

Assessment of Emotional Intelligence: The Role of Self-Other Agreement

Zubin R Mulla (zubinmulla@yahoo.co.in)

Prin. L N Welingkar Institute of Management Development & Research, Mumbai

R K Premarajan (prem@xlri.ac.in)

XLRI, Jamshedpur

Madhukar Shukla (madhukar@xlri.ac.in)

XLRI, Jamshedpur

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

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 and 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 and Taylor, 2002; Morris, Urbanski and Fuller, 2005; Mryers and Tucker, 2002; Shepherd, 2004; Tucker, Sojka, Barone, and 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 - the ability model that was first developed by Salovey and Mayer (1990), and the mixed model of emotional intelligence popularised 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 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 on self reported helpful behaviours 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, in-agreement/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. In-agreement/good individuals produce self and peer ratings that are both favourable and similar on dimensions of interest (i.e., self ratings are high and statistically similar to peer ratings). In-agreement/bad individuals produce self and peer ratings that are both unfavourable 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 behaviours using analysis of variance.

BACKGROUND THEORY

Emotional Intelligence

There is hardly any concept in the study of human behaviour, which is as controversial as that of emotional intelligence. Typically, it is defined as the ability to recognise 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 criticised 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 popularisation 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 self report, 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 and Daus, 2005). However, they maintain that emotional intelligence is indeed a useful construct because of its use in understanding emotional labour and its ability to predict outcomes in the areas of leadership and job performance (Daus and 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 and Salovey, 2002; Tett, Fox and Wang, 2005). As an ability or skill, emotional intelligence is a capacity to engage in valued behaviour, 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 self description. The ability model of emotional intelligence was developed by Mayer, Salovey and their associates, while the mixed model of emotional intelligence was popularised 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 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 and 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.

Helpful Behaviours

Katz and Kahn (1966) noted many occasions in which organizational functioning depends on behaviour that lubricates the social machinery of the organization but cannot be specified in advance for a given job. This includes a number behaviours like: helping coworkers 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 is tolerable and minimises the distraction created by interpersonal conflict; and protecting and conserving organizational resources. All of these behaviours have been collectively referred to as "organizational citizenship behaviours" (OCBs) (Bateman and Organ, 1983).

Barr and Pawar (1995) identified three primary domains of OCB depending on the nature of the primary target or beneficiary. Helpful behaviour 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 behaviours (Batson, Duncan, Ackerman, Buckley and Birch, 1981; Batson et al., 1988; Batson et al., 1989; Batson et al., 1991; and Fultz, Batson, Fortenbach, McCarthy and 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 behaviours. Together these affective states contribute to the social identity of an individual in a group, known as organizational identification (Dick, Wagner, Stellmacher and Christ, 2005). Studies of organizational identification have shown a relationship between organizational identification and extra-role behaviours (Feather and Rauter, 2004). While investigating the relationship between individual variables and helping behaviours, we must control for organizational identification.

Emotional Intelligence and Helpful Behaviours

Salovey and Mayer (1990) conceptualised 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 behaviour 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 includes: (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 that form the foundations of empathetic helpful behaviours (Salovey and 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 helpful behaviours 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 and Law, 2002) was used to measure the four dimensions of emotional intelligence. Helpful behaviours were measured using the 5-item scale developed by Podsakoff, MacKinzie, Moorman and Fetter (1990) to measure altruism, a facet of organizational citizenship behaviours. The scale was suitably modified to enable self report. Items representing emotional intelligence and helpful behaviours were incorporated into a questionnaire and respondents were asked to rate how much they agreed with each statement on a 7-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. appraisal of self emotions, others' emotions appraisal, use of emotion, and regulation of emotion was calculated (Cronbach alphas for the facets were .64,.68,.50and.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 behaviours 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 helpful behaviours.

TABLE 1
Means, Standard Deviations and Zero-order Intercorrelations

Variable	M	SD	1	2	3	4	5	6	7
1. Appraisal of self emotions	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. Helpful behaviours	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

The regression analysis showed no significant effects for age, sex or birth sequence. The variable organizational identification was not significant in the regression equation. 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 regression results are shown in Table 2. The results supported our hypothesis that the ability of emotional intelligence is related to helpful behaviours while controlling for organizational identification and work experience.

