Dissertations, Theses, and Masters Projects   Theses, Dissertations, & Master Projects

2003

The Facets Beyond Neuroticism: Anxiety as a Moderator of Reactivity to Daily Negative Events.

John Simanski
College of William and Mary

Follow this and additional works at: https://scholarworks.wm.edu/etd

Part of the Clinical Psychology Commons

THE FACETS BEYOND NEUROTICISM

Anxiety as a Moderator of

Reactivity to Daily Negative Events

———————

A Thesis

Presented to

The Faculty of the Department of Psychology

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of
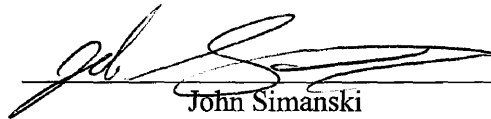
Master of Arts
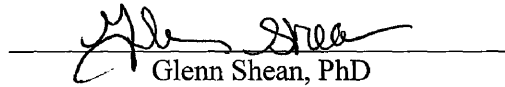
———————

by

John Simanski

2003

APPROVAL SHEET

This thesis is submitted in partial fulfillment of
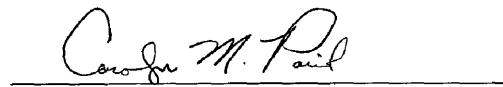
the requirements for the degree of

Master of Arts

John Simanski

Approved, May 2003

John Nezlek, PhD

Glenn Shean, PhD

Carolyn Parish, PhD

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

LIST OF TABLES

ABSTRACT

In order to examine the role that Neuroticism and the facets of Neuroticism play between daily events and reactivity to these events, a two week diary study was performed. Each night for two weeks, ninety-eight students took a battery of questionnaires that assessed daily events and well-being. Additionally, trait levels of Neuroticism and the facets of Neuroticism were measured on the first and last days of the study. Results found that the anxiety facet, which is tailored towards cognitive anxiety and worry significantly and consistently moderated the relationship between daily events and well-being. The advantages of using facets over factors are discussed.

THE FACETS BEYOND NEUROTICISM

Anxiety as a Moderator of

Reactivity to Daily Negative Events

THE FACETS BEYOND NEUROTICISM

Anxiety as a Moderator of

Reactivity to Daily Negative Events

Events that occur in our everyday lives have been a large focus of research within the field of Personality Psychology. Most of this research has looked at an individual's reactions to the negative events in terms of how much the event affects their mood for the day. Overall, research has established that when negative events occur in our daily lives, we tend to experience and increase in negative mood and a decrease in overall well-being.

In addition to concluding that negative events increase our negative mood for a given day, research has found that some individuals react more strongly to similar events than others. What has been suggested is that individuals who score high in Neuroticism are more reactive to these negative events than individuals who score lower in Neuroticism. In other words, if the same negative event happens to two different people, their scores on a Neuroticism measure will guide researcher's predictions onto how much that event will affect their daily mood score. However, this is not always the case, sometimes individuals high in Neuroticism do not react more strongly to the negative events that occur in their lives.

One possible reason and a criticism for the lack of universal findings regarding Neuroticism's ability to influence an individual's reactivity to negative

events is in the way Neuroticism is studied. There is a tendency within Personality research to assume that Neuroticism and Negative Affect are one in the same (e.g., Marco & Suls, 1993). Additionally, Neuroticism is traditionally measured with scales that assess the affective components of Neuroticism and disregard the cognitive or behavioral aspects of the trait (Zillig, Hemenover, & Dienstbier, 2002). Further, no study has attempted to examine how the facets of Neuroticism moderate the relationship between daily events and reactivity to those events.

The present study attempted to address these criticisms and weaknesses of prior personality research. Not only did this study examine the ability of Neuroticism to moderate the relationship between daily events and reactivity to those events, but also examined how negative affect moderates this relationship. Additionally, the present study examined the facets of Neuroticism in order to establish, which if any of these traits may be accountable for Neuroticisms ability to moderate the relationship between events and well-being.

Although research has examined both major and minor events in our lives, one focus of research on daily events has been on unimportant occurrences. Studies examining relatively minor events, whether positive or negative, have shown that these seemingly unimportant daily experiences can affect our thoughts and feelings (e.g., Eckenrode, 1984; Kanner, Coyne, Schaefer, & Lazarus, 1981). For any given individual, the events that occur during our daily routines influence our thoughts, feelings and overall psychological adjustment. Research on day level occurrences has asked individuals to report the events of the day as well as their daily well-being.

Assessing individuals on a daily basis allows research to capture both stimulus and response while the participant is still cognizant of the specific aspects of the day.

Daily event research has uncovered several relationships between events and mood. For example, Bolger, Delongis, Kessler and Schilling (1989) found that interpersonal events and stressors fluctuated with negative mood. Additionally, Nezlek and Gable (2001) found that daily depressogenic thinking, as measured by Beck's (1967) triad, covaried with daily events. Students experienced more depressogenic thoughts on days that negative events occurred and less on days that positive events occurred. Furthermore, individuals that were labeled as depressed were more reactive to positive and negative daily events than those who were not depressed. In other words, individuals who were considered depressed experienced a greater increase in mood when positive events occurred, than those who were not depressed. In sum, daily event research has found a relationship between fluctuations of well-being and events that occur on that day.

Trait moderators of well-being

As previously discussed, daily event research has established a link between psychological states and daily events. However, not everyone reacts to these events in the same fashion. Some individuals show more pronounced drops in self-esteem and mood, and feel more dysphoric in response to these events than others. Interest in these differences has focused on how specific traits moderate the relationship between mood, well-being and daily experiences. In other words, how do individual differences in Depression, Neuroticism or Self-esteem impact the relationship between positive and negative events and daily well-being? Within the research that

has examined these relationships, some have used a fairly recent statistical technique called Multi-level Random Coefficient Modeling (MRCM) or Hierarchical Linear Modeling (HLM). For example, Nezlek and Gable (2001), through the use of MRCM found that depressed individuals experienced greater fluctuations in depression and self-esteem with daily events than non-depressed individuals.

Research regarding the moderating effect of Neuroticism on daily events and mood has been found recently in research on coping with stress. Gunthert, Cohen and Armeli (1999) found a trend in which, Neuroticism moderated the relationship between negative affect and interpersonal events. They found that, in general, when negative interpersonal events occurred, negative affect was experienced. Further, those high in Neuroticism experienced greater negative affect to these interpersonal events than individuals low in Neuroticism. When individuals engaged in a cathartic style of coping, they tended to experience negative affect. Additionally, those high in Neuroticism were more reactive when using this strategy and experienced greater levels of negative affect, compared to individuals low in Neuroticism (Gunthert et al., 1999). Further moderator research has been performed by David and Suls (1999). This research examined the Big Five, coping strategies, and appraisals of negative events through the use of HLM. Neuroticism significantly moderated the relationship between the coping strategy employed and the perceived severity of daily stressors. Individuals high in Neuroticism were less likely to use relaxation and distraction as a coping strategy when a stressor was perceived as severe, in comparison to a stressor perceived as low severity.

Additional support for the moderating effect of Neuroticism has come from research done by Bolger and Zuckerman (1995). This research examined how Neuroticism influenced the relationship between daily conflicts and emotions such as depression and anger. Their findings suggest that individual differences in Neuroticism moderated the reactivity between daily conflicts and emotion. Specifically, those high in Neuroticism felt more angry and depressed on days that conflicts occurred than did individuals low in Neuroticism. One suggestion was that there may be a cyclical process between Neuroticism, negative affect and interpersonal conflicts. The higher level of negative affect experienced by neurotics may induce inappropriate reactions, which can lead to more interpersonal problems (Magnus, Diener, Fujita, & Pavot, 1993).

Suls, Green, and Hillis (1998) examined Neuroticism's role on moderating the relationship between negative mood and daily stressors. In this research, participants recorded everyday stressors in a sample for eight days. Negative mood was measured through Watson's and Clark's (1984) Negative Affectivity scale and reported several times a day. Results found that Neuroticism scores moderated the relationship between stressors and negative mood. Those higher in Neuroticism were more reactive to daily stressors and experienced more negative mood than those low in Neuroticism. Similarly Bolger and Schilling (1991), who also used a diary approach, found that neurotics were more reactive to daily distress.

Marco and Suls (1993) explored how the five-factor model and specifically Neuroticism (N) moderated the relationship between well-being and daily events. For example, Marco and Suls (1993) used an experience sampling method to investigate

how Neuroticism affected daily levels of negative mood when stressors were present. Results of this analysis found that even when no stressor was present, individuals high in Neuroticism reported higher baseline negative mood scores than those low in Neuroticism. Further, individuals higher in N reacted more strongly to stressors than the corresponding low N group.

Link between Neuroticism and Negative Affectivity

Personality research has developed a strong relationship between Neuroticism and mood. The majority of this research has been reported on the link between Neuroticism and negative affectivity, assuming that these two constructs are basically one in the same. For example, Emmons and Diener (1985) showed that negative affect correlated highly with states such as anxiety and emotionality, which are hallmarks of Neuroticism. Further, Watson and Clark (1992) suggested that negative affectivity was a central aspect of Neuroticism. Individuals higher in Neuroticism are assumed to experience higher levels of negative affect. Williams (1990), in line with Watson and Clark (1992), also suggested that the primary role of Neuroticism was in the manifestation of negative affect. Research has also used the terms of Neuroticism and negative affect interchangeably. Work by Van Eck, Nicolson, and Berkhof (1998) consistently used negative affectivity to refer to Neuroticism and operationally defined Neuroticism, or negative affect, as participant's scores on the State-Trait Anxiety Inventory. Some personality literature such as Van Eck et al. (1998) has blended these two terms into one higher order dimension, assuming they capture the same latent construct.

Longitudinal research has also uncovered links between negative affect and Neuroticism. In a two-year study investigating Neuroticism's role in impacting mood variability, Neuroticism was found to predict variability in negative affect. It was further suggested that one of the core features of Neuroticism is experiencing variability's in mood (Murray, Allen, & Tridner, 2002). These results suggest that the manifestation of the Neuroticism trait can be seen in individuals who commonly experience lability in mood.

Additional research on the relationships between the Neuroticism, negative affect parallel has been done by Larsen and Keteleer (1991). This research induced either positive or negative mood by having participants visualize scenarios that were either pleasant or distressing. Participants in the negative affect condition were asked to envision the death of a friend from an incurable disease or from being very ill. Correlations between induced mood and personality showed that Neuroticism, compared to Extraversion, correlated more strongly with the negative affect condition. Further, Extraversion correlated more to the positive affect condition than did Neuroticism. Larsen and Keteleer's suggestion was that under certain conditions, neurotics are more vulnerable to experiencing negative affect.

