

Emotional Intelligence: Personality revisited or something else?

Scott Bedwell

IPAT, Inc.

University of Illinois at Urbana-Champaign

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Emotional Intelligence: Personality revisited or something else?

Over the past decade, emotional intelligence has been the subject of much debate regarding its conceptual definition, its empirical relationship to personality and traditional cognitive abilities, and how best to measure the construct. Salovey and Mayer (1990) initially proposed a definition of emotional intelligence as a set of skills and abilities contributing to the appraisal of emotions, the regulation of emotions, and the use of emotions in reasoning. Since then, other researchers have proposed alternative theories (Bar-On, 1997; Epstein & Meier, 1989; Goleman, 1995, 1998). While some of the differences in these theories may appear due to differences in the level of focus (Epstein, 1998; Mayer, Salovey, & Caruso, 2002), many of the conceptual differences are due to differences in the scope of the definition.

Mayer, Salovey, and Caruso (2000) have asserted that there are two basic classes of emotional intelligence models – mixed models and ability models. Models that incorporate aspects of both the original definition of emotional intelligence and aspects of personality are classified as mixed models of emotional intelligence. Models that propose a pure ability definition of emotional intelligence are considered ability models.

Petrides and Furnham (2000) also suggested that there are two types of models of emotional intelligence; trait models and information processing models. These authors argue that trait models of emotional intelligence focus on behavioral consistency across situations, assess typical behavior, rather than maximal behavior, and include vague concepts such as optimism or impulsivity. In contrast, information processing models of emotional intelligence are more explicit in the relationships between emotional intelligence and cognitive ability. These categorization schemes are summarized in Figure 1.

Both of these classifications also propose that the measurement method is important to categorizing new and extant models of emotional intelligence. Mayer et al. (2000) assert that while mixed models use self-reports to assess an individual's emotional intelligence, an ability model requires the use of task-based assessment procedures. They liken self-report methods of assessing emotional intelligence to self-reports of intelligence in general, which is to say, these reports are not likely to be accurate. Petrides and Furnham (2000) extend this argument one step further by stating the measurement method defines the model. If a measure of emotional intelligence is self-report, then it must be assessing trait emotional intelligence. However, given the lack of strong evidence supporting the hypothesis that emotional intelligence is an intelligence in the same manner as verbal or spatial ability, (Roberts, Zeidner, & Matthews, 2001), the importance placed on the measurement method in defining a model of emotional intelligence by these authors may be inappropriate at this time.

Although it is acknowledged that self-report measures of emotional intelligence tend have higher validity coefficients with job performance criteria than task-based

measures, Salovey (2002) has argued that these stronger observed relationships are mostly due to the strong relationships of the self report measures with existing personality variables. The literature using self-report methodology tends to indirectly support this assertion. That is, much of the research has found substantial correlations between self-report measures of emotional intelligence and several personality variables such as Neuroticism, Extraversion, and Agreeableness (Bar-On, 1997; Ciarrochi, Chan & Caputi, 2000; Dawda & Hart, 2000; Newsome, Day, Catano, 2000).

However, the emotional intelligence measures used in these studies were based on theories which cast emotional intelligence as a broad construct and include facets which are well established in the personality literature (e.g., impulsivity, optimism, etc.) Self-report measures of emotional intelligence based on a more narrow view of emotional intelligence do not tend to show as many strong relationships with personality (Schutte, Malouff, Hall, Haggerty, Cooper, Golden, & Dornheim, 1998). Therefore the classification of self-report methodology with mixed models of emotional intelligence may be oversimplified. Indeed, Mayer et al. (2000) leave open the possibility of assessing ability models of emotional intelligence with self-report measures, although they assert that this method is an indirect assessment of emotional intelligence. In addition, they suggest that self report measures of emotional intelligence based on a more focused definition need to account for unique variance beyond personality variables before being seriously considered. To date, the literature has not empirically examined the incremental validity of emotional intelligence beyond that accounted for by personality variables. The current study is an attempt to address this question by exploring the incremental validity of a self-report measure of emotional intelligence beyond personality in an organizational context.

