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### An Examination of the 16PF Demographic Variables as Predictors of The Scale For Accurate Personality Prediction (SAPP)

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An Examination of the 16PF Demographic Variables as Predictors of The Scale  
For Accurate Personality Prediction (SAPP)

By

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A Doctoral Research Project submitted to the  
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In  
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We the undersigned committee hereby approve the attached doctoral level project.

An Examination of the 16PF Demographic Variables as Predictors of The Scale  
For Accurate Personality Prediction (SAPP)

By

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## **Abstract**

TITLE: An Examination of the 16PF Demographic Variables as Predictors of The Scale For Accurate Personality Prediction (SAPP)

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The Scale of Accurate Personality Prediction (SAPP) was first developed in 2000 by Miller. Its principal purpose is to serve as a measure of one's ability to accurately predict his or her personality traits, and as such, potentially reflect the level of one's self-knowledge. The measure is derived from the Sixteen Personality Factor Questionnaire (16PF). The purpose of the current study was to follow up on a recent attempt to identify the best predictors of the SAPP using the 16 primary factors of the 16PF (Mazur, 2013). This study focuses on certain demographics to determine their potential ability to predict derived SAPP scores. To do so, a series of a series of multiple regression analyses were run to determine if the demographic variables would yield any significant differences between those who obtained high and low SAPP scores. The current study utilized a database of 609 respondents to complete the analyses. The current study concluded males more accurately predicted their personality scores than females and as a women's education increased their ability to accurately predict their personality score decreased. It was hoped this research would provide a better picture between demographics and self-knowledge, and also enhance the

predictability of the SAPP, and in doing so, the predictability of one's level of self-knowledge.

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# **Literature Review**

## **Overview of Personality**

In order to gain an understanding of what personality is, one must provide, or be provided with, a definition of the term. Unfortunately, there is no one consensual definition agreed upon by all psychologists. In fact, it is not uncommon to find that in many introductory personality theory textbooks, the first chapters are often devoted to how the word personality could and should be defined. Even in today's academic settings, different personality scientists define personality differently, and in doing so often reflect their own theoretical beliefs (Cervone & Pervin, 2010).

Some describe personality simply as “the unique and relatively stable ways in which people think, feel, and behave” (Ciccarelli & White, 2009, p. 518). Others have stated that it can be referred to as “psychological qualities that contribute to an individual's enduring and distinctive patterns of feeling, thinking, and behaving” (Cervone & Pervin, 2010)., and still others have offered more lengthy descriptions, such as “enduring characteristics that define or typify the individual manifesting as traits or dispositions and state characteristics”, and then add that the manifestations must be observable and are recognizable behaviors that will be seen in multiple situations (Beutler & Groth-Marnat, 2003). This latter definition will be utilized throughout this document.

## **Approaches to Understanding Personality**

The words such as qualities, characteristics, dispositions, and traits give way to the fact that there are several personality types or structures to personality. How these types are defined lead back to the works of personality theorists. Each theorist often attempts to understand the construct of personality through the lens of larger models and theories that have attempted to describe what it means to be human. These models and theories over the years have included (but have not been limited to): Psychodynamic, Phenomenological, Biological, Behavioral and Learning, Cognitive, and Social-Cognitive approaches. These approaches, and their respective personality theorists, have postulated a variety of the different personality types and components described in the psychological literature. A brief review of some of the major personality models/theories follows next.

***Psychodynamic Models:*** Sigmund Freud introduced three separate components that intertwine to create a whole personality. Freud called them the Id, Superego, and Ego, and each carried its own particular type of function. The Id carries out all the human instinctual needs, such as the release of tension or excitement, and operates on what is known as the pleasure principle. In somewhat simplistic terms, the pleasure principle can be seen as supplying the energy for immediate gratification or immediate avoidance of pain. The Superego introduces the moral aspects of social behavior, and as such incorporates the inculcated values of the multiple levels of society (from familial to religious to global institutions). It represents that portion of the psyche that directs behavior as so required by the

above values. It is the job of the Ego to find “solutions” to the conflicts that often emerge between the Id and the Superego; i.e., between our wants, wishes, and desires, and the demands of the outside world to act in certain ways. Where the Id follows the pleasure principle, the Ego follows the reality principle. Freud considered these components to be what make up the person as a whole and therefore what drive personality functioning (Cervone & Pervin, 2010; Corey, 2013).

***Phenomenological Models:*** Carl Rogers, who is thought to be by many as one of the eminent phenomenologically and humanistic based scholar/practitioners, considered the self the key construct of personality. Rogers believed people first perceive objects and all sensory input around them and then symbolize and attach meaning to them. The self is therefore defined by, and built upon, these organized and consistent patterns of one’s perceptions throughout time. Rogers stated that although the self could change throughout time, the patterned and organized quality would always be retained. Since this structure is maintained throughout time and results from the unique experiences and perceptions each person has, no two people could have an identical personality structure. It is important to note that Rogers had two different aspects of the self: the actual self and the ideal self. The actual self is organized patterns and perceptions that people have of themselves. The ideal self is both the perceptions and meanings that are relevant to the self but also those that are most highly valued (Cervone & Pervin, 2010; Corey, 2013).

