

(Imagination, Cognition, and Personality, 20, 347-354)

Emotional Intelligence and Task Performance

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Key Terms: emotional intelligence, cognitive tasks, emotion, persistence

Abstract

Theory and some empirical research suggest that there may be a relationship between emotions and performance on cognitive tasks. The construct of emotional intelligence may provide a vehicle for exploring the connections between emotions and cognitive task performance. The present study tested the hypotheses that a) individuals with higher emotional intelligence would perform better on cognitive tasks and b) they would be better able to deal with the frustration or helplessness that may result from encountering very difficult tasks. Participants recruited from community and university settings participated in a study in which their emotional intelligence was assessed and they worked on three sets of anagrams. The first set of anagrams was moderately difficult, the second set was very difficult, and the third set was again moderately difficult. The first hypothesis was supported in that participants higher in emotional intelligence solved more problems on the first set of moderately difficult anagrams. The second hypothesis was supported in that in that participants higher in emotional intelligence solved more problems after encountering a very difficult and frustrating set of problems, even when initial performance was controlled for through a partial correlation. The results suggest that study of the emotional intelligence construct holds promise for better understanding and perhaps in the future enhancing cognitive task performance.

Emotional Intelligence and Task Performance

Extensive research has focused on the relationship between cognitive abilities and performance on cognitive tasks [1, 2]. In contrast there has been relatively little research on the relationship between emotional abilities and performance on cognitive tasks.

Theoretical work suggests that exploration of the influence adaptive emotions may have on task performance would enhance our understanding of both task performance and emotion. Singer [3] and Izard [4] pointed out that emotions are an important component of the tapestry of consciousness and cognitive processes. Both Piaget [5] and Damasio [6] argued that emotions may fuel or energize cognitive functioning and learning.

Research evidence has shown that a moderately high level of emotion can facilitate learning [7] and that a pleasant emotional state can enhance problem solving abilities [8].

The relatively new construct of emotional intelligence, which has been described as the ability to adaptively perceive, understand, regulate, and harness emotions in the self and others [9, 10, 11], may hold promise as a vehicle for studying emotional processes that enhance task performance and for studying emotion-related individual differences in task performance. Initial research by Schutte, Malouff, and colleagues [10, 11] found a link between emotional intelligence and what has been traditionally viewed as performance in the cognitive domain. Their research showed that higher emotional intelligence among beginning college students predicted their academic performance during their first year of college, as manifested by a higher cumulative grade point average at the

end of their first year of college. Students' emotional intelligence predicted their college performance independently of cognitive ability, as assessed by SAT scores.

The construct of emotional intelligence provides a theoretical basis for understanding the role of emotions in cognitive task performance. First, the ability to regulate and harness emotions may allow individuals to maintain more generally positive mood states and emotion-related motivational states [12, 13, 14, 15]. For example, both Martinez-Pons [] and Schutte et al. [] found higher emotional intelligence to be associated with less depressed mood and Schutte et al [] found emotional intelligence to be associated with greater optimism. Ciarrochi et al [] and Simunek et al [15] found that emotional intelligence was related to better mood states and more effective mood management. Because of the evidence that indicates that mood states influence cognitive performance [7,8] one might expect those with higher emotional intelligence would be able to place themselves into a mood state that would allow them to do better on challenging cognitive tasks. Second, when individuals encounter difficulties in working on a cognitive task, negative emotions such as feelings of frustration or helplessness may result in individuals no longer putting effort into a task, even when it once again becomes manageable. Learned helplessness theory and research [16] explains how such feelings of frustration may result in inhibited responding and effort. Higher emotional intelligence should enable individuals to better regulate feelings of frustration or helplessness when a challenging task is encountered so that these feelings do not interfere with performance. The study described below investigated these two predictions.

Method

Participants

A community sample of 38 participants was recruited from various workplaces such as a pharmacy, a medical clinic, an electronics firm, and from a university. The sample included 21 women and 17 men and participants' average age was 38.84 ($SD=13.97$). All gave informed consent to participate in the study and none were paid for their participation.

Procedure

Participants first completed a 33-item measure of emotional intelligence developed by Schutte et al. [9]. This measure of emotional intelligence, which has been found to have good internal consistency and evidence of validity, assessed to what extent individuals adaptively perceive, understand, regulate, and harness emotions [9, 10].

Sample items include "I can tell how other people are feeling by listening to the tone of their voice," "I know why my emotions change," and "When I feel a change in my emotions, I tend to come up with new ideas."

Participants then worked on three sets of anagram (scrambled word) problems. Each set consisted of 15 anagrams. Participants were given 5 minutes per set and were asked to unscramble as many words as they could during this time. The first set of anagrams was moderately difficult, the second set was extremely difficult, and the third set was again moderately difficult. Samples of moderately difficult items are "ofecfe," "itslim," and "rubbus." Samples of very difficult items are "treetminer," "rocondsumeti," "lashrommlaw."

Participants' performance on the first set of anagrams assessed how much ability and effort they initially devoted to a problem solving task. The second set of anagrams, all of which were solvable but very difficult, was intended to provide participants with a frustrating problem-solving experience. The third set of anagrams, which was again moderately difficult, was intended to give participants an opportunity to perform a problem solving task after having encountered frustration.

Results

The participants' average emotional intelligence score was 127.03, SD=12.25. Participants correctly unscrambled an average of 9.50 (SD =3.17) anagrams in set one, an average of .66 (SD=.99) anagrams in the difficult set two, and an average of 3.79 (SD =2.88) anagrams in set three.

Individuals with higher emotional intelligence solved more problems on the first set, $r(37)=.35$, $p<.033$. Individuals with higher emotional intelligence also solved more problems in the third set after having encountered the frustrating problems in the second set, $r(37)=.41$, $p<.01$. To establish whether the performance on the third set of problems was also due to ability and effort or to better ability to ward off the negative effects of frustration, a partial correlation was done holding constant participants' initial performance on the first set of problems. This partial correlation showed that persistence after frustration contributed independently of ability and initial effort, as assessed by performance on set one, to performance on the third set of problems, $r(37)=.37$, $p<.023$.

Discussion

The results of the present study supported the hypothesis that those with higher emotional intelligence would perform better on a cognitive tasks. The results also supported the hypothesis that when individuals encounter difficulties in working on a cognitive task, they are better able to ward off the detrimental emotional effects of the difficulties and persist on the task.

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