Current study

Following Mayer et al's. (2000) challenge the focus of the current study is twofold. First, the validity of a self-report measure of emotional intelligence for predicting job performance was examined. Second, the capability of a self-report measure of emotional intelligence to account for additional variance in job performance, beyond that accounted for by personality was investigated.

Method

Sample

A sample of 66 incumbent Activity Staff personnel participated in the research. These employees were responsible for the social and emotional support of individuals with mental and physical impairments who lived in group homes and require assistance in their day-to-day living needs. In addition, employees were responsible for the basic hygiene of the residents. No medical certification or licensure was necessary. The sample was predominantly female (75%) and Caucasian (80%) with a mean age of 41 (SD=14.6). Only thirty percent reported obtaining formal education beyond a high school diploma.

Measures

Emotional intelligence. The Emotional Judgment Inventory (Bedwell, 2003; EJI) was used to assess participants' level of emotional intelligence. The EJI is a brief self report measure of emotional intelligence developed using Salovey and Mayer's (1990, 1997) model of emotional intelligence. The EJI assesses seven dimensions; Being Aware of Emotions (AW), Identifying Own Emotions (IS), Identifying Others Emotions (IO), Managing Own Emotions (MS), Managing Others' Emotions (MO), Using Emotions In Problem Solving (PS), and Expressing Emotions (EX). Appendix A provides a brief definition of these dimensions. Although there is not one-to one correspondence between the Mayer and Salovey (1997) four branch model, all of the scales of the EJI can be mapped onto their model. Internal consistency estimates range from .67 to .78 as reported in the manual (Bedwell, 2003).

Personality. The 16PF Fifth Edition Questionnaire (Cattell, Cattell, & Cattell, 1993; Russell & Karol, 1994) is a measure of normal personality assessing 16 dimensions. These 16 dimensions can be combined to form five global scales that map onto the Five Factor Model of personality (Digman, 1990). Figure 2 presents the global factors along with the terminology typically used with the Five Factor Model.

Performance rating form. A rating form was developed for this study based on a job description available from the organization and input from the supervisors in several of the residential facilities. The final version of the rating form consisted of 14 dimensions and a five-point likert scale. These dimensions and their descriptions as they appeared on the rating form are listed in Appendix A. Supervisors provided ratings on one to five employees for each of the dimensions.

Results

The means and standard deviations for the emotional intelligence and personality variables are presented in Table 1. An examination of the standard deviations reveals there is some restriction of range for the predictor variables in the current study. The means and standard deviations for the performance ratings are presented in Table 2. The job performance ratings appear to be somewhat negatively skewed. The mean performance rating is 3.79.

Correlations between the EJI and the performance dimensions are shown in Table 3. The scales of the EJI were significantly correlated with several of the performance dimensions. Correlations between the 16PF Fifth Edition and the performance dimensions are displayed in Table 4. Of the personality variables, lower Anxiety appears to be most related to effective job performance.

Post hoc hierarchical regressions were performed in order to assess whether or not emotional intelligence provided any incremental validity for job performance beyond that demonstrated by the personality variables. Table 5 displays the results of the regression analyses for those performance dimensions that demonstrated relationships with emotional intelligence.

Because Anxiety (Neuroticism) was the only personality variable consistently related to several dimensions of job performance, it was the only personality variable entered in the first step of the regression analyses. The other four dimensions were not entered, in part due to power considerations. Several factors of emotional intelligence were related to job performance after controlling for Anxiety. Specifically, the Identification of Others' Emotions, Using Emotions in Problem Solving, and the Expression of Emotions factors were significantly related to several performance dimensions. As expected, emotional intelligence, as assessed by the EJI demonstrated its strongest relationships with the performance dimensions explicitly focusing on interpersonal interactions.

Discussion

This study provides initial evidence that self-report measures of emotional intelligence do account for unique variance in job performance above that accounted for by personality variables, specifically Anxiety (Neuroticism). Aspects of emotional intelligence were most strongly related to performance dimensions dealing specifically with interpersonal relationships (e.g., relationship with residents and relationship with supervisor).

