

THE RELATION BETWEEN OPTIMISM AND JOB PERFORMANCE:
AN APPLIED SETTING

by

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ABSTRACT

Research on cognitive ability measures consistently concludes that they are predictive of employee performance. While accounting for only about 9% of the variance in performance, however, cognitive ability measures are not sufficient. Alternative measures, such as measures of personality constructs, must be included to fully predict employee performance. The research on personality measures suggests that they are marginally predictive of employee performance. Research also suggests that predicative accuracy of personality measures can be enhanced when the measure is specific to the situation (i.e., stress measure are more predictive of performance in high stress situations compared to moderate or low stress situations). The current study compares a specific measure of a personality construct, the Seligman Attributional Style Questionnaire (a measure of optimism), with a broad, general measure of personality, the Gordon Personal Profile-Inventory, comparing jobs specifically requiring higher levels of optimism versus jobs that do not require high levels of optimism. The results suggest that the use of the SASQ under situationally specific conditions does not result in greater predictive accuracy than the more generic GPPI. In addition, neither measure resulted in significant correlations with employee performance. The study generally confirmed the literature on the limited utility of personality measures in predicting performance. It also raised questions about how situational specificity is operationized.

To my loving parents and grandmother, you have made me the person I am today:

James Davis, Nancy Davis, Shirley Davis

Your love, guidance, and faith in me is what has driven this accomplishment. Without each of you in my life this would not have been possible. You have truly inspired the person I have become and the person I hope to be.

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INTRODUCTION

Cognitive Ability Tests as Selection Tools

Cognitive Ability Tests have not always been widely believed to be of such predictive importance to Industrial and Organizational Psychologists. Until the 1970's, such tests were thought only to be useful when the situation was specific. This was due to the common practice of small scale studies, which changed with the insurgence of meta-analytic research and the release of military studies utilizing massive numbers (Wagner, 1997). This new technique and super-abundance of large scale military studies led to the general acceptance of Cognitive Ability Tests in the field. Wagner states that these results provide strong evidence for the validity of Cognitive Ability Tests for selection across various jobs. Also, based on validation research it is understood that Cognitive Ability Tests do, in fact, predict performance in most jobs (Bobko, Roth, & Potosky, 1999; Schmitt, Rogers, Chan, Sheppard, & Jennings, 1997).

Research is consistent that Cognitive Ability Tests are quite important when predicting job performance (Outtz, 2002). In fact, meta-analysis shows that these tests actually predict 9% of the variance in job performance. In other words, meta-analysis estimates a 0.30 correlation between Cognitive Ability Tests and job performance (Bobko, Roth, & Potosky, 1999). It has been expressed that general mental ability (g), which is derived from these tests, is the single best predictor of job performance and is reliable and stable (Gottfredson, 2002; Murphy, 2002).

Kuncel & Hezlett (2004) explain that past research demonstrates that g predicts many life outcomes, such as academic achievement, health-related behaviors, social outcomes, creativity, job performance, etc. These findings, based on general cognitive ability, show that Cognitive Ability Tests have a broad importance in many areas, especially job performance. Cognitive

Ability Tests are also helpful since they can be utilized for applicants new to the job market and for whom additional assessment data, such as past performance and experience are lacking (Wagner, 2002).

Despite the many advantages of utilizing Cognitive Ability Tests it is imperative that we not focus exclusively on a method that only describes 9% of the variance associated with job performance. It is necessary to look beyond Cognitive Ability Tests to noncognitive measures of job performance so that a more accurate prediction can be made (Wagner, 1997). Although, such measures may not have as strong a relationship with job performance, they can increase the scope of knowledge (Schmidt & Hunter, 2004).

In fact, some argue that Cognitive Ability Tests should be completely replaced by noncognitive measurement due to the adverse impact associated with such tests, and the fact that they can be challenged on the basis of this (Ceci, 2000). Outtz (2002) explains that when utilizing only Cognitive Ability Tests there is a difference of one standard deviation between African Americans and white applicants. Proportionally, he explains that approximately 1/10 of African Americans would be hired in comparison to whites for any given job using Cognitive Ability Tests. He even goes so far as to say that since alternate predictors with less adverse impact exist, their utilization could lead to comparable validity relative to Cognitive Ability Tests. Prior to his research, he suggests that biodata, personal inventories, and structured interviews should be used to do just that.

Others have questioned this same belief through various research studies (Gottfredson, 2002; Schmitt, Rogers, Chan, Sheppard, & Jennings, 1997; Bobko, Roth, & Potosky, 1999), yet their research shows that by completely removing Cognitive Ability Tests and utilizing such noncognitive measurements adverse impact will continue to occur. Each of these authors

suggests that the best means of measuring performance may be the utilization of Cognitive Ability Tests, as well as alternative noncognitive predictors in a selection battery. Thus, the prediction of job performance will then be more valid and less discriminatory.

Specifically, Outtz (2002) suggests that Cognitive Ability Tests do not provide enough validity when they are the only source of prediction. Yet when used in combination with other measurement devices, their validity increases. Also, Gottfredson (2002) explains that you can not completely remove the construct of general mental ability because there is no substitution for what it predicts, therefore, “you get what you select for and the wise organization will never forego selecting for core performance.” Basically, we must take into consideration the conflicting perspectives of Cognitive Ability Tests and utilize them, while balancing efficiency and equity (Murphy, 2002).

With the apparent debate about this topic it is important to note a study conducted by Murphy, Cronin, & Tam (2003) that expresses consensus of Industrial and Organizational professionals in regard to these issues. Most agree that Cognitive Ability Tests are valid, fair, and helpful but incomplete measures. Also, most feel that diversity is of importance to organizations, therefore adverse impact must be considered and avoided. Based on these findings and the consensus of Industrial and Organizational Psychologists it is clear that Cognitive Ability Tests are of much importance in predicting job performance. However, it is also evident that Cognitive Ability Tests alone are not sufficient for decision making. Other aspects of performance must be considered to make a more valid, thorough, and fair decision when predicting job performance.

