Organization Management Journal

Volume 7 | Issue 2 Article 8

6-1-2010

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Recommended Citation

Seal, Craig R. and Andrews-Brown, Adrianna (2010) "An integrative model of emotional intelligence: emotional ability as a moderator of the mediated relationship of emotional quotient and emotional competence," Organization Management Journal: Vol. 7: Iss. 2, Article 8. Available at: https://scholarship.shu.edu/omj/vol7/iss2/8



Emerging Conceptual Scholarship

An integrative model of emotional intelligence: emotional ability as a moderator of the mediated relationship of emotional quotient and emotional competence

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Abstract

The purpose of this paper is to propose a new theoretical and empirical model of emotional intelligence (EI) that incorporates the dominant paradigms in the field today – Bar-On (1988) emotional quotient (EQ), Mayer and Salovey (1990) emotional ability, and Goleman (1995) emotional competence – using a moderated-mediation framework. The paper proposes that emotional ability (potential capacity) has a moderating effect on the mediated relationship of EQ (preferred patterns) and emotional competence (actual behaviors) on performance outcomes. The proposal potentially resolves the content domain and nomological network concerns by incorporating the three paradigms into an integrative model of EI.

Organization Management Journal (2010) 7, 143-152. doi:10.1057/omj.2010.22

Keywords: emotional intelligence (El); emotional quotient; emotional ability; emotional competence; and moderated-mediation

Introduction

Emotional intelligence (EI) is a popular albeit controversial construct that has emerged from the theory of social intelligence. Although EI has gained wide acceptance by practitioners, particularly in education, management, and consulting (Seal et al., 2006), acceptance by researchers has been less than enthusiastic, particularly from the social sciences (Conte, 2005). One area of concern is that the proponents of EI have become fragmented, with various scholars and practitioners of EI advocating different definitions, assumptions, models, measures, and outcomes (Locke, 2005). In effect, the content domain of EI has yet to be adequately defined, hindering the development of an integrative theory of EI and our understanding of the core emotional determinants to effective performance. These competing definitions provide one of the fundamental concerns with the EI construct, that is, how to explain the wide content domain indicated by the various models and measures. The lack of an agreed upon content domain and nomological network from which to build the EI construct undermines the ability of EI scholars to truly validate the



theoretical and empirical arguments in support of EI and to respond to the critiques of EI.

Fortunately, the multitude of models can be divided along three major streams of research characterized as competing paradigms of EI, based on their underlying assumptions and methods for measurement. The three paradigms are: (1) emotional quotient (EQ), developed by Bar-On (1988), that focuses on psychological well-being and uses the *Emotional Quotient Inventory* or EQ-i to assess EI (Bar-On, 1997); (2) emotional ability, developed by Salovey and Mayer (1990), that focuses on emotional reasoning that facilitates thought and uses the Mayer-Salovey-Caruso Emotional Intelligence Test or MSCEIT to assess EI (Mayer et al., 2000); and (3) emotional competence, originated by Goleman (1995, 1998), that focuses on behaviors that impact performance and uses the Emotional Competency Inventory or ECI to assess EI (Boyatzis and Goleman, 2002).

Surprisingly, however, there are very few conceptual or empirical studies that even include multiple models and measures of EI, and those that do, generally compare one measure to another in an attempt to assert the superiority of their particular perspective. Empirically, the few validity studies that have compared multiple measures of EI have found little (or no) statistical relationships between the MSCEIT and either the EQ-i or ECI, although there have been some significant statistical relationships between the EQ-i and ECI (Brackett and Mayer, 2003; Zeidner et al., 2005; Brackett et al., 2006; Goldenberg et al., 2006; Seal et al., 2009).

Conceptually, each paradigm continues to attempt to define the EI construct through its own perspective, with some authors being more inclusive than others. Boyatzis (2009), who is the leading proponent of the emotional competency paradigm, distinguishes between emotional ability (measured by the MSCEIT) as "a person's direct handling of emotions" (p. 756) and emotional competence (measured by the ECI) as "how the person expresses his or her handling of emotions in work and life settings" (p. 756). In other words, emotional competence is the behavioral manifestation of innate emotional capacity. Mayer et al. (2008) are less inclusive, clearly arguing that their conceptualization of EI as a set of interrelated emotional reasoning abilities in which different individuals have different levels of innate capacity is the primary paradigm by which EI should be viewed. Bar-On (2006) makes a case for his own conceptualization of EI, focusing on the facilitation mechanisms for effective social and emotional functioning, including aspects that may be viewed more as preferred patterns or traits, by utilizing optimism, positivity, and motivation. Therefore, the question remains, is EI in fact a unitary concept or a convenient nomenclature, and if it is a single content domain, then what is the resulting nomological network among the three paradigms of competency, ability, and quotient.