However, caution is warranted as this study focused on a job where interpersonal interactions were crucial to effective job performance. Jobs in which interpersonal components play less of a role may not require high levels of emotional intelligence for effective job performance. In addition, only one personality variable was controlled for in the analyses. Other personality variables are known to account for variance in job performance for many jobs (Barrick & Mount, 1991; Tett, Jackson, & Rothstein, 1991). Future research should include these other personality variables in the regression model when they are relevant. Because the regression analyses presented here were post hoc based, it is possible that they are upwardly biased estimates of the unique variance accounted for by emotional intelligence. Larger samples would be useful in more accurately determining how much additional information is gained from emotional intelligence measures in combination with personality variables.

There are several implications for practice that can be drawn from the current study. First, to the extent that behaviors related to emotional intelligence are recurring over time, small differences in emotional intelligence among employees may in fact make large contributions to organizational outcomes (Abelson, 1985). The current study used a cross-sectional design, if the results can be replicated in future studies, it is likely that adding emotional intelligence to employee selection systems will increase the amount of variance in job performance that we can account for.

Second, emotional intelligence is likely to be most relevant for jobs in which intense or chronic interpersonal interactions make up the critical elements for effective performance. Jobs such as customer service, sales, health care providers and managers are a few of the positions that may fall into this category. On the other hand,

emotional intelligence may not be as relevant for effective performance in jobs that do not require substantial interpersonal interactions.

References

- Abelson, R.P. (1985). A variance explanation paradox: When a little is a lot. *Psychological Bulletin*, 97, 129-133.
- Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory: User's manual*. Multi-Health Systems: Toronto, ON.
- Barrick, M., & Mount, M. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1-26.
- Bedwell, S. (2003). *Emotional Judgment Inventory (EJI): Administration and technical manual*. Institute for Personality and Ability Testing, Inc.; Champaign, IL.
- Cattell, R.B., Cattell, A.K.S, & Cattell, H.E.P. (1993). *16PF Fifth Edition Questionnaire*. Institute for Personality and Ability Testing, Inc.; Champaign, IL.
- Cirrochi, J.V., Chan, A.Y.C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences*, 28, 539-561.
- Dawda, D., & Hart, S.D. (2000). Assessing emotional intelligence: Reliability and validity of the Bar-On Emotional Quotient Inventory (EQ-i) in university students. *Personality and Individual Differences*, 28, 797-812.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. In M. R. Rosenzweig & L. W. Porter (Eds.), *Annual review of psychology: Vol. 41* (pp. 417-440). Palo Alto, CA: Annual Reviews.
- Epstein, S. (1998). *Constructive thinking: The key to emotional intelligence*. Westport, CT: Praeger.
- Epstein, S., & Meier, P. (1989). Constructive thinking: A broad coping variable with specific components. *Journal of Personality & Social Psychology*, 57(2), 332-350
- Goleman, D. (1995). *Emotional intelligence*. New York, NY: Bantam.
- Goleman, D. (1998). *Working with emotional intelligence*. New York, NY: Bantam.
- Mayer, J.D. & Geher, G. (1996). Emotional intelligence and the identification of emotion. *Intelligence*, 22, 89-113.