TABLE 2

Results of Regression Analysis to Check the Effect of Emotional Intelligence on Helpful Behaviours while controlling for Organizational Identification and Work Experience

Predictor	b	SE b	95% CI		t	p
			Lower	Upper		
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.

STUDY 2

Our first study shows encouraging results for the relationship between emotional intelligence and helpful behaviours when both these variables are self reported. However, self report measures are ubiquitous and simultaneously the most vulnerable aspect of research in organizational behaviour and human resource management (Podsakoff and Organ, 1986). While self reported objective and demographic data is easily verifiable, other information like personality traits, behaviour, feelings, attitudes and perceptions are not. This is largely due to lower self awareness (Wohlers and London, 1989). Specifically, Organ and Ryan (1995) have shown that since ratings of OCB measures are inherently subjective, ratings of a person's own helpful behaviours are a poor substitute for independent judgments. Also, it is likely that use of self ratings of helpful behaviours 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 and Organ 1986; Podsakoff, MacKinzie and Lee, 2003). Hence, in our second study, we investigated both self and peer reports of emotional intelligence and compared the results with peer reports of helpful behaviours. The second study, though quite different from the first in terms of its sample characteristics and its data collection methodology, supplemented 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 and Song, 2004). In addition to providing an independent appraisal of emotional intelligence and helpful behaviours, 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. helpful behaviours).

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 favourable (high) and similar to the ratings of relevant others. Fourth, *in-agreement/poor* raters are individuals whose self ratings are unfavourable (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 behaviour 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 behaviour accordingly (Ashford, 1989). In-agreement/good raters have realistic self perceptions and expectations; they seek feedback and adjust their behaviour 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 and Yammarino, 1997). Finally, under-estimators - those with negative or lower self evaluations, also feel some pressure to alter their behaviour (Ashford, 1989; Atwater and 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, 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 and Godshalk, 2004). Krishnan (2003) showed that leaders who underestimate their transformational behaviours as compared to others are seen favourably by others and are considered high on moral leadership and effectiveness

Self-other Agreement and Helpful Behaviours

Davis (1983) showed that high scores of empathic concern leading to helpful

behaviour were negatively related to an undesirable interpersonal style characterised by boastfulness and egotism. Individuals who are boastful and egotistic 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 and 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 unfavourable (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 helpful behaviours 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 helpful behaviours. Since self-other agreement would be affected by contact time (London and Wohlers, 1989, 1991), we also measured the frequency of interactions 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 helpful behaviours was just .08 (non significant), while the partial correlation of helpful behaviours with peer reports of emotional intelligence was .21 ($p < .05$). The partial correlation of self-other agreement and peer reported helpful behaviours was .14 ($p = .15$).

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 helpful behaviours	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

Based on the procedure developed by Atwater and Yammarino (1997) and used by Sosik and Godshalk (2004), individuals were categorised into one of four agreement groups relative to the ratings of their peers. The difference between the individuals' and peers' 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 above the mean difference were categorised as over-estimators. Individuals whose difference scores were one half standard deviations or more below the mean difference were categorised as under-estimators. When individuals' difference scores were within one half standard deviation of the mean difference and their peers' ratings were below (above) the peer ratings' grand mean, those individuals were categorised as being in agreement/poor (good).

We did six sets of analysis of variance tests to see if the mean scores of helpful behaviours 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 helpful behaviours for all the four categories is shown in Figure 1.

