ASSESSMENT OF EMOTIONAL INTELLIGENCE: THE ROLE OF SELF-OTHER AGREEMENT

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Abstract

This paper shows how self-other agreement can help measure emotional intelligence more effectively than self-report measures. Two studies investigated the relationship between emotional intelligence and helping behaviors. The first study on 72 executives found that emotional intelligence was related to helping behaviors. In the second study, 112 student-peer dyads were classified as over-estimators (who rate themselves higher than others do); underestimators (who rate themselves lower than others do); in-agreement/good raters (who rate themselves favorably and similar to others' ratings); and in-agreement/poor raters (who rate themselves unfavorably and similar to others' ratings). Findings show that peer rated helping behaviors for under-estimators and in-agreement/good raters are higher than peer rated helping behaviors for over-estimators and in-agreement/poor raters.

Introduction

The utility of management education is being increasingly questioned. One of the accusations is that business students' training is too narrow with an overemphasis on developing technical and quantitative skills, which have a small relationship with what is important for succeeding in business (Pfeffer & Fong, 2002). The Management Education Task Force of the Association to Advance Collegiate Schools of Business (AACSB) issued a report in April 2002, which called for an increase of instruction in communication, leadership, and interpersonal skills to make curricula more relevant to "today's global workplace" (AACSB, 2002). Responding to this call, there have been attempts at the measurement and improvement in emotional intelligence for business school students (Boyatzis, Stubbs, & Taylor, 2002; Morris, Urbanski, & Fuller, 2005; Mryers & Tucker, 2002; Shepherd, 2004; Tucker, Sojka, Barone, & McCarthy, 2000). However, a major challenge to incorporating emotional intelligence in the curriculum is the lack of clarity in the understanding and measurement of the concept of emotional intelligence.

There are two models of emotional intelligence viz. the ability model that was first developed by Salovey and Mayer (1990) and the mixed model of emotional intelligence popularized through the works of Daniel Goleman (1995, 1998). One of the differences in the two models of emotional intelligence is the method of assessment. While the ability model of emotional intelligence calls for measurement in the context of correctness (i.e. right/wrong answers), the mixed model relies solely on self-description of traits and dispositions. The main reason for the popularity (and academic criticism) of the mixed model of emotional intelligence has been the ease of measurement through self-report questionnaires. On the other hand, the ability measure of emotional intelligence requires more time to complete and calls for norm

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based or expert assessment, which is more elaborate. Hence, our paper explores an alternative route to assessment of one of the outcomes of emotional intelligence using a combination of self and other reports of emotional intelligence.

Our first study on 72 executives investigated the impact of self-reported emotional intelligence with self-reported helping behaviors while controlling for organizational identification. In the second study, we collected data from 56 students. Students responded to a questionnaire for themselves as well as for two of their classmates. The difference between self and peer ratings of emotional intelligence was a measure of self-other agreement. Based on whether the self-rating on emotional intelligence was more than, same as, or less than peer's rating of emotional intelligence, dyads were classified into four categories—over-estimators, inagreement/poor, in-agreement/good and under-estimators. Over-estimators produce self-ratings that are significantly higher than peer-ratings on dimensions of interest. Under-estimators produce self-ratings that are significantly lower than peer-ratings on dimensions of interest. Inagreement/good individuals produce self- and peer-ratings that are both favorable and similar on dimensions of interest (i.e., self-ratings are high and statistically similar to peer-ratings). Inagreement/bad individuals produce self- and peer-ratings that are both unfavorable and similar on dimensions of interest (i.e., self-ratings are low and statistically similar to peer-ratings).

We then investigated the relationship between self-other agreement and peer reported helping behaviors using analysis of variance.

Background Theory

Emotional Intelligence

There is hardly any concept in the study of human behavior, which is as controversial as that of emotional intelligence. Typically, it is defined as the ability to recognize and regulate emotion in oneself and others (Spector, 2005). Criticism from the academic community was largely spurred by the immense popularity of Goleman's (1995) book and the subsequent proliferation of models and scales for emotional intelligence, which claimed that emotional intelligence could guarantee success in almost any area of one's life (Mayer, 1999). Some academicians have criticized the concept of emotional intelligence as suspect because most of its conclusions are based on data from proprietary databases, which are not available for scientific scrutiny (Landy, 2005). Others have questioned the very basis of the construct because emotion and cognition are very distinct, and whatever is being claimed as *emotional intelligence*, is merely an assortment of habits, skills, and choices (Locke, 2005).

Perhaps the strongest criticism of these models has been their measurement. Following the popularization of the concept of emotional intelligence there has been a proliferation of measurement attempts, most of which are self-report. A significant part of the controversy surrounding the concept is due to the confusion in the different measures of emotional intelligence. The measures vary widely in their content as well as their measurement using a selfreport, an informant approach, or an ability-based assessment.

