Foreword

A fractal is a design that possesses "self-similarity"—that is, the design's exact geometric properties are repeated at the smallest level, at midlevel, and at high levels. The Sierpinski triangle (see Figure 1), for example, is a triangle made from smaller triangles repeated at several levels of scale. At first glance, most people see a triangle with an upside-down triangle in its middle. The large triangle, however, is made of four smaller, inner triangles, with each of the three triangles around the perimeter having its own upside-down triangle in its middle. Drop down still another level, and the pattern is the same. The Sierpinski triangle's self-similarity arises because it is itself built up from smaller Sierpinski triangles.

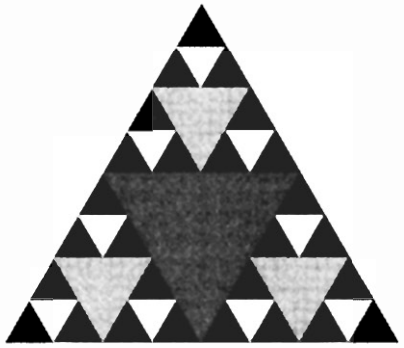

FIGURE 1. A Sierpinski triangle. Computer art by Joseph Kamm. Used with permission of the artist.

The field of emotional intelligence, it seems to me, possesses a self-similarity analogous to that of the Sierpinski triangle and other fractal shapes. That is, there is a thematic "shape" of a discussion that is carried on at several levels of analysis simultaneously. The central debate concerns whether intelligence is more important to one's life, whether emotion is, or whether the two can be synthesized in some way. This exchange of ideas takes place at a societal level, at the level of psychology as a discipline, and at the level of individual programs of research.

LEVEL 1: SOCIETAL CONTEXT

Most people first heard of emotional intelligence through Daniel Goleman's (1995) lively popularization of the field. Goleman's book went on to become one of the best-selling books on psychology to date. There were several reasons for this interest in emotional intelligence. First, Goleman's work was well written and exciting. Second, Goleman himself was a distinguished science writer, with strong ties to the *New York Times*, and he and his publisher were able to generate considerable excitement for the book. None of that would have mattered, however, if emotional intelligence did not play into a critical issue in many cultures. That issue concerned the perceived conflict between a person's thoughts and feelings. We may never know when the debate first arose, but we do know that it is represented in early Greek thought. The ancients identified with their intellect in part because it seemed central to distinguishing humanity from animals; Aristotle argued that intellect is "the highest thing in us" (Aristotle, 1976, p. 505). Stoic philosophers regarded emotional information, in contrast, as unreliable (Payne, 1986, pp. 17–19). Any educated person, they believed (somewhat naively) could reason to the same conclusion as any other. Reason, they believed (somewhat hopefully), was universal, dependable, and reliable. Emotion, on the other hand, was idiosyncratic, self-oriented, and undependable. "The sage will rule his feelings, the fool will be their slave," wrote Publilius Syrus in the first century BCE (Syrus, ca. 100 BCE/1961, p. 19). These thinkers set out to banish emotions from everyday life, or at least restrict their influence, so as to create a rational way to live. There are few people who would acknowledge being adherents to stoicism today, of course. The movement died out, but certain among its central tenets influenced the religions that would, ultimately, supplant the Greek pantheism of the time. Judaism, and especially Christianity, employed stoic philosophy. Those ideas then became a part of Western religious tradition. As a consequence, stoic philosophy is often embedded in Western thinking (Guttman, 1964; Payne, 1986, p. 15).

At the same time, there have been rebellions (antitheses) against the logical, stoic thesis. In Western Europe, these included the Chassidic rebellion against the cerebral emphasis of Judaism in the early 1800s. Several decades later, it included the Romantic rebellion against the logical emphasis of European classicism. Closer to the present, in the 1960s (when some of the contributors to this volume were coming of age), the student revolutions, and the surrounding conflicts between "youth" and "the establishment" often had an explicit quality of valuing emotions over intellect (Herman, 1992). Thus, Western culture has a thesis—that intellect is superior to emotion; an antithesis—that emotions are what make life worth living; and perhaps several attempts at synthesis—simply keeping heart and head "in balance," or more complex humanistic transcendence of the conflict, and the like. Emotional intelligence, however, would prove to be a different, perhaps more complete sort of synthesis, a synthesis that would arise from a more complete understanding of underlying cognitive and emotional processes.

