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COMMENTARIES

Do Positive and Negative Emotions Have Opposing Influences on Hope?

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In his target article, C. R. Snyder's program of research demonstrates that hope contributes to important life outcomes ranging from athletics to academics. Snyder's hope theory also elucidates several mediators that account for these outcomes, namely goals, pathways, and agency thinking.

Rather than focusing on these extensively researched areas, however, we propose extensions into a relatively under-researched part of the theory: emotion. To be sure, hope theory contends that "thinking is at the core of hope rather than emotions." However, emotions do figure quite prominently in the theory. First, hope theory predicts that people who differ in their tendency to experience hope will also differ in the tendency to experience positive and negative emotion. Whereas high-hope persons should have enduring "positive emotions with a sense of affective zest about the pursuit of goals," low-hope persons should have "negative emotions with a sense of affective lethargy about the pursuit of goals." Moreover, hope theory also predicts that emotions—not cognition—serve to mediate the initiation and maintenance of goal pursuits. Indeed, in the target article, Snyder's overall model of hope shows emotional feedback mechanisms feeding into every step along the path from initial hope thoughts to the ultimate attainment–nonattainment of a goal.

We propose that increasing specificity regarding these emotion mechanisms will increase the predictive power of the overall model. In particular, we suggest two interrelated revisions to the hypothesized roles of emotion: First, we argue that negative emotion is not necessarily associated with diminished hope and positive emotion with enhanced hope. Second, we argue that negative emotion is not necessarily associated with lethargic disengagement from goals and positive emotion with the opposite. Each of these proposed revisions represents readily researchable topics in hope theory.

Is Negative Emotion Necessarily Associated With Diminished Hope?

Hope theory relies heavily on valence distinctions—parsing the emotion world based on the positivity versus negativity of affective experience. However, valence is only one of many useful ways to differentiate affective experience, particularly as emotion relates to hope. Emotions are associated with a host of specific cognitive appraisals—valence is only one of them. For this argument, we draw mainly on Smith and Ellsworth's (1985) appraisal theory, which systematically integrates several other appraisal theories (e.g., Roseman, 1984; Scherer, 1982), and which differentiates six cognitive dimensions underlying different emotions: certainty, pleasantness (valence), attentional activity, control, anticipated effort, and responsibility. It is important to note that emotions of the same valence can differ on multiple appraisal dimensions. For example, fear and anger, although both negative, significantly differ in terms of the certainty and control dimensions (Smith & Ellsworth, 1985)—two dimensions that have conceptual relevance to hope theory. Whereas a sense of situational control and uncertainty defines fear, a sense of individual control and certainty defines anger. It is interesting to note that anger more closely resembles happiness on the control and certainty dimensions than it does fear.

Based on fear's appraisal structure, Lerner and Keltner (2000) proposed that fear would be associated with the tendency to perceive uncertainty and situational control in new situations and that fearful people would—as a consequence—make pessimistic risk estimates across new situations. This prediction is consistent with hope theory. However, contrary to hope theory, they also predicted that anger would be associated with the tendency to perceive certainty and individual control in new situations and—as a consequence—to make relatively optimistic estimates across new situations. In sum, Lerner and Keltner (2000, 2001) predicted that angry persons would be significantly more hopeful when evaluating risky events than would fearful people. In addition, they predicted that the risk estimates of angry persons would more closely resemble those of happy persons than those of fearful persons—despite the difference in valence.

Five studies have tested these hypotheses and found consistent support for them (see Lerner & Keltner, 2000, 2001). The first study revealed that the more dispositionally angry people were, the more likely they were to make optimistic risk estimates. The opposite was true for fear (Lerner & Keltner, 2000). A second study changed the dependent variable of interest from judgments to choices involving risk, employing Tversky and Kahneman's (1981) widely used "Asian disease problem." Consistent with the appraisal-tendency hypothesis, the more dispositionally angry people were, the more likely they were to choose a gamble

over a sure thing, despite equal expected value for each option. Once again, the opposite was true for fear (Lerner & Keltner, 2001), and this pattern held regardless of whether choices were framed in terms of losses or gains. Although this study did not measure perceptions of hope per se, one could reasonably infer that choosing a gamble over a sure thing represents a behavioral manifestation of hope.

At this point, readers might question the extent to which anger is associated with hopeful optimism in an absolute sense. Perhaps angry persons simply appear hopeful in comparison to fearful persons. To address this question, a third study strategically compared two emotions (anger and happiness) that differ in valence but have similar appraisal themes. To test generalizability of the phenomenon, the study also adopted a new dependent variable: optimism about future life events. Specifically, the dependent measure asked participants to assess their chances of experiencing a variety of future life events (e.g., winning career awards, getting a divorce) relative to the chances of an average student at their school. Once again, results supported the appraisal-tendency prediction: Anger was positively related to optimistic estimates, happiness was positively related to optimistic estimates, and fear was negatively related to optimistic estimates. Notably, the relation between anger and optimism was every bit as strong as it was between happiness and optimism (Lerner & Keltner, 2001).

Subsequent studies in this line of work have (a) replicated the finding that risk estimates of angry people more closely resemble those of happy people than those of fearful people, (b) revealed that appraisals of certainty and control moderate and (in the case of control) mediate the emotion effects, and (c) revealed that these opposing patterns emerge for naturally occurring and experimentally induced fear and anger (Lerner & Keltner, 2001).

To recap, anger arises from (Smith & Ellsworth, 1985) and gives rise to (Lerner & Keltner, 2000) appraisals of individual control and certainty. These appraisals closely resemble Snyder's (target article) agency thinking in that they account for a person's "perceived capacity to use one's pathways to reach desired goals." They lead angry persons to make relatively optimistic and hopeful estimates concerning their chances of experiencing future life events and to select gambles over certain outcomes. Although anger is unquestionably a negative emotion, it shares with happiness a tendency to trigger relatively risk-seeking and optimistic judgments and choices.

