Emotional Intelligence as a Moderator of the Relationship between Conscientiousness and Performance

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This study investigates whether the relationship between conscientiousness and performance is stronger for individuals who are high on emotional intelligence. The results of hierarchical moderated regression analyses supported the hypothesis by demonstrating that the relationship between conscientiousness and work performance is positive for individuals high (versus low) in emotional intelligence. However, the opposite pattern was found for those low in emotional intelligence; that is, increases in conscientiousness were associated with decreases in performance. Implications of these results are discussed, as are directions for future research.

Changes in organizations, as well as recent scientific developments in the area of positive organizational behavior (Luthans, 2002), have promoted the importance of social effectiveness in work organizations (Ferris, Perrewé, & Douglas, 2002). Indeed, as Guion (1998) stated: “There is new recognition of the importance of certain skills, including social skills and ways of approaching work. Dissatisfaction arises from the almost exclusive concern in traditional approaches with prediction of individual job performance, with no corresponding concern for individual functioning within a work group, team, or organization” (p. 361).

One type of social effectiveness construct that has received considerable attention recently is emotional intelligence. Largely due to the attention generated by two best-selling books, Goleman (1995, 1998) has argued for the importance of emotional intelligence in work organizations and in everyday life. Serious scholarly work also has been generated on emotional intelligence by Salovey, Mayer, and their colleagues (e.g., Salovey & Mayer, 1990; Mayer & Salovey, 1997; Mayer, Salovey, & Caruso, 2000a, 2000b) in efforts to better understand the role this construct plays in social dynamics. Unfortunately, little support for criterion-related validity has been established to date for emotional intelligence, leaving in question its role in the prediction of important work outcomes (see Fox & Spector, 2000 for an exception).

Furthermore, personality scholars have argued that personality needs to be ignited or brought to life by social effectiveness constructs in order to demonstrate effects on performance and other work outcomes (Hogan, 1991; Hogan & Shelton, 1998). Therefore, these scholars have called for research investigating the interaction of personality traits and social effectiveness constructs on work outcomes. The purpose of the present research is to investigate the moderating effects of emotional intelligence on the relationship between conscientiousness and performance.

Social Effectiveness in Organizations

Nature and forms of social effectiveness

Social effectiveness refers to the skills of reading and understanding others, and being able to utilize such knowledge to influence others in the pursuit of individual and/or organizational
goals. With its roots in the early work on social intelligence by Thorndike (1920), social effectiveness was introduced as a broad, umbrella term that could capture the many separate but related constructs developed in the field to date (Ferris et al., 2002). Indeed, we have witnessed a proliferation of social effectiveness constructs in recent years that go by such labels as social intelligence, emotional intelligence, social skill, interpersonal acumen, political skill, self-monitoring, and a number of others. As noted by Ferris et al., social effectiveness reflects a class of constructs that are dynamic in nature, demonstrate facility in interpersonal interaction, yet are distinct from (although perhaps modestly correlated with) personality traits. Social effectiveness constructs are believed to be partially dispositional and partially learned or development in nature (Murtha, Kanfer, & Ackerman, 1996).

Certainly, emotional intelligence is one of the social effectiveness constructs that has received considerable attention recently in both the scientific and applied literatures. However, little empirical research has been conducted and reported to date concerning the predictive ability of emotional intelligence, as either main effect or moderator.

**Emotional intelligence as a form of social effectiveness**

Emotional intelligence is a relatively new construct stemming from the increased interest in emotions in the workplace. Initiated by Salovey and Mayer (1990), who perceived emotional intelligence as a subset of social intelligence, they defined emotional intelligence as "the ability to monitor one's own and other's feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (p. 189).

Personality and social skills are different; personality traits are rather enduring dispositions while social skills are learnable. Similar to other social effectiveness constructs, emotional intelligence is a hybrid construct touching both domains. Further, Goleman (1998) suggested that emotional intelligence focuses on two sets of personal qualities, one dispositional (initiative and empathy), and another with trainable qualities (adaptability and persuasiveness). So, unlike personality, individuals can build and develop portions of emotional intelligence.

Spurred by Goleman’s best-selling works (1995, 1998), emotional intelligence has risen in popularity over the last decade. Viewed as being independent of IQ, Goleman (1995) has related emotional intelligence to knowing and managing emotions, self-motivation, and handling relationships. More recently, research on the implications of emotional intelligence in the workplace suggests that emotional intelligence may have a substantial role in organizational activities. In his work on positive organizational behavior (POB), Luthans (2002) listed emotional intelligence as one of five constructs capable of being developed and managed for improved performance in organizations.