- Mayer, J.D. , & Salovey, P. (1995). Emotional intelligence and the construction and regulation of feelings. *Applied and Preventive Psychology, 4*, 197-208.
- Mayer, J.D. , & Salovey, P. (1997). What is emotional intelligence? In P. Salovey, & D.J. Sluyter (eds.) *Emotional Development and Emotional Intelligence*. Basic Books: New York.
- Mayer, J.D., Salovey, P., & Caruso, D.R. (2000). Models of emotional intelligence. In R.J. Sternberg (Ed.) *Handbook of human intelligence*. New York, NY: Cambridge.
- Mayer, J.D., Salovey, P., Caruso, D.R. (2002). *MSCEIT user's manual*. Toronto, ON: Multi-Health Systems.
- Newsome, S., Day, A.L., & Catano, V.M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences, 29*, 1005-1016.
- Petrides, K.V., & Furnham, A. (2000). On the dimensional structure of emotional intelligence. *Personality and Individual Differences, 29*, 313-320,
- Roberts, R.D., Zeidner, M., & Matthews, G. (2001). Does emotional intelligence meet traditional standards for an intelligence: Some new data and conclusions. *Emotion, 1*(3), 196-231.
- Russell, M.T., & Karol, D.L. (1994). *16PF Fifth Edition Administrator's Manual*. Institute for Personality and Ability Testing, Inc.; Champaign, IL.
- Salovey, P. (2002, August). Assessing emotional intelligence as a set of abilities using the MSCEIT. In M. Zeidner, & G. Matthews, G. (Chairs), *Toward a science of emotional intelligence*. Symposium conducted at the Annual convention for the American Psychological Association, Chicago, IL.
- Salovey, P., & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185-211.
- Schutte, N.S., Malouff, J.M., Hall, L.E., Haggerty, D.J., Cooper, J.T., Golden, C.J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences, 25*, 167-177.
- Tett, R., Jackson, D., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personnel Psychology, 44*, 703-742.

Table 1

Means and Standard Deviations for the 16PF Questionnaire and the EJI

	Means	Standard Deviations
EJI		
Being Aware of Emotions	51.36	9.20
Identifying Own Emotions	53.06	7.54
Identifying Others' Emotions	51.05	9.05
Managing Own Emotions	55.15	8.50
Managing Others' Emotions	52.48	10.02
Using Emotions in Problem Solving	51.97	9.91
Expressing Emotions Adaptively	51.30	8.85
16PF Global Factors		
Extraversion	5.77	1.50
Anxiety	5.31	1.76
Independence	5.32	1.57
Tough-Mindedness	5.35	1.45
Self-Control	5.73	1.49

N = 66

Table 2

Means and Standard Deviations for the Performance Dimensions

	Mean	Standard Deviation
Professionalism	3.77	0.87
Effort and Personal Discipline	3.72	0.86
Listening	3.67	0.85
Relationships with Residents	3.94	0.83
Decision Making and Judgment	3.73	0.76
Oral Communication	3.71	0.80
Written Communication	3.65	0.89
Job Knowledge	3.73	0.80
Organization and Planning	3.70	0.84
Safety Orientation	3.95	0.79
Emotional Control	3.64	1.05
Team Work	3.91	0.82
Relationship with Supervisor	4.09	0.76
Overall Performance	3.85	0.71

N = 66

Table 3

Zero-order correlations between emotional intelligence and performance ratings

	AW	IS	IO	MS	MO	PS	EX
Professionalism	.16	.12	.10	.22	.04	.08	.27*
Effort/Discipline	.17	.18	.18	.19	.17	.11	.31*
Listening	.10	.13	.08	.05	.00	.11	.29*
Rel w/ Resident	.26*	.13	.32*	.11	.11	.25*	.26*
Decision Making	.12	.08	.06	.09	.02	.24*	.17
Oral Comm	.07	.03	.23	-.08	-.03	.15	-.01
Written Comm	.15	.09	.22	.11	.23	.23	.11
Job Knowledge	.13	.02	.29*	.04	-.02	.15	.10
Org/Plan	.25*	.16	.19	.14	.19	.23	.09
Safety Orient	.05	.16	.10	.04	.03	.31*	.17
Emotion Ctrl	-.01	.04	.01	-.00	-.17	.17	.09
Teamwork	.04	.10	.17	-.05	.06	.29*	.17
Rel w/ Supervisor	.15	.07	.23	-.08	.08	.33*	.28*
Overall	.25*	.09	.26*	.01	.05	.24*	.30*

N=66, **p* < .05; Note AW=Being Aware of Emotions, IS=Identifying Own Emotions, IO=Identifying Others' Emotions, MS=Managing Own Emotions, MO=Managing Others' Emotions. PS=Using Emotions in Problem Solving, EX=Expressing Emotions