Gross, Sutton, and Ketelaar (1998) proposed an affect-level view that was empirically used to further support the link between Neuroticism and negative affect. This view suggests that the manifestation of negative affect by means of Neuroticism will be present in individuals at any point in time. In effect, neurotic individuals will consistently display negative affect in a variety of situations. Results of their mood manipulations showed that Neuroticism and trait negative affect were positively

related to the manipulated state negative affect. Further, correlations between N and negative affect in neutral conditions (r = .29) were also found. Conclusions suggested that the personality dimension of Neuroticism was a predictor of negative affect even in non-manipulated trials.

Some research has analyzed the factor structure of both negative and positive affect and the related traits of Neuroticism and Extraversion (Wilson & Gullone, 1999). This research used three age groups in their analyses as well as the PANAS and the EPQ. The age groups were 8-15, 16-29, and 30-68 years of age respectively. Conclusions of the varimax rotated Principal Components Analysis (PCA) resulted in the extraction of four acceptable factors, of which only the first two were discussed in detail. These two factors contained items that captured the positive affect/Extraversion link and the negative affect/Neuroticism link separately. Although the extracted factors seem to represent two higher order domains, negative affect/Neuroticism and positive affect/Extraversion, there were four discernable factors mentioned: Extraversion, Negative affect, Neuroticism and Positive Affect (Wilson & Gullone, 1999). This additional comment by Wilson and Gullone seem contradictory to the viewpoint that negative affect and Neuroticism are measuring the same construct.

In another study, Marco and Suls (1993) used Neuroticism and negative affect interchangeably, assuming that Neuroticism manifested itself as negative mood. However, the entire trait of Neuroticism is composed of more than just negative affect. Reise, Smith, and Furr (2001) suggested that the anxiety facet of N contains items that address worry and fear. This suggests that there is more to N than just

general negative affectivity: Neuroticism also contains a cognitive component of anxiety, namely worry.

In line with Reise and colleagues (2001), some research has shown that Neuroticism and Negative affect are two different domains. For example, Rusting and Larsen (1997) investigated susceptibility to predicting negative mood, and found that time 1 negative mood predicted time 2 negative mood. Also, Neuroticism significantly predicted time 2 mood when both time 1 negative mood and Neuroticism were simultaneously used as predictors. This suggests that negative mood and Neuroticism are not interchangeable. If Neuroticism and negative affect were identical, they would cancel out each other in a regression equation.

Research focusing on the role that personality plays in future events judgment has failed to find a mediational effect between mood and traits (Zelinski & Larsen, 2002). Theoretically, if personality traits can predict mood, and mood can predict judgments, than traits may be able to predict judgments. One of the core aims of this study was to examine the role that personality had on mood congruent judgments. Two models were tested using both direct and indirect influence of personality on judgments. The indirect model proposes that current mood mediates the relationship between personality and judgments, whereas the direct approach assumes that current mood will not affect the relationship between personality and judgment. Instead, the direct model posits that traits will influence judgments over and above that of state mood. In order to test these models, participants were assessed on state affect, Extraversion and Neuroticism. Additionally, participants were measured on the Generalized Reward and Punishment Scale (Ball & Zuckermann, 1990), which assess

expectancy of both positive and negative outcomes. Results of Zelinski and Larsen (2002) ultimately supported the direct approach. Current mood did not mediate the relationship between personality and ratings of the likeliness of an event happening. In other words, individuals high in Neuroticism expected negative events to occur even when current negative mood was taken into account (Zelinski & Larsen, 2002). Based on these findings, it seems that Neuroticism can affect cognitive judgments over and above mood. If negative mood and Neuroticism were the same construct, then these two measures would have canceled each other out in a regression equation.

Some suggestions have been made about the confounding aspects of personality measures (Yik & Russell, 2001). One suggestion is that there may be strong conceptual overlap in the questions being asked in the two areas. An affective measure may ask how "nervous" one feels, whereas a personality measure may ask how "tense or jittery" one is. Essentially, similar constructs are being assessed in the two domains. Further, there may be a bias in the instructions that guide participants when answering these items. Both affective and personality tests tend to ask how one usually or predominately feels or behaves (Yik & Russell, 2001). Responses to these items may become confounded because both are asking about global relationships and not specific instances.

Additionally, most research examining the relationship between personality and affect does so by measuring the correlation between the two constructs (Yik & Russell, 2001). For example, Costa and McCrae (1980) reported correlations between N and negative affect ranging from .29 to .43. Although significant, these only explain about 16% of the variance between these two variables. Research studies that

use correlations are a good starting point for explaining relationships between personality and affect, but even robust correlations of .8 only account for 64% of the variance. In other words, personality and affect may overlap to some degree, but are not to be used interchangeably. To examine the structure of personality and affect, the entire affective circumplex including both activation and deactivation of positive and negative affect as well as pleasant and unpleasant emotions, was investigated in Yik and Russell's analysis. When examining the spatial relationships between personality and affect, Neuroticism was found best represented on the horizontal axis pertaining to unpleasantness. Specifically Neuroticism rested exactly halfway between unactivated unpleasant and activated pleasant, and not in the previously predicted activated unpleasant affective space (Yik & Russell, 2001). Overall, these findings suggest that a deeper level of analysis is needed when examining personality and affect. It may prove beneficial to examine the specific aspects or facets of Neuroticism in order to learn which specific trait is primarily responsible for the personality-affect relationship.

Inconsistent findings regarding Neuroticism

Research by Bolger and Schilling (1991), Bolger and Zuckermann (1995), and Suls and colleagues (1998) all show consistent results in which Neuroticism moderates the relationship between events and well-being. However, there have been some studies using Neuroticism, which have been unable to find these consistent results. Neuroticism is not a clear cut trait and is defined by the compilation of multiple constructs (e.g., anxiety, depression, anger, impulsiveness, self-consciousness, and immoderation). The fact that this trait contains multiple arrays of

characteristics, and that each trait does not necessarily correlate with one another, may prove difficult in finding consistency between studies.

For example, research by Taylor and Macdonald (1999) examined the relationship between personality and religion. Although Francis (1997) did not uncover a relationship between Neuroticism and religious behavior, Taylor and MacDonald (1999) pursued similar research, and found that the 'No Religion' group had significantly higher Neuroticism scores than the other affiliations studied. Additionally, research focusing on reaction times has also found mixed results. Derryberry and Reed (1994) and Reed and Derryberry (1995) found that individuals high in Neuroticism were faster to react to negatively cued words than individuals low in Neuroticism, whereas Rusting and Larsen (1998) were unable to confirm these results. Moreover, discrepancies have been seen regarding the recall of autobiographical memories. Mayo (1983) found that Neuroticism was primarily responsible for the retrieval of negative memories in individuals. However, this finding could not be replicated in later work (Mayo, 1989). This lack of consistency among previous studies using Neuroticism suggests that certain aspects of the construct may be responsible for these relationships, and that the trait of Neuroticism may be too large to capture the specific variance needed to uncover these relationships over time.

One drawback of the Five-Factor Model and Neuroticism in particular, is its broadness in describing individuals. The trait of Neuroticism encompasses several areas of personality such as anger, depression, and anxiety. Research by Larstone, Jang, Lively, Vernon and Wolf (2002) examined the factor structure of two

personality models in order to uncover commonalities among personality traits. Participants completed the NEO-PI-R (Costa & McCrae, 1992), which is commonly used to assess the Five Factor Model, and the EPQ-R (Eysenck & Eysenck, 1994), which measures Eysenck's three-factor model of personality, both of which include the trait of Neuroticism. Through Principal components analysis (PCA), both Neuroticism scales as measured by the NEO and the EPQ loaded onto a single factor. However, when regressions were performed on affect variability, both Neuroticism measures significantly added to the explained variance. It was suggested that different aspects of the broader trait are being assessed by the NEO-PI-R and the EPQ-R (Larstone et al., 2002). If the two scales equally measured Neuroticism, one would expect an insignificant increase in explained variance. The previous studies suggest that findings involving the big five domains are not as straightforward as the personality field would assume. Discrepancies may be a result of the way in which researchers define traits. For example, Block (2001) suggests that there is a lack of consensus among personality researchers in the operational definition of the big five. Block states that some interpret impulsivity to be an aspect of Neuroticism, while others presume it is a part of Extraversion. Overall, research using Neuroticism may not be as straightforward in their results as a more detailed and specific analysis.

Predictive ability of facets on behavior and personality measures

Although the use of broad traits such as the big five has accumulated a large extent of information about trait-mood relationships, the use of such broad terms may lead to inconsistent results. One reason for this is that the measurement of the relationship between two variables needs to match in specificity. For example, if one

wants to measure broad behaviors, then one should use a broad trait to capture these aspects. The Five-Factor model represents a very abstract level of defining personality. Reactions to daily events, however, are by their very nature more specific. These inconsistencies may arise as a result of the use of the big five dimensions, which may encompass a domain that is too large to adequately measure reactions to daily events. These traits represent the conglomeration of several other lower order characteristics or facets.

Research examining the facets of the big five has shown that these more specific domains explain significantly more than do their corresponding overarching dimension (Paunonen & Ashton, 2001). Participants were assessed on both factor and facet measures of personality as well as being given several self and other report measures of behaviors and beliefs. These measures included responses to religious beliefs, intelligence ability, dietary behavior, alcohol consumption, and willingness to share money. In the analyses, the five factor scores were used as predictors to the criterion variables. Then, in a separate analysis, five facets were selected to be used as predictors of the same criterion variables. Results found that when predicting an individual's behavior, the facet measures accounted for more explained variance in several of the criterion measures, than did the five factor scores. For example, when predicting willingness to share money, the big five could only account for 14.1% of the variance. However, when the facets were analyzed as predictors, they explained 19.9% of the variance. An argument that is made by Paunonen and Ashton is that through examination of the facets, we can further our understanding of behavior. By using a more detailed assessment, we can explore which specific areas of the big five

predict behavior. For example, Conscientiousness is related to work performance. However, contained within Conscientiousness are the facets of Orderliness and Ambition. One possibility is that Orderliness, and not Ambition, is responsible for increased work productivity (Paunonen & Ashton, 2001).

There is a wealth of research supporting the assumption that using the facets instead of the factors will produce a clearer explanation of the findings. For example, Costa and McCrae (1995) suggested that by examining the facets of the factor, one is able to parse out individual variability within the factor. Instead of scoring an individual high on Extraversion, facet analyses allow for an in depth, within factor classification. For example, the individual may be high on Gregariousness and Activity level, but low on Positive Emotions.

Research on predicting personality disorders from the big five and facets supports using a finer grain analysis with the facet scales. Trull, Widiger, and Burr (2001) used a structured interview technique to measure the Five Factor Model and facet scales to predict Axis II personality disorders. Results of their findings show how important the use of the facet scales can be as a tool for explaining personality disorders. For example, symptom counts of both Avoidant and Dependent personality disorder correlated with the factor of Neuroticism, but a facet analysis depicted which areas of Neuroticism actually accounted for the relationship. Results found that Depression and Vulnerability were responsible for predicting the Dependent personality, whereas the facet of Self-Consciousness was the main variable in explaining the relationship between Neuroticism and Avoidant personality disorder

(Trull et al., 2001). If research examines only the factor scores in relation to certain disorders, incorrect global inferences may be established.