The purpose of this conceptual paper is to propose a new integrative model of EI that potentially resolves the current paradigm divisions among emotional ability, EQ, and emotional competence using a moderated-mediation framework. The central research question is the plausibility that EI is a unitary construct with emotional ability (conceived as potential capacity) as a moderator of an indirect effect of emotional competence (conceived as actual behaviors) mediating the relationship between EQ (conceived as preferred patterns) and performance outcomes. That is, does emotional competence (behaviors) mediate the relationship between EQ (patterns) and performance, and is that mediated relationship moderated by variable levels of emotional ability (capacities)? The value of this emerging conceptual scholarship is to provide an inclusive and testable model that potentially resolves the paradigm content domain debate by integrating behaviors, patterns, and capacities into one conceptual framework. By examining EI as a holistic construct, constituting the intelligent use of emotions, using a moderated-mediation model with three distinct but related facets (emotional competence, EQ, and emotional ability), scholars and practitioners gain a more robust, insightful, and applicable theory of EI for future research and practice.

Emotional intelligence

In general, EI may be defined as the overlap between emotion and intelligence, or more simply, the intelligent use of emotions. This juxtaposition between emotion and intelligence assumes not only potential ability or capacity, but also preferred emotional patterns and active emotional behaviors.

Currently, there are hundreds of articles on EI, with dozens of competing models and measures that utilize the EI term. However, three main streams of research in the literature, characterized as competing

paradigms, helped to originate and popularize the concept of EI and form the foundation for this emerging field: (1) EQ (Bar-On, 1988), that we view as preferred patterns, emotional in nature, that manage pressure; (2) emotional ability (Salovey and Mayer, 1990), that we view as potential capacity, emotional in nature, that facilitates thought; and (3) emotional competence (Goleman, 1995), that we view as the actual behaviors, emotional in nature, that impact performance. Therefore, EI may be construed as a general construct (similar to personality or general intelligence) that includes specific facets or perspectives which include potential capacity, preferred patterns, and actual behaviors.

Specifically, EI may be defined as a constellation of capacities, patterns, and behaviors to recognize and regulate the emotions of self and others toward successful environmental adaptation. As a result individuals, groups and organizations high in EI might prove more capable of utilizing emotion to better adapt and capitalize on environmental demands.

Emotional quotient

In 1988 Reuven Bar-On, in his landmark dissertation, The Development of a Concept of Psychological Well-Being, coined the phrase "Emotional Quotient." Bar-On (1988) based his construct on positive psychology literature, examining attitudes that paralleled traditional intelligence in explaining psychological well-being (Stein and Book, 2006). Bar-On (2006) defines EI as the "cross section of interrelated emotional and social competencies, skills, and facilitators that determine how effectively we understand and express ourselves, understand others, and relate with them, and cope with daily demands" (p. 14).

The EQ model, also called a self-report model based on the method of assessment, focuses on the emotional-social traits or patterns that contribute toward effective psychological functioning. EQ is measured using the EQ-i, the first measure of EI and one of the most widely used EI instruments (Bar-On, 1997). The EQ-i is a self-report measure of EQ that uses a compensatory model of five composite scales (intrapersonal, interpersonal, stress management, adaptability, and general mood) comprised of 15 sub-scales. Based on the model, scholars and practitioners can examine scores for each of the sub-scales, composite scales, or an overall score for EI. The EQ-i was developed from the positive psychology tradition, examining an array of non-cognitive traits that enhance personal functioning.