Table 4

Zero-order correlations between personality and performance ratings

	Extraversion	Anxiety	Tough- Mindedness	Independence	Self-Control
Professionalism	.22	-.26*	-.06	.26*	.09
Effort/Discipline	.17	-.24*	.00	.18	.17
Listening	.11	-.16	.02	.03	-.02
Rel w/ Resident	.18	-.20	.05	-.03	-.07
Decision Making	.15	-.14	-.02	-.02	-.02
Oral Comm	-.07	-.06	-.01	.02	.04
Written Comm	.02	-.19	-.12	.14	-.03
Job Knowledge	-.15	-.11	.00	-.04	.17
Org/Plan	.06	-.18	.01	.10	.14
Safety Orient	-.01	-.15	-.09	.01	-.06
Emotion Control	-.03	-.24*	.24*	-.01	.12
Teamwork	-.15	-.10	.02	-.04	-.01
Rel w/ Supervisor	.01	-.12	-.01	.00	-.18
Overall	.15	-.10	-.09	.18	.03

N=66, * $p < .05$

Table 5

Regression analysis of performance on personality and emotional intelligence measures

Performance Dimensions	Step	Predictors	R ²	ΔR ²	ΔF	df
1. Professionalism	1	Anxiety Independence	.09		4.49	(2,63)
	2	EX	.097	.007	0.52	(1,62)
2. Effort/Personal Discipline	1	Anxiety	.060		4.00	(1,63)
	2	EX	.123	.064*	4.45	(1,63)
3. Listening	1	Anxiety	.026		1.71	(1,64)
	2	EX	.090	.064*	4.40	(1,63)
4. Relationship w/ Residents	1	Anxiety	.038		2.52	(1,63)
	2	PS, IO, EX,AW	.182	.143*	2.59	(4,59)
5. Decision Making/ Judgment	1	Anxiety	.021		1.36	(1,64)
		PS	.075	.055	3.73	(1,63)
6. Job Knowledge	1	Anxiety	.013		0.83	(1,64)
	2	IO	.093	.08*	5.54	(1,63)
7. Organization/ Planning	1	Anxiety	.033		2.20	(1,64)
	2	AW	.086	.053	6.67	(1,63)
8. Safety Orientation	1	Anxiety	.022		1.41	(1,64)
	2	PS	.115	.093*	6.65	(1,63)
9. Teamwork	1	Anxiety	.009		0.58	(1,64)
	2	PS	.092	.083*	5.73	(1,63)
10. Relationship w/ Supervisor	1	Anxiety	.015		0.95	(1,64)
	2	PS, EX	.146	.131*	4.78	(2,62)
11. Overall	1	Anxiety	.010		0.67	(1,61)
	2	PS, IO, EX, AW	.154	.144*	2.56	(4,60)

* $p < .05$

Figure 1

Models of emotional intelligence

Models	Definitions	
Mayer & Salovey (1990, 1997)	Bar-On (1997)	Goleman (1995, 1998)
Mixed (Trait) Models		
<ol style="list-style-type: none"> 1. Typical performance 2. Assessed via self-report 3. Usually contain concepts from personality 	<u>Noncognitive capabilities</u> <ul style="list-style-type: none"> ➤ Intrapersonal ➤ Interpersonal ➤ General Mood ➤ Stress Management ➤ Adaptability 	<u>Competencies</u> <ul style="list-style-type: none"> ➤ Self-Awareness ➤ Self-Control ➤ Motivation ➤ Empathy ➤ Social Skills
Ability (Information Processing) Models		
<ol style="list-style-type: none"> 1. Maximal performance 2. Assessed via task performance 3. Explicit relations with intelligence 	<u>4 Branch Model</u> <ul style="list-style-type: none"> ➤ Appraisal ➤ Understanding ➤ Regulation ➤ Utilization 	

Figure 2

Correspondence between 16PF global factor names and the Five Factor Model

<u>16PF – Global Scales</u>	<u>Five Factor Model</u>
Extroversion	Extraversion
Anxiety	Neuroticism
Tough-Mindedness	Openness (opposite)
Independence	Agreeableness (opposite)
Self-Control	Conscientiousness

Appendix A

Being Aware of Emotions (AW): Valuing emotional experiences and devoting mental resources in attending to and being conscious of one's own and others' feelings through both verbal and nonverbal cues.