The previous example underscores the importance of finer grained analyses in determining which specific constructs account for relationships between symptoms of personality disorders and traits. Further support for the importance of using a facet level analysis comes from Axelrod, Widiger, Trull, and Corbitt (1997) who suggested that a facet level analysis needed to discriminate different personality disorders. This process would allow for a more accurate description of the differences across the personality disorders, and consequently, lead to better understanding.

Watson's (2001) work on the relationship between procrastination and the facets of the Five-Factor Model further examine the underlying driving force between procrastination and the broad factors. In predicting overall procrastination scores, both Conscientiousness and Neuroticism accounted for a combined total of 34.7% of the explained variance. However, in order to explain which of the specific traits were driving the factors, a facet analysis was necessary. From this analysis, the facets of Self-Discipline, Self-Consciousness, Competence, Impulsiveness, and Fantasy explained 37.7% of procrastination. This lower level analysis provided a more specific explanation of the individual differences that explain procrastination.

Research comparing the facet scales to that of the factors for measuring differences in personality disorders has demonstrated the importance of examining traits at a more specific level. Reynolds and Clark (2001) used both the factors and facets in predicting personality disorders from psychiatric facilities. Additionally, they used the Schedule for Nonadaptive and Adaptive Personality (SNAP), which

assesses traits related to personality disorders. Although, both the factor and facet scales significantly predicted personality disorders, the facet scales explained a larger amount of the variance. In fact, the only two disorders not to be outperformed by the facet scales were Histrionic and Negativistic. In terms of the percentage of explained variance accounted for by the facets over that of the factors, results showed that the advantage of explaining the disorders from the facets ranged from 3% (Depressive) to 16% (Paranoid). Further, utilizing the facet scales as predictors of personality disorders demonstrated results comparable to that of the SNAP scale, which was created to specifically address personality disorders. Overall, these findings showed that a better understanding of personality disorders would be achieved by means of using facet scales over that of the Five-Factor Model (Reynolds & Clark, 2001).

In addition to focusing on personality disorders, facet analyses have also been used to determine high-risk behavior of unsafe sex. Trobst, Herbst, Masters, and Costa (2002) examined the personality dimensions of an individual's level of risk for not using condoms. Analyses showed that the high and medium risk groups were comprised of individuals high on the traits of Anger, Anxiety, Depression, Vulnerability, and Self-Consciousness, with the facet of Impulsiveness ultimately separating the high-risk group from the medium risk group. Low risk individuals scored high on Trust, Deliberation and Dutifulness, which seemed to separate the low risk individuals from both the high and medium risk participants. The results from this level of analysis identified specific areas of importance that could be utilized in creating intervention programs for HIV risk.

One additional area of importance occurs when the relationship between a factor and behavior can be traced to one facet of that factor. In predicting Alexithymia, which is the difficulty to express or identify emotions, (Luminet, Bagby, Wagner, Taylor, & Parker, 1999) the factors of Neuroticism and Extraversion figured significantly. When the facets of these factors were used for prediction, however, Depression was the only Neuroticism facet to predict Alexithymia scores. For the Extraversion facets, a negative relationship was found between both Assertiveness and Alexithymia scores and Positive Emotions and Alexithymia scores. More interestingly, the factors of Agreeableness and Conscientiousness did not predict Alexithymia, but the facets of these factors did. Within Agreeableness, a negative relationship was found between Alexithymia, Altruism and Tender-Mindedness, whereas a strong positive relationship was established between Modesty and the predicted variable. When the facets of Conscientiousness were regressed on Alexithymia, Self-Discipline predicted Alexithymia scores and a strong negative relationship was found for Competence ($\beta = -.49$). In sum, conclusions from this study show the overall advantage of using the facets over that of the factors.

Finally, work by Velting and Liebert (1997) incorporated the facets of Neuroticism into mood analyses. Individuals took the NEO-PI and mood was assessed daily over a span of twenty days. Although Neuroticism was inversely related to mood, further analysis provided more specific information about which aspect of Neuroticism accounted for this negative relationship. Anxiety, Depression, and Self-Consciousness were all negatively related to average mood, whereas Hostility, Impulsiveness, and Vulnerability had insignificant correlations. When the

correlations of the facets were compared to that of the factor, Depression's correlation with mood (-.32) was larger than that of Neuroticism and mood (-.28). Unfortunately Depression and Neuroticism did not differ significantly from one another. However, these results show that specific facet level relationships can provide more information than that of the broad factor (Velting & Liebert, 1997).

The previous facet level results suggest that a more specific level of analysis will provide significant explanatory power in research. In sum, the use of the facets in predicting behaviors increases our knowledge of the individual differences that people possess. Use of the five-factor model alone may result in an inability to uncover important relationships among variables because of the broad area these factors represent. If relationships are indeed found, one does not know if the driving force behind that relationship is one facet or several. In essence, creating a match between the level of specificity among the predictor and criterion variables increases the chance of discovering important and influential relationships.

The Present Study

The present study attempted to further our knowledge of the relationships

between Neuroticism and reactivity to daily events by assessing more specific

individual difference variables as moderators of the relationship between daily well-

being and events. Most research has investigated the relationship between a broad

factor of Neuroticism and daily events. Additionally, some research has combined the

traits of negative affect and Neuroticism, assuming these two are measuring the same

construct (Marco & Suls, 1993). Examining the construct of Neuroticism by looking

at the facets may help to separate the misconception that Neuroticism and negative

affect are interchangeable. A facet level analysis will clarify which aspect (or aspects)

of Neuroticism moderates the relationship between daily events and reactivity to

these events. Moreover, this study increased the spectrum of dependent measures by

examining the influence daily events had on Self-Esteem (RSE), Depressogenic

thinking (TRI), and the complete affective circumplex, which encompass both

positive and negative activation and deactivation. Given the findings of Paunonen and

Ashton, (2001) I hypothesize that the facets of the Neuroticism will help to clarify the

moderating ability of Neuroticism on the relationships between events and well-

being. Within the facets of Neuroticism, I hypothesize that the anxiety facet will

emerge as the trait accountable for Neuroticisms ability to moderate relationships

between negative events and well-being. Most Neuroticism scales have been created

address the Affective components of this factor (Zillig et al., 2002), which may

account for the strong relationship between Neuroticism and Negative Affect.

However, Neuroticism also contains a cognitive component of anxiety, namely worry

(Reise et al., 2001) and this trait is predicted to emerge as a significant moderator.

Method

Participants

In return for their participation, partial course credit was provided to the 98

William and Mary undergraduates (27 Males, 71 Females) who participated in the

study.

Measures

At the trait level, the facets of the big five were measured using the

International Personality Item Pool (IPIP) (IPIP, 2001), which is similar to that of the

facet scale of the NEO-PI-R. Comparisons between the IPIP facets and the NEO

facets can be seen in table 1. The IPIP scale measures 30 facets of the five-factor

model using a 1 (Very inaccurate) to 4 (Very accurate) self-report scale. Of the 30

facets that are measured within the IPIP scale, only the Neuroticism facets were

examined. The facets of Neuroticism were: Anxiety, Anger, Depression, Self-

Consciousness, Immoderation, and Vulnerability. Several other studies have also used

this item pool (e.g. Jensen-Campbell, Rosselli, Workman, Santisi, Rios, & Bojan,

2002; Lucas, Diener, Grob, Suh, & Shao, 2000; Judge, Erez, Bono, & Thoresen,

2002; Ployhart, Lim, & Chan, 2001). A Neuroticism factor score was created by

averaging each of the Neuroticism facets, which was referred to as IPIP-N.

Additionally, a second measure of the big five was used to address the potential consistency Neuroticism had as a moderating variable. Each participant completed the BFI-44 (John, Donahue, & Kentle, 1991). This was used as a second Neuroticism measure, referred to as BFI-N.

State and trait Self-esteem were measured using Rosenberg's Self-Esteem scale (Rosenberg, 1965). Daily Self-esteem was measured using 4 items from this scale that assessed the extent to which one was feeling a particular way on the day in question. An example of the questions asked from the Rosenberg scale was "All in all, I am inclined to feel like a failure." Range for this daily measure is from 1 (Strongly Disagree) to 7 (Strongly Agree). Daily scores were calculated by taking the mean of each of the four self-esteem questions for a given day. Daily depressogenic thinking was assessed using a three question measure of Beck's (1967) triad of depressive sympotmology (TRI). These daily questions asked individuals to rate on a 1 (very negatively) to 7 (very positively) scale their overall view of them self, the world around them, and the future. Daily depressogenic thinking was calculated by taking the mean score from the three-triad questions each day.

The affective circumplex was assessed daily through a checklist of moods, which students answered each night. Additionally, on the first day of the study, students were assessed on trait moods by answering the checklist with the instructions "How do you usually feel?" Trait and state Negative Activation (NA) was assessed on a 1 to 7 scale with higher scores being indicative of higher Negative Activation. Examples of the day level measures included "Today I felt …upset, nervous, and tense." Positive Activation (PA) was assessed on a similar 1 to 7 scale. Examples of

day level PA included "Today I felt...enthusiastic, alert, and happy." Examples of

Positive Deactivation (PD) were "calm, content, satisfied." Examples of Negative

Deactivation (ND) were "sluggish, bored, and sad." Positive Activation (PA)

consisted of the mean score of the mood items Enthusiastic, Happy, Alert, Proud, and

Excited. Negative activation (NA) consisted of the average of the items Nervous,

Embarrassed, Upset, Stressed, and Tense. Positive Deactivation (PD) was the mean

score of Calm, Peaceful, Satisfied, Relaxed, and Content. Finally, Negative

Deactivation (ND) consisted of the mean score of the items Sluggish, Sad, Bored,

Depressed, and Disappointed.

Daily events were assessed using 22 of the 40 items from the Daily Events

Survey (DES) (Butler Hokanson, & Flynn, 1994). The DES breaks down daily events

into Positive and Negative events that commonly occur in a college population (i.e.,

"tried to do homework and couldn't understand it" (Achievement negative)) and

"went out to eat with a friend/date" (Social positive)). Also included in the

assessment of daily events are four items that are designed to measure other events

that are not captured from the DES. For each event, students used the following scale:

0= did not occur, 1 = occurred and not important, 2 = occurred and somewhat

important, 3 = occurred and pretty important, 4 = occurred and extremely important.

Ratings of the positive and negative events were averaged for each day in order to

generate an overall daily score. As dependent measures, Depression, Self-esteem, and

the affective circumplex including both Positive and Negative activation, and

deactivation, were evaluated.