Defenders of emotional intelligence concede that the criticisms are justified for some models of emotional intelligence (Ashkanasy & Daus, 2005), however they maintain that emotional intelligence is indeed a useful construct because of its use in understanding emotional labor and its ability to predict outcomes in the areas of leadership, and job performance (Daus & Ashkanasy, 2005).

Models of Emotional Intelligence

Studies on emotional intelligence have followed one of the two predominant models viz. the ability approach that views emotional intelligence as a set of cognitive abilities and the mixed or dispositional approach that combines abilities and a broad range of personality traits (Caruso, Mayer, & Salovey, 2002; Tett, Fox, & Wang, 2005). As an ability or skill, emotional intelligence is a capacity to engage in valued behavior, entails a degree of mutability (e.g. through training), and calls for measurement in the context of correctness (i.e. right/wrong answers). As a disposition, emotional intelligence is a relatively stable inclination or tendency amenable to selfdescription. The ability model of emotional intelligence was developed by Mayer, Salovey and their associates, while the mixed model of emotional intelligence was popularized through the works of Daniel Goleman (1995, 1998).

Mayer, Salovey, and Caruso (2004) describe the ability model as a four-branch model of emotional intelligence. According to this model, emotional intelligence is the ability to perceive emotions, to access and generate emotions to assist thought, to understand emotions and emotional knowledge, and to regulate emotions reflectively to promote emotional and intellectual growth. According to this model, emotional intelligence is conceived of as an ability that can be measured using objective, ability-based measures. The model does not focus on personality traits or dispositions per se, except as an outcome of having the underlying skills (Caruso, Mayer, & Salovey, 2002).

Sensing the need for a short, practical, and empirically valid measure of emotional intelligence, Wong and Law (2002) developed a 16-item scale based on the ability model of emotional intelligence proposed by Salovey and Mayer (1990). The scale, called the Wong and Law Emotional Intelligence Scale (WLEIS) was developed and validated using samples of managers, employees, and students in Hong Kong.

Helping Behaviors

Katz and Kahn (1966) noted many occasions in which organizational functioning depends on behavior that lubricates the social machinery of the organization but cannot be specified in advance for a given job. This includes a number behaviors like: helping co-workers with a job related problem; accepting orders without a fuss; tolerating temporary impositions without complaint; helping to keep the work area clean and uncluttered; making timely and constructive statements about the work unit or its head to outsiders; promoting a work climate that that is tolerable and minimizes the distraction created by interpersonal conflict; and protecting and conserving organizational resources. All of these behaviors have been collectively referred to as "organizational citizenship behavior" (OCB) (Bateman & Organ, 1983).

Barr and Pawar (1995) identified three primary domains of OCB depending on the nature of the primary target or beneficiary. Helping behavior in the organization aimed at benefiting a coworker is known as altruism and is rooted in empathy. A number of studies have demonstrated that empathy is the source of altruistic motives, which in turn trigger spontaneous helping behaviors (Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Batson et al., 1988; Batson et al., 1989; Batson et al., 1991; and Fultz, Batson, Fortenbach, McCarthy, & Varney, 1986).

Organizational Identification

In addition to individual differences, Van Dyne, Cummings, and Parks (1995) have highlighted the role of various affective states like satisfaction, commitment, low alienation, and job involvement as antecedents of organizational citizenship behaviors. Together these affective states contribute to the social identity of an individual in a group known as organizational identification (Dick, Wagner, Stellmacher, & Christ, 2005). Studies of organizational identification have shown a relationship between organizational identification and extra-role

behaviors (Feather & Rauter, 2004). While investigating the relationship between individual variables and helping behaviors, we must control for organizational identification.

Emotional Intelligence and Helping Behaviors

Salovey and Mayer (1990) conceptualized emotional intelligence as a set of skills, which contribute to the accurate appraisal, and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feelings to motivate, plan, and achieve in one's life. A central characteristic of emotionally intelligent behavior is empathy, i.e. the ability to comprehend another's feelings and to re-experience them oneself. The set of mental processes using emotional intelligence which include: (i) appraising and expressing emotions in the self and others, (ii) regulating emotion in the self and others, and (iii) using emotions in adaptive ways form the foundations of empathetic helping behaviors (Salovey & Mayer, 1990).

Emotionally intelligent individuals are able to perceive their own and others' emotions and hence would be sensitive to the needs of those around them. Having identified emotions in others, they would also be able to generate similar emotions in themselves. Hence, emotionally intelligent individuals are more likely to be helpful. On the other hand, individuals who are insensitive to the feelings and emotions of others are not likely to identify opportunities to help and hence are likely to be less helpful.

Hypothesis 1. Emotional intelligence will be positively related to helping behaviors in the workplace while controlling for organizational identification.