Personality Tests as Selection Tools

Cognitive Ability Tests are effective predictors of employee performance, accounting for about 9-15% of the variance in various predictors. However, that leaves significant portions of performance variance unaccounted for. Therefore, we must turn to other measures of prediction to more fully predict employee performance. Personality measures, as predictors of employee performance, are the target of research and everlasting controversy (Murphy & Dzieweczynski, 2005). They became an interest of researchers in the early 1900's. Until the 1980's, most research was done to investigate the predictability of individual scales to various aspects of job performance. In fact, in the 1950's personality measures were commonly used, yet in 1965 Guion and Gottier published an article that was less than enthusiastic and the skepticism of personality measures flourished (Murphy & Dzieweczynski, 2005). At this point it was concluded that personality measures were unimportant and not meaningful to the prediction of job performance. Unfortunately, this article caused much of personality measurement research to disappear for decades. Barrick, Mount, & Judge (2001) suggest that these findings are clearly due to the lack of a classification system of traits, the ambiguity of traits being measured at the time, the common "shot gun" approach, and the conceptual differences between narrative and quantitative studies. Barrick, et al, refer to this time period "as the time when we had no personalities."

It was not until the mid 1980's that researchers became once again optimistic about the utility of personality measurement in organizations. This new optimism sprang from research on the Five Factor Model; a taxonomy in which personality constructs could be classified (Murphy & Dzieweczynski, 2005). Another reason for more positive attitudes toward personality assessment was meta-analytic research, which suggests that personality can be an effective

predictor of job performance (Barrick & Mount, 1991; Tett, Jackson, & Rothstein, 1991).

Finally, developments in the measurement of personality, specifically the Big Five, have led to more enthusiastic findings in the literature (Murphy & Dzieweczynski, 2005). As more time has elapsed critics continue to exist, yet most researchers and practitioners feel that the literature shows that personality is important in the case of job candidates (Hough & Oswald, 2005).

Hough & Oswald (2005) express that these critics have failed to look at the substantial evidence. They explain that critics fail to realize that the cause of their complaints is due to researcher's devotion to the Big Five in this area.

A review of the literature makes it apparent that Barrick and Mount's (1991) article is a prominent influence for today's positive view of personality tests in organizations. This article focuses on the Big Five, which consists of conscientiousness, extraversion, agreeableness, openness to experience, and emotional stability. Conscientiousness is generally defined as, "dependability, achievement striving, and planfulness" (Barrick, Mount, & Judge, 2001). They suggest that conscientiousness is able to consistently predict across varying job performance criteria and occupations (Barrick, et. al, 2001). In fact, a correlation of 0.23 is expressed for conscientiousness and performance criteria, while conscientiousness and objective criteria have a correlation of 0.12 and 0.17. Murphy & Dzieweczynski (2005) explain that these correlations are generously corrected. Before such generous corrections, conscientiousness and performance actually produce a correlation of 0.12. Extraversion is a construct, which describes "sociability, dominance, ambition, positive emotionality, and excitement-seeking" (Barrick, et. al, 2001). "Intellectance, creativity, unconventionality, and broad-mindedness" are terms that are commonly used to depict openness to experience (Barrick, et. al, 2001). Emotional stability can be expressed as "a lack of anxiety, hostility, depression, and personal insecurity" (Barrick, et. al,

2001). Finally, agreeableness refers to “cooperation, trustfulness, compliance, and affability” (Barrick, et. al, 2001). In regard to these constructs, extraversion, openness to experience, emotional stability, and agreeableness showed very little relation to performance (0.06 or lower) before corrections are made. Therefore, the observed validity of personality measures is quite low (Schmitt, 2004).

These findings lead critics to be concerned with the use of personality measures in selection (Murphy & Dzieweczynski, 2005). Furthermore, recent research shows that this concern is necessary and warranted. The confusion caused by the Big Five can be seen in the conflicting results and their varying prediction of performance (Ones, Mount, Barrick, & Hunter, 1994; Tett, Jackson, & Rothstein, 1991; Tett, Jackson, Rothstein, & Reddon, 1994). These conflicting findings are an example of why we must go beyond the Big Five, in order to utilize personality measures in the workplace. In fact, Borman (2004) expresses that “Industrial and Organizational Psychology embraced the Big Five, but rigid adherence is probably not wise for our field.” The Big Five are obviously not a panacea of personality in selection and were never meant to be. In fact, newer research shows much potential by going beyond the Big Five and uncovering constructs related to the dimensions of the Big Five (Schmitt, 2004). Schmitt, also, expresses that research shows that with careful theorizing and development of scales, validity will increase dramatically. It is apparent that the Big Five are too broad to be used for predicting job performance and has hidden facets that are important to research in this area (Hough & Oswald, 2005).

Also, moderators may be at work in the personality-performance relationship. Beaty (2001) found that validity will increase when the situation is weak as opposed to strong (.29 vs. .13). Therefore, if facets of personality relevant to the specific selection situation are chosen

carefully extremely higher validities are found (Hough & Oswald, 2005). Hough & Oswald also express “the research evidence between personality variables and workplace criteria that, albeit complex, are consistent, sensible, and of practical use in selection contexts.”

Based on the idea that the Big Five may be too broad, researchers have begun to test personality constructs they believe are narrower dimensions of the Big Five, or are left out of the Big Five. One of these constructs is locus of control, which refers to “a generalized expectancy that outcomes are controlled by one’s own actions or by external factors” (Hatrup, O’Connell, & Labrador, 2005). Hatrup, et. al (2005) performed research that shows that locus of control is distinct from conscientiousness and cognitive ability. They were able to demonstrate that locus of control is one of the personality constructs that are related to performance effectiveness. Two validation studies make it apparent that those with an internal locus of control significantly perform better than those with an external locus of control when utilizing a work-specific locus of control scale (Hatrup, et. al, 2005). When conscientiousness and ability are removed, locus of control reported can explain between 3% and 11% of the variance associated with performance. This incremental validity makes it apparent that there is more to the personality-performance relationship than the Big Five.