Also, the contemporary theories of leadership (i.e., transformational, and charismatic), because of their interpersonal connection with followers, are affected by a leader’s emotional intelligence level. Furthermore, emotional intelligence has been discussed as an important characteristic to investigate in leadership in the future (e.g., Caruso, Mayer, & Salovey, 2002; George, 2000; Goleman, Boyatzis, & McKeen, 2002). Within these theories of leadership, emotional intelligence appears to be a catalyst for articulating vision and developing constructive relationships with organizational members (Ashkanasy & Daus, 2002).

Finally, in the work team development context, empirical research suggests that emotional intelligence might influence teamwork. A recent study reported that untrained teams with high emotional intelligence members performed as well as trained teams with low emotional intelligence members (Ashkanasy & Daus, 2002). With the growing importance of teams and team-based work structures within organizations, emotional intelligence might provide a mechanism to better understand the interactive process dynamics and outcomes that take place among team members, and to serve as a useful developmental tool in team-building efforts.

Goleman (1998) combined a broad array of mental abilities and personality traits to form twenty-five emotional competencies ranging from political awareness to achievement drive in an attempt to measure emotional intelligence in
the workplace. This “mixed-model” approach represents the more widely accepted perspective for viewing and measuring emotional intelligence. On the other hand, some researchers believe that emotional intelligence is best captured by the mental “ability-model,” which measures specific skills like emotional perception, emotional facilitation, emotional understanding, and emotional management (Mayer, Salovey, & Caruso, 2000a, 2000b; Mayer & Salovey, 1997). Recent empirical research on individual cognitive-based performance credited emotional intelligence with increasing performance over and above general intelligence (Lam & Kirby, 2002). This study confirms the contribution made by emotional intelligence to mental ability; however, more research is needed to provide support for either approach.

Working from the mixed-model approach, Bar-On (1997) developed the Emotional Quotient Inventory (EQ-i), a self-report measure designed to assess non-cognitive factors that influence the ability to manage environmental demands. More specifically, the EQ-i is designed to measure one’s awareness, understanding, and control over expressive emotions (Bar-On, 2000). Because of this approach, the EQ-i correlates significantly with indicators of emotional and social functioning, with the neuroticism-stability scale of the Eysenck Personality Questionnaire (EPQ: Eysenck & Eysenck, 1975), and with the anxiety scale of the Personality Assessment Inventory (PAS: Morey, 1991). Further, the EQi has exhibited low correlations with general intelligence, with the Wechsler Adult Intelligence Scale (WAIS: Wechsler, 1958), and with the Haglifer and Bardos General Ability Measure for Adults (GAMA) (Bar-On, 2000).

The EQ-i contains five composite scales: intrapersonal, interpersonal, stress management, adaptability, and general mood. Within the Bar-On framework, the intrapersonal dimension relates to internal self-awareness and self-management issues, and the interpersonal dimension is focused on interpersonal relationships and social interaction. The adaptability dimension covers working through changing situations, while stress management centers on one’s ability to handle stress, and general mood reflects one’s happiness and optimism. As expected, these dimensions share domain space with personality factors. In analyses with the Sixteen Personality Factor Questionnaire (16 PF: Cattell, Eber, & Tatsuoka, 1970), Bar-On (2000) reported the following dimensional correlations: intrapersonal (.52) with assertiveness, (.56) with worrisomeness, and (.55) with calmness; interpersonal (.31) with warmth, (.56) with boldness, and (.40) with conscientiousness; adaptability dimension (.58) with calmness, and (.36) with conscientiousness; stress management (.45) with tenseness, (.67) with calmness, and (.60) with worrisomeness; and general mood (.50) with enthusiasm.

We selected the EQ-i measure for the current study for several reasons. First, it has undergone an extensive validation process, and it takes a broad approach examining both emotional and social intelligence. Also, it provides several dimensions that are critical to our work, intrapersonal, interpersonal, stress management, and adaptability, which tap into the sub-dimensions of assertiveness, empathy, impulse control, and flexibility. Moreover, because our interest is work performance in teams/groups, we must assess emotional and social processes, and the EQ-i was specifically designed for this purpose.