STUDY 1

Participants

Seventy-two executives attending training programs at a business school, from ages 26 years to 56 years (Median=36 years) across a number of organizations in India were studied. The sample included 58 male and six female respondents (8 undisclosed), and the work experience of the respondents ranged from 1 year to 34 years (Median=13 years). Forty-one were graduates, 29 were postgraduates, and one was a Ph.D.

Measures

The Wong and Law Emotional Intelligence Scale (WLEIS) (Wong & Law, 2002) was used to measure the four dimensions of emotional intelligence. Helping behaviors were measured using the 5-item subscale scale developed by Podsakoff, MacKinzie, Moorman, and Fetter (1990) to measure altruism, a facet of organizational citizenship behaviors. The scale was suitably modified to enable self-report. Items representing emotional intelligence and helping behaviors were incorporated into a questionnaire and respondents were asked to rate how much they agreed with each statement on a seven point scale. (1 disagree strongly, 2 disagree moderately, 3 disagree a little, 4 neither agree nor disagree, 5 agree a little, 6 agree moderately, 7 agree strongly). Organizational identification was measured using a single item graphical scale developed by Shamir and Kark (2004).

Results

Reliability. Reliability of the facets of emotional intelligence viz. self-emotions appraisal, others' emotions appraisal, use of emotion, and regulation of emotion was found (Cronbach

alphas for each of the facets were .64, .68, .50, and .74 respectively). Cronbach alpha for the overall scale of emotional intelligence was .83.

Cronbach alpha for the altruism scale was found to be .54. Of the five items, two of the items viz. "I help others who have been absent" and "I help orient new people even though it is not required" were dropped and the Cronbach alpha increased to .63. Perhaps these items were misunderstood by participants as referring to very specific situations as compared to the other items, which related to helping behaviors in general.

Testing of Hypothesis. The means, standard deviations, zero order correlations are reported in Table 1. The correlation matrix shows a significant correlation between all the four dimensions of emotional intelligence and helping behaviors.

Insert Table 1 about here

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The regression showed no significant effects for age, sex, or birth sequence. The variable organizational identification was not significant in the regression. Most likely this was because of the use of the single item graphic scale, which may not have been properly understood and interpreted by respondents.

The results for the regression are shown in Table 2. The results support our hypothesis that the ability of emotional intelligence is related to helping behaviors while controlling for organizational identification and work experience.

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Insert Table 2 about here

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STUDY 2

Our first study shows encouraging results for the relationship between emotional intelligence and helping behaviors when both these variables are self-reported. However, selfreport measures are ubiquitous and simultaneously the most vulnerable aspect of research in organizational behavior and human resource management (Podsakoff & Organ, 1986). While self-reported objective and demographic data is easily verifiable, other information like personality traits, behavior, feelings, attitudes, and perceptions are not. This is largely due to lower self-awareness (Wohlers & London, 1989). Specifically, Organ and Ryan (1995) have shown that since ratings of OCB measures are inherently subjective, ratings of a person's own helping behaviors are a poor substitute for independent judgments. Also, it is likely that use of self-ratings of helping behaviors along with self-reports of dispositional variables may have spurious correlations confounded by common method variance. One of the remedies suggested for the common method bias is the use of independent sources for predictor and criterion variables (Podsakoff & Organ 1986; Podsakoff, MacKinzie, Lee, & Podsakoff, 2003). Hence, in our second study, we investigate both self and peer reports of emotional intelligence, and compare the results with peer-reports of helping behaviors. The second study, though quite different from the first in terms of its sample characteristics and its data collection methodology, supplements the first study by proposing an alternative method of assessment of emotional intelligence.

Prior studies have used colleagues' ratings of emotional intelligence to predict supervisory ratings of job performance and parents' ratings of emotional intelligence of students

to predict self-reported life satisfaction (Law, Wong, & Song, 2004). In addition to providing an independent appraisal of emotional intelligence and helping behaviors, the use of peer-reports provides us with an additional variable in the form of self-other agreement.

Self-other Agreement

Yammarino and Atwater (1997) have shown the relevance of self-other agreement for organizational outcomes and human resource management practices. Their model proposed that personal and situational variables (e.g., biodata, individual characteristics, context) affect self-other rating comparisons (e.g. perception of emotional intelligence), which in turn influence performance outcomes (e.g. helping behaviors).

Based on self-other rating comparison, Atwater and Yammarino (1997) have defined four categories of self-raters. Firstly, *over-estimators* are individuals whose self-ratings are significantly higher than the ratings of relevant others. Second, *under-estimators* are individuals whose self-ratings are significantly lower than the ratings of relevant others. Third, *in-agreement/good* raters are individuals whose self-ratings are favorable (high) and similar to the ratings of relevant others. Fourth, *in-agreement/poor* raters are individuals whose self-ratings are unfavorable (low) and similar to the ratings of relevant others.

