

Introduction

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The concept of emotional intelligence has emerged as an area of intense interest, both in scientific (Mayer, Salovey, & Caruso, 2000; Salovey & Mayer, 1990) and lay (e.g., Goleman, 1995, 1998) circles. Because emotionally intelligent individuals are socially effective, definitions of the concept in trade books and the popular press have included personality attributes more generally associated with adaptive personal and social functioning that may or may not be related to skills and abilities in the emotional arena (Mayer et al., 2000). Scientific treatments have defined emotional intelligence in terms of mental abilities rather than broad social competencies. For instance, Mayer and Salovey (1997) defined emotional intelligence as the ability to perceive, appraise, and express emotions accurately; the ability to access and generate feelings to facilitate cognitive activities; the ability to understand emotion-relevant concepts and use emotion-relevant language; and the ability to manage one's own emotions and the emotions of others to promote growth, well-being, and functional social relations.

The concept of emotional intelligence has been useful as an organizing framework in diverse contexts. It has been helpful to educators designing curricula for the purposes of improving children's social and emotional functioning (Mayer & Cobb, 2000; Salovey & Sluyter, 1997). It has been used by the human resources and organizational development fields to characterize skills important in the workplace other than specific job-related competencies (Caruso, Mayer, & Salovey, 2002; Cherniss & Goleman, 2001). Yet we wonder whether the excitement about the heuristic value of emotional intelligence has overshadowed a

careful study of what it is, and in particular, the underlying psychological components that when brought together emerge as emotional intelligence. We expect that with a detailed explication of the multiple processes that characterize emotional intelligence, it will emerge as an organizing framework for investigators who study phenomena in which emotions play some role. The purpose of this volume is to examine these component processes using the model outlined by Mayer and Salovey (1997) as a starting point: (1) perceiving and appraising emotion, (2) using emotion to facilitate thought, (3) understanding and communicating emotion concepts, and (4) managing emotions in oneself and others. By establishing the underlying processes that characterize each of these domains of emotional intelligence, the construct validity of emotional intelligence as a whole can emerge.

As research on emotion progresses at many levels of analysis, from neuroscience to culture, the concept of emotional intelligence continues to evolve. The chapters in this book reflect some of these developments. One issue is whether it makes sense to talk of “accuracy” when referring to the representation of emotional events. Emotions are contextualized, emergent phenomena, such that there are no right or wrong responses—no accuracy in an absolute sense. However, some responses are better than others. Usually, judgments about the desirability of a response are culturally and temporally situated. Thus, it is sensible to measure emotional intelligence in terms of an individual’s understanding and use of this consensual knowledge.

A second issue concerns the harnessing of emotions to encourage rational thought, stimulate creative problem solving, and motivate behavior. It is not a new idea that emotions play a pivotal role in assisting good decision making (e.g., Damasio, 1994; DeSousa, 1987), but the multiple ways in which this can occur are still being delineated. To begin with, emotional intelligence is more than just relying on feeling in reasoning. It is also harnessing the motivating properties of affect in everyday life. Traditional discussions of passion and reason assume a strong boundary between the two. Although thinking and feeling are certainly experientially distinct, recent neuroscience investigations suggest that they may be less neuroanatomically separable than originally assumed (Lane & Nadel, 2000). As a consequence, the relationship between emotion and cognition may need to be reconsidered. Moreover, less attention has been paid to the role of emotion in instigating behavior when the behaviors in question are not related to immediate survival. Unless one lives in a war-torn part of the world or in a distressed urban center, the probability of confronting stimuli that threaten survival and provoke prototypical emotional events (of the kind described by Darwin, 1872/1998) is relatively low. A useful theory must account

for those events, but should also be able to capture the more frequent, but perhaps less dramatic, emotional responses that characterize modern daily living.

As for the structure of emotion knowledge, we do not know whether emotion concepts have the functional properties of concepts in other domains such as animals, automobiles, and food, or whether they have unique properties. If emotion concepts are like other concepts, then are they best described as traditional feature-based categories (Clore & Ortony, 1991), fuzzy sets with prototypes (Russell, 1991), or theory-based groupings (Medin, 1989)? Are they permanent or fluid, changing in response to situational contingencies in the immediate external environment (Barsalou, 1983) or phenomenological experiences in one's internal environment (e.g., Niedenthal, Halberstadt, & Innes-Ker, 1999)? Of course, the most important questions concern the relations between how emotional information is represented and the manner in which such representations influence diverse elements in an emotional response.