Procedure

During the initial meeting with the participants, the researcher explained the

nature of the project as well as the requirements of the study. Students were asked to

complete a series of questionnaires each night for two weeks, before they went to bed.

By providing answers to the questionnaires before retiring, the study measured the

psychological states of the day. Each night, daily Self-esteem, the affective

circumplex, and depressogenic thinking were assessed. In addition, positive and

negative events experienced for each individual were assessed on a daily basis.

Participants completed a one time trait level measure of Neuroticism, Self-Esteem,

Depressogenic thinking, positive and negative activation and deactivation emotions.

In addition, the facet scales of the big five were measured on the first day of the two-

week period.

Results

The first set of analyses performed, were to assess the internal consistencies of

each trait measure. Alpha reliabilities were calculated on each of the independent trait

moderators and can be seen in table 2. Facet alphas ranged from .62 to .83.

Correlations between the independent measures were then computed and can be seen

in table 3. As can be seen by the high intercorrelations between the facets and factors

a good amount of variance is shared among all variables. Of particular interest were

the correlations between the Anxiety facet, NA trait, and BFI-N factor. The Anxiety

facet shared about 40% of the variance with the NA trait of negative mood. This Left

60% of the variance unaccounted for, which suggests that the Anxiety facet taps into

more than just negative mood. Further, the BFI-N factor only shares 33% of its variance with the NA factor.

The data for this study were analyzed using Hierarchical Linear Modeling (HLM) (Raudenbush, Bryk & Congdon; Version 5). Analyses using HLM provide more accurate parameter estimates than Ordinary Least Squares (OLS) (Nezlek, 2001). Traditional OLS statistics can only take into account the within or between person variance at any one time. However, multilevel modeling techniques are able to simultaneously analyze both the between and within person variance, while taking into account the intraclass correlation between participants. The study used a two-level model in which day level data was nested within each person. HLM analyses provided a coefficient estimate for each person that represents the day level relationship between variables. This type of analysis allows us to answer questions such as "On a given day, does depression covary with negative events?" Through examination of the level 2 data, our analyses allowed us to answer questions such as "To what extent do individual differences in traits moderate the relationship between events and day level psychological well being?"

Reliability and Validity of Daily Measures

The initial set of HLM analyses laid the groundwork for the reliability and validity of the day level measures. These were run without any other predictors in the equation and are referred to as 'totally unconditional'. The basic day level equation was:

$$y_{ij} = \beta_{0j} + r_{ij}$$

In this equation, y_{ij} represented a daily measure such as self-esteem for person j on day i, β_{0j} represented the intercept or the average of y for person j for all the days of data recorded, r_{ij} is the error that is associated with any given measure and the variance of r_{ij} represented residual error.

HLM passes level one coefficients up to level two and analyses are performed at that level. The basic level two equation was:

$$\beta_{oj} = \gamma_{00} + u_{0j}$$

In this level two model, γ_{00} represented the grand mean of each person's β_{oj}s from the day level model. u_{0j} is the β_{oj} error and the variance of u_{0j} represented the residual error of level two.

The reliability of the coefficients was automatically calculated by HLM and are reported in Table 4. HLM calculates reliability by finding the ratio of accountable or true variance over the total variance. For a more in depth discussion on how HLM calculates reliability coefficients, see Bryk and Raudenbush (1992, pp. 39-40, 63). To examine the validity of these constructs, day level measures were modeled as a function of their corresponding standardized trait measure. For example, to examine the validity of Self-esteem, an equation was modeled in which mean daily Self-esteem was the dependent variable and trait Self-esteem was entered at level two:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{trait SE}) + u_{0j}$$

To calculate validity, first subtract the corresponding trait modeled between person variance from the unconditional between person variance, then divide by the unconditional between person variance and take the square root of that answer. For example, the unconditional between person variance for daily self-esteem was .79.

When trait level self-esteem was modeled at level two, the between person variance

was reduced to .45, a reduction of 43%. Taking the square root of .43 produced a

validity coefficient of .66, which is the correlation between trait and state Self-

Esteem. Table 4 represents the reliability and validity coefficients for each of the day

level measures as well as the descriptive statistics.

Relationships between daily events and psychological well being

To examine relationships between daily events and psychological well being,

a series of day level analyses were performed that modeled daily well-being as a

function of positive and negative events. In each analysis, daily well-being (e.g., self-

esteem, positive activation and deactivation, negative activation and deactivation, and

depressogenic thinking), served as the dependent measure, and the means of the

positive and negative events served as the predictor variables. It should be noted that

positive and negative means were entered into the level one equation as group mean

centered to control for individual differences in event scores. For these analyses, the

basic day level equation was as follows:

$$y_{ij} = \beta_{0j} + \beta_{1j}(\text{Positive event}) + \beta_{2j}(\text{Negative event}) + r_{ij}$$

For this equation, y_{ij} represented the daily mean of a well being measure (e.g., RSE)

for person j on day i. β_{0j} represented the intercept or mean RSE score for person j, β_{1j}

represented the slope or the relationship between daily self esteem and positive events

for person j, β_{2j} is the slope between daily self-esteem and negative events, and r

pertains to the error associated with this equation.

To examine if positive or negative events covaried with daily self-esteem, the level one coefficient's were passed onto level two and the following equations were analyzed:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$
$$\beta_{1j} = \gamma_{10} + u_{1j}$$
$$\beta_{2j} = \gamma_{20} + u_{2j}$$

To determine if there is a statistical relationship between daily positive and negative events and daily self-esteem, the significance of the γ_{10} and the γ_{20} coefficients are tested to determine if the mean slopes are significantly different from zero. This process is labeled 'slopes as outcomes' because the coefficients from level one become dependent variables at level two and then tested against a value of zero (Nezlek, 2001).

Table 5 displays the results of these analyses. As expected, negative events positively covaried with daily levels of depressogenic thinking ($t = 10.1$, $p < .001$). Individuals tended to be more dysphoric on days that negative events occurred. Additionally, positive events statistically reduced daily levels of depressogenic thinking ($t = 11.90$, $p < .001$). Consistent with prior research on daily events and self-esteem, positive events covaried positively with daily self-esteem ($t = 8.3$, $p < .001$) and negatively with negative events ($t = 10.19$, $p < .001$). As expected, negative activation covaried positively with negative events ($t = 10.83$, $p < .001$) and covaried negatively with positive events ($t = 3.83$, $p < .001$). In other words, on days when more negative events occurred, individual levels of negative activation (i.e. anxious mood) were elevated compared to days where less negative events occurred. On days

that more positive events occurred, levels of negative activation were lower compared to days where less positive events occurred.

Traits as moderators of psychological well being and daily events

A core element of this study was to examine the impact that trait level variables have on state level constructs. For example, do individual differences in Neuroticism influence the relationship between daily events and well- being? This analysis is termed moderation. Meaning, do individuals high or low on a given factor react differently to daily events? For this analysis, level one modeling was performed in precisely the same manner as in the previous section. Additionally, the factor scores of Neuroticism were modeled independently at level two for each level one variable. For each measure of daily well-being examined, the equation was as follows:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{Moderator}) + u_{oj}$$
$$\beta_{1j} = \gamma_{10} + \gamma_{11}(\text{Moderator}) + u_{1j}$$
$$\beta_{2j} = \gamma_{20} + \gamma_{21}(\text{Moderator}) + u_{2j}$$

In this model, β_{1j} represents the within person (level one) relationship between positive events and a daily measure of well-being. β_{2j} represents the within person relationship or slope of negative events and daily well-being. The moderator in each of these equations represents the trait or level two measure of Neuroticism and NA. Significance tests for these analyses test the coefficients of the γ_{11} and γ_{21} respectively to see if these values are significantly different from zero.

The first analyses examined whether individual differences in Neuroticism moderated the relationship between daily self-esteem and both positive and negative events experienced for that day. BFI and IPIP Neuroticism scales, and trait Negative

Activation were modeled separately in this analysis. Table 6 displays the moderating

effects of the different traits on the relationship between daily events and self-esteem.

For negative events, no trait significantly moderated the relationship between events

and self esteem. The only factor to approach conventional levels of significance was

the IPIP Neuroticism scale ($t = 1.82$, $p = .07$, $\gamma_{21} = -.14$). This trend suggests that when

negative events occurred, those higher in trait Neuroticism were more reactive to

these negative events than individuals with lower Neuroticism scores. Specifically,

individuals high in Neuroticism reported lower levels of daily self esteem when

negative events occurred than that of individuals lower in Neuroticism.

The second set of analyses examined the moderating role Neuroticism had on

daily events and daily scores of Beck's cognitive triad, the measure of depressogenic

thinking. These results can be seen in Table 6. As in the previous analysis both IPIP

Neuroticism scores, BFI Neuroticism, and trait Negative Activation scores were

modeled separately on the relationship between daily events and depressogenic

thinking. For this analysis, only the BFI Neuroticism scale moderated the relationship

between negative events and daily levels of cognitive triad ($t = 2.07$, $p < .05$, $\gamma_{21} =$

$-.24$). Individuals that scored higher on the BFI Neuroticism scale were more reactive

to negative events than those lower in Neuroticism. When negative events occurred,

individuals higher in Neuroticism reported greater level of depressogenic thinking

than those low in Neuroticism.

The next set of analysis examined whether Neuroticism moderated the

relationship between daily events and state Negative Activation or NA. Again, both

the IPIP Neuroticism scale, BFI Neuroticism scale and trait Negative Activation were

modeled separately on daily events and daily Negative Activation. Results of these analyses can be seen in table 6. In these analyses only the BFI Neuroticism scale approached levels of significance for negative events ($t = 1.73$, $p = .08$, $\gamma_{21} = .21$), suggesting that individuals higher in BFI Neuroticism were more reactive to negative events in that they experienced greater levels of daily NA when negative events occurred compared to individuals lower in BFI Neuroticism.

The relationship between Neuroticism, daily events and Negative Deactivation were next analyzed. Each trait variable; BFI Neuroticism, IPIP Neuroticism and trait Negative Activation were modeled separately as in previous analyses. No significant relationships were found in this analysis for negative events. However, Negative Activation did moderate the relationship between positive daily events and daily Negative Deactivation scores ($t = 2.46$, $p < .05$, $\gamma_{11} = -.09$). It should also be noted that the error variance for positive events was fixed. Results of these analyses can be seen in table 6.

A final set of analyses was performed using the Factor scores of Neuroticism and NA on the relationship between daily events, Positive Activation and Deactivation. For the dependent variable Positive Activation (PA) neither Neuroticism nor trait NA moderated the relationship between daily events and mood. Additionally, when Positive Deactivation was used as a dependent variable, no trait moderators were found. These results can be seen in table 6.