Over-estimators are individuals with very positive self-evaluations who are unlikely to see any changes in their behavior as necessary, while others see it quite differently. Individuals with more accurate self-ratings, who are in agreement with others, are likely to be those who have used information from their abilities and/or experiences to alter their behavior accordingly (Ashford, 1989). In-agreement/good raters have realistic self-perceptions and expectations; they seek feedback, and adjust their behavior accordingly. In-agreement/poor raters have a below

average self-perception which is similar to the other rater's perception. This leads to expectations of failure, which in turn makes them more likely to fail (Atwater & Yammarino, 1997). Finally, those with negative or lower self-evaluations, under-estimators, also feel some pressure to alter their behavior (Ashford, 1989; Atwater & Yammarino, 1997).

A number of studies have shown that under-estimators are likely to be overly critical in their self-evaluation and may set higher standards of performance. Godshalk and Sosik (2000) and Sosik and Godshalk (2004) in their studies of mentor-protégé dyads found that under-estimator dyads experienced the highest quality of mentoring relationships in terms of psychosocial support received, career development, and perceived mentoring effectiveness. Protégés in in-agreement/good dyads reported higher levels of psychosocial support than in-agreement/poor and over-estimator dyads (Sosik & Godshalk, 2004). Krishnan (2003) showed that leaders who underestimate their transformational behaviors as compared to others are seen favorably by others and are considered high on moral leadership and effectiveness.

Self-other Agreement and Helping Behaviors

Davis (1983) showed that high scores of empathic concern leading to helping behavior were negatively related to an undesirable interpersonal style characterized by boastfulness and egotism. Individuals who are boastful and egotists are likely to be over-estimators and hence have low empathic concern. Such individuals are likely to be less helpful. On the other hand, individuals who are humble and unassuming are likely to underestimate their emotional intelligence abilities and hence will show more empathic concern and thereby be more helpful.

Hypothesis 2. Individuals who underestimate their emotional intelligence will be perceived to be more helpful by their peers as compared to individuals who overestimate their emotional intelligence.

Individuals who are under-estimators are most likely those who have seen many weaknesses in their abilities and have successfully managed to overcome some of them in the eyes of their peers. In-agreement/good estimators are likely to believe that their level of performance is above average and change is not needed. On the other hand, in-agreement/poor estimators are likely to attribute their lack of success to ability. Hence, they feel that their efforts to perform are useless. In the absence of any positive cues from their peers, these individuals stop striving to improve (Atwater & Yammarino, 1997).

Hypothesis 3. Individuals who underestimate their emotional intelligence will be perceived to be more helpful by their peers as compared to individuals whose self-ratings are unfavorable (low) and similar to the ratings of relevant others.

Hypothesis 4. Individuals who are in-agreement/good will be perceived to be more helpful by their peers as compared to individuals who are in-agreement/poor as well as individuals who are over-estimators.

Participants

Fifty-six high school students were studied. The sample included 14 male and 42 female respondents. Each student filled up a self-evaluation of emotional intelligence using the WLEIS and gave feedback on emotional intelligence and helping behaviors for two other students in the class thereby creating 112 dyads for calculating self-other agreement. Peers were randomly assigned and each triad included the respondent, one peer who rated the respondent's emotional intelligence and another peer who rated the respondent's helping behaviors. Since self-other agreement would be affected by contact time (London & Wohlers, 1991; Wohlers, & London, 1989), we also measured the frequency of interactions that they had with each other by asking

the question: "How often do you usually speak to your classmate?" Responses were measured on a 7 point scale (1 less than once a week, 2 at least once a week, 3 at least twice a week, 4 at least thrice a week, 5 at least every alternate day, 6 almost every day, 7 more than once a day).

Demographics including age, gender (0 Male, and 1 Female), and birth order were also collected.

Results

The means, standard deviations, and partial correlations by controlling for frequency of interaction between peers are reported in Table 3. Interestingly, the partial correlation between self-report of emotional intelligence and peer-reports of helping behaviors was just .08 (non-significant), while the partial correlation of helping behaviors with peer-reports of emotional intelligence was .21 (p<.05). The partial correlation of self-other agreement and peer-reported helping behaviors was .14 (p=.15).

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Insert Table 3 about here

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Based on the procedure developed by Atwater and Yammarino (1997) and used by Sosik and Godshalk (2004), individuals were categorized into one of four agreement groups relative to the ratings of their peers. The difference between the individual's and peer's ratings of emotional intelligence was computed, and then each individual's difference score was compared to the mean difference score. The difference scores were used to place individuals into categories and were not used in the data analysis (Edwards, 1994). Individuals whose difference scores were one-half standard deviation or more about the mean difference were categorized as underestimators. Individuals whose difference scores were one-half standard deviations or more below

the mean difference were categorized as under-estimators. When individual's difference scores were within one-half standard deviation of the mean difference and their peer's ratings were below (above) the peer ratings' grand mean, those individuals were categorized as being in agreement/poor (good).