***Biological Models:*** The biological perspective of personality types and structure takes a different perspective than those mentioned above. Biological perspectives are often built upon the works of evolutionary psychology, behavioral genetics, and neuroscience. The evolutionary psychological approach has as its basic tenet that all of basic human functioning, to include all psychological mechanisms (and personality variables), are the result of evolution. This means that over time, certain qualities will endure because they have been adaptive towards human survival and reproduction success. Behavioral genetics suggest that while there is no specific gene that governs behavior or personality directly, there is a degree in which psychological characteristics are due to genetics. In a similar way, neuroscience seeks to understand how the human neural systems, neurotransmitters, and hormones contribute to psychological characteristics (Cervone & Pervin, 2010).

***Behavioral and Learning Models:*** The concepts seen here are built upon basic classical and instrumental learning principles, which are driven by quite materialistic and deterministic suppositions. As such, there has been traditionally little need within these models for concepts such as the “mind” or “personality”, as these hypothetical constructs were generally seen as superfluous and unnecessary in a scientific approach to human learning (Cervone & Pervin, 2010; Corey, 2013).

***Cognitive Models:*** The word cognitive is derived from the Latin verb, which means to know. One of the more well known cognitive models is reflected within the works of George Kelley. Kelley’s cognitive theory can be thought of as a

theory in which human thinking processes are at the center point of individual differences, as well as for the analysis of personality. In his theory, Kelley introduces the word “construct” to define ideas of categories that people use throughout their lives to interpret their world. These constructs include one that are verbal, preverbal, submerged, core, peripheral, and superordinate. He believed that the collection of personal constructs that people hold could lead to a better understanding of their overall personality. Said more simply, one can understand another’s personality by understanding the collection of his or her personal constructs and personal construct system. People consistently develop constructs throughout life to help them develop ideas and predict events (Cervone & Pervin, 2010).

***Social-Cognitive Models:*** As elucidated well by Albert Bandura and Walter Mischel, the social cognitive theory asks the question “what is a person”? The structures that form this theory first begin with what is referred to as skills or competencies. This definition follows the belief that differences between people that are observable may not only be the result of differences in emotions or motivational impulses, but also due to variations in their level of skills and competencies. Extroversion can be used as an example. Some people may act in an extroverted manner because they lack the skills that are required to execute individual actions or actions alone. According to this model, competencies involve two different types of knowledge: procedural and declarative knowledge. Procedural knowledge is knowledge that is executed by individuals being able to

voice how they did it. Declarative knowledge is knowledge that one can state in words. These competencies also have implications, the first of which is called context specificity. This term implies that psychological structures are relevant to different situations at different times. Therefore some may be relevant to a certain context and irrelevant in another. The second implication involves psychological change, referring to those who are lacking in skills in a certain area of life are able to change. In addition to competencies, people also have personality structures, which are also important (Cervone & Pervin, 2010).

***Trait Models:*** For the individuals (and their respective models) mentioned above, who were interested in empirically studying human personality, it soon became clear that measurement methods of the constructs of personality would be ultimately necessary. The works of Gordon Allport, Raymond Cattell, Hans Eysenck and others have provided the foundation of trait theory and the subsequent measure of the hypothesized traits. Many have agreed that most people display and have co-varying behavior elements. These co-varying elements became known as, and are still called, traits. According Cattell, “A trait, whether unique or common, is a collection of reactions or responses bound by some kind of unity which permits the responses to be gathered under one term and treated in the same fashion for most purposes” (McClelland, 1951, p. 201). In trait models, traits are what build and maintain the personality structure. Researchers have studied various traits they believed were applicable, common, and essential to the human race. In the process of articulating the various human traits, these researchers also have developed

methods designed to measure their particular traits. Measures such as the NEO-Personality Inventory- Revised (NEO-PI-R) and the 16 Personality Factor Questionnaire (16 PF) are two of the more popular trait-based assessments instruments, both of which will be discussed in more detail later in this literature review. First it would be useful to quickly review the various different types of personality measures that have emerged within the field of psychology.

### **Measurements of Personality**

With their theories of personality to help guide their inquiry, many theorists have developed various and differing measurements of personality. These measurements can be categorized as follows: Interviewing measures, behavioral measures, physiological measures, and testing measures, to include both projective testing measures and objective testing ones.