**Personality, Job Performance, and Social Effectiveness**

**Personality and job performance**

Research on the role of personality in the organizational sciences has evolved since the mid-1960s when Guion and Gottier (1965) issued a discouraging statement concerning the predictability of job performance in organizations from personality. Beginning in the mid-1980s, the field witnessed a re-emergence of personality research in organizations, which has continued to the present time (e.g., George, 1992; Adler & Weiss, 1988). Promoting this increased research activity has been the emergence of the Five-Factor Model (FFM) of personality, which has dominated personality research in organizations (e.g., Mount & Barrick, 1995; Perrewé & Spector, 2002). Factor analytic studies consistently have identified and confirmed the five dimensions (i.e., conscientiousness, agreeableness, extroversion,
openness to experience, and emotional stability) across situations, time, and cultures (e.g., Goldberg, 1992).

Research to date has indicated that conscientiousness has been the most consistent predictor of job performance of all the five factors of personality (e.g., Barrick, Mount, & Judge, 2001). However, meta-analytic studies have reported only small observed validity coefficients for conscientiousness (e.g., Tett, Jackson, & Rothstein, 1991; Vinchur, Schippmann, & Roth, 1998). Furthermore, in their second-order meta-analysis, Barrick et al. reported considerable variability in the reported validities across investigations for conscientiousness, which is indicative of potential moderator variables.

**Personality and social effectiveness**

Recent personality theory has formulated a dual-component perspective on personality, which argues for both internal and external components of personality. Furthermore, social skill or effectiveness is believed to play a key role in energizing personality, and stimulating it into action. Hogan (1991; Hogan & Shelton, 1998) suggested that the internal, identity component of personality serves as a guide to our behavior, reflects what we think of ourselves, and can be construed as our potential. The external, reputation component of personality represents how others think about us, our efforts to accomplish goals and be successful, and the effectiveness with which we realize our potential.

The external view of personality is inherently flawed because observers tend to make the observed more responsible for his or her actions. Conversely, the internal perspective more accurately reflects strategies a person develops to get along or get ahead, which are driven by the situation in which he or she is performing (Hogan, 1991). Individuals must rely on social skills to respond to the situation. Therefore, social skills are the tactics used to execute one’s internal strategy (personality) into observed performance.

The central notion here is that personality needs social skill or effectiveness in order for personality to realize its potential. Indeed, Block and Kremen (1996) noted that social skill or effectiveness maintains the personality system within tenable bounds, and allows for acceptable adaptation. Consistent with these theoretical notions on the roles of personality and social skill/effectiveness, Witt and Ferris (in press) investigated social skill as a moderator of the relationship between conscientiousness and the interpersonal facilitation dimension of contextual performance, and the results supported their hypothesis across four studies. They reported that increases in conscientiousness led to increased contextual performance ratings for those high in social skill but not for those low in social skill. For low social skill workers, conscientiousness demonstrated a slightly negative relationship with the interpersonal facilitation dimension of contextual performance.

In light of the increased importance of the social dynamics of performance in organizations created by changes like the increased use of team-based work structures, it seems important to investigate measures of social effectiveness as potential moderators of the relationship between conscientiousness and job performance. Furthermore, emotional intelligence appears to be well positioned to moderate this relationship in light of its intuitive understanding and influence/action components that can help conscientious behavior to be demonstrated in contextually appropriate ways in organizations.

**Self-monitoring and social effectiveness**

Self-monitoring is a widely recognized social skill construct that has been noted as a factor that influences individual behavior and social effectiveness. Self-monitoring reflects the extent to which individuals express and control self-presentation behavior (Snyder, 1974). High self-monitors readily adjust to social situations while low self-monitors exhibit more self-reflective behavior (Snyder, 1987). Much is known about the impact of one’s self-monitoring ability on his or her performance in social settings, but little is known about how self-monitoring interacts with emotional intelligence.

Previous research found that high self-monitors tend to emerge as group leaders, and may be less committed to current associates (Kilduff & Day, 1994). Further, low self-monitors are more likely to exhibit consistent behavior, and received higher supervisory rating than high self-monitors (Caliguri & Day, 2000).
Given the impact of self-monitoring on behavior and effectiveness in organizational settings, exploring the relationship with emotional intelligence is important.

