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Can We Improve Emotional Intelligence? Addressing the Positive Psychology Goal of Enhancing Strengths - Chapter 2 from "Emotional Intelligence: Perspectives on Educational and Positive Psychology"

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CHAPTER 2

Can We Improve Emotional Intelligence?

Addressing the Positive Psychology Goal of Enhancing
Strengths

Kelly B. T. Chang

At the turn of the millennium, the positive psychology movement was born. In Martin E. P. Seligman's (1999) presidential address at the 1998 American Psychological Association annual convention and in the seminal *American Psychologist* special issue following it (Seligman & Csikszentmihalyi, 2000), he recalled that before World War II and the establishment of the Veterans Administration and the National Institute of Mental Health, psychology had three missions: (1) curing mental illness, (2) helping all people to lead more productive and fulfilling lives, and (3) identifying and nurturing high talent. Seligman suggested that psychology had long neglected the latter two missions, creating an imbalance by focusing more on pathology and less on what makes life worth living. Beyond simply describing strengths that lead to fulfilling lives, positive psychologists could help people enhance those strengths, thus carrying out the second and third missions of psychology. While researchers in the field of emotional intelligence (EI) are still working to define and measure the construct, a variety of efforts to enhance EI have emerged. This work could be seen as one example of how positive psychology can help correct the imbalance between weaknesses and strengths.

By some reports, EI is a psychological concept that seems more powerful than a locomotive (e.g., IQ), faster than a speeding bullet (e.g., saves struggling marriages), and able to leap over tall buildings in a single bound (e.g., improves academic achievement), with a big "EI" written across its broad chest. Such is the apparent promise of popular EI fanfare. Some authors' claims extend so far as to make EI the hero for today's "emotional decay": EI can address drug abuse, the rising divorce rate, violence in schools, psychological disorders, and so on (Goleman, 1995; Graczyk et al., 2000). Much of the excitement and attention around the concept of EI hinges on the hope that it can be improved, more so

than traditional intelligence, personality traits, or talent. However, a close look at the common definitions of EI shows that it typically encompasses all of these things. From basic emotional perception, to empathy, to optimism, to self-control, the broad variety of concepts fitting under the EI umbrella make it difficult to operationalize EI, let alone measure improvement. Nevertheless, researchers, teachers, motivational gurus, and businesspeople alike are trying. If EI can be improved, then perhaps with it we can raise a new generation of socially savvy citizens, reduce social ills, strengthen marriages, create business leaders, and help people succeed where they typically would not under traditional intelligence biases.

It is possible that EI can be changed with concerted effort, from childhood through adulthood, both at the basic level of emotional processing and at the more complex, situation-specific level of daily functioning. The goals of this chapter are to (1) provide a brief overview of the main models of EI and their subsequent predictions of whether EI can actually improve; (2) discuss EI interventions now blossoming in schools and business training; and (3) explore self-modification as a possible key to improving EI.

Popular Models of Emotional Intelligence

EI is generally defined as "a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action" (Salovey & Mayer, 1990). Current models of EI vary broadly in their definitions of EI, as well as in their subsequent predictions about whether EI can be taught. Despite their differences, there is a commonly assumed link between the ability model of EI and the more outcome-based models of EI that are popular in the fields of business and emotional health. It may be possible that people with high ability in basic EI skills, as identified in the ability model of *emotional intelligence*, will be more likely to improve on more complex, context-specific EI skills, as identified in the *emotional competence* and *emotional quotient* models.

Ability-Based Emotional Intelligence

Mayer, Salovey, and Caruso (2000) stress in their model (called "Ability EI" for the rest of this chapter) that EI is actually an intelligence that processes and benefits from emotions. This model is the only one to support the claim that EI is a unitary construct. Focusing mainly on mental abilities related to the processing

of emotional information, Ability EI has four core abilities: (1) Perceiving emotions, (2) using emotions to facilitate thought, (3) understanding emotions, (4) and managing emotions. Emotional Perception involves "registering, attending to, and deciphering emotional messages as they are expressed in facial expressions, voice tone, objects of art, and other cultural artifacts" (Mayer, Salovey, & Caruso, 2000, p. 109). Emotional Facilitation (also called using emotions) focuses on how emotion enters the cognitive system and alters cognition to assist thought. Emotional Understanding involves understanding emotional patterns—the meaning, development, and relationships between emotions. Emotional Management involves the ability to effectively change or maintain emotions in oneself and in others.

There are as yet few studies that demonstrate whether ability-based EI can be improved (Caruso, 2004). Proponents of the ability model of EI are still not sure how much these basic abilities constitute a fixed trait or a teachable skill. They believe that there may be potential for concentrated training to improve emotional skills and knowledge (i.e., emotional education), however, they are not sure whether scores on their measure, the Mayer, Salovey, and Caruso Emotional Intelligence Test (MSCEIT), would actually improve after training. Programs have been developed according to the Ability EI model to enhance EI in adults and children (Brackett, Alster, Wolfe, Katulak, & Fale, 2007; Wolfe, 2007). These have evidence of improvement in emotional functioning, but they have not yet presented evidence of change in MSCEIT scores. It is likely such evaluations will be reported soon. One study in which college students were trained in EI did show improvement on two subscales of the MSCEIT (Chang, 2007). That study will be described toward the end of this chapter.