Finally, theories about coping, mechanisms of defense, finding meaning in adversity, resilience, and flexible responding all converge on the notion that components in an emotional response often require active management. This idea is reflected in the fourth branch of emotional intelligence concerning the regulation—often strategic—of feelings and emotions in oneself and other people. Typically, theorizing on these issues focuses on the prevention, abbreviation, or transformation of negative emotion, but is this really the dominant motivation for emotion management? It is plausible, even likely, that negative emotional responses allow us to function effectively in certain situations. Even more likely is the notion that cultivating positive emotions can have adaptive value in its own right, over and above the amelioration of negative responses.

The chapters included in this volume link ongoing basic research on affect and emotion to the ideas embodied in the emotional intelligence concept. In doing so, they provide evidence for the value of emotional intelligence as a framework for organizing and advancing theory and research on emotion. These chapters also stretch the boundaries of the emotional intelligence idea in new and important ways.

Part I of this volume deals with the processes involved in perceiving and identifying emotions in oneself and others. Bachorowski and Owren describe the functional acoustics in an emotional signaling system. They argue that there are direct and indirect ways in which perceivers attribute emotion to targets on the basis of their nonlinguistic vocal properties. Especially interesting are the ways in which declarative knowledge about the vocalizer interact with prosodic features of the vocal cues to produce an emotional impression in the listener. Perhaps

even more apparent are the emotional cues provided on the canvas of the face. Elfenbein, Marsh, and Ambady describe the crucial role of reading facial expressions in emotional intelligence. Their chapter addresses how the meanings of facial expressions are interpreted against a contextual backdrop. Although facial expressions may provide some signal in an emotional transaction, they are not impervious to the influence of the relationship between sender and receiver, culture, social class, gender, and other features of the social environment. In the final chapter of Part I, Nelson and Bouton argue that the types of judgments described in the first two chapters may have their basis in associative learning. They detail the associative processes that modify or change the affective value of a stimulus. On the basis of the evidence they present, Nelson and Bouton argue that our learning histories are always with us. Although the affective significance of a stimulus may change, that change is often contextual (and therefore conditional in nature). As a result, learning histories are accumulative and to some extent indelible. These properties of acquisition and change in the affective significance of stimuli have profound implications for other aspects of an emotional response. Together, these three chapters begin to characterize how we come to view certain kinds of cues as emotionally meaningful, and certain types of information as emotionally relevant.

Part II describes how affective experiences come to influence thought and action. Gohm and Clore provide an explicit framework for understanding how individuals rely on affective feelings as a source of information in social judgment. They suggest that there is significant variability in this process, however. Those individuals who report attending to their feelings, and experiencing those feelings in a clear, intense way, use them in the judgment process differently than do others. Gilbert, Driver-Linn, and Wilson also describe the informational value of affective experience, specifically the value of anticipated affective states. They describe the processes involved in “impact bias,” the tendency to misjudge both the duration and the intensity of predicted affective reactions. They suggest that similar biases may play out in retrospective accounts of emotional reactions as well, leading to the idea that prospective and retrospective judgments have more in common with each other than they do with actually experienced affective states.

Schwarz’s analysis suggests that the states of mind accompanying everyday moods are best suited for different kinds of cognitive tasks. The expansive orientation facilitated by pleasant affective feelings encourages top-down information processing that is creative and heuristic driven. In contrast, the detail-oriented focus facilitated by unpleasant affective feelings encourages bottom-up information processing that is stimulus driven, deductive, and engenders the careful scrutiny of in-

coming information. Schwarz's ideas about how moods tune the cognitive system have implications for a range of outcomes, including stereotyping, attitude change, and analytical reasoning. Niedenthal, Dalle, and Rohmann also discuss how feeling tunes cognitive processing. The emotional aspects of stimuli form a core organizing principle around which they can be grouped into concepts. Discrete emotional experiences function as the "glue" in perceiving these concepts. The implication is clear: People literally perceive the world differently depending on how they are feeling. Discrete emotions influence not only categorization processes, but other cognitive processes as well. DeSteno and Braverman discuss the various ways in which discrete emotional experiences affect attitude change. They argue that individual differences in emotional intelligence influence the mechanisms by which emotions have their impact. In doing so, they synthesize the affect-as-information perspective with the cognitive-tuning approach to provide an emotional spin on the popular elaboration-likelihood model of attitude change.

The final chapter in Part II provides a neuroanatomical basis for the idea that feelings influence strategic information processing and planned behavior. Using examples from psychopathology, especially obsessive-compulsive disorder, Savage details how one area of the prefrontal cortex, called the orbital frontal cortex, allows individuals to harness affective information during the early stages of responding to stimuli, especially those that are novel or ambiguous in some way. In a preliminary sense, Savage lays the anatomical foundation for how emotional information influences thought and behavior.