Preferred patterns. The EQ paradigm of Bar-On (1997) may be viewed as the preferred patterns individuals have when faced with emotional environmental demands. Although Bar-On (2006) defines EI as a set of skills, competencies, and facilitators, the EQ-i (Bar-On, 1997) measure focuses on how respondents "tend to" or "generally" react within various contexts. The EQ-i assesses the individual's tendencies or preferred patterns toward interpretation and response to various contextual situations. EQ provides the schema or heuristic whereby environmental stressors are understood and general coping strategies are implied by the individual. Therefore, EQ is the set of preferred emotional patterns relating to intrapersonal, interpersonal, stress management, adaptability, and general mood factors that influence understanding and coping of environmental demands that the individual employs to achieve psychological wellbeing. Although preferences are important, without the underlying potential ability or the actual specific behaviors, patterns alone are unlikely to yield the anticipated results.

Emotional ability

Although Bar-On (1988) was the first to use the EQ designation, it is Salovey and Mayer (1990) who are frequently cited as the originators of the modern EI construct in their seminal article, "Emotional Intelligence" in Imagination, Cognition & Personality (1990). Salovey and Mayer (1990) based their construct on the social intelligence literature, which provided the theoretical justification for the narrower EI construct. Salovey and Mayer (1990) originally defined EI as "the subset 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 actions" (p. 189).

The emotional ability model, also called a performance based model based on the method of assessment, focuses on differentiating individual levels of specific emotional reasoning capacities. Emotional ability is measured using the MSCEIT, which is the standard emotional ability measure for EI (Mayer et al., 2000). The MSCEIT uses right/ wrong answer formats (based on consensual and expert scoring) that are normed using demographic information (age, gender, and ethnicity) to



differentiate levels of emotional ability. The MSCEIT uses a hierarchical model of related abilities that reflect overall EI potential capacity by measuring four branch scores (perceiving emotions, facilitating thought, understanding emotions, and emotional management), two area scores (experiential EI and strategic EI) and one final total score (EI). Based on the model, scholars and practitioners can examine the branch scores, areas scores, or total score in their assessment of EI. The MSCEIT was developed from an intelligencetesting tradition formed by the emerging scientific understanding of emotions from the earlier Multifactor Emotional Intelligence Scale.

Potential capacity. The emotional ability paradigm of Mayer and Salovey (1997) may be viewed as an individual's potential capacity for utilizing emotional information towards successful environmental adaptation. The focus is on understanding the underlying processing of emotional information. Emotional ability is "the capacity to understand and explain emotions, on the one hand, and of emotions to enhance thought, on the other" (Mayer et al., 2000: 1). That is, according to this paradigm, EI is defined as an innate potential for growth, development, or accomplishment, or more succinctly, the potential ability of a person. Therefore, emotional ability is the potential capacity to understand and explain emotions and to use that knowledge to increase decision making. However, as suggested by Offermann et al. (2004), "although an ability model of EI assesses the capacity for an individual to perform, it is not in itself a guarantee of performance" (p. 222). In other words, emotional ability may constitute the foundation of EI, becoming a necessary condition for superior outcomes, but it is not necessarily sufficient by itself to predict EI in action. Emotional ability provides one facet of the overall content domain of EI, that is, the potential emotional capacity of individuals to recognize, discriminate, and use emotional information.

Emotional competence

Whereas Bar-On (1988) may have originated the concept of EQ and Salovey and Mayer (1990) may have coined the phrase emotional intelligence, it is Daniel Goleman in his best-selling 1995 book, Emotional Intelligence: Why It Can Matter More than IQ that is credited with popularizing the construct. Goleman's (1995, 1998) original construct linked the earlier work of Boyatzis (1982) and Spencer and Spencer (1993) on competencies to emerging research in affective neuroscience, focusing on behaviors that link to successful outcomes. Boyatzis et al. (2000) define EI as "observed when a person demonstrates the competencies that constitute self-awareness, self-management, social awareness, and social skills at appropriate times and ways in sufficient frequency to be effective in the situation" (p. 344).

The emotional competence model, also called a mixed model based on the method of assessment, combines aspects of intelligence and emotion that impact performance. Emotional competence is measured using the ECI, a popular practitioner measure of EI (Boyatzis and Goleman, 2002). The ECI is properly used as a 360-degree feedback method (self and other observer ratings) to assess the frequency of observed behaviors that determine differentiating levels of emotional competence. The ECI uses an additive model of distinct sets of behaviors related to superior performance. It measures how frequently individual competencies are demonstrated within four broad emotional clusters: (1) self-awareness; (2) self-management; (3) social awareness; and (4) relationship management. Based on the model, scholars and practitioners can examine the individual competencies, the clusters of competencies, the combination of clusters, or the overall scores in their assessment of EI. The ECI was developed from a competencebased tradition formed by the emerging scientific understanding of differentiation competencies in workplace performance from the earlier Self-Awareness Questionnaire.