From Business: Emotional Competence

The most popularly known model of EI (Goleman, 1995) is less cohesive than the ability model, adding factors relevant to the business sector, such as teamwork and organizational awareness. According to Goleman's model, emotional competence (EC) is defined as a "learned capability based on emotional intelligence that results in outstanding performance at work" (Goleman, 1998, p. 24). While the Ability EI model involves cognitive processing of emotional information (abilities mostly residing within the individual), Goleman's EC model has more to do with a collection of emotional awareness and social skills that lead to effective functioning in the social realm of work (i.e., mostly witnessed in the "field"). The EC model is largely based on research done with the Self-assessment Questionnaire

(Boyatzis, Leonard, Rhee, & Wheeler, 1996), which is a collection of well-studied desirable traits for successful employees. The EC model lists 20 competencies, arranged in four clusters, as measured by the Emotional Competence Inventory (ECI; Sala, 2002):

- Self-awareness—concerns knowing one's internal states, preferences, resources, and intuitions
- Emotional Self-awareness—recognizing one's emotions and their effects
- Accurate Self-assessment—knowing one's strengths and limits
- Self-confidence—a strong sense of one's self-worth and capabilities
- Social-Awareness—refers to how people handle relationships and awareness of others' feelings, needs, and concerns
- Empathy—sensing others' feelings and perspectives, and taking an active interest in their concerns
- Organizational Awareness—reading a group's emotional currents and power relationships
- Service Orientation—anticipating, recognizing, and meeting customers' needs
- Self-management—refers to managing one's internal states, impulses, and resources
- Self-control—keeping disruptive emotions and impulses in check
- Trustworthiness—maintaining standards of honesty and integrity
- Conscientiousness—taking responsibility for personal performance
- Adaptability—flexibility in handling change
- Achievement Orientation—striving to improve or meeting a standard of excellence
- Initiative—readiness to act on opportunities
- Social Skills—concerns the skill or adeptness at inducing desirable responses in others
- Developing Others—sensing others' development needs and bolstering their abilities
- Leadership—inspiring and guiding individuals and groups
- Influence—wielding effective tactics for persuasion
- Communication—listening openly and sending convincing messages
- Change Catalyst—initiating or managing change
- Conflict Management—negotiating and resolving disagreements

- Building Bonds—nurturing instrumental relationships
- Teamwork and Collaboration—working with others toward shared goals and creating group synergy in pursuing collective goals.

They are organized along the dimensions of self versus others and awareness versus managing, such that EC, according to this model, is being aware of and managing emotions in oneself and in others. Many of these competencies have been separately substantiated in business leadership research (Boyatzis, 1982; Spencer & Spencer, 1993). However, they do not reveal a consistent unifying theme between competencies, and the relationships among them change depending on the sample measured (Boyatzis, Goleman, & Rhee, 2000).

The EC model is so far unconvincing in terms of its ability to define emotional functioning as a unified concept. However, its parts have value in their separately established connection to effectiveness in social and emotional situations. A quick glance at this list reveals that there are components that have a long history of enhancement research, such as self-control and conflict management. Goleman (1995; 1998) is quick to claim that EC can indeed be taught and improved, and there is some evidence to support that claim (Cherniss, 2000b; Sala, 2003; Topping, Holmes, & Bremmer, 2000; Young & Dixon, 1996). The ECI Technical Manual and studies presented on the Consortium for Research on Emotional Intelligence in Organizations Web site (www.eiconsortium.org) report improvements in ECI scores due to interventions. However, there needs to be more peer-reviewed research with large samples to effectively support the claim that programs can enhance ECI scores (Van Rooy & Viswesvaran, 2007).

Psychological Adjustment: Emotional Quotient

A third model of EI also stems from previous research on emotionally effective functioning. Bar-On defines *emotional* and *social intelligence* in terms of an "array of emotional, personal, and social abilities that affect one's overall ability to effectively cope with daily demands and pressures ... based on a core capacity to be aware of, understand, control, and express emotions effectively" (Bar-On, 2000, pp. 373–74). Bar-On emphasizes the term *emotional quotient* (EQ), and for the purposes of distinguishing models, his model will be called by that title in this chapter. The EQ model consists of a list of fifteen characteristics, grouped into five categories (Bar-On, 1997):

Intrapersonal EQ

- Self-regard—the ability to be aware of, understand, accept and respect oneself
- Emotional Self-awareness—the ability to recognize and understand one's emotions
- Assertiveness—the ability to express feelings, beliefs, and thoughts, and to defend one's rights in a nondestructive manner
- Independence—the ability to be self-directed and self-controlled in one's thinking and actions and free of emotional dependency
- Self-actualization—the ability to realize one's potential and to do what one wants to do, enjoys doing, and can do
- Interpersonal EQ
- Empathy—the ability to be aware of, understand, and appreciate the feelings of others
- Social Responsibility—the ability to demonstrate oneself as a cooperative, contributing, and constructive member of one's social group
- Interpersonal Relationship—the ability to establish and maintain mutually satisfying relationships that are characterized by emotional closeness, intimacy, and by giving and receiving affection
- Stress Management EQ
- Stress Tolerance—the ability to withstand adverse events, stressful situations, and strong emotions without "falling apart" by actively and positively coping with stress
- Impulse Control—the ability to resist or delay an impulse, drive, or temptation to act, and to control one's emotions
- Adaptability EQ
- Reality Testing—the ability to assess the correspondence between what is internally and subjectively experienced and what externally and objectively exists
- Flexibility—the ability to adjust one's feelings, thoughts, and behavior to changing situations and conditions
- Problem Solving—the ability to identify and define personal and social problems as well as to generate and implement potentially effective solutions
- General Mood EQ
- Optimism—the ability to "look at the brighter side of life" and to maintain a positive attitude, even in the face of adversity