Self-monitoring is the process by which people link their thoughts to action. Through its influence on the ability to read and act on social information, self-monitoring enhances social effectiveness. Emotional intelligence and self-monitoring both aid individuals in social interaction, and we believe that a clearer picture of the contributions to performance made by emotional intelligence requires that we control for self-monitoring.

**Conscientiousness x emotional intelligence interaction**

Conscientiousness has demonstrated some evidence of performance prediction, but that evidence has been somewhat inconsistent. Martocchio and Judge (1997) found conscientiousness to be related to self-deception, which in turn was negatively related to learning in training sessions. Also, Witt, Burke, Barrick, and Mount (2002) indicated that individuals high in conscientiousness without interpersonal sensitivity might come across as inflexible and difficult to deal with.

One reason for the inconsistencies might be that broad personality traits such as the FFM dimensions might be too distal relative to the criteria they are attempting to predict, as suggested by Murtha et al. (1996). Therefore, these authors suggested that personality traits (e.g., those from the five-factor model) might be too broad to predict job performance effectively alone. Furthermore, the distance from personality to behavior suggests opportunities for numerous other influencing features. It might be the case that such broad personality traits need social effectiveness in order to activate them to action.

Goleman (1998) indicated that personality traits should not necessarily be expected to lead to effectiveness in work and social settings unless individuals are attuned to the context, and are capable of making situational adjustments based on implicit social expectations. This suggests the critical role of social effectiveness measure like emotional intelligence, and others have recently argued for the moderating effects of emotional intelligence on the relationship between environmental stimuli and work behavior (Jordan, Ashkanasy, & Hartel, 2002). Furthermore, Mayer and Salovey (1997) suggested that emotional intelligence can vary to fit with specific personality traits, implying a facilitating (i.e., moderator) effect on the effectiveness of personality in the prediction of work outcomes.

Goleman (1998) suggested that emotional intelligence is necessary for conscientiousness to result in effective behavior at work. He indicated that the qualities inherent in conscientiousness might contribute to problematic work behaviors if that personality trait is not properly calibrated with the astuteness and savvy associated with an appropriate level of emotional intelligence.

**Present Study**

In light of the foregoing discussion, it seems reasonable to expect an interaction between conscientiousness and emotional intelligence on performance. Conscientiousness is represented in people who are dependable, disciplined, and are fastidious in their attention to detail and completing tasks. This trait combined with the ability to know how and when to influence others should result in workers high in conscientiousness and emotional intelligence being effective in managing interpersonal interactions at work and being viewed as high performers. Alternatively, without the astuteness and savvy to effectively read and interact with others, and to appropriately calibrate one’s behavior to the situation (i.e., low emotional intelligence), high conscientiousness is likely to lead to low ratings of performance. Therefore, the hypothesis tested in this study is as follows:

**Hypothesis:** The relationship between conscientiousness and performance scores will be positive for employees high in emotional intelligence and negative among those low in emotional intelligence.

**Method**

**Participants and Procedure**

We collected from data from 205 students in two principles of management courses at a university located in the South. Student participants were 57% male, predominantly
white (86%) with an average of 21.2 years. Students participated voluntarily, and earned extra course credit points for the involvement in the research. The two courses were taught by the same instructor, and similar classroom management methods were used in both. In the first week of the semester, students signed rosters identifying social group and athletic affiliations (e.g., fraternities and sororities, band, football, etc.). From these groupings, they were randomly assigned to groups of seven students, first the males, and then the females. This process ensured that all groups had similar proportions of females and that things held in common (i.e., affiliations and friendships) were minimized, which mitigates ingroup-outgroup formation.

The typical composition of the groups was very similar in terms of proportion of females (mean = 43%) and of those affiliated with social groups. One advantage of this approach is that students seldom know any other group members prior to the class. Thus, the group formation dynamics are similar for the groups as influenced by the nature of each group’s member characteristics, which lead to comparable peer evaluation scores across classes (means = 99.9 and 102.0). Furthermore, any social acumen that might have developed from students’ social affiliations should be distributed randomly across the groups.

The students in each course were given a substantial amount of work to accomplish with their group members. Group activities varied in objectives and nature, and were a consistent feature throughout the courses. They typically worked together on some activity or project at least once per week. Activities consisted of short cases, quizzes, short (i.e., approximately one to two weeks) projects, end of chapter questions, and other applications of course material. Approximately 50% of the total class grade was based on these varied group activities. The groups remained intact for the entire semester, which permitted the groups to progress through all four stages of group development.