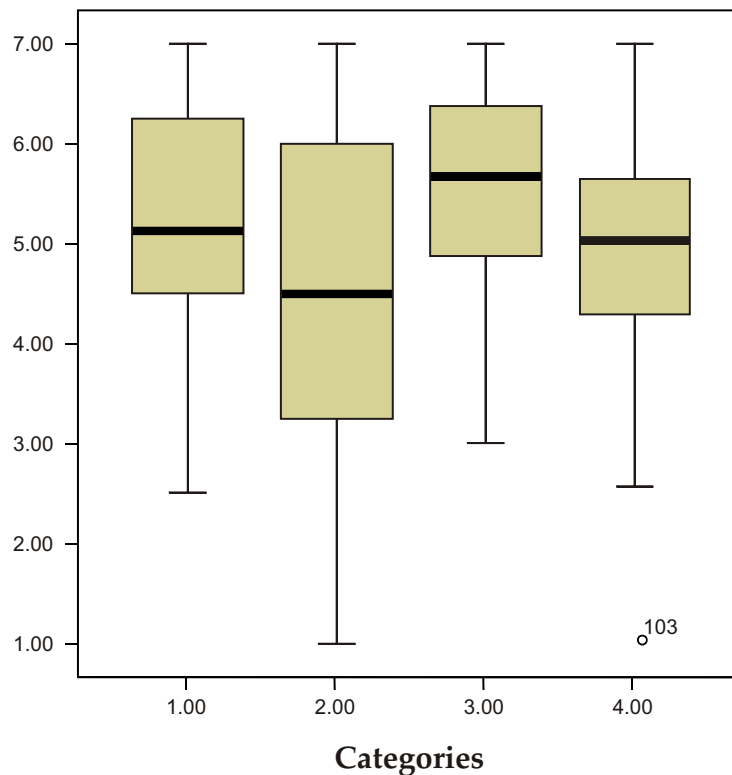
TABLE 4
Analysis of Variance across the Four Categories of Self-other Agreement

Measure	Under-estimator (U) N = 34		In-agreement/poor (IP) N = 14		In-agreement/good (IG) N = 32		Over-estimator (O) N = 28		Significant mean differences
	M	SD	M	SD	M	SD	M	SD	
Self ratings of emotional intelligence	4.88	.63	4.92	.44	5.77	.37	5.57	.59	* $p < .1$, ** $p < .05$, *** $p < .01$
Peer ratings of emotional intelligence (peer no. 1)	5.35	.58	4.01	.37	5.20	.44	3.41	.77	U > IP & O*** IG > IP > O***
Helpful behaviours (peer no. 2)	5.26	1.23	4.53	1.76	5.44	1.16	4.69	1.33	U > IP* U > O* IG > IP** IG > O*
Frequency of interaction (peer no. 1)	4.41	2.40	3.50	2.53	4.28	2.23	3.67	2.34	
Frequency of Interaction (peer no. 2)	24.73	2.04	4.35	2.40	4.62	2.51	3.96	2.02	

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 also 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.

FIGURE 1
Box Plot Indicating Median and Extreme Values of Helpful Behaviours in each of the Four Categories of Self-other Agreement



Category 1 - Under-estimators, Category 2 - In-agreement/poor, Category 3 - In-agreement/good, Category 4 - Over-estimators.

Helpful behaviours for under-estimators ($M=5.26$, $SD=1.23$) were significantly greater ($p=.08$) than helpful behaviours for over-estimators ($M=4.69$, $SD=1.33$). Thus, Hypothesis 2 was supported.

Helpful behaviours for under-estimators ($M=5.26$, $SD=1.23$) were significantly greater ($p=.10$) than helpful behaviours for in-agreement/poor individuals ($M=4.53$, $SD=1.76$). Thus, Hypothesis 3 was supported.

Helpful behaviours for in-agreement/good individuals ($M=5.44$, $SD=1.16$) were significantly greater ($p=.04$) than helpful behaviours for in-agreement/poor individuals ($M=4.53$, $SD=1.76$) and were also significantly greater ($p=.02$) than for over-estimators ($M=4.69$, $SD=1.33$). Thus, Hypothesis 4 was supported. Hence, we found that except for in-agreement/good individuals, under-estimators showed the highest peer rated helpful behaviours.