- Happiness—the ability to feel satisfied with one's life, to enjoy oneself and others, and to have fun and express positive emotions

There is a substantial base of research on this model. Bar-On (2000) reports that scores on his Emotional Quotient Inventory (EQ-i) increase with age, at least up to the fifth decade, whereas IQ scores tend to increase until age 17 and then begin to mildly decrease between the second and third decade of life. This suggests that EI may be a more effective target for improvement than IQ. However, the strong relationship between the EQ-i and Big Five personality traits (e.g., Neuroticism, $r = -.–.57$; and Conscientiousness, $r = .48$) makes effective intervention questionable (Brackett & Mayer, 2003). All five of the major personality factors have been shown to rely strongly on genes and persist in adulthood, contradicting claims that personality-based EI would be easy to change (McCrae, 2000). However, the correlation between EQ and personality traits does not imply that there is *no* correlation between EQ and environment.

Recently, Bar-On and his colleagues J. G. Maree and Maurice Jesse Elias (Bar-On, Maree, & Elias, 2007) edited a book, *Educating people to be emotionally intelligent*, which reports on a wide variety of programs aimed at enhancing EI (this book focused especially on EQ but included contributions discussing other models of EI). Bar-On (Bar-On, 2007) reports that research has shown improvement in EQ-i scores in the workplace and in schools.

Both the EC model and the EQ model of EI are "mixed models," meaning that in their effort to explain effective emotional functioning as much as possible, their lists include a variety of factors. There are abilities that may be related to intelligence (e.g., Problem Solving), personality factors that may not be (e.g., Optimism), values that may influence how EI abilities may be used (e.g., Trustworthiness), and focus areas that influence what EI abilities may be used for (what people pay attention to, e.g., Organizational Awareness). All of these factors may vary in terms of whether they can be changed, and whether the EQ-i and ECI scales would detect such changes.

Much research is needed to clarify these models, distinguish the differences and connections between them, and assess whether EI (as they define it) can in fact be changed. Yet efforts to improve EI have already raced on ahead of the research.

Improving Emotional Intelligence

Improving EI in Education

According to the Collaborative for Academic, Social, and Emotional Learning (CASEL) at the University of Illinois, there are currently hundreds of programs in thousands of schools that profess to enhance some aspect of EI. Unfortunately, many of these were preexisting programs started for some other purpose, with little actual EI content, and few of them are empirically shown to work (Zeidner, Roberts, & Matthews, 2002). Nevertheless, there is a rising call for education to take responsibility for the emotional and social growth of students, from primary school up to higher education (Goleman, 1995; Liff, 2003; Parker et al., 2004). This may be partially due to the possible link between EI and academic achievement (Izard et al., 2001; Parker et al., 2004; CASEL, 2003), and an understanding that a resilient educational experience is closely intertwined with emotional and social competence (Liff, 2003).

EI may be related to improved educational outcomes. Early signs of EI can predict positive outcomes later. Children with higher ability to label emotions were more likely to exhibit long-term positive behavioral outcomes such as academic performance, peer status, and adaptive social behavior, even after controlling for verbal and general intelligence (Izard et al., 2001). A study of high school students found that EI predicted academic achievement a year later (Parker et al., 2004). CASEL claims that EI-based programs facilitate a supportive environment, increase students' attachment to school, reduce risky behavior, and ultimately improve educational outcomes for students (CASEL, 2003).

Some researchers suggest that EI-based training in the schools may remedy deficits in EI from family situations that are less than ideal (Mayer & Salovey, 1997). Others propose that the school setting is one of the most important contexts for learning of emotional skills and competencies (Graczyk et al., 2000; Matthews, Zeidner, & Roberts, 2002). While some theorists make remarkable claims as to the importance of EI to academic and career success, even above and beyond IQ (Goleman, 1995), other researchers are more careful, concluding that such predictive and incremental validity is yet to be substantiated by research (Mayer & Salovey, 1997). In order for educational leaders, teachers, and parents to make informed decisions about EI programs, research needs to show that students can improve EI in school. Researchers and program designers are making progress in this area (Bar-On et al., 2007). They demonstrate results on a variety of factors of

academic, social, and emotional learning. However, many of these programs still need to be evaluated and replicated using actual EI measures.