Is Positive Emotion Necessarily Associated With Increased Hope?

Turning now to positive emotions, the idea of enhanced hope must also be qualified. Some research on affect and decision making is consistent with hope theory's assertions. For instance, Johnson and Tversky (1983) found that persons in whom positive affect had been induced believed that negative events were less likely to occur and that positive events were more likely to occur than did a corresponding group of controls. However, a higher–lower estimation of the probabilities of future good–bad events does not mean that happy people are more likely to *pursue* desirable outcomes. Isen and her colleagues (Isen & Geva, 1987; Isen, Nygren, & Ashby, 1988; Isen & Patrick, 1983) found that inducing positive affect leads people to perceive good outcomes as more likely than bad outcomes, yet to anticipate a future loss as more aversive, and therefore, to make more risk-averse choices when the size of a potential loss is substantial. Integrating these findings into hope theory would suggest that although positive-affect persons may be more likely to pursue goals associated with small risks (i.e., potentially small losses), they may be less likely to pursue goals with large risks.

Is Negative Emotion Necessarily Associated With Lethargic Disengagement?

We turn now to the question of how emotions relate to approach and withdrawal motives. According to hope theory, low-hope persons experience a negative emotional set and negative self talk ("I'm not doing very well"), which leads them to lose task focus and disengage.

To evaluate the generality of this hypothesis, we once again consider the case of anger—undoubtedly a negative emotion and yet one associated with active, even "zestful" pursuit of goals. Numerous angry characters in fiction, ranging from Dr. Seuss's Grinch to Aeschylus's Clytemnestra have zestfully executed their plans of revenge. For more convincing arguments, however, we turn to neuropsychological evidence. It is interesting to note that early neuropsychological evidence did tend to pair approach with positive affect and withdrawal with negative affect (Davidson, Ekman, Saron, Senulis, & Friesen, 1990). However, new models have demonstrated the importance of decoupling valence from approach–withdrawal motives. Harmon-Jones and Allen (1998) found that trait anger fits an approach pattern of hemispheric activation—one that had been thought to be uniquely characteristic of positive emotions. Specifically, measures of electroencephalographic (EEG) alpha activity revealed that trait anger is associated with increased left prefrontal and decreased right prefrontal activity (Harmon-Jones & Allen, 1998). A second study found that state-induced anger is also associated with relative left prefrontal activity and that

this prefrontal activity is associated with aggression (Harmon-Jones & Sigelman, 2001).

Aside from EEG data, cognitive studies suggest that anger is associated with relatively more thoughts of human agency (Lerner & Keltner, 2001; Smith & Ellsworth, 1985) and with the activation of approach-related goals, typically involving attempts to redress injustice (Lerner, Goldberg, & Tetlock, 1998; Weiner, 1993). In addition, studies of the autonomic nervous system (ANS) suggest that anger triggers up-regulation of the sympathetic nervous system—the ANS branch responsible for the initiation of action (e.g., see Fredrickson et al., 2000; Levenson, 1992; Sinha, Lovallo, & Parsons, 1992). Some aspects of up-regulation may directly prepare one for approach. For example, some researchers interpret the association between anger and blood flow to the periphery as evidence that anger prepares one for aggressive approach toward others (Levenson, 1992).

To recap, multiple lines of evidence suggest that anger triggers behavioral approach, agency thinking, and the formation of specific goals. Other negative emotions may also trigger approach motives. For example, although disgust is characterized by initial disengagement as one tries to rid oneself of something disgusting (Rozin, Haidt, & McCauley, 1993), disgust can also trigger approach goals as one initiates new tasks in an attempt to cleanse oneself of the offending objects or ideas (cf. Tetlock, Kristel, Elson, Green, & Lerner, 2000). Sadness is perhaps most consistent with the idea of disengagement, but it may also be associated with efforts to change one's circumstances and replace loss (Lazarus, 1991).

Is Positive Emotion Necessarily Associated With Zestful Pursuit?

Having addressed negative emotion, we turn briefly to positive emotion and its hypothesized role in increasing goal pursuit among high-hope persons. According to hope theory, high-hope persons experience a positive emotional set and positive self-talk ("I am ready for this challenge"), which keeps them attentive and focused on the task. It even propels them toward completion of the task. Although evidence on positive emotions is relatively scant, Isen's (1987) program of research is certainly consistent with the idea that happiness activates approach motivation. Isen and her colleagues (Isen & Geva, 1987; Isen, Nygren, & Ashby, 1998; Isen & Patrick, 1983) found that happy people are more likely to help others, to perform well in creative problem-solving tasks, and to think in creative, expansive ways (Isen, 1987). Despite the evidence consistent with the positive zestful approach hypothesis, some arguments do still imply that the hope theory hypothesis needs qualification. Specifically, such positive states as contentment are typically appraised as low effort (Ellsworth & Smith, 1988) and linked with inactivity (Frijda, 1986).

Synthesis of Emotion Implications for Hope Theory

We agree with hope theory's hypothesis that emotion will mediate many of the paths from initial conceptualization of a goal to its ultimate realization or lack thereof. We differ with hope theory, however, in terms of how such mediation will occur. Rather than making valence-based predictions, we would offer emotion-specific hypotheses that build on the cognitive appraisal tendencies, behavioral patterns, and physiological profiles associated with specific emotions. Such hypotheses could be straightforwardly integrated into the general hope theory framework and tested either with trait or state emotion.

Note

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