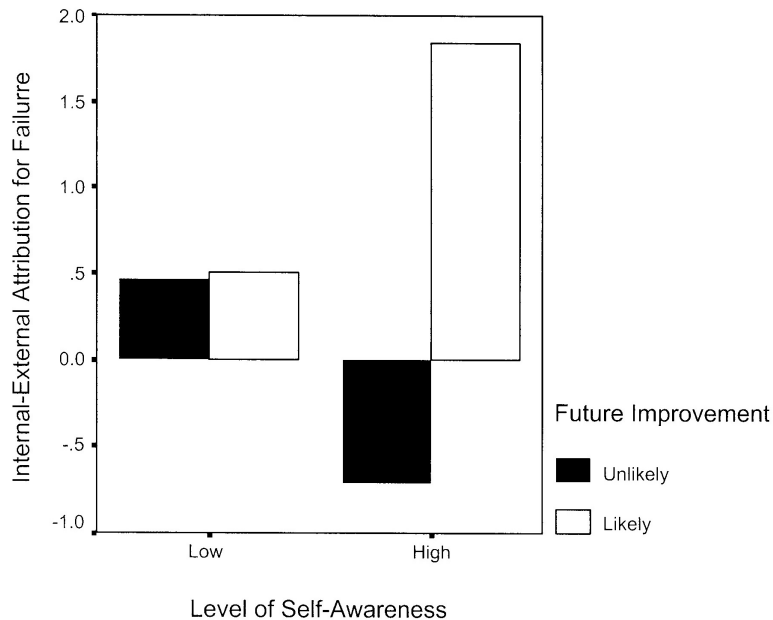
FIGURE 1. How self-awareness and ability to improve affect attributions for failure (from Duval & Silvia, 2002, Experiment 1).

case, low self-awareness would be more useful because reduced self-awareness would reduce defensiveness.

CONCLUSIONS

Social-clinical research on self-awareness has emphasized dysfunctional and maladaptive aspects of self-focused attention. Self-awareness certainly plays a role in psychological dysfunction, yet its role in constructive functioning should not go unnoticed. Without self-awareness, it would be difficult for people to take the perspectives of other people, exercise self-control, produce creative accomplishments, and experience pride and high self-esteem. Rollo May's (1967) analysis of self-awareness as a "human dilemma" highlights the dialectical nature of self-awareness. In May's view, constructive living requires synthesiz-

ing the positive and negative features of self-awareness. Research suggests that people maximize their gain from their capacity for self-reflection when they set reasonable standards for themselves and when they feel optimistic about their ability to meet their standards in the face of setbacks and failures.

REFERENCES

Amabile, T. M. (1996). *Creativity in context.* Boulder, CO: Westview.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Freeman.

Batson, C. D. (1991). *The altruism question.* Hillsdale, NJ: Erlbaum.

Baumeister, R. F. (1991). *Escaping the self.* New York: Basic Books.

Brehm, J. W. (1966). *A theory of psychological reactance.* New York: Academic Press.

Brockner, J., & Hulton, J. B. (1978). How to reverse the vicious cycle of low self-esteem: The importance of attentional focus. *Journal of Experimental Social Psychology, 14,* 564-578.

Carver, C. S. (2003). Self-awareness. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 179-196). New York: Guilford.

Carver, C. S., Blaney, P. H., & Scheier, M. F. (1979). Focus of attention, chronic expectancy, and responses to a feared stimulus. *Journal of Personality and Social Psychology, 37,* 1186-1195.

Carver, C. S., & Ganellen, R. J. (1983). Depression and components of self-punitiveness: High standards, self-criticism, and overgeneralization. *Journal of Abnormal Psychology, 92,* 330-337.

Carver, C. S., & Scheier, M. F. (1981). *Attention and self-regulation.* New York: Springer.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* New York: Harper-Row.

Csikszentmihalyi, M. (1996). *Creativity.* New York: Harper-Collins.

Csikszentmihalyi, M., & Figurski, T. J. (1982). Self-awareness and aversive experience in everyday life. *Journal of Personality, 50,* 15-28.

Dana, E. R., Lalwani, N., & Duval, T. S. (1997). Objective self-awareness and focus of attention following awareness of self-standard discrepancies: Changing self or changing standards of correctness. *Journal of Social and Clinical Psychology, 16,* 359-380.

Denham, S. A. (1998). *Emotional development in young children.* New York: Guilford.

Diener, E. (1979). Deindividuation, self-awareness, and disinhibition. *Journal of Personality and Social Psychology, 37,* 1160-1171.

Duval, T. S., Duval, V. H., & Mulilis, J. P. (1992). Effects of self-focus, discrepancy between self and standard, and outcome expectancy favorability on the tendency to match self to standard or to withdraw. *Journal of Personality and Social Psychology, 62,* 340-348.