Of course, if EI is to be improved, or at least facilitated in its development, childhood may be the best time to do it: when children are learning about emotions and being socialized to express them in culturally appropriate ways. There is evidence that children learn emotional expression through classical conditioning, operant conditioning, and observational learning (Malatesta, 1990). Parents can model positive (or negative) emotional behaviors as well as directly coach the desired emotional expression styles in their children (Greenspan, 1998; Matthews et al., 2002). Parental maltreatment is associated with dysfunctional self-regulation (i.e., difficulty coping with stress, depressed affect, and marked anger) in elementary school children (Brenner & Salovey, 1997). On the other hand, a mother's sensitivity and the attachment between child and mother affects the child's sensitivity and empathy toward others (Taylor, Parker, & Bagby, 1999). Open family discourse about emotions also enhances the child's emotional awareness (Denham, 1998). Besides the obvious family influences on children's EI, other factors such as their own emotional experiences, peers, teachers, and the media may also play an important role as they grow older (Matthews et al., 2002). Some curricular programs take advantage of these formative years to teach effective emotional functioning.

There are many programs for Social and Emotional Learning (SEL) that have been developed and are being implemented in schools all over the United States, as well as in many other countries. CASEL serves as a resource for those who want to study, implement, and design such programs. Their latest completed project reviews 80 SEL curricula and projects (CASEL, 2004). For example, one particular program called Self-science (so named because "emotional intelligence grows from the study of ourselves and our relationships") has been used for over 30 years at a broad variety of schools, in the United States and abroad (Six Seconds, 2001). The curriculum claims to be both a stand-alone lesson and a process that is easily integrated into existing curricula. The goals of the curriculum include legitimizing self-knowledge as subject matter, becoming more aware of multiple feelings, developing communication skills for affective states, enhancing self-esteem, and experimenting with alternative behavioral patterns. As such, it seems to target both the basic skills discussed in the Ability EI model (e.g., emotional perception) and the more complex styles of thought and social skills addressed in the EQ (e.g., self-regard) and the EC (e.g., communication) models.

Although the Self-science curriculum was published as early as 1978, there has been little systematic empirical investigation into its effectiveness specifically for EI. A pilot study begun in 2001 found teachers who used the curriculum for a semester reporting that:

- Cooperation increased (100% of teachers agreed)
- Relationships in the classroom improved (100%)
- Teachers' relationships with students improved (92%)
- Students became more focused and attentive (92%)
- Put-downs decreased (85%)
- Collaborative work improved (77%)
- Positive verbal statements increased (77%)
- Learning in the classroom improved (77%)
- Conflict decreased (69%)
- Violence decreased (69%)

However, this study was done with a small sample of teachers ($n = 13$ in the results above), and these teachers may have answered the questions positively because of a felt obligation to the curriculum publisher. The change in students' behavior is not quantified, either by ratio of children that changed or amount of change in each child. Still, these results do indicate the usefulness of such programs for affecting both student behavior and learning. More widespread and comprehensive research is needed. The pilot study also has students' EI scores, based on their new Student Emotional Intelligence Inventory (SEQI) still under analysis (Six Seconds, 2001). Bar-On (2007) reports that an evaluation of this program using the EQ-i: Youth Version shows improvement from pretest to posttest, but the data are not yet published. Once these EI scales (and others) for children are established and validated, more rigorous evaluations of EI interventions for children may be possible. For now, teachers' opinions and behavioral reports are the main means of analysis for many of these programs. And though they tap into many positive behavioral outcomes, they do not effectively show that there is an actual increase in *Ability EI* (the underlying ability to perceive, facilitate, understand, and manage emotions). It is already well known that social skills can be improved with training (Cherniss, 2000b; Gidron, Davidson, & Bata, 1999; Watson & Tharp, 2006; Young & Dixon, 1996). More research is needed to see if Ability EI is actually increased in school programs, and not just certain social behaviors.

Improving Emotional Intelligence in Business Settings

The acceptance of EI in the business sector is well represented by the opening statement of an article in the *Harvard Business Review* (Druskat, 2001, March): "By now, most executives have accepted that emotional intelligence is as critical as IQ to an individual's effectiveness" (p. 81). The article goes on to say, "when managers first started hearing about the concept of emotional intelligence in the 1990s, scales fell from their eyes" (p. 81). In the field of business management and leadership, EI has made quite a market for itself. One of the largest sellers of EI tests and workshops claims: "Out of the Emotional Intelligence research, we've 'broken the code' on how to help leaders, managers, and employees increase Emotional Intelligence" (Hay Group, 2004). What they really mean is that some research has shown that Goleman's emotional *competencies* (such as self-confidence and conscientiousness) can be improved; the evidence on increasing emotional *intelligence* (the basic emotion processing abilities in the Ability EI model) is still being collected. Nonetheless, the EC model has made progress in terms of interventions for business leaders and managers, and there is much to be learned from these efforts.

Citing research on the effectiveness of psychotherapy, self-help programs, cognitive-behavior therapy, achievement motivation training, and power motivation training, Boyatzis (2001) insists that people can change their behavior, moods, and self-image. In the Weatherhead competency-based MBA program at Case Western Reserve University, students show improvement in 50–100% of the competencies (from the EC model) they test (Boyatzis, 2001; The Consortium for Research on Emotional Intelligence in Organizations) and even continue to improve after the program (Boyatzis & Oosten, 2002). In this program, students participate in a course focused on self-directed plans for improving EC and continue to emphasize EC throughout their MBA training. In the Professional Fellows Program for executives, 45–55-year-old professionals and executives also improved on 67% of the competencies taught in that course (Ballou, Bowers, Boyatzis, & Kolb, 1999), contradicting the claim that you cannot teach an old dog new tricks.