Actual behaviors. The emotional competence paradigm of Boyatzis and Goleman (2002) may be viewed as an individual's set of actual behaviors, distinct from general intelligence that involves a person's interaction with self and others in successfully resolving environmental challenges. The focus is on the intentional use of behaviors that lead to superior performance. A competency is the interaction of intent and behavior that "leads to or causes effective or superior performance" (Boyatzis, 1982: 21). Emotional competence, therefore, includes the interrelated sets of behaviors to recognize and manage one's emotions and the emotions of others in order to better adapt and capitalize on environmental demands. Thus, the Boyatzis and Goleman model of EI (2002) describes the actual use of EI behaviors that lead to superior

performance. However, behaviors alone do not necessarily translate into effective performance without having the innate capacity and preferred patterns to utilize and capitalize on those behaviors. Although emotional competence may constitute EI in action, it is highly probable that individuals who are successful also have the potential capacity and preferred patterns as well. Emotional competence, therefore, provides the last side of the overall content domain of EI, the actual emotional behaviors to recognize and manage the emotions of self and others.

Integrative model of El

An integrative model of EI would incorporate each of the three paradigms - EQ (viewed as preferred patterns), emotional ability (viewed as the potential capacity), and emotional competence (viewed as the actual behaviors) - which define the content domain of EI and provide the foundation for an inclusive theory. The next stage is to determine the nomological network or the implied relationships among the three paradigms and potential performance outcomes.

Emotional capacity - patterns - behaviors

The capacity, patterns, behavior characterization of each EI paradigm is, admittedly, not perfect, as each of the models, particularly EQ and emotional competence, incorporates multiple elements into its overall conceptualizations. However, it does serve to create an analogous theme whereby a possible solution to developing an integrative model of EI may be discovered by considering EI as the overall concept and the capacity, patterns, and behaviors as distinct but related parts. Several examples may help to illustrate the potential relationships.

In human resource management, there is generally a distinction among abilities (potential capacity), attitudes (developed preferences) and skills (learned capabilities) when assessing employees. The belief is that effective performance is realized through the resonance among the organization/job and the innate capacities (abilities) as well as the developed preferences (attitudes), and learned capabilities (skills) of employees. Any one aspect, although necessary, is not sufficient to lead toward successful job performance.

Consider a sales associate. An individual can be trained in various selling skills (e.g., how to upsell products), and those trainings will likely have a marginal tangible result. However, it is the sales-people who have both the natural ability (e.g., recognition of when and how to use the skills) and the appropriate attitude (e.g., ease or comfort in utilizing the skills), that, when combined with training, produce significant and sustainable results. Again, individually, each aspect is necessary but not sufficient. In effect, we could argue that having the right attitude predisposes the use of certain skills, and that both attitude and skills are influenced by ability. In other words, innate sales ability may moderate the mediated relationship among sales attitude, skills, and performance.

Consider a professional athlete. In sports, there are often distinctions made among potential (in this case athletic ability), heart (a passion for the sport), and skills (often referred to as fundamentals of the game). Teams generally draft or sign players based upon their potential or upside, focusing upon issues of size, speed, strength, or quickness. The hope is that these potentially great athletes will be able to translate their capacity for superior performance into the actual capability to play at a high level. However, we often see gifted athletes fail to perform consistently, and these failures are generally attributed to a lack of fundamental skills or passion for the game necessary to translate potential into action. True superstars, have a combination of all three. Therefore, an argument can be made that a player's heart or passion is mediated by the expression of actual skills, and that those relationships are moderated by athletic potential.

Based upon the previous examples, moderation and mediation provide an opportunity to resolve the potential disparity among the dominant EI paradigms. Along these lines, it can be argued that EI becomes the broad term, which constitutes the juxtaposition of emotion and intelligence with three interrelated facets. Emotional ability is the aspect of EI that involves the potential capacity of the individual to perceive and process emotional information. EQ is the aspect of EI that involves the preferred social and emotional patterns of the individual to understand and respond. Emotional competence is the aspect of EI that includes the actual utilization of emotional behaviors to recognize and regulate self and others. Accordingly, emotional ability (potential capacity) has a moderating effect on the mediated relationship of EQ (preferred patterns) and emotional competency (actual behaviors) on performance outcomes.