We did six sets of analysis of variance tests to see if the mean scores of helping behaviors differed across each of the four categories of agreement taken in pairs. The results of the analysis of variance done are presented in Table 4. A box plot indicating the differences in peer-reported helping behaviors for all the four categories is shown in Figure 1.

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Insert Figure 1 about here

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Self-ratings of emotional intelligence were significantly higher for over-estimators as compared to under-estimators and in-agreement/poor individuals. Self-ratings of emotional intelligence were significantly higher for in-agreement/good individuals as compared to under-estimators and in-agreement/poor individuals.

Peer-ratings of emotional intelligence were significantly higher for under-estimators as compared to over-estimators and in-agreement/poor individuals. Peer-ratings of emotional intelligence were significantly higher for in-agreement/good individuals as compared to in-agreement/poor individuals and over-estimators.

Helping behaviors for under-estimators (M=5.26, SD=1.23) were significantly greater (p=.08) than helping behaviors for over-estimators (M=4.69, SD=1.33), thus Hypothesis 2 is supported.

Helping behaviors for under-estimators (M=5.26, SD=1.23) were significantly greater (p=.10) than helping behaviors for in-agreement/poor individuals (M=4.53, SD=1.76), thus Hypothesis 3 is supported.

Helping behaviors for in-agreement/good individuals (M=5.44, SD=1.16) were significantly greater (p=.04) than helping behaviors for in-agreement/poor individuals (M=4.53, SD=1.76) and were also significantly greater (p=.02) than over-estimators (M=4.69, SD=1.33), thus Hypothesis 4 is supported. Hence, we find except for in-agreement/good individuals, underestimators show the highest peer-rated helping behaviors.

Discussion

We investigated the relationship between self-reported emotional intelligence, self-other agreement on emotional intelligence, and helping behaviors through two studies. The first study on 72 executives found that emotional intelligence was related to self-report helping behaviors while controlling for organizational identification and work experience. The second study on 56 students introduced self-other agreement on emotional intelligence as a variable to predict helping behaviors. When we segregated the four groups into under-estimators, inagreement/poor, in-agreement/good, and over-estimators, we found that except for inagreement/good, helping behaviors were highest for under-estimators. In addition, helping behaviors for in-agreement/good were significantly greater than in-agreement/poor. Our results are consistent with the predictions of the theoretical model of self-other agreement. Atwater and

Yammarino (1997) and Yammarino and Atwater (1997) predicted that the most positive individual and organizational outcomes are likely for individuals who evaluate themselves favorably and are evaluated favorably by others. These individuals use feedback from others constructively to alter their behavior and are hence likely to have better relationships and performance at the workplace.

Our findings clearly show that relying purely on self-report measures of emotional intelligence can lead to erroneous conclusions. When both emotional intelligence and the outcome variables were self-report, we found a high relationship between the two. However, in Study 2, we found that self-report emotional intelligence was unrelated to peer-reported helping behaviors. Instead, self-other agreement on emotional intelligence can be used as a useful predictor for helping behaviors. Purely self-report measures have a number of limitations; however, self-other agreement can provide useful insights for some of the outcomes of emotional intelligence. Hence, this mode of assessment of emotional intelligence may serve as a useful alternative to costly and time-consuming ability tests of emotional intelligence.

Self-other agreement also has a role to play in the design and evaluation of training programs on emotional intelligence. It is found that when constructive feedback is included as a part of training, subsequent self-ratings are in line with peer-ratings (Yammarino & Atwater, 1997). Hence, training programs must include modules on self-perception, its impact on individual and organizational outcomes and improving self-perception through feedback.

Limitations

In the first study, the altruistic behaviors were self-reported and hence they were subject to the usual biases of all self-report measures (Podsakoff & Organ 1986). The variable organizational identification was taken as a control variable however; it was not significant in the

regression. Perhaps the single item graphic scale was not properly understood by respondents and needs to be validated in the Indian context before it can be of much use.

The scale used to measure helping behaviors in the workplace did not assess the motives behind the helping behaviors. An emotionally intelligent person is likely to be more helpful because of the capacity for greater empathy; however, our study did not investigate this causal mechanism. The relationship between the ability of emotional intelligence and helping behaviors must be further elaborated in terms of different causal mechanisms for different motives.

The second study was conducted on high school students and hence it may seem as if applicability of these findings to older individuals in is limited. Most results regarding the effects of age on self-ratings are inclusive. However, in general older and more tenured individuals seek less feedback and tend to inflate their self-ratings (Atwater & Yammarino, 1997). Even though similar studies using WLEIS have been done on high school students during scale validation (Law, Wong, & Song, 2004), further studies on older subjects will be needed to substantiate our findings. In addition to this, one may assume that the comparability of the two studies (i.e. one on executives and the other on students) is limited due to the difference in the ages of the two sets of respondents. However, the objective of the first study is to highlight the limitations of a self-report measure of emotional intelligence and the objective of the second study is to show how self-other agreement can serve as a good method for measuring emotional intelligence. Hence, these studies can be seen as independent studies with distinct objectives, and their only commonality being an attempt to measure emotional intelligence.