Here's an example of what some of these business EC programs look like. Studies by the Hay Group show that their Mastering Emotional Intelligence (MEI) program can help managers and executives improve their scores on the ECI 360 measure of emotional competencies (Boyatzis et al., 2000). The ECI 360 combines ratings from the participants themselves, their supervisors, direct reports, and peers. The MEI program was a five-day workshop spread out in three

sections over 10–12 months. Important components of the program include "Building Awareness," which is an introduction to EC; "Deciding to Change," which consists of individual attention, interpretation of ECI results, and making plans for change; and "Practice and Mastering," which involves more opportunities to work on EC behaviors (Sala, 2003). Participants were also encouraged to meet together and support each other's EC improvement efforts. After the year-long program, managers showed a 20–24% increase in ECI 360 scores. Competencies that were especially improved were: self-confidence, organizational awareness, service orientation, conscientiousness, adaptability, initiative, communication, and conflict management. It is interesting to note that although one sample increased in almost all of the competencies, another sample of participants did not improve in the four EC competencies that may be closest related to the Ability EI model: emotional self-awareness (perceiving emotions), accurate self-assessment (understanding emotions), empathy (perceiving and understanding emotions), or self-control (managing emotions) (Sala, 2003). However, since the ECI is based on the ratings of others, it is questionable how accurate their estimate of these competencies would be.

It comes as no surprise that Goleman's emotional competencies would show so much promise in the business sector. After all, his list of competencies was derived from already established research on what emotional and social factors contribute to business success, and to improving business effectiveness (Boyatzis et al., 2000). The success of this and other business EC programs may imply that there is potential for interventions to improve other types of EI. Perhaps some of the intervention methods shown to be effective for improving EC can also improve Ability EI. In these business programs, and in some effective school programs, a common theme is the use of self-regulation or self-modification strategies (Cherniss, 2000b; Topping et al., 2000).

Self-regulation and Emotional Intelligence

The famous "marshmallow studies" at Stanford University showed that children's ability to resist temptation predicted higher SAT scores in adolescence, among other things (Shoda, Mischel, & Peake, 1990). While some EI researchers claim that this finding supports the value of emotional and social skills and their connection to cognitive abilities (Cherniss, 2000a), this study was mainly concerned with children's self-regulatory strategies. Self-regulation is well-studied and well-recognized for its importance to psychological functioning and even has a place in the new taxonomy of character strengths and virtues (Peterson & Selig-

man, 2004a). The concept of self-regulation is woven boldly through models of EI, so much so that it would be difficult to tease them apart. Bar-On (2000) includes impulse control in the stress management branch of EQ. Managing emotions, the highest level of Mayer, Salovey, and Caruso's (2000) Ability EI model, could perhaps be synonymous with self-regulation of emotions. And self-management, including self-control, is one of Goleman's main EC categories (Boyatzis et al., 2000). In fact, the definition of EI as including the ability to regulate one's own and others' emotions suggests a very strong relationship between general self-regulation and EI.

Self-regulation consists of being aware of oneself and shaping one's own thoughts, behaviors, and feelings according to a desired standard (Watson & Tharp, 2006). It involves strategies such as self-talk, planning, and problem solving. Could self-regulation be the link between mental emotional abilities (Ability EI) and the more complex and context-specific emotional competencies (EC and EQ)? It may be that the four basic EI abilities (perceiving, using, understanding, and managing emotions) are prerequisites for effective self-regulation. Self-regulation strategies may be the means by which people can improve on emotional competencies such as stress tolerance, optimism, communication, and assertiveness. When people learn a new behavior, they use self-regulation to move from other-regulated behavior to automated behavior (Tharp & Gallimore, 1988). Take a child learning to ride a bike as an example. At first, she needs training wheels, and Daddy to run alongside her. Eventually she gets to take the training wheels off and balances the bike with a lot of conscious effort and with decreasing support from Daddy. Then after practice, she can ride her bike without much thought about balancing—it comes automatically. If she is not willing to try riding without the training wheels or Daddy, she will never get to the point where riding comes naturally. She must go through that effortful stage of tottering precariously, learning to adjust her weight and manage the gears, in order to learn the desired competency. This pattern is common for the development of all skills, and, therefore, self-regulation is a key component in any behavioral improvement efforts.

Self-modification and Emotional Competencies

Self-regulation may be a primary area to target in efforts to improve the qualities and abilities described in the EC, EQ, or Ability EI models. Self-modification plans—explicit and detailed self-regulation efforts—have been found to improve many aspects of life that may be related to EI. Self-modification techniques include self-directed plans, reflection, record keeping, antecedent-behavior-

consequence analysis, and self-rewards and self-punishments. These techniques are meant to bring habitual behaviors out of automation and into consciousness so that they can be adjusted and regulated. Training programs that utilize these techniques have been found to:

- Reduce hostility, depression, and anxiety (Deffenbacher & Shepard, 1989; Gidron et al., 1999);
- Improve self-awareness, empathy, conflict management, stress management, and self-management (Cherniss, 2000b);
- Improve social problem-solving and prosocial behavior (Topping et al., 2000);
- Improve self-assessment, interpersonal relationships, and coping with stress (Monroy, Jonas, Mathey, & Murphy, 1997; Young & Dixon, 1996);
- Improve coping with panic attacks (Gould & Clum, 1995);
- Reduce conflicts with coworkers (Maher, 1985).