Facet level moderators of daily well being

A primary aim of this study was to understand the specific characteristic(s) or trait(s) that are responsible for Neuroticisms ability to moderate relationships between

daily events and well-being. However, because the factor is the aggregate of the individual facets, significant relationships may not be seen. In order to separate the specific aspects of Neuroticism that may be responsible for moderating reactivity to daily events, the facets of Neuroticism were individually modeled. Again, the coefficients of γ_{11} and γ_{21} were tested for significance against a value of zero.

The first analysis examined each of the Neuroticism facets individually on daily levels of self-esteem. As can be seen from table 7, the Anxiety facet was the only trait to moderate the relationship between negative events and daily self-esteem ($t = 2.57$, $p < .05$, $\gamma_{21} = -.19$). These results can be interpreted as follows; individuals scoring one standard deviation above average on anxiety would have a predicted mean slope for negative events of -1.01 (-.82 + [1 * -.19]). However, individual's one standard deviation below average on anxiety would have a predicted negative event slope of -.63 (-.82 + [-1 * -.19]) on daily levels of self-esteem. Predicted values are calculated by taking the overall average negative event slope for self-esteem of -.82 and adding the moderating affect of anxiety on negative events and self-esteem for a person 1 SD above and 1 SD below on trait anxiety.

When positive daily events were examined in regards to facet moderators, several significant results were uncovered. Consistent with previous literature (Nezlek & Gable, 2001), individuals higher in Depression were more reactive to positive events on levels of self-esteem than those lower in Depression ($t = 5.08$, $p < .001$, $\gamma_{11} = .20$). When positive events happen to Depressed individuals, levels of self-esteem are increased significantly more than those lower in depression. Additionally, Immoderation significantly moderated the positive event slope on daily self-esteem

($\underline{t}$ = 3.03, $\underline{p}$ < .01, γ_{11} = .15). Again, those higher in Immoderation were more reactive to positive events than those low in Immoderation.

Next, facet scales were analyzed in regards to predicted levels of daily depressogenic thinking and positive and negative events. Regarding the negative event slope, anxiety was the only facet to significantly moderate this relationship ($\underline{t}$ =2.11, $\underline{p}$ < .05, γ_{21} = -.21). The predicted negative event slope for an individual one standard deviation above average on anxiety would be -1.18 (-.97 + [1 * -.21]). An individual 1 standard deviation below average on anxiety would have a predicted negative daily event slope on daily depressogenic thinking of -.76 (-.97 + [-1 * -.21]). Consistent with the literature on the moderating effect of depression on daily events, levels of depression significantly influenced triad scores when positive events occurred ($\underline{t}$ = 2.30, $\underline{p}$ < .05, γ_{11} = .11). Those considered to be more depressed were more reactive to positive events on levels of daily depressogenic thinking than those low on depression scores.

The next set of facet analyses was performed on predicted levels of Negative Activation and Negative Deactivation and daily events. For Negative Activation, only the facet of Anger approached conventional levels of significance in moderating the negative event slope ($\underline{t}$ = 1.66, $\underline{p}$ = .10, γ_{21} = .19), meaning that those who scored higher on the Anger facet were more reactive to negative events in that they experienced greater levels of NA than individuals low on Anger. For Negative Deactivation, only the facet of Self-Consciousness approached conventional levels of significance in moderating the relationship between events and mood. This relationship was found for positive events (t = 1.74, p = .08, γ_{11} = -.07). When

positive events occur, individuals high on Self-Consciousness experience less ND than those low on Self-Consciousness.

A final set of analyses was performed for the moderating effect of the facets on daily events and the dependent variables of Positive Activation and Deactivation. As can be seen in Table 7, no significant relationships were found.

Discussion

The purpose of this study was to examine the aspect(s) of Neuroticism that moderates relationships between daily events and psychological well-being. Specifically, our research examined positive and negative daily events and the variables of self-esteem, depressogenic thinking, and positive and negative mood as definitions of well-being. Three sections of discussion will be presented: 1) day-level relationships between events and well being, 2) Trait level moderation of these events through Neuroticism, and 3) facet analysis of the Neuroticism factor on our criterion dependent variables.

Day level relationships

Among the analyses of day-level relationships, several previously established results were confirmed. Research indicated that daily levels of depressogenic thinking covaried with positive and negative events. More specifically, day-level depressogenic thinking scores were greater on days that negative events scores were higher. Further, depressogenic thinking scores were lower when positive event scores were higher. These findings are consistent with the work of Nezlek and Gable (2001), who also found that depressogenic thinking covaried with positive and negative events. Additionally, our findings uncovered a relationship between daily self-esteem and positive and negative events. Self-esteem scores fluctuated as a result of experiencing positive and negative events for that day. Butler et al., (1994) also found covariation between events and self-esteem in their research on daily events and well-

being. Beck, Rush, Shaw, and Emery (1979) suggested that some individuals hold

dysfunctional attitudes such as "My self-worth depends greatly on what others think

of me," or "If I do not do well all of the time, people will not respect me." In regards

to depressogenic thinking, these attitudes may be triggered when negative events

occur, and well-being may be sacrificed (Beck, 1976). A similar parallel can be

drawn for daily fluctuations in self-esteem. One aspect of self-esteem, self-worth,

may be compromised when negative events occur. Positive events, however, may act

to boost an individual's internal feelings of self-worth because of the pleasing aspects

of the event, resulting in an increase in self-esteem and a decrease in depressogenic

thoughts.

Several studies have examined the within person relationship between mood

and daily events (e.g., Bolger et al., 1989). The results of our study coincide with

Bolger and colleagues (1989) work in that negative events covaried with negative

mood. When more negative events occurred, negative activation was increased as a

result of the additional stress that was placed upon the individual. Further, this study

found that daily levels of negative deactivation covaried with positive and negative

events, an area that has not been well represented in the literature. Not only do

negative events increase an individual's Negative Activation, resulting in increased

levels of stress or tension, negative events impact negative moods, which manifest

themselves in boredom, sadness, and sluggishness. This covariation between positive

events was also found in relation to both Negative Activation and Deactivation.

Positive events may have a beneficial effect on the individual by reducing the

individual's baseline stressful daily demands, possibly acting as a distracter to one's

daily anxieties. As a temporary distracter, positive events would then be a source of increased positive affect.

In sum, results of the covariation between positive and negative events and well-being were well supported by previous studies. Levels of self-esteem, depressogenic thinking and mood all were influenced by positive and negative events for that day. However, this research differs from past studies in that affect was divided into the activation and deactivation for both positive and negative moods. Prior research has focused primarily on negative mood and specifically negative affect. Little work has been done on the relationship between events and deactivation of positive and negative moods. The present study has shown that there is a relationship between mood and events for the entire affective circumplex.

Factor level Moderators of daily events and Well-being

Having already established the day level relationships between events and well-being, a second goal of this research was to examine trait level personality moderators of the criterion dependent variables. These analyses included two measures of Neuroticism and a trait level Negative Activation score. In addition, this analysis examined self-esteem, deppressogenic thinking and the complete affective circumplex of mood. Surprisingly, there was little consistency found in the ability for either of the two Neuroticism measures to moderate the relationship between events and daily well-being. When daily levels of self-esteem were modeled as a function of Neuroticism, only the IPIP Neuroticism factor approached conventional levels of significance. This trend suggests that those high in Neuroticism reacted more strongly to negative events, resulting in lower self-esteem scores for that day. Negative

Activation did not moderate any of the daily dependent measures, which is contrary to some prior research. This insignificant finding suggests that Neuroticism and Negative affect are tapping into two different constructs. Although zero order correlations between the IPIP N scale and Negative Activation (r = .73) and the BFI N scale and Negative Activation (r = .57) suggest that these two variables are related, there is still a large amount of unexplained variance between each measure. If Negative affect and Neuroticism were measuring the same construct, then one could expect to find similar moderation effects on daily levels of self-esteem.

When dysphoric reactions to daily events were modeled as a function of factor scores, only the BFI-N resulted in significant moderation. Individuals higher in N were more reactive to negative events than individuals lower in N. This moderation was displayed in daily levels of depressogenic thoughts measured by Beck's (1967) model of pessimistic thinking. However, Negative Activation did not moderate this relationship, suggesting that the negative mood aspect of Neuroticism does not account for these results. Instead, it may be the cognitive function of Neuroticism that is responsible for the increase in depressive thoughts individuals high in Neuroticism experience after negative events occur.

Finally, a trend was found such that Neuroticism moderated the relationship between daily levels of Negative Activation and the occurrence of negative events. The analysis showed that the BFI-N factor moderated the reactivity to negative events to the effect that greater Negative Activation was experienced for those individuals higher in Neuroticism. However, inconsistencies were found between our measures of Neuroticism, in that the IPIP Neuroticism scale did not have the same moderating

effect on negative events and Negative Activation. Overall, however, the relationship between Neuroticism and Negative Activation was consistent with previous studies. Marco and Suls (1993) used an experience sampling method to assess how Neuroticism moderated daily mood. This research used Eysenck's and Eysenck's (1984) measure of negative affectivity from the Neuroticism scale on the EPQ. Results of their analysis showed that individuals higher on Negative affect reacted stronger to a daily stressor, resulting in higher daily levels of negative mood. Although our results do support Marco and Suls' (1993) findings, it is yet to be established which aspect of Neuroticism is responsible for this moderation. Marco and Suls' (1993) results seem to suggest that the affective domain of N accounts for these results, but the present research does not support this assertion, as our trait measure of Negative Activation showed insignificant moderation.

Suls, Green, and Hillis (1998) examined the role that N had on daily negative mood and found results similar to those produced by our study. Using the Neuroticism scale from the NEO-PI-R, Suls and colleagues found that Neuroticism moderated reactivity to daily stressors and negative mood, through increased levels of Negative Affect. Further, Bolger and Zuckerman (1995) also found that N moderated the impact that daily conflicts had on anger and depression. Those higher on Neuroticism became more angry and depressed on days that conflicts occurred, as compared to those low in Neuroticism. Since a consistent relationship between Neuroticism scales was not found, one might deduce that a specific facet accounted for this moderating effect.

The general abstractness of the Neuroticism factor may be one reason for the lack of converging results among the Neuroticism scales. Measures of Neuroticism must capture all aspects of this trait, ranging from the facets of Anxiety to Self-Consciousness, and a broad measure may only be able to capture a broad dependent measure, such as general negative mood. Consequently, the specific variance associated with each facet that would moderate a relationship between well-being and events may not be found. Additionally, each Neuroticism scale may not address facets equally, which may account for the differences found in the results of the trait moderator analysis between the Neuroticism scales. For example, Larstone and colleagues (2002) found that when entered simultaneously, both the NEO and EPQ Neuroticism scales significantly predicted affect lability. The author's suggestion was that different aspects of Neuroticism were being assessed in these two scales. Although there are high correlations between the IPIP and BFI Neuroticism scales, they may, in fact, be addressing different facets of Neuroticism.