Moderated-mediation

According to Muller et al. (2005), moderated mediation, "implies that the indirect effect between the treatment and the outcomes depends on the moderator;" that is, "the residual direct treatment effect on the outcome, controlling for the mediator, is moderated" (2005, p. 856). For our integrated model of EI, the hypothesis is that the relationship between EQ (patterns) and performance outcomes is mediated by emotional competence (behaviors), and that this mediated relationship is moderated by variation in the levels of emotional ability (capacity).

Mediation. A mediator is defined by Baron and Kenny (1986) as a "third variable, which represents the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest" (p. 1173), or more simply an intervention "between stimulus and response" (p. 1176). Mediation, therefore (and in contrast to moderation) occurs when a predictor variable must act through an intervening variable in order to impact the dependent variable (Baron and Kenny, 1986). Mediation answers the question of how a particular predicator variable may impact an outcome variable. In effect, the mediator actually causes the impact of the suggested predictor variable on the outcome variable.

The mediation hypothesis is supported if the independent variable has a significant relationship to the mediator variable, the mediator variable has a significant relationship to the dependent relationship, and a previously significant relationship between the independent and dependent variable is reduced when controlling for the mediation variable (Baron and Kenny, 1986). The test of the mediation hypothesis requires an existing theoretical relationship between the predictor and outcome variable, between the predictor and intervening variable, and between the intervening variable and the outcome.

In the case of EI, the assumption is that emotional competence (actual emotional behaviors) would mediate the relationship between EQ (preferred emotional patterns) and performance outcomes. Van Rooy and Viswesvaran (2004) and Van Roov et al. (2005) conducted meta-analyses of various EI models and measures which provide considerable conceptual and empirical evidence regarding the possible interaction between the EQ-i, ECI, and outcomes that meet the preliminary requirements for at least considering testing a mediation effect between these sets of variables.

Moderation. A moderator is defined by Baron and Kenny (1986) as "a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (p. 2), or more specifically, "within a correlational analysis framework, a moderator is a third variable that affects the zero-order correlation between two other variables" (Baron and Kenny, 1986: 2-3). Therefore, a moderator (in contrast to a mediator) is an intervening variable that impacts the "strength and/or direction of relationships between independent and dependent variables" (Schwab, 2005: 59). In general, moderation occurs when intervening variables impact the relationship between the predictor and dependent variable, partitioning the variable into low and high subgroups that establish maximal and minimal performance outcomes (Baron and Kenny, 1986). Moderation answers the question of when a particular predictor variable is likely to have the greatest (or least) impact on an outcome variable.

The moderator hypothesis is supported if the interaction effect between the predictor variable and the moderator variable has a significant impact on the outcome variable (Baron and Kenny, 1986). This test of the moderator hypothesis is best demonstrated when the predictor variable already has an established relationship with the outcome variable (i.e., there is a significant correlation) but no relationship between the predictor and the moderator, or the moderator and the outcome variable (Baron and Kenny, 1986).

In the case of EI, the assumption is that emotional ability (underlying emotional potential capacity) may influence the strength of the indirect effect of emotional competency on the relationship between EQ and performance outcomes. Brackett and Mayer (2003) and Seal et al. (2009) provide conceptual and empirical evidence regarding the possible interaction among the MSCEIT, EQ-i, and ECI that meets the preliminary requirements for at least considering testing a moderation effect among capacity, patterns, behaviors, and outcomes.

Integrative model

Building upon the implied interrelationship among patterns, behaviors, and capacity, it is reasonable to assume that tendencies or preferences of the individual would be the starting point, as it is the preferred patterns of the individual that would dictate the behavioral intentions or parameters toward successful resolution. However, in order to impact the environment, the person must act, that is, must exhibit some types of actual behaviors, and some behaviors by their nature are apt to be more appropriate than others in overcoming environmental challenges within the context of the situation. Hence, the behaviors would in effect mediate the relationship between preferences and outcomes. Finally, the question of innate potential capacity arises, since even assuming the appropriate preferred patterns and the requisite actual behaviors in meeting the environmental challenge, there is a strong probability for failure if the potential ability or capacity of the individual is not sufficient for the task. Therefore, the model is only complete when emotional ability (potential capacity) is considered as a moderating variable between the indirect effect of emotional competence (actual behaviors) mediating the relationship and the EQ (preferred patterns) and performance outcomes. The model is illustrated in Figure 1 below.