We used difference scores of self- and peer-ratings of emotional intelligence to form four groups of individuals based on self-other agreement. Using procedures like polynomial

regression may yield further insights into the exact interaction between self and other ratings of emotional intelligence (Edwards, 1993; Edwards, 1994; Edwards & Parry, 1993).

This study related scores on self-other agreement with helping behaviors, an outcome of emotional intelligence. True comparison with ability tests of emotional intelligence will be possible only if these scores are compared with scores attained by participants on ability tests of emotional intelligence.

Finally, further studies must go beyond simple causal models and must look at experimental evidence that feedback on peers' perceptions of emotional intelligence leads to an improvement in helping behaviors.

Conclusion

Our first study showed that emotional intelligence was related to helping behaviors in the workplace. By developing emotional intelligence competencies, it is possible to create empathic individuals who are sensitive to the feelings of others and are more likely to help others.

Boyatzis, Stubbs, and Taylor (2002) have shown how MBAs can develop emotional intelligence competencies through specially designed interventions as part of their curriculum.

The second study gives us insight into a measurement and feedback process using selfother agreement, which while overcoming the drawbacks of pure self-report measures can also provide some of the objectivity of the ability tests. As compared to ability tests of emotional intelligence, feedback using self-other agreement is likely to be quicker and more cost effective.

Business schools have already realized the need to supplement theoretical and cognitive development with emotional development of students. Emotional intelligence has gathered immense popularity and interest from the scientific community since its appearance fifteen years

ago. If used properly, it can be a powerful tool to promote interpersonal sensitivity in business school students. Innovative ways of measuring and developing emotional intelligence in students may help prepare students for the real world of business in line with the expectations of the business community.

References

- Ashford, S. (1989). Self-assessments in organizations: A literature review and integrative model.

 *Research in organizational behavior, 11, 133-174.
- Ashkanasy, N. M., & Daus, C. S. (2005). Rumors of the death of emotional intelligence in organizational behavior are vastly exaggerated. *Journal of Organizational Behavior*, 26, 441-452.
- Association to Advance Collegiate Schools of Business (2002). *Management education at risk*.

 Retrieved December 6, 2005 from

 http://www.aacsb.edu/publications/metf/METFReportFinal-August02.pdf
- Atwater, L. E., & Yammarino, F. J. (1992). Does self-other agreement on leadership perceptions moderate the validity of leadership and performance predictions? *Personnel Psychology*, 45, 141-164.
- Atwater, L. E., & Yammarino, F. J. (1997). Self-other rating agreement: A review and model. In G. R. Ferris (Ed.), Research in personnel management and human resources management, 15, 121-174.
- Barr, S. H., & Pawar, B. S. (1995). Organizational citizenship behavior: Domain specifications for three middle range theories. *Academy of Management Proceedings*, 302-306.
- Bateman, T. S., & Organ, D. W. (1983). Job satisfaction and the good soldier: The relationship between affect and employee "citizenship". *Academy of Management Journal*, 26, 587-594.
- Batson, C. D., Batson, J. G., Griffitt, C. A., Barrientos, S., Brandt, J. R., Sprengelmeyer, P., & Bayly, M. J. (1989). Negative-state relief and the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, *56*, 922-933.

- Batson, C. D., Batson, J. G., Slingsby, J. K., Harrell, K. L., Peekna, H. M., & Todd, R. M. (1991). Empathic joy and the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, *61*, 413-426.
- Batson, C. D., Duncan, B. D., Ackerman, P., Buckley, T., & Birch, K. (1981). Is empathic emotion a source of altruistic motivation? *Journal of Personality and Social Psychology*, 40, 290-302.
- Batson, C. D., Dyck, J. L., Brandt, J. R., Batson, J. G., Powell, A. L., McMaster, M. R., & Griffitt, C. (1988). Five studies testing two new egoistic alternatives to the empathyaltruism hypothesis. *Journal of Personality and Social Psychology*, 55, 52-77.
- Boyatzis, R. E., Stubbs, E. C., & Taylor, S. N. (2002). Learning cognitive and emotional intelligence competencies through graduate management education. *Academy of Management Learning and Education*, 1,150-162.
- Caruso, D. R., Mayer, J. D., & Salovey, P. (2002). Emotional intelligence and emotional leadership. In R. E. Riggio, S. E. Murphy, & F. J. Pirozzolo (Eds.), *Multiple intelligences and leadership* (pp. 55-74). Mahwah, NJ: Lawrence Erlbaum.
- Daus, C. S., & Ashkanasy, N. M. (2005). The case for the ability based model of emotional intelligence. *Journal of Organizational Behavior*, 26, 453-466.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.
- Dick, R. V., Wagner, U., Stellmacher, J., & Christ, O. (2005). Category salience and organizational identification. *Journal of Occupational and Organizational Psychology*, 78, 273-285.