Several of the studies that focused on the role that Neuroticism played on daily mood used a general measure of negative mood, or Negative Affect (e.g., Suls et al., 1998, Marco & Suls, 1993). In contrast, this study examined not only general negative mood, but also self-esteem, depressogenic thinking, positive and negative activation and deactivation of general mood states. The specificity in our dependent measures motivated the next lower order analysis in examining the specific facets of the Neuroticism scale. The focus of the study shifted to determining which specific aspect of Neuroticism was responsible for individual differences in reactivity to daily

events. A match between levels of specificity within the analyses was utilized by using narrowly defined independent and dependent variables.

Facet moderators of well-being

When the Neuroticism facets were examined as trait level moderators, several consistent results were established. First, the facet of Anxiety consistently accounted for Neuroticism's moderating ability. In fact, Anxiety was the only facet to moderate the relationship between negative daily events and self-esteem. Moreover, this facet was the only trait to moderate relationships between negative events and daily levels of depressogenic thinking. The results suggest that it is the cognitive component of anxiety that accounts for this increased reactivity to negative events in the realm of self-esteem and depressogenic thinking. The facet of anxiety used in this analysis primarily consisted of items that assess the cognitive function of anxiety, namely worry (e.g. "Get caught up in my problems," "Am not easily bothered by things," "Worry about things," "Get Stressed out easily," Don't worry about things that have already happened,"). Additionally, the NEO facet of anxiety is also made up of items that assess worry and fear (Reise, Smith & Furr, 2001). Performing the finer level analysis on each Neuroticism facet allowed for a more specific conclusion about Neuroticism's ability to moderate events and affect. These results suggest that individuals higher in cognitive anxiety are more reactive to daily events than those lower in cognitive anxiety.

Conversely items on the Neuroticism factor scale tend to be associated with negative affect. The factor scale has been shown to be highly correlated with other measures of negative affect, as in Marco and Suls' (1993) work, where their N factor

correlated .71 with Negative Affect. This high correlation suggests that Neuroticism factor items may be addressing an affective component of anxiety, while the facet specifically addresses the cognitive component. The insignificant findings from the trait moderator analysis of Negative Activation, supports this assumption. Both Negative Affect and N are suggested to be similar constructs in that, individuals high in N leads them to experience higher levels of Negative Affect (McCrae & Costa, 1991). However, these high correlations may also be the result of the items asking similar questions as posed by Yik & Russell (2001).

Moreover, the Neuroticism factor scale has been shown to be related to affective components over that of cognitive and behavioral. Research by Zillig et al., (2002) had raters assess which areas the Five factor model questionnaires were addressing. For the N factor, 70% of its items were rated in the affective domain, rather than in the cognitive or behavioral aspects of Neuroticism.

In sum, these results show that for self-esteem and depressogenic thinking, individuals higher in anxiety (specifically the cognitive component of anxiety), are more reactive to negative daily events than those lower in anxiety. Although prior research has found evidence that Neuroticism moderates the relationship between negative events and well-being, relying solely on the factor is too broad. The consistent findings from the facet analysis, especially the facet of anxiety, suggest that future research should be more specific in selecting trait variables when investigating moderation of daily events and well-being. The broad factor score is intended to address several components of its lower order traits and, as a result, clean and easily interpretable findings may not occur. Additionally, the broad factor of

Neuroticism seems to primarily address the affective component of anxiety and can prove to be a disservice to its lower order traits, as evidenced by the results of the factor level moderators.

Limitations and Future Research

One limitation of this study was that only two measures of Neuroticism were used. In order to establish stronger support for the facet level analysis, future studies may want to use several Neuroticism measures as well as additional anxiety facet scales. Another limitation is that this study did not examine gender differences between factor and facet moderation, but instead aggregated both males and females in the analyses. Two distinct paths may be uncovered by disentangling males and females in our analyses. One is that the findings would have matched up more consistently with previous literature and the other is that our results could address a specific gender that is impacted by anxiety. Overall, these findings support the notions of Paunonen and Ashton (2001), which posit that, in order to gather a more sufficient amount of knowledge of individuals' differences in personality, one must not only rely on the Big five, but the specific lower order traits as well. In conclusion, the more specific analysis used in this study found that the driving trait behind Neuroticism's effect on daily events is anxiety, or more specifically the cognitive aspects of anxiety. Cognitively anxious individuals tend to be more reactive to negative events in their lives, resulting in an increase in daily depressogenic thoughts and a decrease in self-esteem.

Table 1. Comparisons between NEO and IPIP

IPIP Facet	NEO facet	Correlations IPIP vs. NEO
Anxiety	Anxiety	.75
Anger	Angry Hostility	.76
Depression	Depression	.80
Self-Consciousness	Self-Consciousness	.72
Immoderation	Impulsiveness	.73
Vulnerability	Vulnerability	.77

Note: correlation table courtesy of IPIP web site. http://ipip.ori.org.

46

Table 2. Cronbach's Alpha's for Independent Measures

Facet scale	α
N Depression	.73
N anxiety	.83
N anger	.74
N self-consciousness	.67
N immoderation	.62
N vulnerability	.68
BFI Neuroticism	.85
IPIP Neuroticism	.84
Negative Activation (NA)	.81
Negative Deactivation (ND)	.81
Positive Activation (PA)	.76
Positive Deactivation (PD)	.87

Table 3. Correlations Among Independent Moderator Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Anxiety	1.00											
2. Anger	.55**	1.00										
3. Depression	.68**	.49**	1.00									
4. Self-Consciousness	.56**	.32**	.55**	1.00								
5. Immoderation	.33**	.28***	.51**	.14	1.00							
6. Vulnerability	.70**	.48**	.64**	.42**	.38**	1.00						
7. Neuroticism-IPIP	.86**	.69**	.87**	.68**	.57**	.80**	1.00					
8. Negative Activation (NA)	.64**	.57**	.59**	.48**	.42**	.57**	.73**	1.00				
9. Neuroticism- BFI	.79**	.64**	.63**	.48**	.19	.71**	.77**	.57**	1.00			
10. Negative Deactivation (ND)	.37**	.45**	.47**	.30**	.38**	.33**	.51**	.71**	.34**	1.00		
11. Positive Activation (PA)	-.21*	-.20*	-.33**	-.37**	-.02	-.12	-.28**	-.16	-.25*	-.32**	1.00	
12. Positive Deactivation (PD)	-.41**	-.32**	-.52**	-.29**	-.31**	-.31**	-.48**	-.41**	-.44**	-.31**	.47**	1.00

Table 4. Summary of Daily Measures

Variable	Mean	Between person Variance	Within person Variance	Reliability	Validity
Self-esteem (RSE)	5.38	.79	.68	.94	.66
Depressogenic thinking (TRI)	5.15	.62	.81	.92	.62
Positive Activation (PA)	3.96	.68	.87	.92	.66
Negative Activation (NA)	2.83	.65	.88	.91	.74
Positive Deactivation (PD)	4.16	.74	.88	.91	.79
Negative Deactivation (ND)	2.70	.78	.80	.93	.80
Positive Events	1.24	.27	.22	.94	
Negative Events	.57	.16	.14	.94	

Table 5. Within Person Relationships Between Daily Events and Psychological Adjustment

Daily Measure = Depressogenic thinking (TRI)	Coefficient	t	p
Positive Event	.70	11.90	.001*
Negative Event	-.97	10.1	.001*

Daily Measure = Self Esteem (RSE)	Coefficient	t	p
Positive Event	.48	8.3	.001*
Negative Event	-.82	10.19	.001*

Daily Measure = Negative Activation (NA)	Coefficient	t	p
Positive Event	-.22	3.83	.001*
Negative Event	1.13	10.83	.001*

Daily Measure = Negative Deactivation (ND)	Coefficient	t	p
Positive Event	-.46	9.33	.001*
Negative Event	.98	11.86	.001*

Daily Measure = Positive Activation (PA)	Coefficient	t	p
Positive Event	.85	13.47	.001*
Negative Event	-.45	4.30	.001*

Daily Measure = Positive Deactivation (PD)	Coefficient	t	p
Positive Event	.51	8.31	.001*
Negative Event	-.80	7.0	.001*

Table 6. Trait Moderators of Daily Events

Daily Measure = RSE						
Moderator	Positive event	t	p	Negative event	t	p
BFI Neuroticism	.06	1.32	.18	-.15	1.62	.10
IPIP Neuroticism	.13	3.42	.001*	-.14	1.82	.07
NA	.08	1.59	.11	.00	< 1.0	.93

Daily Measure = TRI						
Moderator	Positive event	t	p	Negative event	t	p
BFI Neuroticism	.06	1.21	.22	-.24	2.07	.04*
IPIP Neuroticism	.09	1.73	.08	-.13	1.25	.21
NA	.04	< 1.00	ns	.00	< 1.00	ns

Daily Measure = NA						
Moderator	Positive event	t	p	Negative event	t	p
BFI-Neuroticism	.00	< 1.00	ns	.21	1.73	.08
IPIP-Neuroticism	.00	< 1.00	ns	.09	< 1.00	ns
NA	-.05	1.0	ns	-.07	< 1.00	ns

Daily Measure = ND						
Moderator	Positive event	t	p	Negative event	t	p
BFI Neuroticism	-.06	1.44	.15	.04	< 1.00	ns
IPIP Neuroticism	-.06	1.72	.08	.05	< 1.00	ns
NA	Fixed -.09	2.46	.01*	-.03	< 1.00	ns

Daily Measure = PA						
Moderator	Positive event	t	p	Negative event	t	p
BFI Neuroticism	.00	< 1.00	ns	-.04	< 1.00	ns
IPIP Neuroticism	-.03	< 1.00	ns	.01	< 1.00	ns
NA	-.04	< 1.00	ns	.08	< 1.00	ns

Daily Measure = PD						
Moderator	Positive event	t	p	Negative event	t	p
BFI Neuroticism	.09	1.53	.13	.00	< 1.00	ns
IPIP Neuroticism	.00	< 1.00	ns	.06	< 1.00	ns
NA	.00	< 1.00	ns	.12	1.64	.10

Table 7. Facet Moderators of Daily Events

Daily Measure = RSE						
Moderator	Positive event	t	p	*Negative event*	t	p
N Anxiety	.04	< 1.0	ns	-.19	2.57	.01*
N Anger	.04	< 1.0	ns	-.08	< 1.0	ns
N Depression	.20	5.08	.000*	-.06	< 1.0	ns
N Self-Consciousness	.10	1.81	.07	-.17	1.79	.073
N Immoderation	.15	3.03	.003*	-.04	< 1.0	ns
N Vulnerability	.07	1.74	.08	-.11	1.79	.073