This context closely parallels real-world conditions in which individuals are interdependent for work performance and success, and that people seldom have choices regarding the individuals with whom they work. Furthermore, group members worked on cognitively complex tasks, and the outcome of those tasks provides direct rewards for the members, just as in other workplace contexts. Thus, the fundamental criticism of student samples lacking personal relevance for task accomplishment does not readily apply in this study. Students performed in order to gain valued rewards just as in typical workplace contexts.

In addition to the scores from their individual examinations and group activities, students completed three peer evaluations. Students distributed an average of 100 points across the other members of their groups, depending on each person’s level of contributions to the group’s work. The average score assigned to each student was converted to a percentage, and used as a multiplier for that student’s activity scores. Thus, a student receiving an average of 120 received a 20% increase, whereas a student receiving an average of 90 received only 90% of the points for group activities. This redistribution of group scores serves to either mitigate or account for social loafing, shirking, and free riding. Compliance with peer evaluation rules was rigidly enforced. Therefore, the overall score for each student was a combination of objective individual performance, objective group performance, and subjective assessment of contributions made to the group’s work.

Measures

The psychometric measures were administered just past the midway point of the semester, and performance scores were collected throughout the semester.

Emotional intelligence. To assess emotional intelligence, we used the Bar-On (1997) Emotional Quotient Inventory (EQ-i). We chose to focus on the Intrapersonal, Interpersonal, Stress Management, and Adaptability dimension scores of the EQ-i. The scores on emotional intelligence represent the combined total of the four dimensions, and the higher scores reflect higher levels of emotional intelligence. The self-report inventory consists of 152 items that ask participants about such things as impulsivity, satisfaction with financial status, satisfaction with personal appearance, anxiety tendencies, maintenance of friendships, self control of emotions, sensitivity to others, and patience,
among others. The internal consistency reliability estimate for this composite measure of the EQ-i scale was .87.

**Conscientiousness.** Conscientiousness was measured using the self-report Conscientiousness scale from the NEO-PI Personality Inventory (McCrae & Costa, 1987). The scale consists of fourteen items including: "I work hard to accomplish my goals," "Sometimes I'm not as dependable or reliable as I should be" (reverse scored), "When I make a commitment, I can always be counted on to follow through," and "I like to keep everything in its place, so I'll know just where it is." Items were scored using a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree), and the scale had a possible range of scores from 14 to 70. The coefficient alpha internal consistency reliability estimate was .71. Several other scales were administered to avoid signaling the intent of the research to the participants, including a locus of control scale, a self-monitoring scale, a work ethic scale, and the NEO-PI Agreeableness scale (McCrae & Costa, 1987). The self-monitoring scale also was used as control variable, and it is described more fully below.

**Ratings of performance.** Student performance was measured by the total points accumulated from exam scores and assigned peer ratings. During the semester students were given two exams, a mid-term and final, each worth 100 points. Also, students assigned peer ratings to their group members (i.e., excluding themselves) based on their perceptions about each member's contributions toward their total group effort. For these evaluations, they were constrained to give their group members an average of exactly 100 points, and further, were constrained from giving all members the same score. They were required to give some members more and some less than the 100 average. All deviations from these constraints were corrected by the students, because their own individual scores were not calculated until the peer evaluations were properly completed.

Because the same constraints were used for both classes, and students were assessing overall contributions to group efforts, peer evaluation scores were not considered to be context dependent. Peer evaluations were given three times during the semester, and the total of the scores was used for these analyses. The coefficient alpha internal consistency reliability estimate for the peer rating of performance scores was .81, and the zero-order correlation between peer evaluation ratings and individual exam scores was significant \( r = .39, p < .01 \).

**Control variables.** As noted by Ferris et al. (2002), the various social effectiveness constructs probably reflect some degree of overlap or shared criterion domain space. Of the various social effectiveness constructs, the one that perhaps most representatively reflects the dual skills derived from early work on social intelligence of social astuteness and ability to act on that ability is self-monitoring (Snyder, 1974, 1987). Therefore, in order to obtain the cleanest depiction of the influence of emotional intelligence in this study, we controlled for the effects of self-monitoring, using the Self-Monitoring Scale developed by Snyder (1974). The internal consistency reliability estimate for this scale was .94.

Because demographic variables (Tsui & O'Reilly, 1989) have been shown to explain variance in performance, and for purposes of eliminating spurious relationships with peer ratings of performance, we included gender and age as control variables in our analyses.