These are just a few examples of the many ways self-modification programs have improved people's emotional functioning. Such programs, whether they target emotional functioning or other aspects of life, such as time management or weight loss, have been effectively serving people for many years. Instructors who teach self-modification techniques report that their students are able to reach their own goals for change up to 83% of the time (Dodd, 1986; Hamilton, 1980). Typical topics for self-modification projects include reducing anxiety and stress, increasing assertiveness, relieving depression, enhancing self-esteem, reducing social anxiety, practicing social skills, improving dating habits, developing time management, improving study time and strategies, quitting drugs, smoking or alcohol, and losing weight (Watson & Tharp, 2006).

The Weatherhead MBA program, described earlier, is designed around what Boyatzis (2002) calls the "power of Self-directed Learning." He emphasizes the importance of individuals' decisions to change, since people learn only what they want to learn and do what they want to do (Boyatzis, 2001). In order for change to be sustained, people need to go through a process of deciding to change, planning action, and carrying it out (see for example, Prochaska, DiClemente, & Norcross, 1992). Much of the success of the Weatherhead program for improving students' emotional competencies is attributed to this self-directed process and self-modification strategies (Boyatzis, 2002).

The Promoting Alternative Thinking Strategies (PATH) program uses some aspects of self-modification to improve emotional functioning in children. These studies report that children (first- through fifth-graders) showed more positive results in recognizing emotions and social problems, respecting selves and others, expressing empathy, using effective thinking skills and solutions to social problems, and fewer aggressive and violent acts than children in control groups (Matthews et al., 2002).

Given the success of self-modification projects for improving competencies associated with EI, it may be possible for Ability EI to be changed through the same types of processes. Proponents of Ability EI do suggest that "an ability approach to emotional intelligence can focus on skill development or knowledge acquisition, as opposed to the enhancement of personality" (Mayer, Caruso, & Salovey, 2000, p. 337). Future research on change efforts should address the question of whether self-modification techniques can improve Ability EI. Conversely, we may find that Ability EI is actually a prerequisite for self-modification efforts to be effective. These possibilities also need to be explored by further research.

Example: Using Self-modification Training to Improve EI in Undergraduates

There is so far one study (Chang, 2007) that assesses an EI intervention for change in scores on the MSCEIT, the ECI, and the EQ-i. This dissertation research begins to support the claim that it is possible to teach EI, as measured by current validated tests. Recognizing the importance of self-directed change for young adults, proven self-modification techniques (Watson & Tharp, 2006) were taught to help undergraduate college students design and implement their own plans for change. The intervention used a two-level approach to EI. The first level is a set of basic EI abilities (Mayer et al., 2000) that every student should possess in order to function emotionally and socially. The second level is a collection of competencies (EC and EQ) that have been identified by researchers as possible outcomes of EI (Bar-On, 2000; Cherniss, 2000a; Matthews et al., 2002).

Students worked on a variety of target behaviors. For example, some students targeted self-regard. They kept track of their emotions and positive and negative thoughts about themselves. They planned to replace negative thoughts with realistic, positive ones and recorded times when they successfully did so. Some students worked on assertiveness, keeping track of how often they tried to start a conversation with a classmate or coworker. Anger management, stress management, and empathy were also popular topics.

Students in the treatment group (n = 79) and comparison group (n = 74) took the MSCEIT, the ECI, and the EQ-i in the beginning of the semester, and again at the end. In a MANOVA including change scores (pretest scores subtracted from posttest scores) on all three EI tests, the treatment group showed significantly more improvement (F = 3.236, p = .001) than the control group, suggesting that their participation in the course contributed to an overall improvement in EI. For the MSCEIT, the treatment group scores improved for the Understanding and Managing Emotions branches, but not for the Perceiving and Using Emotions branches. For the EQ-i, Intrapersonal EQ, Adaptability EQ, and General Mood EQ improved significantly more for treatment, but Interpersonal EQ and Stress Management EQ did not. For the ECI, all of the clusters improved except for the Social Awareness Cluster.

Conclusion

The evident potential for interventions to improve competencies in the EC and EQ models shed a positive light on the possibilities promised in the EI arena. More research is needed to make a case for the malleability of Ability EI (i.e., whether scores on the MSCEIT can be improved). If Ability EI can in fact be improved, self-modification strategies may be an effective way to do it. The effectiveness of self-modification strategies on enhancing a number of emotion-related criteria supports this possibility. One study (Chang, 2007) has demonstrated that scores on certain subscales of the MSCEIT can be improved using comprehensive training. This research needs to be replicated and expanded. If Ability EI can be improved, there may be potential for interventions to have more transferable outcomes, since the basic EI abilities are less context-specific and affect every aspect of life.

So, is EI the super-hero for modern society's emotional villains? Can EI save marriages, prevent school violence, decrease school dropout rates, and eliminate drug abuse? Perhaps not yet, but there is a hint of promise. With appropriate research to clarify the concept of EI and to make rigorous investigations into effective intervention methods, we may be on the way—maybe not faster than a speeding bullet, but at least moving forward in the right direction. As part of the new taxonomy of character strengths (Peterson & Seligman, 2004b), EI research and interventions will continue to add to the growing knowledge base in positive psychology and help people live more fulfilling lives one program at a time.