DISCUSSION

We investigated the relationship between self reported emotional intelligence, self-other agreement on emotional intelligence, and helpful behaviours through two studies. The first study on 72 executives found that emotional intelligence was related to self report helpful behaviours 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 helpful behaviours. When we segregated the respondents into the four groups of under-estimators, in-agreement/poor, in-agreement/good and over-estimators, we found that except for in-agreement/good, helpful behaviours were highest for under-estimators. In addition, helpful behaviours 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) predicted that the most positive individual and organizational outcomes are likely for individuals who evaluate themselves favourably and are evaluated favourably by others. These individuals use feedback from others constructively to alter their behaviour 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 helpful behaviours. Instead, self-other agreement on emotional intelligence can be used as a useful predictor for helpful behaviours. 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 and 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 behaviours were self reported and hence they were subject to the usual biases of all self report measures (Podsakoff and 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 helpful behaviours in the workplace did not assess the motives behind the helpful behaviours. 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 helpful behaviours 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 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 and Yammarino, 1997). Even though similar studies using WLEIS have been done on high school students during scale validation (Law, Wong and 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, 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 and Parry, 1993).

This study related scores on self-other agreement with helpful behaviours, 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 helpful behaviours.

CONCLUSION

Our first study showed that emotional intelligence was related to helpful behaviours 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 self-other 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 realised 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 behaviour*, 11, 133-174.

Ashkanasy, N M, and Daus, C S (2005). Rumours of the death of emotional intelligence in organizational behaviour are vastly exaggerated. *Journal of Organizational Behaviour*, 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, and 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, and 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, and Pawar, B S (1995). Organizational citizenship behaviour: Domain specifications for three middle range theories. *Academy of Management Proceedings*, 302-306.

Bateman, T S, and 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, and 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, and 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, and 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., and Griffitt, C (1988). Five studies testing two new egoistic alternatives to the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, 55, 52-77.

Boyatzis, R E, Stubbs, E C, and 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, and Salovey, P (2002). Emotional intelligence and emotional leadership. In R E Riggio, S E Murphy and F J Pirozzolo (Eds.), *Multiple intelligences and leadership* (pp. 55-74). Mahwah, NJ: Lawrence Erlbaum.

Daus, C S, and Ashkanasy, N M (2005). The case for the ability based model of emotional intelligence. *Journal of Organizational Behaviour*, 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, and 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, and 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, and Rauter, K A (2004). Organizational citizenship behaviours 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, and Varney, L L (1986). Social evaluation and the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, 50, 761-769.

Godshalk, V M, and Sosik, J J (2000). Does mentor-protégé agreement on mentor leadership behaviour 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, and 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 Behaviour*, 26, 411-424.

Law, K S, Wong, C S, and 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 Behaviour*, 26, 425-431.

London, M, and 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, and 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, and Tucker, M L (2005). Increasing awareness of emotional intelligence in a business curriculum. *Business Communication Quarterly*, 68, 44-51.

Organ, D W, and Ryan, K (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behaviour. *Personnel Psychology*, 48, 775-802.

Pfeffer, J, and 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, and 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, and Podsakoff, N P (2003). Common method bias in behavioural 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, and Fetter, R (1990). Trust in leader, satisfaction and organizational citizenship behaviours. *Leadership Quarterly*, 1, 107-142.

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

Shamir, B, and 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, and Godshalk, V M (2004). Self-other rating agreement in mentoring: Meeting protégé expectations for development and career advancement. *Group and Organization Management*, 29, 442-469.

Spector, P E (2005). Introduction: Emotional intelligence. *Journal of Organizational Behaviour*, 26, 409-410.

Tett, R P, Fox, K E, and 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, and 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 behaviours: In pursuit of construct and definitional clarity (a bridge over muddled waters). In B L Staw and L L Cummings (Eds.), *Research in Organizational Behaviour*, Volume 17, 215-285.

Wohlers, A J, and London, M (1989). Ratings of managerial characteristics: Evaluation difficulty, coworker agreement, and self awareness. *Personnel Psychology*, 42, 235-261.

Wong, C S, and 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, and Atwater, L E (1997). Do managers see themselves as others see them? Implications of self-other rating agreement for human resources management. *Organizational Dynamics*, 25, 35-45.