The personality construct of proactivity has also been researched in regard to this lack expressed of the Big Five. The construct of proactivity is defined as “a disposition toward taking action to influence one's environment” (Thompson, 2005). Thompson (2005) studied business school alumni and found the presence of a proactive personality to be significantly correlated with job performance (.19). More interestingly, this relationship is mediated by initiative taking (.23) and network building (.22). These results suggest that proactive personality may be an

effective predictor of job performance, but may be mediated by occupational area and other mediating variables.

Another, narrower construct included in research on personality is integrity measures. These integrity tests are “specifically developed to assess dependability, integrity, and honesty of applicants thereby facilitating prediction of theft and future on-the-job dishonest behaviors” (Ones & Viswesvaran, 2001). Their research suggests that criterion related validities of such tests, average .41. Thus, they feel that these narrower dimensions of personality are “superior” to the broad personality dimensions of the Big Five (i.e. conscientiousness) that produce average validities of .23. Therefore, they too express concerns that the Big Five is too broad and does not incorporate more useful and specific constructs offered by other models.

Cognitive ability tests and personality tests are found to be uncorrelated or minimally correlated (Hough & Oswald, 2005; Schmitt, 2004). Therefore, it should be of no surprise to note that when general mental ability and integrity (a personality test) are combined and correlated with performance they provide a validity coefficient of 0.65 (Hough & Oswald, 2005; Schmidt & Hunter, 1998). Also, in comparison to cognitive ability tests these personality tests are rarely, if ever, a legal risk. In an analysis of federal court cases conducted by Terpstra, Mohamed, & Kethley (1991) not one case between 1978 and 1997 involved personality tests. This is very likely due to less adverse impact being associated with personality tests in comparison to cognitive ability tests. Other possible advantages cited by SIOP are that personality tests can be administered easily to a large amount of people, are cost effective to administer, and do not demand skilled administrators.

Based on years of previous research it is safe to assume that personality tests can be valid predictors of job performance when properly utilized. Therefore, the combination of cognitive

ability tests and personality tests can lead to a more thorough assessment of applicants in the selection process and can increase the amount of job performance variance accounted for. If this is not the case there could be devastating effects because Lorenz (2005) expresses “it is estimated that about 40 percent of employers use personality assessment to determine if a candidate is suited for a particular job or in what type of work an existing employee will be most successful.”

It is interesting to note that SIOP indicates that the most commonly used personality constructs/traits used are extraversion, conscientiousness, openness, optimism, agreeableness, service orientation, stress tolerance, emotional stability, and initiative. These personality constructs are largely consistent with the Big Five, yet optimism is a topic separate from the common five constructs that should be considered since it is utilized commonly by organizations.

Optimism

Some distinctions in this theory are necessary to truly understand the implications presented. First, optimism is defined “as a generalized expectancy that good, as opposed to bad, outcomes will generally occur when confronted with problems across important life domains” (Scheier & Carver, 1985). In addition, optimism is related to the concept of locus of control. In fact, those with a pessimistic explanatory style generally perceive the cause of bad events to be internal, stable, and global. In contrast, people with an optimistic explanatory style will perceive bad events to be caused by external, unstable, and situation specific variables. Therefore, “individuals with a “pessimistic” explanatory style are more likely to display helplessness deficits when confronted with a bad event than individuals with an “optimistic” explanatory style” (Seligman & Schulman, 1986). The reformulation of the learned helplessness model leads

to the prediction that those with pessimistic explanatory styles are less able to cope with bad events than those with a more optimistic explanatory style (Seligman & Schulman, 1986).

Attributional theory is theoretically linked to the personality construct of locus of control; in fact attribution style is in effect a locus of control belief (Furnham, Sadka, & Brewin, 1992).

Early research on explanatory style is based on its link with depression, yet over the last couple of decades researchers have begun to investigate its relationship with physical well-being, job failure, performance in sports, and loneliness (Peterson & Barrett, 1987).

Common Optimism Measures

Attributional Style Questionnaire Research

Seligman & Schulman (1986) conducted a study that utilizes a common measure of optimism, the Attributional Style Questionnaire, to determine if it is useful in predicting productivity and turnover for life insurance sales agents. The reliability reported within their study is what they called “modest”, where coefficient alpha is estimated to be .75 (CoNeg) and .62 (CoPos) for the two dimensions measured by the test. More specifically, the measure of CoNeg describes individuals who accredit adverse events to internal, stable, and global aspects. If an individual scores high on negative attributional style they are more of a pessimist than optimist. On the other hand, CoPos is a measure that describes individuals who generally accredit positive events to internal, stable, and global factors (Corr & Gray, 1995). If an individual scores high on positive attributional style they are more of an optimist than a pessimist. In fact, CoNeg is a measure of low negative attributional style, while CoPos is a measure of high positive attributional style. Their findings appear to be consistent with the theory. Overall, they report that those with an optimistic explanatory style do, in fact, perform

significantly better and are less likely to quit when compared to those with a pessimistic explanatory style. More specifically, they explain that those who were optimistic sold 37% more than those who were considered pessimistic.

Another study that portrays a very positive view of attributional style and its relation to the workplace models the Attributional Style Questionnaire in the construction of a new questionnaire directly applicable to the workplace. In doing so, Furnham, Sadka, & Brewin (1992) are able to report a satisfactory internal reliability. Yet, their reliability is not much different from the previous study. They express that this is probably the result of a small sample size and a limited number of items. It was found that optimistic explanatory style is related to satisfaction, motivation, occupational status, and salary (Furnham et. al, 1992).