The content domain of EI, based on the integrative model, is defined as the constellation of innate potential capacities (emotional perception, facilitation, understanding, and management), developed preferred patterns (intrapersonal, interpersonal, stress management, adaptability, and general mood), and learned active behaviors (selfawareness, self-management, social awareness, and relationship management) to recognize and regulate one's emotions and the emotions of others toward successful environmental adaptation. The nomological network assumes that emotional capacity moderates the mediated relationship between emotional patterns and emotional behaviors; that is, the impact of preferred patterns on performance outcomes is mediated by active behaviors and this relationship is moderated by varying levels of potential capacity. The value of this model is that it can be tested, it brings together the three main paradigms, and it clarifies the content domain and the nomological network. In addition, the model provides a more insightful opportunity toward development by isolating specific areas of emotional performance (capacity, patterns, and/or behaviors), which can then guide subsequent intervention strategies.

Limitations

In terms of testing the proposed relationships, there are several concerns that would need to be addressed in any future study, including the paradigm assumptions, multiple traits, nomenclature, measures, statistical analysis, and the nature of the phenomenon.

Paradigm assumptions

A major concern with the current proposed model is that the authors have taken some license with the original intent and outcomes of the paradigms to redefine them in a way that matches the proposed integrative theory. Although that does not remove the possibility that the theoretical underpinnings of the model are sound, it is clear that defining emotional ability as potential capacity, emotional competence as active behaviors and EQ as preferred patterns will raise legitimate arguments about those

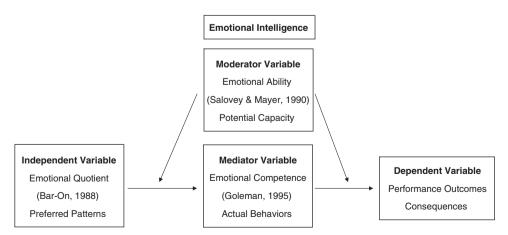


Figure 1 Integrative model of emotional intelligence.

characterizations of the various paradigms from proponents and detractors alike.

Multiple traits

Even if the paradigm assumptions are accepted, the attempt to create overarching constructs with diverse multiple traits is potentially problematic. For example, even the personality literature, with the establishment of the Five Factor Model, does not subscribe to one overarching element of personality, but rather distinct traits that may or may not interact in given situations. Based on these examples it is reasonable to assume that perhaps EI is simply too disparate a construct to integrate within a single content domain.

Nomenclature

Another potential explanation for content domain issues is that EI may not have an overall consistent content domain, but instead the EI term is simply a useful nomenclature. Various EI authors may be using the more common and well-known term of EI, either sincerely or disingenuously, when in fact there are compelling conceptual and operational issues that indicate the various concepts of EI may be different constructs. Given the popularity and profitability of EI, it is not surprising that the term is used freely in actual practice.

Measures

Although each paradigm has published reliability and validity studies that suggest the potential utility of their perspective instruments, there is still legitimate disagreement with their use as EI assessment measures.

For the self-report and mixed models (EQ and emotional competence), there are legitimate concerns regarding their ability to distinguish themselves from personality (Conte, 2005). That is, do the models add a significant, unique contribution to prediction that is not accounted for by personality measures? In addition, the use of self-report and/or 360-degree assessment instruments, by their nature, assumes a certain level of self-awareness and observation skills in order to accurately complete. These measures have yet to fully address the issue of reactivity bias, especially issues of researcher and subject expectancy, social desirability, and staff effect; making the potentially erroneous assumption that individuals (both in their own ratings and the ratings of others) have sufficient self and other awareness and motivation to respond accurately.