References

Ballou, R., Bowers, D., Boyatzis, R. E., & Kolb, D. A. (1999). Fellowship in life-long learning: An executive development program for advanced professionals. *Journal of Management Education,* 23(4), 338–354.

Bar-On, R. (1997). Bar-On Emotional Quotient Inventory (EQ-i): Technical Manual. Toronto, Canada: Multi-Health Systems.

Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence* (pp. 363–388). San Francisco, CA: Jossey-Bass.

Bar-On, R. (2007). How important is it to educate people to be emotionally intelligent, and can it be done? In R. Bar-On, J. G. Maree, & M. J. Elias (Eds.), *Educating people to be emotionally intelligent* (pp. 1–14). Westport, CT: Praeger Publishers.

Bar-On, R., Maree, J. G., & Elias, M. J. (2007). *Educating people to be emotionally intelligent*. Westport, CT: Praeger Publishers.

Boyatzis, R. E. (1982). The competent manager: A model for effective performance. New York: Wiley.

Boyatzis, R. E. (2001). Developing emotional intelligence. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace*. San Francisco, CA: Jossey-Bass.

Boyatzis, R. E. (2002). Unleashing the power of self-directed learning. In R. R. Sims (Ed.), *Changing the way we manage change*. Westport, CT: Quorum Books.

Boyatzis, R. E., Goleman, D., & Rhee, K. (2000). Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI). In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence* (pp. 343–362). San Francisco, CA: Jossey-Bass.

Boyatzis, R. E., Leonard, D., Rhee, K., & Wheeler, J. V. (1996). Competencies can be developed, but not the way we thought. *Capability,* 2(2), 25–41.

Boyatzis, R. E., & Oosten, E. V. (2002). Developing emotionally intelligent organizations. In R. Millar (Ed.), *International executive development Programmes* (7th edition). London: Kogan Page Publishers.

Brackett, M. A., Alster, B., Wolfe, C. J., Katulak, N. A., & Fale, E. (2007). Creating an emotionally intelligent school district: A skills-based approach. In R. Bar-On, J. G. Maree, & M. J. Elias (Eds.), *Educating people to be emotionally intelligent* (pp. 123–137). Westport, CT: Praeger Publishers.

Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin,* 29 (9) 1147–1158.

Brenner, E. M., & Salovey, P. (1997). Emotion regulation during childhood: Developmental, interpersonal, and individual considerations. In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications*. New York: Basic Books.

Caruso, D. R. (2004). Critical issues regarding teaching and training emotional intelligence. Retrieved October 6, 2004, from http://www.emotionaliq.org/Training.htm

Chang, K. B. T. (2007). Can we teach emotional intelligence? Dissertation Abstracts International Section A: Humanities and Social Sciences, 67(12-A), 4451.

Cherniss, C. (2000a, April 15). Emotional intelligence: What it is and why it matters. Paper presented at the Annual Meeting of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Cherniss, C. (2000b). Social and emotional competence in the workplace. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence*. San Francisco, CA: Jossey-Bass.

The Collaborative for Academic Social and Emotional Learning (2003). *SEL and academic performance*. Chicago, IL: Author.

The Collaborative for Academic Social and Emotional Learning (2004). Projects and Initiatives. Retrieved October 14, 2004, from http://www.casel.org/projects_products/safeandsound.php

The Consortium for Research on Emotional Intelligence in Organizations. Weatherhead MBA Program—Case Western Reserve University. Retrieved August 16, 2004, from www.eiconsortium.org

Deffenbacher, J. L., & Shepard, J. M. (1989). Evaluating a seminar on stress management. *Teaching of Psychology,* 16 (2), 79–81.

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

Dodd, D. K. (1986). Teaching behavioral self-change: A course model. *Teaching of Psychology, 13*, (2)82–85.

Druskat, V. U. (2001, March). Building the emotional intelligence of groups. *Harvard Business Review, 79,* (3)80–90.

Gidron, Y., Davidson, K., & Bata, I. (1999). The short-term effects of a hostility reduction intervention in CHD patients. *Health Psychology, 18*, 416–420.

Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.

Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.

Gould, R. A., & Clum, G. A. (1995). Self-help plus minimal therapist contact in the treatment of panic disorder: A replication and extension. *Behavior Therapy, 26*, (3),533–546.

Graczyk, P. A., Weissburg, R. P., Payton, J. W., Elias, M. J., Greenberg, M. T., & Zins, J. E. (2000). Criteria for evaluating the quality of school-based social and emotional learning programs. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence*. San Francisco, CA: Jossey-Bass.

Greenspan, S. (1998). Emotional origins of intelligence. Paper presented at the "Discovering Our Selves: The Science of Emotion" Public Conference, Washington, DC.

Hamilton, S. B. (1980). Instructionally-based training in self-control: Behavior-specific and generalized outcomes resulting from student-implemented self-modification projects. *Teaching of Psychology,* 7 (3)140–145.

Hay Group. Resources: Emotional Intelligence Questions. Retrieved November 3, 2004, from http://ei.haygroup.com/resources/

Izard, C. E., Fine, S. E., Schultz, D., Mostow, A. J., Ackerman, B. P., & Youngstrom, E. A. (2001). Emotion knowledge as a predictor of social behavior and academic competence in children at risk. *Psychological Science, 12*,(1) 18–23.