Another area that received interest is the connection of explanatory style with academic performance, since this environment can be quite stressful and performance oriented as well. In particular, one study uses the Attributional Style Questionnaire and derives their own questionnaire with a focus on academic achievement. Their reliability coefficient obtained is .84, which is actually higher than the original questionnaire. Therefore, as was expressed earlier, personality tests appear to be better predictors when they are situation specific. Peterson & Barrett's (1987) study shows that explanatory style is correlated with grades of college freshman. Therefore, they conclude that this model could most likely be used in a variety of performance settings and that further research should consider this possibility. A study conducted by Nolen-Hoeksema, Seligman, & Girgus (1986) came to the same conclusion as well. When children exhibit an optimistic explanatory style they are more likely to do well and achieve more in school. In contrast other studies have found the opposite effect (Satterfield, Monahan, &

Seligman, 1997) and even others have found no effect (Bridges, 2001) in academic settings.

Thus, the result appear to be somewhat inconsistent.

These findings are shown to generalize within the United States through various studies and the United Kingdom as well. Yet, the concept of the two dimensions measured with an attributional style questionnaire (CoNeg & CoPos) is important when making this generalization. Much of the research in the United Kingdom conducted by Corr & Gray (1991; 1995; 1996), suggests that optimism is an important personality construct related to the performance of salesman. However, in the United States most results show the importance to lie within the CoNeg measure, while in the United Kingdom the measure of CoPos is shown to be a more significant factor in this relationship (Corr & Gray, 1991; 1995; 1996; Seligman & Schulman, 1986). They suggest that this could be the result of three possibilities. First, they found an interaction between abstract reasoning and CoNeg; leading to the possibility that in the U.S. the sales force is less capable of abstract reasoning than in the U.K. Second, they suggest that this could be caused by the frequency with which positive and negative events occur in the two areas. Finally, it is possible that distortion or faking is impacting the results. Therefore, moderators and mediators may be affecting the use of such a measure.

Life Orientation Test

There have been other devices developed to measure explanatory style, such as Scheier & Carver's (1985) Life Orientation Test (LOT). This test is intended to measure dispositional optimism. Apparently, this test appears to be a fairly valid measure for predicting performance. Anderson (1996) conducted a meta-analysis which concludes that this measure of optimism was a significantly predictive test of coping, symptom reporting, and negative affect. Yet, they

suggest that the Life Orientation Test is most correlated with negative affect. It is expressed that the LOT is associated with neuroticism. They suggest that reconstruction of the test is necessary to remove this shared variance. Therefore, various measures of optimism may measure different aspects of the personality.

Much of the research on this cognitive personality construct, in regard to performance effectiveness, is focused on the occupation of sales. Those in sales positions are consistently affected by negative events, such as disappointment and rejection caused by the loss of potential clients; they are turned down in some way on a daily basis and it is a requisite of the occupation. In fact, it has been shown that those with an optimistic style are prone to using problem-focused coping tactics when faced with stressful situations. Actually, Scheier, Weintraub, & Carver (1986) found a significant correlation between problem-focused coping tactics and optimistic explanatory style utilizing the Life Orientation Test. In contrast, those with pessimistic styles employ emotion-focused coping strategies. Strutton & Lumpkin (1993) suggest that these coping strategies are a partial mechanism that permits optimistic salespeople to perform better than their pessimistic co-workers. Thus, stress is a moderator of the optimism-performance relationship.

If stress is a moderator it is not surprising that results may differ from situation to situation (Strutton & Lumpkin, 1993). Tuten & Neidermeyer (2004) conducted a study of this same relationship within call centers. Their results determined that those employees with a pessimistic explanatory style reported significantly higher satisfaction and performance in comparison to those with an optimistic explanatory style. It was explained that the high stress environment expected by researchers was lacking. In fact, stress was described as moderate to low in this specific environment. Tuten & Neidermeyer (2004) suggest that when stress levels

are not high optimism may not be related to performance. Therefore, occupational stress may moderate the effectiveness of optimism in predicting performance. Once again, we are reminded that personality measures must be utilized only when they pertain to the specific situation at hand. These studies have made it apparent that the literature on attributional style has produced inconsistent findings in its relation to achievement and performance.

Learned Optimism

Another interesting perception of the personality construct optimism is that it can be learned. In fact, one study suggests that management should continuously strive to develop employee's optimism (Harish, 1999). While this is possible to do it is even more applicable to inexperienced sales people because they have not yet been confronted with consistent negative events in comparison to experienced sales people. This type of training could immunize new employees to the field from a later pessimistic explanatory style. Moreover, Dreyfack (1991) expresses that "the best news is that we can all change our personalities from lackadaisical, apprehensive and even pessimistic, to perennially bright and cheerful, if we pick up the Master Key and give it a turn in the right direction."

So companies have before them two choices in this regard. They may choose to select for optimism by utilizing a measure of explanatory style to weed out the pessimistic applicants. Alternatively, they can employ training and management tactics that increase optimism leading to better performance. As indicated previously, personality constructs may be differentially predictive across different occupational areas. For example, explanatory styles are related to performance in sales jobs; however this may not be the case in other occupational areas. Therefore, it is imperative that thorough job analysis and theoretical circumstances be considered

carefully when considering the utilization of personality tests in selection. Organizations should test the applicability of certain personality tests to the specific selection situation to determine if they are valid, fair, and free from bias. With so many organizations making use of personality tests, this is imperative. Therefore, based on previous research, it is believed that optimism can enhance selection when it is relevant and specific to the selection situation in question.

Expectations

Based on the review of the literature various hypotheses are made in regard to this study. Research has expressed that personality measures are predictive of performance. Yet those personality measures that are more broad have yielded weaker relations than those that are more specific to the situation. Therefore, measures of the Big Five will produce weaker correlations with performance than those that are specific to performance in the occupation considered.

Hypothesis 1: Personality measures will be significantly related to the performance of subjects within this study, but the relation will be weak.

Also, Seligman's Attributional Style Questionnaire is more specific to the situation; therefore it should be more predictive of performance in this environment. Previous research within the United States has shown that within highly stressful sales type jobs optimism is predictive of performance.

Hypothesis 2: As optimism increases performance will increase as well. Therefore, the more optimistic the subject is the better their performance will be within the organization. In addition, a stronger relation should exist with optimism than the broader measure of personality, the GPPI.