Daily Measure = TRI						
Moderator	Positive event	t	p	*Negative event*	t	p
N anxiety	.05	< 1.0	ns	-.21	2.11	.035*
N Anger	.04	< 1.0	ns	-.12	1.18	ns
N Depression	.11	2.3	.02*	-.11	1.05	ns
N Self-Consciousness	.10	1.82	.07	-.17	1.29	ns
N Immoderation	.04	< 1.0	ns	.09	1.02	ns
N Vulnerability	.05	< 1.0	ns	-.05	< 1.0	ns

Daily Measure = NA						
Moderator	Positive event	t	p	*Negative event*	t	p
N Anxiety	-.01	< 1.0	ns	.11	1.11	ns
N Anger	-.03	< 1.0	ns	.19	1.66	.10
N Depression	-.01	< 1.0	ns	.01	< 1.0	ns
N Self-Consciousness	.06	1.06	ns	.15	1.13	ns
N Immoderation	-.05	1.05	ns	-.08	< 1.0	ns
N Vulnerability	.02	< 1.0	ns	.04	< 1.0	ns

Table 7. Continued. Facet Moderators of Daily Events

Daily Measure = ND						
Moderator	Positive event	t	p	Negative Event	t	p
N Anxiety	-.06	1.39	.16	.04	< 1.0	ns
N Anger	-.05	1.17	ns	.05	1.0	ns
N Depression	-.05	1.15	ns	.08	< 1.0	ns
N Self-Consciousness	-.07	1.74	.08	.08	< 1.0	ns
N Immoderation	-.02	< 1.0	ns	-.04	< 1.0	ns
N Vulnerability	-.01	< 1.0	ns	-.05	< 1.0	ns

Daily Measure = PA						
Moderator	Positive Event	t	p	Negative Event	t	p
N Anxiety	-.02	< 1.0	ns	-.03	< 1.0	ns
N Anger	.00	< 1.0	ns	.09	< 1.0	ns
N Depression	-.05	< 1.0	ns	.02	< 1.0	ns
N Self-Consciousness	.02	< 1.0	ns	.01	< 1.0	ns
N Immoderation	-.05	< 1.0	ns	-.02	< 1.0	ns
N Vulnerability	-.04	< 1.0	ns	.00	< 1.0	ns

Daily Measure = PD						
Moderator	Positive Event	t	p	Negative Event	t	p
N Anxiety	.00	< 1.0	ns	.00	< 1.0	ns
N Anger	.05	< 1.0	ns	.10	< 1.0	ns
N Depression	-.01	< 1.0	ns	.06	< 1.0	ns
N Self-Consciousness	-.01	< 1.0	ns	-.09	< 1.0	ns
N Immoderation	-.03	< 1.0	ns	.09	< 1.0	ns
N Vulnerability	.01	< 1.0	ns	.14	1.27	.20

APPENDIX A.

Psychological Measures

International Personality Item Pool (IPIP) Neuroticism Facets

Listed below are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as honestly as you see yourself, in relation to other people who are roughly your age.

1. Very inaccurate
2. Moderately inaccurate
3. Moderately accurate
4. Very accurate

1. Am often down in the dumps.
2. Am able to control my cravings.
3. Am not easily bothered by things.
4. Panic easily.
5. Worry about things.
6. Can't make up my mind.
7. Get angry easily.
8. Get overwhelmed by emotions.
9. Only feel comfortable with friends.
10. Am afraid to draw attention to myself.
11. Go on binges.
12. Remain calm under pressure.
13. Get stressed out easily.
14. Get irritated easily.
15. Get caught up in my problems.
16. Don't worry about things that have already happened.
17. Readily overcome setbacks.
18. Am often in a bad mood.
19. Am afraid that I will do the wrong thing.
20. Have a low opinion of myself.
21. Am very pleased with myself.
22. Am comfortable in unfamiliar situations.
23. Am not embarrassed easily.
24. Keep my cool.
25. Have frequent mood swings.
26. Don't know why I do some of the things I do.

International Personality Item Pool (IPIP) Continued

27. Rarely complain.
28. Feel that my life lacks direction.
29. Often eat too much.
30. Do things I later regret.

BFI-44

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who liked to spend time with others? Highlight a number next to each statement to indicate to what extent you agree or disagree with that statement.

5. Disagree strongly
6. Disagree somewhat
7. Neither agree or disagree
8. Agree somewhat
9. Agree Strongly

I see myself as someone who:

1. Is talkative
2. Tends to find fault with others
3. Does a thorough job
4. Is depressed, blue
5. Is original, comes up with new ideas
6. Is reserved
7. Is helpful and unselfish with others
8. Can be somewhat careless
9. Is relaxed, handles stress well
10. Is curious about many different things
11. Is full of energy
12. Starts quarrels with others
13. Is a reliable worker
14. Can be tense
15. Is ingenious, a deep thinker
16. Generates a lot of enthusiasm
17. Has a forgiving nature
18. Tends to be disorganized
19. Worries a lot
20. Has an active imagination
21. Tends to be quiet
22. Is generally trusting
23. Tends to be lazy
24. Is emotionally stable, not easily upset
25. Is inventive
26. Has an assertive personality
27. Can be cold and aloof
28. Perseveres until the task is finished
29. Can be moody
30. Values artistic, aesthetic experiences

BFI-44 Continued

31. Is sometimes shy, inhibited
32. Is considerate and kind to almost everyone
33. Does things efficiently
34. Remains calm in tense situations
35. Prefers work that is routine
36. Is outgoing, sociable
37. Is sometimes rude to others
38. Makes plans and follows through with them
39. Gets nervous easily
40. Likes to reflect, play with ideas
41. Has few artistic interests
42. Likes to cooperate with others
43. Is easily distracted
44. Is sophisticated in art, music or literature

Daily Events Schedule (DES)

A series of events that commonly occur in the lives of students will follow. Please read each carefully. Some of the events may have occurred in you life today, some may not have occurred today. If the event did NOT occur today, enter 0
If the event did occur today, rate how important it was to you using the following scale:

1 = Not important
2 = Somewhat important
3 = Pretty important
4 = Extremely important

1. Had especially good interactions with friend (s) or acquaintances.
2. Completed work on an interesting project or assignment.
3. Did poorly on schoolwork task (e.g. test, assignment, job duty).
4. Did something awkward or embarrassing in a social situation.
5. Was excluded or left out by my group of friends.
6. Fell behind in coursework or duties.
7. Went out socializing with friends/date (e.g. party, dance club).
8. Met a daily fitness goal
9. Had especially good interactions with my steady date.
10. Performed well (sports, music, speaking, drama, etc.).
11. A disagreement with a close friend or steady date was left unresolved.
12. Classmate, teacher, co-worker, or friend criticized me on my abilities
13. Did something special for a friend/steady date which was appreciated
14. Flirted with someone or arranged a date.
15. Got caught up (or ahead) in coursework or work duties.
16. Got along poorly with peers (e.g., classmates, co-workers, roommates).
17. Failed to meet a daily fitness goal.
18. Classmate, teacher, co-worker, or friend complimented me on my abilities.
19. Went out to eat with a friend/date
20. Tried to do homework and couldn't understand it.
21. Did well on a school or work task (e.g. test, assignment, job duty).
22. Had plans fall through to spend time with someone special.
23. Had other type of pleasant event (not listed above) with friends, family, or date.
24. Had other type of unpleasant event (not listed above) with friends, family, or date.
25. Had other type of pleasant event (not listed above) concerning performance at school, work, or another activity.
26. Had other type of unpleasant event (not listed above) concerning school work, or another activity.

Cognitive Triad (TRI)

1. Overall, how positively did you think about yourself today?

1. Very negatively
2. Negatively
3. Somewhat negatively
4. Neither negatively nor positively
5. Somewhat positively
6. Positively
7. Very positively

2. Thinking of your life in general, how well did things go today?

1. Very poorly
2. Poorly
3. Somewhat poorly
4. Neither poorly nor well
5. Somewhat well
6. Well
7. Very well

3. How optimistic are you about how your life (in general) will be tomorrow?

1. Very pessimistic
2. Pessimistic
3. Somewhat pessimistic
4. Neither pessimistic nor optimistic
5. Somewhat optimistic
6. Optimistic
7. Very optimistic

Rosenberg's Self-Esteem Modified (RSE)

Listed below are a number of statements concerning personal attitudes and characteristics. Please read each statement and consider the extent to which you agree or disagree AT THIS MOMENT. All responses will be kept confidential, so please answer as honestly as possible. Remember, base your responses on the extent to which you agree or disagree with each statement AT THIS MOMENT.

1. Strongly Disagree
2. Disagree
3. Mildly Disagree
4. Neutral
5. Mildly Agree
6. Agree
7. Strongly Agree

1. All in all, I am inclined to feel like a failure.
2. I take a positive attitude toward myself.
3. On the whole, I am satisfied with myself.
4. At times I think I am no good at all.

Affective Circumplex

Positive Activation (PA)
Positive Deactivation (PD)
Negative Activation (NA)
Negative Deactivation (ND)

Listed below are a number of feelings and emotions. Indicate in the space next to each word just how strongly you felt this way today [Usually]. Use the following scale:

1. Did not feel this way at all.
2. Felt this way but only weakly
3. Felt this way moderately to weakly
4. Felt this way moderately
5. Felt this way moderately to strongly
6. Felt this way strongly
7. Felt this way very strongly

1. Enthusiastic
2. Calm
3. Stressed
4. Depressed
5. Alert
6. Peaceful
7. Embarrassed
8. Disappointed
9. Happy
10. Relaxed
11. Upset
12. Sluggish
13. Proud
14. Content
15. Tense
16. Bored
17. Satisfied
18. Nervous
19. Excited
20. Sad

References

Axelrod, S., R., Widiger, T., A., Trull, T., J., & Corbitt, E., M. (1997). Relations of five-factor model antagonism facets with personality disorder symptomotology. *Journal of Personality Assessment, 69,* 297-313.

Ball, S., A., & Zuckermann, M. (1990). Sensation seeking, Eysenck's personality dimensions and reinforcement sensitivity in concept formation. *Personality and Individual Differences,* 11, 343-353.

Beck, A., T. (1976). *Cognitive therapy and the emotional disorders.* New York: International Universities Press.

Beck, A., T. (1967). *Depression, Clinical experimental, and theoretical aspects.* New York: Harper & Row.

Beck, A., T., Rush, A., J., Shaw, B., F., & Emery, G. (1979). *Cognitive therapy of depression.* New York: Guilford Press.

Block, J. (2001). Millennial contrarianism: The five-factor approach to personality description 5 years later. *Journal of Research in Personality, 35,* 98-107.

Bolger, N., DeLongis, A., Kessler, R., C., & Schilling, E., A. (1989). Effects of daily stress on negative mood. *Journal of Personality and Social Psychology, 57,* 808-818.

Bolger, N., & Schilling, E., A. (1991). Personality and the problems of everyday life: The role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality, 59,* 355-386.