- Edwards, J. R. (1993). Problems with the use of profile similarity indices in the study of congruence in organizational research. *Personnel Psychology*, *46*, 641-665.
- Edwards, J. R. (1994). Regression analysis as an alternative to difference scores. *Journal of Management*, 20, 683-689.
- Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal*, *36*, 1577-1613.
- Feather, N. T., & Rauter, K. A. (2004). Organizational citizenship behaviors in relation to job status, job insecurity, organizational commitment and identification, job satisfaction and work values. *Journal of Occupational and Organizational Psychology*, 77, 81-94.
- Fultz, J., Batson, C. D., Fortenbach, V. A., McCarthy, P. M., & Varney, L. L. (1986). Social evaluation and the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, *50*, 761-769.
- Godshalk, V. M., & Sosik, J. J. (2000). Does mentor-protégé agreement on mentor leadership behavior influence the quality of a mentoring relationship? *Group and Organization Management*, 25, 291-317.
- Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. New York: Bantam Books.
- Goleman, D. (1998). What makes a leader? *Harvard Business Review*, 76(6), 93-102.
- Katz, D., & Kahn, R. L. (1966). The social psychology of organizations. New York: John Wiley.
- Krishnan, V. R. (2003). Power and moral leadership: Role of self-other agreement. *Leadership* and *Organizational Development Journal*, 24, 345-351.

- Landy, F. J. (2005). Some historical and scientific issues related to research on emotional intelligence. *Journal of Organizational Behavior*, 26, 411-424.
- Law, K. S., Wong, C-.,S., & Song, L. J. (2004). The construct and criterion validity of emotional intelligence and its potential utility for management studies. *Journal of Applied Psychology*, 89, 483-496.
- Locke, E. A. (2005). Why emotional intelligence is an invalid concept. *Journal of Organizational Behavior*, 26, 425-431.
- London, M., & Wohlers, A. J. (1991). Agreement between subordinate and self-ratings in upward feedback. *Personnel Psychology*, 44, 375-390.
- Mayer, J. D. September, (1999). Emotional Intelligence: Popular or scientific psychology? *APA Monitor*, 30, 50. [Shared Perspectives column] Washington, DC: American Psychological Association.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, *15*, 197-215.
- Morris, J. A., Urbanski, J., Fuller, J. (2005). Using poetry and the visual arts to develop emotional intelligence. *Journal of Management Education*, 29, 888-905.
- Myers, L. L., & Tucker, M. L. (2005). Increasing awareness of emotional intelligence in a business curriculum. *Business Communication Quarterly*, 68, 44-51.
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48, 775-802.
- Pfeffer, J., & Fong, C. T. (2002). The end of business schools? Less success than meets the eye.

 *Academy of Management Learning and Education, 1, 78-95.

- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12, 531-544.
- Podsakoff, P. M., MacKinzie, S. B., Lee, J-, Y., & Podsakoff, N. P. (2003). Common method bias in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Podsakoff, P. M., MacKinzie, S. B., Moorman, R. H., & Fetter, R. (1990). Trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1, 107-142.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9, 185-211.
- Shamir, B., & Kark, R. (2004). A single-item graphic scale for the measurement of organizational identification. *Journal of Occupational and Organizational Psychology*, 77, 115-123.
- Shepherd, D. A. (2004). Educating entrepreneurship students about emotion and learning from failure. *Academy of Management Learning and Education*, *3*, 274-287.
- Sosik, J. J., & Godshalk, V. M. (2004). Self-other rating agreement in mentoring: Meeting protégé expectations for development and career advancement. *Group & Organization Management*, 29, 442-469.
- Spector, P. E. (2005). Introduction: Emotional intelligence. *Journal of Organizational Behavior*, 26, 409-410.
- Tett, R. P., Fox, K. E., & Wang, A. (2005). Development and validation of a self-report measure of emotional intelligence as a multidimensional trait domain. *Personality and Social Psychology Bulletin*, 31, 859-888.

- Tucker, M. L., Sojka, J. Z., Barone, F. J., & McCarthy, A. M. (2000). Training tomorrow's leaders: Enhancing the emotional intelligence of business graduates. *Journal of Education for Business*, 75, 331-337.
- Van Dyne, L., Cummings, L. L., Parks, J. M. (1995). Extra-role behaviors: In pursuit of construct and definitional clarity (a bridge over muddled waters). In B. L. Staw & L. L. Cummings (Eds.), Research in Organizational Behavior, Volume 17, 215-285.
- Wohlers, A. J., & London, M. (1989). Ratings of managerial charecteristics: Evaluation difficulty, co-worker agreement, and self-awareness. *Personnel Psychology*, 42, 235-261.
- Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly*, *13*, 243-274.
- Yammarino, F. J., & Atwater, L. E. (1997). Do mangers see themselves as others see them?