For the emotional ability paradigm, although it is generally considered to be a more valid ability measure, there is still concern in the literature regarding what exactly the instrument is measuring, its ability to contribute to prediction, and the use of consensual/expert score procedures (Conte, 2005). That is, how do we know that the correct answer is in fact the correct answer? Even the test developers concede that consensual or expert scoring may be rewarding participants for endorsing dominant emotional norms (Mayer et al., 2000)? This leaves open the question as to whether agreement with academic experts or majority agreement actually lead to accurate assessment of underlying emotional ability.

Statistical analysis

Even if the assumptions and measures are correct, there is still concern in the literature regarding the ability to detect interaction effects in general, particularly a moderated-mediation model. Moderated-mediation is simply very difficult to detect. As noted by McClelland and Judd (1993), "despite frequently compelling theoretical reasons for expecting moderator effects and despite the widespread knowledge of how to identify such effects statistically, moderation effects are notoriously difficult to detect in non-experimental field studies" (p. 377). Although particular models may resonate intuitively, finding statistical evidence to support compelling conceptual models may prove elusive.

Nature of the phenomenon

A final potential limitation is the difficulty in establishing adequate models and measures for EI in general, given that the phenomenon in question is an internal construct, that cannot be directly observed. Although we can view the outcomes, for example someone appearing to become less agitated or being influenced to take a particular course of action, what actually occurs – the process itself – is unknowable outside of asking individuals what happened. As argued by Hedlund and Sternberg (2000), "there is no resolution, regardless of the approach, of the question of whether social intelligence can be separated psychometrically from abstract, academic intelligence" (p. 139). Therefore, the phenomenon may resonate intuitively with scholars and practitioners while resisting scientific inquiry.

Discussion

Despite acclaim achieved in the past 15 years, the EI construct is still in its infancy, and the current state of EI research can be characterized as demonstrating significant potential but poor actual performance. In order to close the gap between potential and performance, it is important to provide a more detailed construct definition to resolve the content domain issues and provide guidance on the possible nomological network among variables. One way to do so is to step back and readdress the core relationships amongst the original EI models that developed and popularized the construct. Establishing an agreed content domain of EI and clearer boundaries between what EI is and. perhaps more importantly, what it is not, will help close the research gap. Therefore, continued conceptual and empirical contributions with regard to the EI construct are required to secure its position within the field of organizational studies.

It is no longer satisfactory to consider the various models in isolation when it is probable that together they would provide a more complex, insightful understanding of performance and a more nuanced diagnostic for intervention strategies. Specifically, new studies should at least address, if not directly resolve, the concerns regarding the multiple paradigms of EI (abilityquotient-competence). At a minimum, as recommended by Offermann et al. (2004), future research should "examine the effects of different EI models and measures on outcomes" (p. 39). Without evaluating (or at least addressing) the three most prevalent paradigms researchers miss the opportunity to explore the richness of EI and simply perpetuate confusions and divisions within the emerging field of EI.

With the potential and promise of EI as an emerging field of study that integrates psychology, education and management toward the understanding and intervention of organizations, it is imperative to examine the relationship and impact of ability, traits and behaviors on organizational outcomes. If EI is indeed one core construct rather than a convenient nomenclature, then future researchers need to reconcile these various conceptualizations (ability-based, pattern-based, and behavior-based).

One possible resolution to the current paradigm debate, is to consider EI as a holistic construct in which innate potential capacities (emotional abilities), moderates the mediated relationship between developed preferred patterns (emotional traits) and learned active behaviors (emotional competence) to recognize and regulate one's emotions and the emotions of others toward successful environmental adaptation.

The value of the current discussion is to provide a more lucid and inclusive construct definition of EI that incorporates the various empirical and theoretical orientations of the diverse group of writers, a definition that is both novel, testable, and has potential utility in both the scholarship and practice of EI.

References

Bar-On, R. (1988). The development of an operational concept of psychological wellbeing. Unpublished Doctoral Dissertation, Rhodes University, South Africa.

Bar-On, R. (1997). Bar-On emotional quotient inventory. Toronto, ON: Multi-Health Systems.

Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). Psicothema, 18(suppl): 13-25.

Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6): 1173–1182.

Boyatzis, R.E. (1982). The competent manager: A model for éffective performance. New York: John Wiley & Sons.

Boyatzis, R.E. (2009). Competencies as a behavioral approach to emotional intelligence. Journal of Management Development, 28(9): 749-770.