Bolger, N., & Zuckerman, A. (1995). A framework for studying the personality in the stress process. *Journal of Personality and Social Psychology, 69,* 890-902.

Bryk, A., S. & Raudenbush, S., W. (1992). *Hierarchical linear models.* Newbury Park, CA: Sage.

Butler, A., C., Hokanson, J., E., & Flynn, H., A. (1994). A comparison of self-esteem lability and low trait self-esteem as vulnerability factors for depression. *Journal of Personality and Social Psychology, 66,* 166-177.

Costa, P., T., & McCrae, R., R. (1980). Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people. *Journal of Personality and Social Psychology, 38,* 668-678.

Costa, P., T., & McCrae, R., R. (1985). *The NEO personality inventory manual.* OdessaFl: Psychological Assessment Resources

Costa, P., T., & McCrae, R., R. (1992). *Revised NEO personality Inventory (NEO-PI-R) and NEO five-factor inventory (FFI) manual.* Odessa, Fl: Psychological assessment resources.

Costa, P., T., & McCrae, R., R. (1995). Domains and facets,: Hierarchical personality assessment using the revised NEO personality inventory. *Journal of Personality Assessment, 64,* 21-50.

David, J., P., & Suls, J. (1999) Coping efforts in daily life: Role of big five traits and problem appraisals. *Journal of Personality, 67,* 265-294.

Derryberry, D., & Reed, M., A. (1994). Temperament and attention: Orienting toward and away from positive and negative signals. *Journal of Personality and Social Psychology, 66,* 1128-1139.

Eckenrode, J. (1984). Impact of chronic and acute stressors in daily reports of mood. *Journal of Personality and Social Psychology, 46,* 907-918.

Emmons, R., A., & Diener, E. (1985). Personality correlates of subjective well-being. *Personality and Social Psychology Bulletin, 11,* 89-97.

Eysenck, H., J., & Eysenck, S., B., G. (1994). *Manual of the Eysenck personality scales-revised.* San Diego, CA: Educational and Industrial Testing Services.

Eysenck, J., J., & Eysenck, S., G. (1984). *Manual of the Eysenck Personality Inventory.* San Diego, CA.: Educational and Industrial Testing Service.

Francis, L., J. (1997). Personality, prayer, and church attendance among undergraduate students. *International Journal for the Psychology of Religion, 7,* 127-132.

Gross, J., J., Sutton, S., K., & Keteleer, T. (1998). Relations between affect and personality: Support for the affect-level and affect-reactivity views. *Personality and Social Psychology Bulletin, 24,* 279-288.

Gunthert, K., C., Cohen, L., H., & Armeli, S. (1999). The role of neuroticism in daily stress and coping. *Journal of Personality and Social Psychology, 77,* 1078-1100.

International Personality item Pool (2001). *A Scientific Collaboratory for the development of Advanced Measures of Personality traits and other individual differences.* (http://ipip.ori.org/). Internet web site.

Jensen-Campbell, L., A., Rosselli, M., Workman, K., A., Santisi, M., Rios, J., D., & Bojan, D. (2002). Agreeableness, conscientousness, and effortful control processes. *Journal of Research in Personality, 36,* 476-489.

John, O., P., Donahue, E., M., & Kentle, R. (1991). *The Big five inventory- Versions 4a and 54.* Technical report, Institute of personality and social research, University of California, Berkeley, CA.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology, 83,* 693-710.

Kanner, A., D., Coyne, J., C., Schaefer, C., & Lazarus, R., S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine, 4,* 1-39.

Larsen, R., J., & Keteleer, T. (1991). Personality and susceptibility to positive and negative emotional states. *Journal of Personality and Social Psychology, 61,* 132-140.

Larstone, R., M., Jang, K., L., Livesly, W., J., Vernon, P., A., & Wolf, H. (2002). The relationship between Eysenck's P-E-N model of personality, the five-factor model of personality, and traits delineating personality dysfunction. *Personality and Individual Differences, 33,* 25-37.

Lucas, R. E., Diener, E., Grob, A., Suh, E. M., & Shao, L. (2000). Cross-cultural evidence for the fundamental features of extraversion. *Journal of Personality and Social Psychology, 79,* 452-468.

Luminet, O., Bagby, R., M., Wagner, H., Taylor, G., J., & Parker, J., D., A. (1999). Relation between alexythimia and the five-factor model of personality: A facet-level analysis. *Journal of Personality Assessment, 73,* 345-358.

Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extraversion and neuroticism as predictors of objective life events. *Journal of Personality and Social Psychology, 65,* 1046-1053.

Marco, C., A., & Suls, J. (1993). Daily stress and trajectory of mood: Spillover,

response assimilation, contrast, and chronic negative affectivity. *Journal of Personality and Social Psychology, 64,* 1053-1063.

Mayo, P., R. (1983). Personality traits and the retrieval of positive and negative memories. *Personality and Individual Differences, 4,* 465-471.

Mayo, P., R. (1989). A further study of the personality-congruent recall effect. *Personality and Individual Differences, 10,* 247-252.

McCrae, R., R., & Costa, P., T. (1991). Adding *liebe und arbeit*: The full five factor model and well-being. *Personality and Social Psychology Bulletin, 17,* 227-232.

Murray, G., Allen, N., B., & Tridner, J. (2002). Longitudinal investigation of mood variability and ffm: Neuroticism predicts variability in extended states of positive and negative affect. *Personality and Individual Differences, 33,* 1217-1228.

Nezlek, J., B. (2001). Multilevel random coefficient analyses of event and interval contingent data in social and personality psychology research. *Personality and Social Psychology Bulletin, 27,* 771-785.

Nezlek, J., B., & Gable, S., L., (2001). Depression as a moderator of relationships between positive daily events and day-to-day psychological adjustment. *Personality and Social Psychology Bulletin, 27,* 1692-1704.

Paunonen, S., V., & Ashton, M., C. (2001). Big five factors and facets and the prediction of behavior. *Journal of Personality and Social Psychology, 81,* 524-539.

Ployhart, R. E., Lim, B-C., & Chan, K-Y. (2001). Exploring relations between typical and maximum performance ratings and the five factor model of personality. *Personnel Psychology, 54,* 809-843.

Radloff, L., S. (1977). The CES-D Scale; A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385-401.

Reed, M., A., & Derryberry, D. (1995). Temperament and attention to positive and negative trait information. *Personality and Individual Differences, 18,* 135-147.

Reynolds, S., K., & Clark, L., A. (2001). Predicting dimensions of personality disorder from domains and facets of the five-factor model. *Journal of Personality, 69,* 199-222.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ:
    Princeton University Press.

Reise, S., P., Smith, L., & Furr, R., M. (2001). Invariance of the NEO PI-R
    Neuroticism scale, *Multivariate Behavioral Research, 36*, 83-110.

Rusting, C., L., & Larsen, R., J. (1997). Extraversion, neuroticism, and susceptibility
    to positive and negative affect: A test of two theoretical models. *Personality
    and Individual Differences, 22*, 607-612.

Rusting, C., L., & Larsen, R., J. (1998). Personality and cognitive processing of
    affective information. *Personality and Social Psychology bulletin, 24*, 200-
    213.

Suls, J., Green, P., & Hillis, S. (1998). Emotional reactivity to everyday problems,
    affective inertia, and neuroticism. *Personality and Social Psychology Bulletin,
    24*, 127-136.

Taylor, A., & MacDonald, D., A. (1999). Religion and the five-factor model of
    personality: An exploratory investigation using a Canadian university sample.
    Personality and Individual Differences, 27, 1243-1259.

Trobst, K., K., Herbst, J., H., Masters, H., L., III & Costa, P., T., Jr. (2002).
    Personality pathways to unsafe sex: Personality, condom use, and HIV risk
    behaviors. *Journal of Research in Personality, 36*, 117-133.

Trull, T., J., Widiger, T., A., & Burr, R. (2001). A structured interview for the
    assessment of the five-factor model of personality: Facet-level relations to the
    axis II personality disorders. *Journal of Personality, 69*, 175-198.

Van Eck, M., Nicolson, N., A., & Berkhof, J. (1998). Effects of stressful daily events
    on mood states: Relationship to global perceived stress. *Journal of Personality
    and Social Psychology, 75*, 1572-1585.

Velting, D., M., & Liebert, R., M. (1997). Predicting three mood phenomena from
    factors and facets of the NEO-PI. *Journal of Personality Assessment, 68*, 165-
    172.

Watson, D., C. (2001). Procrastination and the five-factor model: A facet level
    analysis. *Personality and Individual differences, 30*, 149-158.

Watson, D., & Clark, L., A. (1984). Negative Affectivity: The disposition to
    experience aversive emotional states. *Psychological Bulletin, 96*, 465-490.

Watson, D., & Clark, L., A. (1992). On traits and temperament: General and specific factors of emotional experience and their relation to the five-factor model. *Journal of Personality, 60,* 441-476.

Williams, D., G. (1990). Effects of Psychotocism, extraversion, and neuroticism in current mood: A statistical review of six studies. *Personality and Individual Differences, 11,* 615-630.

Wilson, K., & Gullone, E., (1999). The relationship between personality and affect over the lifespan. *Personality and Individual Differences, 27,* 1141-1156.

Yik, M., S., M., & Russell, J., A. (2001) Predicting the big two of affect from the big five of personality. *Journal of Research in Personality, 35,* 247-277.

Zelinski, J., M., & Larsen, R., J. (2002). Predicting the future: How affect-related personality traits influence likelihood judgments of future events. *Personality and Social Psychology Bulletin, 28,* 1000-1010.

Zillig Pytlik, L., M., Hemenover, S., H., & Dienstbier, R., A. (2002). What do we assess when we assess a big 5 trait? A content analysis of the affective, behavioral, and cognitive processes represented in big 5 personality inventories. *Personality and Social Psychology Bulletin, 28,* 847-858.

VITA

John Simanski

Graduated with honors and high distinction from George Mason

University, Spring 2001, with a B.A. in Psychology. While attending George

Mason University, John Completed his Senior honors thesis on Cognitive

vulnerabilities to obsessive compulsive symptomology. Additionally, John

worked as a Teachers Assistant for the Psychology of Romantic Relationships

as well as being selected to participate in the faculty-student apprenticeship

research program during the Spring 2001 semester.

As an attendee at George Mason University, John received numerous

awards and belonged to several honor societies. John received the Outstanding

Senior award in the Spring 2001 semester and belonged to Alpha Chi, Golden

Key, and Psi Chi honor societies.

While attending William and Mary, John was a Teachers Assistant for

several classes including, Psychology 301, Elementary Statistics, and

Psychology 412, Research in Personality. John also presented a poster at the

graduate student research symposium in January 2002. John is expected to

graduate in December 2003 from William and May with an M.A. in General

Experimental Psychology.