METHODS

Participants

The data collected and analyzed within this study consisted of various score reports of 51 employees at a specific organization where stress is a common factor. Due to a lack of reported data 3 subjects were removed from the analyses leading to a group of 48 participants. The subjects came from diverse occupations within the organization ranging from Vice President of Finance to marketing positions. Of these subjects, two separate groups were obtained with the first group consisting of participants within positions that the organization logically felt would perform better when optimism was greater. These subjects held positions involving direct sales and marketing within the organization, such as Vice President of Sales, Sr. Director of Marketing Analytics, Sr. Director of New Business Development, and Partnership Marketing Director. This group alone consisted of 20 of the subjects. The other 28 subjects were placed in a separate group not thought to be associated with the need for optimism on a daily occurrence. These subjects had jobs not directly related to sales and marketing, rather their daily duties support these functions. The positions occupied by these subjects included Director of Finance, Information Security Director, Project Manager, and Director of Operations Support.

Measures

The Gordon Personal Profile Inventory developed by Leonard V. Gordon was used to measure various aspects of participant's personality. This inventory leads to the generation of eight separate scores which include Ascendancy (GPPI-A), Responsibility (GPPI-R), Emotional Stability (GPPI-E), Social (GPPI-S), Cautiousness (GPPI-C), Original Thinking (GPPI-O),

Personal Relations (GPPI-P), and Vigor (GPPI-V). High scores on Ascendancy describe individuals as, “verbally ascendant, who adopt an active role in the group, who tend to make independent decisions, and who are self-assured in relationships with others.” This trait can relate to the Big Five dimensions of Extraversion and Agreeableness. Responsibility also relates to the Big Five dimension of Conscientiousness because high scorers on this trait are expressed as, “individuals who are able to stick to the job assigned them, who are persevering and determined, and who can be relied on.” In addition, the trait of Emotional Stability is included in the Big Five and is extremely similar with high scoring individuals described as, “individuals who are emotionally stable and relatively free from worries, anxieties, and nervous tension.” Also, high scores on the trait of Sociability define individuals as those, “who like to be with and work with people and who are gregarious and sociable” which can be related to the Big Five dimension of Extraversion. Cautiousness describes individuals as, “highly cautious, who consider matters very carefully before making decisions, and who do not like to take chances or run risks.” This trait can also be related to the Big Five dimension of Conscientiousness. Those who score high on Original Thinking are expressed as, “individuals who generally like to work on difficult problems, are intellectually curious, enjoy thought-provoking questions and discussions, and like to think about new ideas.” This trait is quite similar to the Big Five dimension of Openness to Experience. High scores on Personal Relations is defined as, “those individuals who have faith and trust in people and who are tolerant, patient, and understanding,” which relates to the dimension of Agreeableness. Finally, high scores on Vigor, “characterizes individuals who are vigorous and energetic, who like to work and move rapidly, and who are able to accomplish more than the average person.” Based on the review of these traits it is

apparent that they broadly measure much of the areas of the Big Five. Thus, they may be utilized as a broad measure of personality for this study.

Based on these traits participants were asked to read four descriptions and determine which was the most and least applicable to themselves. One question listed the following descriptors, “acts somewhat jumpy and nervous,” “a strong influence on others,” “does not like social gatherings,” and “a very persistent and steady worker.” Based on these statements subjects reported which one was most like themselves (M) and least like themselves (L). Thirty eight of these items were utilized to obtain the scores used within this study.

Also, the Seligman Attributional Style Questionnaire (SASQ) was utilized to determine if it was a proper predictor test for the organization at hand. This questionnaire seeks to determine which candidates for a job will be determined and resistant to failure. Therefore, in a job where failure is common the employee will be more successful in that environment. The SASQ accomplishes this by asking questions about their expectations for success and failure in the future. These questions are based on two dimensions of optimism which consist of Reaction to Adversity and Reaction to Success. Each of these dimensions has the same three factors that are utilized to determine if high or low optimism is prevalent. These three factors include Permanence, Pervasiveness, and Personalization. Permanence tests the individuals’ beliefs about the length of time that success or failure will last. Pervasiveness explores whether candidates believe success or failure is caused by specific or universal causes. Personalization considers whether the individual perceives success or failure to be caused by internal or external variables. Based on the two dimensions and the three factors, discussed previously, the SASQ determines whether the individual is how or low in Optimism through the utilization of an Overall Optimism score. Those that are found to be high in optimism generally view failures as temporary,

specific, and externally caused. Yet, they believe successes are permanent, universal, and internally caused. The complete opposite is true for individuals who score low on optimism. These individuals tend to view the cause of failures to be permanent, universal, and internal, while they perceive successes to be caused by temporary, specific and external factors. The Overall Optimism score can be quite easily understood. This score is measured on a one to five point scale. A score of one expresses that the individual falls into the bottom 20% of the general population. A two represents an individual who scores within the fourth 20% and so forth for the scores of three and four. Thus, a score of five explains that the individual falls within the top 20% of test-takers. In addition, the SASQ takes approximately 15 to 20 minutes to complete.

Finally, criterion measures were utilized as well. These measures consisted of supervisor ratings that included performance and expandability ratings of current employees within the organization. The performance rating scale indicated performance effectiveness within the job, while the expandability rating scale indicated readiness for promotion. Each of these scales had a five point range for expressing the performance and expandability of subjects. The performance ratings included “Needs Improvement (1),” “Sometimes Achieves (2),” “Consistently Achieves (3),” “Overachieves (4),” and “Significantly Overachieves (5).” The expandability ratings follow a similar pattern that includes “Not Suitable (1),” “Sometimes Suitable (2),” “Well Placed (3),” “Expandable (4),” and “Highly Expandable (5).”