Part III deals with emotion concepts—individuals' knowledge base about emotion and their ability to represent symbolically elements of the emotional response. This issue has been a focus of systematic research in developmental psychology. Denham and Kochanoff describe much of this research in their review of the developmental milestones in children's understanding of emotion—how this understanding develops from the ability to label emotional expressions, identify emotion-eliciting situations, comprehend probable causes of emotion, appreciate the consequences of emotion, and infer the emotional experiences of others. These authors provide a useful summary of the development of an emotional knowledge base that may be involved in other aspects of emotional intelligence. Lane and Pollermann describe the different levels of sophistication that characterize individuals' understanding of emotional experience. Using a Piagetian framework, they suggest that there are different levels of development, from understanding emotional experience in simplistic ways (e.g., in global or physical terms) to a more complex conceptual system that is precise and multifaceted. The complexity of a person's conceptual framework will determine, in turn, both

the degree to which emotional experience can be represented mentally in a complex fashion and the complexity of the experience itself.

When laypersons think about emotional intelligence, they likely focus on regulation. In fact, managing the potential array of elements in an emotional response, and attempting to influence the feelings of others, are central aspects of competence in the emotional domain. Part IV of this volume concerns managing emotion. Gross and John are especially concerned with providing a framework for understanding the range of strategies involved in emotion regulation. Specifically, they contrast those strategies focused on managing the potential antecedents of an emotion response with those that change the response once it has occurred. They are also concerned with the effects of such strategies, in particular the consequences of suppression. Next, Tugade and Fredrickson point out the value of positive emotions. They suggest that positive emotions provide a powerful antidote to negative reactions. In addition, they highlight the intrinsic adaptive value of positive emotions themselves. Their broaden-and-build model suggests that positive emotions provide us with the psychological resources to engage in the more adaptive antecedent-focused strategies described by Gross and John. The final chapter in Part IV explores the consequences of challenging the deeply held belief that hedonism alone is the primary motive for emotion regulation. Knowing that certain types of cognitive and behavioral tasks are accomplished better when our cognitive system is tuned by negative emotion, Parrott argues that there may be circumstances in which it is useful to cultivate negative emotions and unleash their functional power. Contrary to being “hijacked” by negative emotion (e.g., Goleman, 1995), Parrott’s analysis suggests that we may benefit from our negative feelings, which can sometimes be the guide to thinking clearly and behaving appropriately.

A good theory is generative. And although it is too early to know whether emotional intelligence is a foundation for creative research in emotion, Part V of this volume provides three illustrations of interesting directions for future research. Russell and Blanchard suggest that a person cannot be intelligent unless he or she knows what to be intelligent about. They argue that *emotion* is a category too broad for scientific discourse and suggest a lexicon for parsing the emotion domain that is consistent with many theories of emotion. Just as a well-developed emotion lexicon is important for functionally effective emotional behavior, these authors suggest that the definitional clarity resulting from a precise scientific lexicon can be important for effective future research on emotional intelligence.

The final two chapters provide examples of how emotional intelligence can make contact with research that is traditionally considered outside the realm of affect science. Ferguson and Bargh describe their

work on automatic attitudes. They discuss the mechanisms through which individuals effortlessly integrate evaluative information from individual features of a novel object to provide an evaluative summary response to it. Aspects of this process appear to occur outside of consciousness and likely contribute to the initial affective appraisal of a stimulus. Blair reviews some of the literature on Theory of Mind, the ability to represent the mental states of self and others, and examines potential links to the various facets of emotional intelligence. Using examples from autism, where Theory of Mind is impaired, and examples from sociopathy, where emotional intelligence is impaired, Blair examines whether Theory of Mind is necessary for emotionally intelligent behavior.

Much of the popular media attention to the idea of emotional intelligence has focused on the measurement of an “EQ” (e.g., Gibbs, 1995). Although assessing individual differences in the abilities that constitute emotional intelligence is a useful endeavor, it is our view that the field will benefit from a deeper understanding of the processes that subserve these different skills. Such an analysis allows research on emotional intelligence to be better situated in the field of affect science, rather than merely a provocative contribution to the intelligence testing literature. Once situated there, emotional intelligence has the potential to organize what we know and stimulate new questions about how emotional phenomena serve adaptive personal and social functioning at many levels of analysis. Regardless of one’s core theoretical preferences, there is a convergence of thought that emotions are functional. One cannot study the processes by which people emote or assign emotional value without considering their effectiveness. And, as learning theorist O. H. Mowrer (1960, p. 308) noted, the emotions “do not at all deserve being put into opposition with ‘intelligence.’” The spirit of Mowrer’s comment is clear: We cannot understand the workings of the mind and their influence on behavior without understanding the role of emotional processes. Emotional intelligence may be an important conceptual framework for guiding research on emotional phenomena and their influence on the range of things that concern us as psychologists.

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