Duval, T. S., & Lalwani, N. (1999). Objective self-awareness and causal attributions for self-standard discrepancies: Changing self or changing standards of correctness. *Personality and Social Psychology Bulletin, 25,* 1220-1229.

Duval, T. S., & Silvia, P. J. (2001). *Self-awareness and causal attribution: A dual systems theory.* Boston: Kluwer Academic.

Duval, T. S., & Silvia, P. J. (2002). Self-awareness, probability of improvement, and the self-serving bias. *Journal of Personality and Social Psychology, 82,* 49-61.

Duval, T. S., & Wicklund, R. A. (1972). *A theory of objective self awareness.* New York: Academic Press.

Duval, T. S., & Wicklund, R. A. (1973). Effects of objective self-awareness on attributions of causality. *Journal of Experimental Social Psychology, 9,* 17-31.

Ellis, A. (1962). *Reason and emotion in psychotherapy.* New York: Stuart.

Feist, G. J. (1998). A meta-analysis of personality on scientific and artistic creativity. *Personality and Social Psychology Review, 2,* 290-309.

Fejfar, M. C., & Hoyle, R. H. (2000). Effect of private self-awareness on negative affect and self-referent attribution: A quantitative review. *Personality and Social Psychology Review, 4,* 132-142.

Goffman, E. (1967). Alienation from interaction. In *Interaction ritual* (pp. 113-136). Garden City, NY: Anchor.

Graham, S., & Harris, K. R. (1994). The role and development of self-regulation in the writing process. In D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulation of learning and performance* (pp. 203-228). Hillsdale, NJ: Erlbaum.

Greenberg, J., & Musham, C. (1981). Avoiding and seeking self-focused attention. *Journal of Research in Personality, 15,* 191-200.

Hass, R. G. (1984). Perspective-taking and self-awareness: Drawing an *E* on your forehead. *Journal of Personality and Social Psychology, 46,* 788-798.

Heckhausen, H. (1987). Emotional components of action: Their ontogeny as reflected in achievement behavior. In D. Görlitz & J. F. Wohlwill (Eds.), *Curiosity, imagination, and play* (pp. 326-348). Hillsdale, NJ: Erlbaum.

Hull, J. G. (1981). A self-awareness model of the causes and consequences of alcohol consumption. *Journal of Abnormal Psychology, 90,* 586-600.

Ickes, W. J., Wicklund, R. A., & Ferris, C. B. (1973). Objective self awareness and self esteem. *Journal of Experimental Social Psychology, 9,* 202-219.

Ingram, R. E. (1990). Self-focused attention in clinical disorders: Review and a conceptual model. *Psychological Bulletin, 107,* 156-176.

Joireman, J. A., Parrott, L., III., & Hammersla, J. (2002). Empathy and the self-absorption paradox: Support for the distinction between self-rumination and self-reflection. *Self and Identity, 1,* 53-65.

Kagan, J. (1981). *The second year: The emergence of self-awareness.* Cambridge, MA: Harvard.

Lewis, M. (1990). Self-knowledge and social development in early life. In L. A. Pervin (Ed.), *Handbook of personality* (pp. 277-300). New York: Guilford.

Maddux, J. E., & Gosselin, J. T. (2003). Self-efficacy. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 218-238). New York: Guilford.

Martindale, C. (1999). Biological bases of creativity. In R. Sternberg (Ed.), *Handbook of creativity* (pp. 137-152). New York: Cambridge.

May, R. (1967). *Psychology and the human dilemma.* New York: Van Nostrand Reinhold.

Mor, N., & Winquist, J. (2002). Self-focused attention and negative affect: A meta-analysis. *Psychological Bulletin, 128,* 638-662.

Nix, G., Watson, C., Pyszczynski, T., & Greenberg, J. (1995). Reducing depressive affect through external focus of attention. *Journal of Social and Clinical Psychology, 14,* 36-52.

Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology, 100,* 569-585.

Plant, R. W., & Ryan, R. M. (1985). Intrinsic motivation and the effects of self-consciousness, self-awareness, and ego-involvement: An investigation of internally controlling styles. *Journal of Personality, 53,* 435-449.

Postmes, T., & Spears, R. (1998). Deindividuation and antinormative behavior: A meta-analysis. *Psychological Bulletin, 123,* 238-259.

Prentice-Dunn, S., & Rogers, R. W. (1989). Deindividuation and the self-regulation of behavior. In P. B. Paulus (Ed.), *The psychology of group influence* (2nd ed., pp. 87-109). Hillsdale, NJ: Erlbaum.

Pryor, J. B., Gibbons, F. X., Wicklund, R. A., Fazio, R. H., & Hood, R. (1977). Self-focused attention and self-report validity. *Journal of Personality, 45,* 513-527.