LEVEL 2: THOUGHT AND EMOTION IN PSYCHOLOGY

The same debate about emotion and intellect as occurred at the societal level was recapitulated in the discipline of psychology. Academic psychology dates roughly from 1887. Shortly thereafter, the area of intelligence and intelligence testing predominated. Emotion was treated sometimes as a curiosity and sometimes as too subjective to measure. Even William James's influential theory of emotion concerned how it arose rather than what it meant (James, 1892/1920). In fact, the first mood scales were not introduced until the 1960s. When intelligence and emotion were compared, intelligence was viewed as the absence of emotion. Thus, Young (1936, p. 263), described emotion as an "acute disturbance of the individual as a whole." Young's textbook described emotions as causing a "complete loss of cerebral control" and containing no "trace of conscious purpose" (Young, 1943, pp. 457–458). Another text described it as "a disorganized response, largely visceral, resulting from a lack of an effective adjustment" (Schaffer, Gilmer, & Schoen, 1940, p. 505). In this vein, Woodworth (1940) suggested that scales measuring IQ should contain tests demonstrating the *absence* of fear, anger, grief, and other emotions characteristic of "younger children."

As in the culture at large, psychology had no shortage of proponents of the value of emotion as well. Leeper (1948, p. 17) suggested

that emotions "arouse, sustain, and direct activity." During the 1970s and 1980s a number of precursors important to emotional intelligence emerged. There was a growing recognition of the role of emotion as a universal signal system rooted in evolution (Ekman & Friesen, 1975). There was a recognition that emotional knowledge was necessary to understanding human interactions and, hence, would need to be formalized for computers to be able to read and comprehend stories (Dyer, 1983). There was a growing understanding of the interaction of emotion and cognition (Bower, 1981; Clark & Fiske, 1982; Isen, Shalker, Clark, & Karp, 1978; Zajonc, 1980). Finally, there was a loosening of the concept of intelligence to broader categories of symbol systems. For example, Howard Gardner (1983; see also Sternberg, 1985) published a volume that suggested scientists should place a greater emphasis on the search for multiple intelligences rather than focusing on a monolithic general intelligence. Gardner did not deal with an emotional intelligence per se, and he explicitly denied the possibility of its existence after it was introduced (Gardner, 1999, p. 75). Yet he had written that a central aspect of his suggested intrapersonal intelligence was "access to one's feeling life" (Gardner, 1983, p. 239).

In 1990 my colleague Peter Salovey and I drew together those psychological (and cultural) literatures and proposed the first published, formal definition of emotional intelligence, along with a demonstration of how aspects of it might be measured as an ability (Mayer, DiPaolo, & Salovey, 1990; Salovey & Mayer, 1990.). We wrote an editorial in the journal *Intelligence* (Mayer & Salovey, 1993) as well, calling for its further study.

LEVEL 3: FOUNDATIONS UNDERLYING EMOTION AND THOUGHT

The opposition of intellect and emotion occurred at a third level of self-similarity. That level involved studying the underlying (e.g., more molecular) mental processes within three smaller areas: the cognitive system, the emotion system, and their interaction. The research area that examined these was known as "cognition and affect." As noted, the 1970s and 1980s saw the emergence of research into this interaction. At the societal level and the general psychological level, as this area emerged, intellect was viewed as primary and moods were viewed as biasing thought (e.g., Bower, 1981). Again, there was a loyal opposition. In an unusual reversal of primacy, Beck argued that irrational cognition could be viewed as a cause of depression. No longer was emotion disrupting in-

tellect, but rather the reverse (Beck, Rush, Shaw, & Emery, 1979). And, of course, there were arguments that emotion might make people—or computers, or robots—think better (Alloy & Abramson, 1979; Mayer, 1986; Sloman & Croucher, 1981).

The term "emotional intelligence" had been used sporadically at least from the early 1960s forward, but without any clear explanation as to what it might mean, how to define it, or how to measure it (for an early use, see Van Ghent, 1961, p. 103). It existed in a sort of science fiction purgatory until the research could catch up. It was the area of cognition and affect, and its neighboring fields, that began to delineate and focus on the specific relations between passion and reason that would finally permit a logical analysis of the term. As noted earlier, the areas, concepts, and terminology were integrated into the emotional intelligence concept during the period from 1990 to 1993. However, the original research lines that led to it continued, and in those years and the years since, have continued to reveal the synthesis between the heart and the head (e.g., Niedenthal & Kitayama, 1994). The present volume brings together many of the researchers who first laid the foundations of the field and others who, more recently, have attempted to explain the processes of emotional intelligence.

The editors of this volume are my esteemed colleagues Lisa Feldman Barrett and Peter Salovey. Dr. Salovey and I had the great joy and privilege of working together writing the first articles on emotional intelligence—and we continue to delight in our collaborations today, on measuring emotional intelligence as a set of individual differences in ability with the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT) and the Multifactor Emotional Intelligence Scale (MEIS), and in our further work in the area. I have known Dr. Barrett more briefly, and I admire her sophisticated, energetic, and highly regarded research in the area of cognition and affect. It is she and her colleague James Gross who have called for the examination of the basic processes underlying emotional intelligence addressed in this book (Barrett & Gross, 2001).

The editors bring a wealth of experience to this volume, and they have assembled a top-notch group of contributors. As a consequence, you will have a rewarding experience herein watching over the shoulders of these great researchers as they unlock some of the mysteries of emotional intelligence.

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Department of Psychology
University of New Hampshire

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