Procedure

Two groups were differentiated from one another within the organization. These groups were chosen and defined based on the CEO’s decision about related components of the employees’ jobs. The first group consisted of those individuals within positions believed to

require a high level of optimism, while the second group was composed of incumbents in positions believed not to require optimism. Those in the first group were predominantly positions requiring more marketing skills and the ability to sell others on an idea. The second group was randomly selected from all individuals within positions believed to not require optimism within the entire organization, which was predominantly those within sales jobs.

Individuals within the study were unaware of which group they resided in, the design of the study, and were unaffected by the testing in which they participated. In other words, the employees were aware that there would be no positive or negative outcomes for their performance on the tests. The Seligman Attributional Style Questionnaire was implemented and scored over a six month interval. In addition, the scores on the SASQ were determined by Seligman's company. This process occurs by going to the company website to take the test. After a period of approximately one week a score report is returned to the organization that assesses the individual based on this test. The other various measures discussed previously were obtained during the selection process for each individual.

Scores were documented for each test and participants were included in their corresponding groups. Various statistics were used in order to determine whether the GPPI and the SASQ was predictive of performance and if scores differed significantly based on their placement by the CEO. The focus of the present study is to examine the differential predictive validity of Seligman's Attributional Style Questionnaire based on the CEO's sorting. It is expected that within group 1 high levels of optimism will correlate with performance, while those in group 2 will have no relation between optimism and performance effectiveness.

RESULTS

Table 1 expresses all of the variables utilized within the present study in terms of group membership and variables. These variables include the GPPI scales of Ascendancy, Responsibility, Emotional Stability, Sociability, Cautiousness, Original Thinking, Personal Relations, and Vigor. Also, Optimism score is included followed by the related subscales of Adversity and Success. Finally, performance criteria are included in the form of performance ranking and expandability ranking.

Table 1. Means (Standard Deviations) for All Variables

Measure	Mean(Standard Deviation)		
	Group 1	Group 2	Total
GPPI Ascendancy	28.60(3.20)	26.50(1.96)	27.20(2.59)
GPPI Responsibility	28.70(3.20)	30.60(2.62)	29.97(2.92)
GPPI Emotional Stability	25.40(3.84)	27.50(3.78)	26.80(3.86)
GPPI Sociability	26.00(2.36)	21.65(3.13)	23.10(3.54)
GPPI Cautiousness	21.80(3.05)	25.15(3.60)	24.03(3.74)
GPPI Original Thinking	32.80(2.78)	32.05(3.20)	32.03(3.04)
GPPI Personal Relations	28.20(2.62)	27.50(3.69)	27.73(3.34)
GPPI Vigor	33.20(2.97)	31.25(4.23)	31.90(3.92)
Optimism Score	3.45(1.43)	3.25(1.69)	3.33(1.58)
Adversity Permanence	3.85(1.42)	3.50(1.40)	3.65(1.41)
Adversity Pervasiveness	4.05(1.50)	3.46(1.62)	3.71(1.58)

Adversity Personalization	3.80(1.47)	3.04(1.48)	3.35_1.51)
Adversity Overall	3.90(1.12)	3.50(1.50)	3.67(1.34)
Success Permanence	2.85(1.42)	3.11(1.57)	3.00(1.50)
Success Pervasiveness	2.95(1.28)	3.14(1.41)	3.06(1.34)
Success Personalization	2.65(1.42)	2.68(1.54)	2.67(1.48)
Success Overall	2.75(1.37)	2.89(1.55)	2.83(1.46)
Performance Rating	3.50(0.80)	3.50(0.79)	3.50(0.79)
Expandability Rating	3.23(0.69)	3.57(0.92)	3.42(.835)

A correlation analysis was conducted to determine whether or not the first hypothesis was indeed correct. Specifically, to determine if broad measures of personality or the GPPI are related to performance in an organizational setting and whether the defined groups differed in this regard. After examining these variables it was apparent that each group found one significant relation. Group 1 produced a strong negative relation between GPPI Emotional Stability and Performance Rating ($r = -.76, p < .01$). Therefore, as GPPI Emotional Stability scores increased the subjects performance ranking decreased. In contrast, Group 2 found a positive relation between GPPI Responsibility and Performance Ranking ($r = .41, p < .05$). Therefore, as GPPI Responsibility scores increased for those in Group 2, their performance ranking scores increased as well. All other variables produced insignificant correlations, which can be seen in Table 2. In addition, absolutely none of the personality variables were significantly related to the Expandability Ratings for either Group 1 or Group 2. Therefore, none of the GPPI scales were predictive of Expandability Ratings.

Table 2. Correlations between GPPI Scales and Performance Criteria

Measure	Group 1		Group 2	
	Performance	Expandability	Performance	Expandability
GPPI Ascendancy	-0.09	0.15	-0.02	-0.22
GPPI Responsibility	0.22	-0.20	0.41*	0.33
GPPI Emotional Stability	-0.76**	-0.33	-0.01	0.09
GPPI Sociability	0.37	0.11	-0.04	-0.08
GPPI Cautiousness	0.13	-0.31	-0.01	-0.29
GPPI Original Thinking	0.53	0.32	0.16	0.30
GPPI Personal Relations	0.02	0.26	-0.24	-0.20
GPPI Vigor	0.09	-0.03	0.23	0.20

Note. Group 1 with n = 10 and Group 2 with n = 20.

*p < .05. **p < .01, all one-tailed

A similar analysis was conducted to determine whether hypothesis 2 was correct as well. Specifically, to determine if the anticipated positive relation would be found between Seligman's Attributional Style Questionnaire and the performance criteria for Group 1. As can be seen in Table 3, no significant values emerged. In fact, many of the correlations are extremely weak across both groups. In addition, it was also hypothesized that Optimism would produce stronger relations than the GPPI because of its broadness in comparison. By comparing Tables 2 and 3, it is apparent that just the opposite occurred. More significant relations were found between performance criteria and the GPPI than between the performance criteria and Optimism.