Liff, S. B. (2003). Social and emotional intelligence: Applications for developmental education. *Journal of Developmental Education,* 26(3), 28–32.

Maher, C. A. (Ed.) (1985). Professional self-management techniques for special services providers. Baltimore: Paul H. Brooks.

Malatesta, C. Z. (1990). The role of emotions in the development and organization of personality. In R. A. Thompson (Ed.), *Nebraska symposium on motivation, 1988: Socioemotional development* (pp. 1–56). Lincoln, NE: University of Nebraska Press.

Matthews, G., Zeidner, M., & Roberts, R. D. (2002). *Emotional intelligence: Science and myth*. Cambridge, MA: MIT Press.

Mayer, J. D., Caruso, D. R., & Salovey, P. (2000). Selecting a measure of emotional intelligence: The case for ability scales. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence* (pp. 320–342). San Francisco, CA: Jossey-Bass.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications*. New York: Basic Books.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2000). Emotional Intelligence as zeitgeist, as personality, and as a mental ability. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence* (pp. 92–117). San Francisco, CA: Jossey-Bass.

McCrae, R. R. (2000). Emotional intelligence from the perspective of the Five-Factor Model of personality. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence* (pp. 263–276). San Francisco, CA: Jossey-Bass.

Monroy, J., Jonas, H., Mathey, J., & Murphy, L. (1997). Holistic stress management at Corning. In M. K. Gowing, J. Quick, & J. D. Kraft (Eds.), *The new organizational reality: Downsizing, restructuring, and revitalization*. Washington, DC: American Psychological Association.

Parker, J. D. A., Creque Sr., R. E., Barnhart, D. L., Harris, J. I., Majeski, S. A., Wood, L. M.,. Bond, B. J., & Hogan, M. J . (2004). Academic achievement in high school: Does emotional intelligence matter? *Personality & Individual Differences,* 37 (7) 1321–1330.

Peterson, C., & Seligman, M. E. P. (2004a). Self-regulation [Self-control]. In C. Peterson & M. E. P. Seligman (Eds.), *Character strengths and virtues: A handbook and classification* (pp. 500–516). Washington, DC; New York: American Psychological Association; Oxford University Press.

Peterson, C., & Seligman, M. E. P. (2004b). Social intelligence [emotional intelligence, personal intelligence]. In C. Peterson & M. E. P. Seligman (Eds.), *Character strengths and virtues: A handbook and classification* (pp. 337–353). Washington, DC; New York: American Psychological Association; Oxford University Press.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Application to addictive behaviors. *American Psychologist,* 47(7) 1102–1114.

Sala, F. (2002). *Emotional Competence Inventory (ECI) technical manual*. Boston, MA: Hay Group, McClelland Center for Research and Innovation.

Sala, F. (2003). Do programs designed to increase emotional intelligence at work work? Retrieved August 27, 2004, from http://www.eiconsortium.org/research/do_ei_programs_work.htm

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality,* 9(3), 185–211.

Seligman, M. E. P. (1999). The president's address. *American Psychologist, 54,* 559–562.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist,* 55(1), 5–14.

Shoda, Y., Mischel, W., & Peake, P. K. (1990). Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology,* 26, 978–986.

Six Seconds (2001). Self-science: Research results—2001 pilot study. *Self-science for EQ schools* Retrieved August 26, 2004, from http://www.self-science.com/modules.php?name = News&file = article&sid = 12

Spencer, L. M., & Spencer, S. M. (1993). *Competence at work: Models for superior performance.* New York: Wiley.

Taylor, G. J., Parker, J. D. A., & Bagby, R. M. (1999). Emotional intelligence and the emotional brain: Points of convergence and implications for psychoanalysis. *Journal of the American Academy of Psychoanalysis,* 27, 339–354.

Tharp, R. G., & Gallimore, R. (1988). *Rousing minds to life.* New York: Cambridge University Press.

Topping, K., Holmes, E. A., & Bremmer, W. (2000). The effectiveness of school-based programs for the promotion of social competence. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence.* San Francisco, CA: Jossey-Bass.

Van Rooy, D. L., & Viswesvaran, C. (2007). Assessing emotional intelligence in adults: A review of the most popular measures. In R. Bar-On, J. G. Maree, & M. J. Elias (Eds.), *Educating people to be emotionally intelligent* (pp. 259–272). Westport, CT: Praeger Publishers.

Watson, D. L., & Tharp, R. G. (2006). *Self-directed behavior: Self-modification for personal adjustment* (9th edition). Belmont, CA: Wadsworth.

Wolfe, C. J. (2007). The practice of emotional intelligence coaching in organizations: A hands-on guide to successful outcomes. In R. Bar-On, J. G. Maree, & M. J. Elias (Eds.), *Educating people to be emotionally intelligent* (pp. 169–182). Westport, CT: Praeger Publishers.

Young, D. P., & Dixon, N. M. (1996). *Helping leaders take effective action: A program evaluation.* Greensboro, NC: Center for Creative Leadership.

Zeidner, M., Roberts, R. D., & Matthews, G. (2002). Can emotional intelligence be schooled? A critical review. *Educational Psychologist,* 37 (4),215–231.