 Implications of self-other rating agreement for human resources management.

 Organizational Dynamics, 25, 35-45.

TABLE 1

Means, Standard Deviations, and Zero-Order Intercorrelations

Variable	М	SD	1	2	3	4	5	6	7
1. Self-emotions appraisal	5.91	.75	(.64)						
2. Others' emotions appraisal	5.70	.85	.40**	(.68)					
3. Use of emotion	5.83	.81	.49**	.36**	(.50)				
4. Regulation of emotion	5.57	.99	.55**	.51**	.37**	(.74)			
5. Emotional intelligence	5.75	.65	.78**	.74**	.71**	.82**	(.83)		
6. Helping behaviors	6.13	.74	.46**	.50**	.48**	.33**	.57**	(.63)	
7. Organizational Identification	5.37	1.06	.04	04	00	.07	.02	00	-

Note. Coefficients alphas are in parenthesis along the diagonal. N = 72.

^{*} *p* < .05.

^{**} p < .01.

TABLE 2

Results of Regression Analysis to Check the Effect Of Emotional Intelligence on Helping Behaviors while controlling for Organizational Identification and Work Experience.

Predictor	b	SE b	Lower	Upper	- β	t	p
Constant	2.35	.723	.907	3.794	-	3.251	.00
Emotional Intelligence	.67	.10	.45	.89	.60	6.15	.00
Organizational identification	06	.07	206	.08	08	84	.40
Work experience in years	.01	.00	00	.03	.19	1.90	.06

Note. N = 72.

TABLE 3

Means, Standard Deviations, And Partial Intercorrelations (Controlling For Frequency Of Interactions Between Peers)

Variable	M	SD	1	2	3	4
1. Self-report of Emotional Intelligence	5.32	.65	(.83)			
2. Peer-report of Emotional Intelligence	4.63	1.01	.10	(.87)		
3. Self-other agreement of Emotional Intelligence †	.69	1.10	.47**	82**	-	
4. Peer-report on Helping Behaviors	5.07	1.35	.08	.21*	14	(.71)

Note. Coefficients alphas are in parenthesis along the diagonal. N = 105.

^{*}p<.05

^{**} *p* < .01.

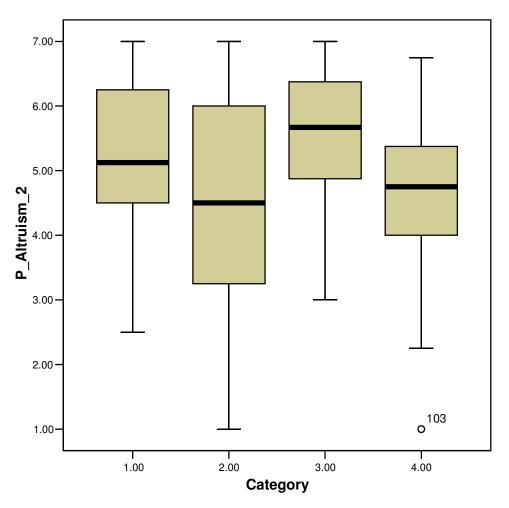
[†] Self-other agreement of Emotional Intelligence = Self-report of Emotional Intelligence – Peer-report of Emotional Intelligence

TABLE 4.

Analysis of Variance across the Four Categories of Self-Other Agreement

		der- nator		n- nent/Poor	In- r Agreement/Good		Over-Estimator (O)		Significant Mean Differences
	J)	J)	(]	IP)	(I	(IG)			
	N =	= 34	$N = 14 \qquad \qquad N = 32$		= 32	<i>N</i> = 28			
Measure	М	SD	M	SD	M	SD	М	SD	* <i>p</i> <.1, ** <i>p</i> <.05,
									***p<.01
Self-ratings of	4.88	.63	4.92	.44	5.77	.37	5.57	.59	IG > U & IP ***
emotional intelligence									O > U & IP***
Peer-ratings of	5.35	.58	4.01	.37	5.20	.44	3.41	.77	$U > IP \& O^{***}$
emotional intelligence									$IG > IP > O^{***}$
(peer no. 1)									
Helping Behaviors (peer	5.26	1.23	4.53	1.76	5.44	1.16	4.69	1.33	U > IP*
no 2)									U > O*
									IG > IP**
									IG > O*
Frequency of Interaction	4.41	2.40	3.50	2.53	4.28	2.23	3.67	2.34	
with peer no 1									
Frequency of Interaction	4.73	2.04	4.35	2.40	4.62	2.51	3.96	2.02	
with peer no 2									

FIGURE 1
Box Plot Indicating Median and Extreme Values of Helping Behaviors in each of the Four Categories of Self-Other Agreement



Category 1 is Under-estimators, Category 2 is In-agreement/poor, Category 3 is In-agreement/good, and Category 4 is Over-estimation