Table 3. Correlations between Optimism/Subscales and Performance Criteria

Measure	Group 1		Group 2	
	Performance	Expandability	Performance	Expandability
Optimism Score	-0.13	0.01	-0.01	-0.10
Adversity Permanence	-0.09	-0.18	0.08	0.06
Adversity Pervasiveness	-0.25	-0.16	0.08	0.01
Adversity Personalization	0.22	0.35	0.12	0.15
Adversity Overall	-0.20	-0.04	0.17	0.11
Success Permanence	0.11	0.14	-0.05	-0.12
Success Pervasiveness	0.13	0.13	-0.02	-0.17
Success Personalization	-0.26	-0.09	-0.09	-0.15
Success Overall	0.05	0.11	-0.08	-0.25

Note. Group 1 with n = 20 and Group 2 with n = 28.

*p < .05. **p < .01, all two-tailed

Also, it is worthy to note that the performance criteria considered within this study were significantly related to one another. First, performance rating was significantly, positively related to expandability rating ($r = .82, p < .01$) for those in Group 1. Second, performance rating was significantly, positively related to expandability rating ($r = .66, p < .01$) for those in Group 2. Therefore, the performance criteria appear to be tapping the same domain of interest.

DISCUSSION

The field research conducted in this study presented many limitations as a direct result of a broad design that did not consider specific jobs or specific job dimension. The initial decision to create groups for which optimism was and was not important was without the utilization of critical job analysis and environmental data. In addition, restriction of the range was apparent throughout the course of the study. The performance criteria chosen produced a 1 to 5 scale. Almost all subjects received either a 3 or above, relatively few subjects received a 2, and no subjects received a rating of 1. Also, the sample obtained here was much too small to produce strong, if any, findings. Therefore, the following conclusions must not be taken without these reservations.

In this applied setting it was found that the Seligman Attributional Style Questionnaire was not predictive of performance for the defined job samples within the organization. The primary purpose of this study was to determine the SASQ's utility in an applied setting. Although, this was not accomplished it is possible that a larger sample with more range in the criterion scores could have produced this effect. Further research should reexamine the predictive power of this test in an applied organizational setting by examining specific jobs and dimensions.

In regard to the results of this study, it is apparent that the two groups had various similarities as well as differences. In fact, no significant values were found for either group in regard to the Seligman Attributional Style Questionnaire. Therefore, the groups did not differ on the SASQ, which runs counter to the CEO's beliefs. In addition, there were significant differences between the two groups as can be seen in Table 4. In fact, the results suggest that those in Group 1 generally score higher on GPPI Ascendancy and GPPI Sociability. In contrast,

those subjects in Group 2 produce higher scores on GPPI Cautiousness. Therefore, these groups did differ in some ways, although they did not differ in their need for optimism. Yet, it is important to note that Group 1 only had GPPI data for 10 subjects, which makes it difficult to generalize these results to the entire organization.

Table 4. Descriptive Statistics and Group Differences on Significant Predictor Tests

Test	Mean (SD) of Group		t-test for equality of means		
	1	2	T	p	Direction
GPPI Ascendancy	28.55 (3.05)	26.42 (1.98)	2.32	.03*	1 > 2
GPPI Sociability	25.36 (3.08)	21.79 (3.16)	3.02	.005**	1 > 2
GPPI Cautiousness	22.00 (2.97)	25.21 (3.69)	-2.46	.02*	2 > 1

*p < .05. **p < .01. ***p < .001, all two-tailed.

The second hypothesis proposed received no confirmation. As expressed previously, there was no relation between Optimism and job performance. Also, the literature explained that more specific measures of personality should provide stronger relations with performance than those measures that are broader. These results yielded the opposite relation with the GPPI providing a stronger relation than the Seligman Attributional Style Questionnaire. Therefore, more relevance was found for global dimensions than is expressed in the literature. It is apparent that there is a need to examine the construct of optimism as it relates to specific criteria.

Previous research has demonstrated inconsistencies in the link between performance and optimism. The review of the literature expressed that some studies have found a relation between being optimistic and performance effectiveness, being pessimistic and performance

effectiveness, and some have found no relation at all. Therefore, these results are not much different from some of the previous literature. Therefore, this research endeavor did not support the utilization of the Seligman Attributional Style Questionnaire within this context.

REFERENCES

- Anderson, G. (1996). The benefits of optimism: A meta-analytic review of the life orientation test. *Personality and Individual Differences, 21*(5), 719-725.
- Barrick, M.R., & Mount, M.K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*(1), 1-26.
- Barrick, M.R., Mount, M.K., & Judge, T.A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *Personality and Performance, 9*(1/2), 9-29.
- Beaty, J.C., Cleveland, J.N., & Murphy, K.R. (2001). The relation between personality and contextual performance in “strong” versus “weak” situations. *Human Performance, 14*(2), 125-148.
- Bobko, P., Roth, P.L., & Potosky, D. (1999). Derivation and implications of a meta-analytic matrix incorporating cognitive ability, alternative. *Personnel Psychology, 52*, 561-589.
- Borman, W.C. (2004). Introduction to the special issue: Personality and the prediction of job performance: More than the big five. *Human Performance, 17*(3), 267-269.
- Ceci, S.J. (2000). So near and yet so far: Lingering questions about the use of measures of general intelligence for college admission and employment screening. *Psychology, Public Policy, and Law, 6*,
- Corr, P.J. & Gray, J.A. (1995). Attributional style, socialization and cognitive ability as predictors of sales success: A predictive validity study. *Personality and Individual Differences, 18*(2), 241-252.