**Data Analysis.**

We entered the three control variables (i.e., age, gender (male = 1, female = 2), and self-monitoring) at the first step of hierarchical regression analysis. Next, main effects variables (i.e., conscientiousness and emotional intelligence) were entered in the second step. In the third step, we entered the cross-product term of conscientiousness x emotional intelligence to test the hypothesis that the interaction accounted for a statistically significant increment in the proportion of criterion variance explained beyond the control variables and main effects.

Because self-monitoring and emotional intelligence are closely related constructs an additional step was taken to substantiate the use of self-monitoring as a control variable. We statistically justified this position by examining a similar set of hierarchical regression analyses with emotional intelligence as a control variable (along with age and gender), self-monitoring and conscientiousness as main effects, and a self-monitoring x conscientiousness cross-product term. The full-model results provided a
significant regression equation \((R^2 = .07, p < .05)\), but failed to produce a significant predictor of student performance, therefore, justifying our use of self-monitoring as a control variable.

**Results**

**Zero-Order Correlations**

Means, standard deviations, and intercorrelations of all variables are presented in Table 1. As shown there, the emotional intelligence score is significantly related to conscientiousness. The moderate level of this coefficient is consistent with what might be expected given convergent and discriminant validity of these two constructs. Also, conscientiousness is related to performance scores at a moderate, but significant level. It is interesting to note that this coefficient \((r = .17)\) is consistent with the effect sizes reported in meta-analyses on conscientiousness (i.e., Tett et al., 1991; Vinchur et al., 1998).

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ratings of Performance</td>
<td>468.21</td>
<td>53.98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Conscientiousness</td>
<td>39.02</td>
<td>6.24</td>
<td>.17*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Emotional Intelligence</td>
<td>374.20</td>
<td>87.40</td>
<td>.18*</td>
<td>.19**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Self-Monitoring</td>
<td>26.67</td>
<td>11.85</td>
<td>.18*</td>
<td>.06</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Gender</td>
<td>1.62</td>
<td>.47</td>
<td>-.06</td>
<td>-.09</td>
<td>-.14</td>
<td>-.09</td>
<td></td>
</tr>
<tr>
<td>6. Age</td>
<td>20.81</td>
<td>1.90</td>
<td>-.10</td>
<td>-.10</td>
<td>-.00</td>
<td>-.18*</td>
<td>.02</td>
</tr>
</tbody>
</table>

\(N = 205\) *\(p < .05\), **\(p < .01\)

**Moderated Regression Results**

Table 2 presents results of the hierarchical moderated regression analyses. Supporting the hypothesis, the addition of the conscientiousness x emotional intelligence cross-product term was significant in the explanation of criterion variance beyond that accounted for by the control variables and main effects. The effect size \((\Delta R^2)\) is above the range of .01 to .03 specified for moderator effects typically found in non-experimental studies (Chaplin, 1991; Champoux & Peters, 1987).

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Peer Ratings of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-1.82</td>
</tr>
<tr>
<td>Age</td>
<td>-1.68</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>.75*</td>
</tr>
<tr>
<td>(R^2)</td>
<td>.04</td>
</tr>
<tr>
<td><strong>Step 2: Main Effects</strong></td>
<td></td>
</tr>
<tr>
<td>Conscientiousness (C)</td>
<td>3.86**</td>
</tr>
<tr>
<td>Emotional Intelligence (EI)</td>
<td>.45**</td>
</tr>
<tr>
<td>(R^2)</td>
<td>.07**</td>
</tr>
<tr>
<td>(\Delta R^2)</td>
<td>.03</td>
</tr>
<tr>
<td><strong>Step 3: Interaction Term</strong></td>
<td></td>
</tr>
<tr>
<td>C x EI</td>
<td>-.01**</td>
</tr>
<tr>
<td>(R^2)</td>
<td>.11**</td>
</tr>
<tr>
<td>(\Delta R^2)</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. Beta values are for full model
\(^*p < .10, \ **p < .05\)
To illustrate the form of this interaction, the peer performance rating scores for high and low levels of emotional intelligence (+1.0, and -1.0 standard deviations from the mean; Stone & Hollenbeck, 1989) relative to conscientiousness scores are plotted, and the resulting graph is presented in Figure 1. As can be seen, workers who were high in both conscientiousness and emotional intelligence received the highest performance scores. However, those high in conscientiousness but low in emotional intelligence received the lowest performance scores. Therefore, in this study, conscientiousness predicted increased performance for individuals scoring high on emotional intelligence, but it predicted lower performance scores for individuals with low EQ-i scores.