Boyatzis, R.E. & Goleman, D. (2002). The emotional competency inventory (ECI). Boston, MA: The Hay Group.

Boyatzis, R.E., Goleman, D. & Rhee, K.S. (2000). Clustering competence in emotional intelligence: Insights from the emotional competence inventory. In R. Bar-On and J. Parker (Eds), The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace, 343-362. San Francisco, CA: Jossey-Bass Inc.

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.

Brackett, M.A., Rivers, S.E., Shiffman, S., Lerner, N. & Salovey, P. (2006). Relating emotional abilities to social functioning: A comparison of self-report and performance measures of emotional intelligence. *Journal of Personality and Social Psychology*, 91(4): 780–795.

Conte, J.M. (2005). A review and critique of emotional intelligence measures. Journal of Organizational Behavior, 26: 433–440.

Goldenberg, I., Matheson, K. & Mantler, J. (2006). The assessment of emotional intelligence: A comparison of performance-based and self-report methodologies. Journal of Personality Assessment, 86(1): 33-45.

Goleman, D. (1995). Emotional intelligence: Why it can matter more than IQ. New York: Bantam Books.



- Goleman, D. (1998). Working with emotional intelligence. New York: Bantam.
- Hedlund, J. & Sternberg, R.J. (2000). Too many intelligences? Integrating social, emotional, and practical intelligence. In R. Bar-On and J. Parker (Eds), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace*, 136–167. San Francisco, CA: Jossey-Bass Inc.

Locke, E.A. (2005). Why emotional intelligence is an invalid concept. *Journal of Organizational Behavior*, 26: 425–431.

- Mayer, J.D. & Salovey, P. (1997). What is emotional intelligence? In P. Salovey and D. Sluyter (Eds), *Emotional development and emotional intelligence: Implications for educators*, 3–31. New York: Basic Books.
- Mayer, J.D., Salovey, P. & Caruso, P. (2000). Mayer-Salovey-Caruso emotional intelligence test (MSCEIT). Toronto, Canada: Multi-Health Systems.
- Mayer, J.D., Salovey, P. & Caruso, P. (2008). Emotional intelligence: New ability or eclectic traits. *American Psychologist*, 63(6): 503–517.
- McClelland, G.H. & Judd, C.M. (1993). Statistical difficulty of detecting interactions and moderator effects. *Psychological Bulletin*, 114(2): 376–390.
- Muller, D., Judd, C.M. & Yzerbyt, V.Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89(6): 852–863.
- Offermann, L., Bailey, J.R., Vasilopoulos, N.L., Seal, C. & Sass, M. (2004). EQ versus IQ: The relative contribution of emotional intelligence and cognitive ability to individual and team performance. *Human Performance*, 17(2): 219–243.
- Salovey, P. & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition & Personality*, 9(3): 185–211.
- Schwab, D.P. (2005). Research methods for organizational studies, 2nd edn. New Jersey: Lawrence Erlbaum Associates Mahwah.
- Seal, C.R., Boyatzis, R.E. & Bailey, J.R. (2006). Fostering emotional and social intelligence in organizations. *Organization Management Journal*, 3(3): 190–209.
- Seal, C.R., Sass, M.D., Bailey, J.R. & Liao-Troth, M. (2009). Integrating the emotional intelligence construct: The relationship between emotional ability and emotional competence. *Organization Management Journal*, 6(4): 204–214.
- Spencer, L.M. Jr. & Spencer, S.M. (1993). Competence at work: Models for superior performance. New York: John Wiley & Sons.
- Stein, S.J. & Book, H.E. (2006). The EQ edge: Emotional intelligence and your success. Mississauga, ON: John Wiley & Sons.

- Van Rooy, D.L. & Viswesvaran, C. (2004). Emotional intelligence: A meta-analytic investigation of predictive validity and nomological net. *Journal of Vocational Behavior*, 65(1): 71–95.
- Van Rooy, D.L., Viswesvaran, C. & Pluta, P. (2005). An evaluation of construct validity: What is this thing called emotional intelligence? *Human Performance*, 18(4): 445–462.
- Zeidner, M., Shani-Zinovich, I., Matthews, G. & Roberts, R.D. (2005). Assessing emotional intelligence in gifted and nongifted high school students: Outcomes depend on the measure. *Intelligence*, 33(4): 369–391.

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