- Corr, P.J. & Gray, J.A. (1996). Attributional style as a personality factor in insurance sales performance in the UK. *Journal of Occupational and Organizational Psychology*, 69, 83-87.
- Davis-Blake, A., & Pfeffer, J. (1989). Just a mirage: The search for dispositional effects in organizational research. *The Academy of Management Review*, 14(3), 385-400.
- Day, D.V., & Silverman, S.B. (1989). Personality and job performance: Evidence of incremental validity. *Personnel Psychology*, 42, 25-36.
- Dreyfack, R. (1991). Becoming an optimist: The master key. *American Salesman*, 36(4), 23-27.
- Furnham, A., Sadka, V., & Brewin, C.R. (1992). The development of an occupational attributional style questionnaire. *Journal of Organizational Behavior*, 13(1), 27-39.
- Gottfredson, L.S. (2002). Where and why g matters: Not a mystery. *Human Performance*, 15, 25-46.
- Guion, R.M., & Gottier, R.F. (1965). Validity of personality measures in personnel selection. *Personnel Psychology*, 18(2), 135-160.
- Lorenz, K. (2005). Personality tests help gauge job fit. Retrieved October 25, 2005, from CNN. Website: <http://www.cnn.com/2005/US/Careers/02/25/personality.tests/>
- Harish, S. (1999). Optimism and street-smarts: Identifying and improving salesperson intelligence. *Journal of Personal Selling & Sales Management*, 19(3), 17-33.
- Hattrup, K., O'Connell, M.S., & Labrador, J.R. (2005). Incremental validity of locus of control after controlling for cognitive ability and conscientiousness. *Journal of Business and Psychology*, 19(4), 461-481.

Hough, L.M. & Oswald, F.L. (2005). They're right, well...Mostly right: Research evidence and an agenda to rescue personality testing from 1960s insights. *Human Performance*, 18(4), 373-387.

How many U.S. companies use employment tests? Retrieved October 20, 2005, from the Society of Industrial and Organizational Psychology. Website: <http://www.siop.org/Workplace/employment%20testing/usingoftests.htm>

Kuncel, N.R., Hezlett, S.A., & Ones, D.S. (2004). Academic performance, career potential, creativity, and job performance: Can one construct predict them all? *Journal of Personality and Social Psychology*, 86, 148-161.

Murphy, K.R. (2002). Can conflicting perspectives on the role of g in personnel selection be resolved? *Human Performance*, 15, 173-186.

Murphy, K.R., Cronin, B.E., & Tam, A.P. (2003). Controversy and consensus regarding the use of cognitive ability testing in organizations. *Journal of Applied Psychology*, 88, 660-671.

Murphy, K.R., & Dzieweczynski, J.L. (2005). Why don't measures of broad dimensions of personality perform better as predictors of job performance? *Human Performance*, 18(4), 343-357.

Nolen-Hoeksema, S., Seligman, M.E., & Girgus, J.S. (1986). Learned helplessness in children: A longitudinal study of depression, achievement, and explanatory style. *Journal of Personality and Social Psychology*, 51(2), 435-442.

- Ones, D.S., Mount, M.K., Barrick, M.R., & Hunter, J.E. (1994). Personality and job performance: A critique of the tett, Jackson, and Rothstein (1991) meta-analysis. *Personnel Psychology*, 47, 147-156.
- Ones, D.S. & Viswesvaran, C. (2001). Integrity tests and other criterion-focused occupational personality scales (COPS) used in personnel selection. *International Journal of Selection and Assessment*, 9(1/2), 31-39.
- Ottz, J.L. (2002). The role of cognitive ability tests in employment selection. *Human Performance*, 15, 161-171.
- Peterson, C. & Barrett, L.C. (1987). Explanatory style and academic performance among university freshman. *Journal of Personality and Social Psychology*, 53(3), 603-607.
- Raymark, P.H., Schmit, M.J., & Guion, R.M. (1997). Identifying potentially useful personality constructs for employee selection. *Personnel Psychology*, 50, 723-736.
- Scheier, M.F., Weintraub, J.K., & Carver, C.S. (1986). Coping with stress: Divergent strategies of optimists and pessimists. *Journal of Personality and Social Psychology*, 51(6), 1257-1264.
- Schmitt, N. (2004). Beyond the big five: Increases in understanding and practical utility. *Human Performance*, 17(3), 347-357.
- Schmidt, F.L., & Hunter, J.E. (1998). The validity of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, 124(2), 262-274.

- Schmidt, F.L., Hunter, J. (2004). General mental ability in the world of work: Occupational attainment and job performance. *Journal of Personality and Social Psychology*, 86, 162-173.
- Schmitt, N., Rogers, W., Chan, D., Sheppard, L., & Jennings, D. (1997). Adverse impact and predictive efficiency of various predictor combinations. *Journal of Applied Psychology*, 82(5), 719-730.
- Seligman, M.E. & Schulman, P. (1986). Explanatory style as a predictor of productivity and quitting among life insurance sales agents. *Journal of Personality and Social Psychology*, 50(4), 832-838.
- Shoenfelt, E.L., Pedigo, L.C. (2005). A review of court decisions on cognitive ability testing, 1992-2004. *Review of Public Personnel Administration*, 25, 271-287.
- Strutton, D. & Lumpkin, J.R. (1993). The relationship between optimism and coping styles of salespeople. *Journal of Personal Selling & Sales Management*, 13(2), 71-82.
- Terpstra, D.E., Mohamed, A.A., & Kethley, R.B. (1999). An analysis of federal court cases involving nine selection devices. *International Journal of Selection and Assessment*, 7(1), 26-34.
- Tett, R.P., Jackson, D.N., Rothstein, M., & Reddon, J.R. (1994). Meta-analysis of personality-job performance relations: A reply to ones, mount, barrack, and hunter (1994). *Personnel Psychology*, 47(1), 157-172.
- Tett, R.P., Jackson, D.N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personnel Psychology*, 44(4), 703-743.

Thompson, J.A. (2005). Proactive personality and job performance: A social capital perspective. *Journal of Applied Psychology*, 90(5), 1011-1017.

Tuten, T.L. & Neidermeyer, P.E. (2004). Performance, satisfaction and turnover in call centers: The effects of stress and optimism. *Journal of Business Research*, 57, 26-34.

Types of employment tests. Retrieved October 20, 2005, from the Society of Industrial and Organizational Psychology. Website: <http://www.siop.org/Workplace/employment%20testing/testtypes.htm#7.%20%20%20Personality%20Tests>

Wagner, R.K. (1997). Intelligence, training, and employment. *American Psychologist*, 52, 1059-1069.