Identifying Own Emotions (IS): Generally being clear about how one feels at any given time and distinguishing between similar types of emotions such as sadness and disappointment.

Identifying Others' Emotions (IO): Generally being clear about how other people feel at any given time and experiencing little confusion about others' emotions.

Managing Own Emotions (MS): Having strategies to make improve ones' mood after a bad experience and adjusting ones' mood to fit the situation.

Managing Others' Emotions (MO): Having strategies to make improve other peoples' mood and make others' feel comfortable.

Using Emotions in Problem Solving (PS): Incorporating emotional information into everyday tasks involving planning, interpersonal interactions, motivation, decision making, and problem-solving as well as recognizing how emotional experiences influence one's thoughts and judgments

Expressing Emotions (EX): Communicating how one feels to achieve a desired outcome

Appendix B

1	2	3	4	5	N/A
Very Poor	Poor	Adequate	Good	Excellent	Cannot rate

1. Professionalism

Presents a credible, professional image when interacting with residents, guardians, and coworkers. Includes being responsible for completing job duties on time, attending team meetings, and following established policies, procedures, and guidelines. The tendency to be prompt, reliable, and prepared. Maintains the confidentiality of residents.

2. Effort and Personal Discipline

The ability to demonstrate effort in all daily job routines. Includes taking the initiative to solve problems and make corrections when necessary. Maintains high work standards and persists in overcoming obstacles to complete difficult tasks.

3. Listening

The ability to pay careful attention to what others say and understand the content of a message. Includes the ability to determine when a message is not understood and to ask questions to clarify information.

4. Relationships with Residents

The ability to act in the interest of residents and understand the needs of residents. Includes being respectful to residents, creating a positive social environment, and providing appropriate supervision and encouragement. Engages residents in one-on-one and group activities. Acts as a role model to residents.

5. Decision-making and Judgment

The ability to determine the relevant information in a situation, analyze the situation, and make an effective decision. Effectiveness requires the ability to determine the best interests of the residents and how the decision would affect the residents.

6. Oral Communication

Possesses effective oral communication skills. Presents ideas and information concisely and effectively. Listens well to residents, coworkers, and guardians. Adopts a tone suitable to his/her audience.

7. Written Communication

Consistently documents tasks and events surrounding the care of the residents. Documentation is clear, concise, and provides accurate and complete information.

8. Job Knowledge

Compared to others with similar experience, has a thorough understanding of the job. Actively seeks out manuals, training courses, videos, etc, to stay informed. Open to asking questions of coworkers and managers regarding job or procedures.

9. Organization/Planning

Keeps work area and work products organized. Develops systematic and effective means of completing tasks and recording resident information. Sets priorities and meets deadlines. Uses organizational tools (e.g., medical charts, activities planner, treatment plans, etc.) and techniques to perform better.

10. Safety Orientation

Keeps work area safe. Follows safety procedures. Maintains knowledge of safety equipment. Is supportive or helpful in maintaining safety of others. Does not make careless and dangerous mistakes.

11. Emotional Control

Keeps emotional responses under control. Does not show irritation with the supervisors, residents, or coworkers. Refrains from complaining unnecessarily. Maintains a positive demeanor and encourages enthusiasm in others.

12. Team Work

Cooperates with coworkers. Includes functioning as part of a team, volunteering to help others when needed, and communicating with team members. Is a calming influence during conflict and works to resolve conflict in a constructive manner. Treats diverse types of people with equal respect.

13. Relationship with Supervisor

Interacts well with supervisor. This includes, responding to feedback in a constructive manner, acting on developmental suggestions, and accepting direction from supervisor without complaint. Seeks guidance when appropriate.

14. Overall Performance

Overall, how well does this person perform their duties?