Pyszczynski, T., & Greenberg, J. (1987). Self-regulatory perseveration and the depressive self-focusing style: A self-awareness theory of reactive depression. *Psychological Bulletin, 102,* 122-138.

Pyszczynski, T., Hamilton, J. C., Greenberg, J., & Becker, S. E. (1991). Self-awareness and psychological dysfunction. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology* (pp. 138-157). New York: Pergamon.

Rathunde, K. (1999). Systems approach. In M. Runco & S. Pritzker (Eds.), *Encyclopedia of creativity* (pp. 605-609). New York: Academic Press.

Runco, M. A. (1991). *Divergent thinking.* Westport, CT: Greenwood.

Russ, S. W. (1993). *Affect and creativity.* Hillsdale, NJ: Erlbaum.

Schlenker, B. R. (2003). Self-presentation. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 492-518). New York: Guilford.

Shibutani, T. (1961). *Society and personality: An interactionist approach to social psychology.* Englewood Cliffs, NJ: Prentice-Hall.

Silvia, P. J. (2002a). Self-awareness and emotional intensity. *Cognition and Emotion, 16,* 195-216.

Silvia, P. J. (2002b). Self-awareness and the regulation of emotional intensity. *Self and Identity, 1,* 3-10.

Silvia, P. J. (in press). *Exploring the psychology of interest.* New York: Oxford University Press.

Silvia, P. J., & Duval, T. S. (2001a). Predicting the interpersonal targets of self-serving attributions. *Journal of Experimental Social Psychology, 37,* 333-340.

Silvia, P. J., & Duval, T. S. (2001b). Objective self-awareness theory: Recent progress and enduring problems. *Personality and Social Psychology Review, 5,* 230-241.

Silvia, P. J., & Duval, T. S. (2004). Self-awareness, self-motives, and self-motivation. In R. A. Wright, J. Greenberg, & S. S. Brehm (Eds.), *Motivation and emotion in social contexts.* (pp. 57-75). Mahwah, NJ: Erlbaum.

Silvia, P. J., & Gendolla, G. H. E. (2001). On introspection and self-perception: Does self-focused attention enable accurate self-knowledge? *Review of General Psychology, 5,* 241-269.

Smith, T. W., & Greenberg, J. (1981). Depression and self-focused attention. *Motivation and Emotion, 5,* 323-331.

Snyder, C. R. (2000). The past and possible futures of hope. *Journal of Social and Clinical Psychology, 19,* 11-28.

Spurr, J. M., & Stopa, L. (2002). Self-focused attention in social phobia and social anxiety. *Clinical Psychology Review, 22,* 947-975.

Steenbarger, B. N., & Aderman, D. (1979). Objective self-awareness as a nonaversive state: Effect of anticipating discrepancy reduction. *Journal of Personality, 47,* 330-339.

Stephenson, B., & Wicklund, R. A. (1983). Self-directed attention and taking the other's perspective. *Journal of Experimental Social Psychology, 19,* 58-77.

Stephenson, B., & Wicklund, R. A. (1984). The contagion of self-focus within a dyad. *Journal of Personality and Social Psychology, 46,* 163-168.

Szymanski, K., & Harkins, S. G. (1992). Self-evaluation and creativity. *Personality and Social Psychology Bulletin, 18,* 259-265.

Taylor, S. E., & Fiske, S. T. (1978). Salience, attention, and attribution: Top of the head phenomena. *Advances in Experimental Social Psychology, 11,* 249-288.

Taylor, S. E., & Mettee, D. R. (1971). When similarity breeds contempt. *Journal of Personality and Social Psychology, 20,* 75-81.

Trapnell, P. D., & Campbell, J. D. (1999). Private self-consciousness and the five-factor

model of personality: Distinguishing rumination from reflection. *Journal of Personality and Social Psychology, 76,* 284-304.

Wegner, D. M., & Schaefer, D. (1978). The concentration of responsibility: An objective self-awareness analysis of group size effects in helping situations. *Journal of Personality and Social Psychology, 36,* 147-155.

Weiner, B. (1985). An attributional model of achievement motivation and emotion. *Psychological Review, 92,* 548-573.

Wells, A., & Matthews, G. (1994). *Attention and emotion: A clinical perspective.* Hillsdale, NJ: Erlbaum.

Wicklund, R. A. (1990). *Zero-variable theories and the psychology of the explainer.* New York: Springer.

Wicklund, R. A. (1999). Multiple perspectives in person perception and theorizing. *Theory and Psychology, 9,* 667-678.

Woody, S. R. (1996). Effects of focus of attention on anxiety levels and social performance of individuals with social phobia. *Journal of Abnormal Psychology, 105,* 61-69.