![Figure 1. Interaction of Conscientiousness x Emotional Intelligence on Performance](image)

**Discussion**

Based on the notion advanced by Goleman (1998), that highly conscientious workers without emotional intelligence may demonstrate ineffective work performance, we found that among highly conscientious workers, those high in emotional intelligence had higher performance scores than did those low in emotional intelligence, thus supporting the hypothesis. In contrast, highly conscientious workers high in emotional intelligence, who were able to properly calibrate their fastidious attention to detail at work with the savvy to know when and how to do so, had higher performance scores. For individuals low in emotional intelligence, conscientiousness was associated with decreases in performance scores. This suggests that conscientiousness, without the more proximal emotional intelligence savvy and skill needed to bring it to life, and regulate and channel it in appropriate ways in order to realize its potential, is not sufficient for a high level of performance.

**Strengths and Limitations of the Study**

This study has both strengths and limitations that need to be noted. We felt that one strength was that the interaction effect was significant even after controlling for both self-monitoring and demographic variables. Second, we collected data from two sources (i.e., workers and their co-workers), using two data collection techniques, thereby reducing the probability that common method variance might confound the results (Podsakoff & Organ, 1986). A third strength is that the use of a classroom environment provides more tightly controlled circumstances and more closely resembles quasi-experimental conditions, if not methods, thereby reducing unexplained variance.

However, there appear to be some limitations to the study as well. Perhaps the one most in the forefront is the nature of the sample. Using university students typically begs questions of generalizability, and the issue warrants discussion. Although the sample was indeed traditional university students, most of whom had very limited work experience, the nature of the research question and the study design does not cast this work under the typical decision-making experiment that generally evokes such criticisms. In a sense, this context simulates the real world in that the students' "job" is class performance, and their reward is
the scores, or grades, they receive for their work. Their limited experience notwithstanding, students' grades are, to some degree, interdependent with others' efforts, and the labor and the decisions they undertake as members of their work groups are indeed motivated by productivity and goal achievement objectives.

From another perspective, students are likely to be as familiar with this task as non-students in other typical assessment tasks (Gordon, Slade, & Schmitt, 1986). This implies that the interaction of sample characteristics and observed phenomena have no unique features that differentiate this experimental context from the general population (Oakes, 1972). Furthermore, from the students' perspective, the tasks and evaluations were not part of the extra credit, and thus the study, but, rather, were trace measures. They only were given credit for survey completion, and were debriefed at the end of the semester. The scale measures and performance observations were thus disconnected for the participants.

Therefore, this sample is deemed relevant for the research question because the context is such that there are personal costs and salience (i.e., exposure to risk, Gordon, Slade, & Schmitt, 1986) for both the performance of one's self as well as each participant's peers. Furthermore, the evaluative processes regarding the assessment of peers' performance are germane to these participants in this context. From a more philosophical perspective, external validity is a long-term effort for any research stream, and given the early status of research on relationships among these constructs, the current sample is but an initial effort that should by all means be subjected to replication in various contexts with various methods.

We contend that the present study adequately demonstrates relationships among constructs based on processes, which is the strength of experimental research (Runkel & McGrath, 1972). Indeed, the use of students in this research serves to control for random variance that might be found in a larger population which might, in turn, produce effects that are unmeasured, providing a less contaminated result (Greenberg, 1987; Oakes, 1972).

Directions for Future Research

If social effectiveness constructs (e.g., emotional intelligence) can serve to properly regulate and calibrate personality traits, thereby activating them into productive action, then perhaps future research should investigate the potential moderating role of social effectiveness on the relationships between other personality characteristics and job performance. Indeed, Mayer and Salovey (1997) have argued that emotional intelligence can work in concert with personality to produce effectiveness on work outcomes. Specifically, they have suggested that emotional intelligence and regulation can vary to fit with particular personality traits, and future research might more precisely examine interactions of different personality traits, such as agreeableness or openness to experience, and emotional intelligence. Future research needs to move toward more precise articulation of the conditions under which specific dimensions of emotional intelligence would be expected to affect the relationships between personality traits and work outcomes.

References