***Interviewing Measures:*** Interviewing measures consist of various questions the examiner directly ask the examinee. Based upon the examinees answers, the examiner can reach conclusions on symptoms, their severity, and potential diagnostic conclusions. The interview measures most often include open-ended questions

***Behavioral Measures:*** Behavioral measures are also utilized in the study of personality. Unlike many personality measures that require only the use of the participants cognitive functioning, behavioral tasks utilize the participant partaking in an activity. For example, in a study done by Rozin, Haidt, McCauley, Dunlop, and Ashmore (1999) on individual differences in disgust sensitivity, the



participants were first asked to fill out a disgust questionnaire. To complete the study, however, the participants were further asked to look at, pick up, touch, or eat something considered to be disgusting. It is here that the behavioral component can be seen. Behavioral measures can be utilized to gain a better picture of how those who have a certain personality type, or trait, may act in general, or in a specific situation.

***Physiological Measures:*** Physiological measures are biological in nature and will often take into account various physiological aspects of participants such as heart rate, sweating, or stress. Physiological measures can be utilized when attempting to gain information on how people respond to threat, or even how those in a stressful healthcare field are responding after utilizing new self-care techniques.

### ***Testing Measures***

1. ***Projective Measures:*** Projective measures, which are not the focus here, utilize ambiguous stimuli for evaluating certain psychological processes. These tests often assume there is a meaningful association between the subject's perception and underlying personality (Harwood, Beutler, & Groth-Marnat, 2011). With projective measures, it is believed that the individual will project aspects of his/her subconscious onto the ambiguous stimuli. The Rorschach Inkblot Test is the most well known of these measures, and consists of 10 cards, each with an ambiguous inkblot. During the administration, the participant is asked to tell the examiner what he or she sees. This is followed by a series of questions designed to

ascertain the specific aspects of the blots that led to the recorded descriptions. Over the years, there have been many methods used to interpret the descriptions. The most commonly used system has the descriptions coded, collated, and combined to yield an array of scores that are then compared to normative groups. Another commonly known projective measure is the Thematic Apperception Test (TAT). Here the participant is shown a variety of cards, each containing a unique picture/photograph, and then asked to make up a plot or story about what is seen by the individual. Most often, the participant is asked to describe what is happening in that moment, the feelings of the person in the photograph, what led up to the situation, and finally what the outcome would be. Finally, the Rotter Incomplete Sentence Blank (RISB) reflects a somewhat different projective measure. The RISB, usually given in a paper and pencil fashion, simply consists of short sentences that are to be completed by the respondent.

**2. *Objective Measures:*** Objective measures, unlike projective measures, consist of a series of questions to be answered by the participant. More frequently used than the projective measures, objective measures are often empirically based, contain cut-off scores, and reference groups against which the obtained scores are compared. They are also easier to interpret, and tend to have more acceptable levels of reliability and validity than the projective measures. Among the category of objective measures there are two distinct categories: direct measures and indirect measures.

**a. Direct Measures:** Direct measures are typically in the form of self-report questionnaires (Harwood, Beutler, & Groth-Marnat, 2011). These measures often ask the client a direct question and participants are then asked to rate how accurately the questions describe them. Direct measures will typically utilize Likert scales as their response format. Examples of this type of measure include the Beck Depression Inventory-2<sup>nd</sup> Edition (BDI-II) and the Beck Anxiety Inventory (BAI). With these two questionnaires, the clients rate their depressive or anxiety symptoms across a number of the various symptoms and behaviors reflective of depression and anxiety respectively. Item responses are then totaled and compared to a normative base to determine the likely presence and degree of the problem in question.

**b. Indirect Measure:** Unlike direct measures, which tend to be face valid, indirect measures are often performance-based measures and require the participant to generate Yes – No, True – False, etc. responses to a large number of items (Harwood, Beutler, & Groth-Marnat, 2001). The most popular of the personality tests fall under the indirect measures category.

**MMPI-2:** The Minnesota Multiphasic Personality Inventory-2 (MMPI-2) is considered one of the most widely used psychological tests. The original MMPI was published in 1943, and its creators, Hathaway and McKinley, believed that a paper and pencil personality inventory could provide an efficient and reliable way of assessing some of the more commonly utilized psychiatric

diagnoses. Utilizing the empirical keying approach, Hathaway and McKinley constructed the various MMPI scales. The original MMPI consisted of 504 statements, which were taken from various sources, such as psychological and psychiatric histories and reports. They also utilized textbooks and other published scales of social as well as personal attitudes (Graham, 2012).

After ten years of the MMPI's use, it was concluded the measure was not adequately carrying out its original purpose. It was discovered many of the clinical scales were highly intercorrelated, and these intercorrelations were caused by a significant overlap between the various scales. Problems were also found in the lack of reliability of some of the specific diagnoses used in its development. The MMPI had instead become useful in generating possible inferences regarding participant's symptoms, and how the individuals also how experienced these symptoms. In 1989 the MMPI was re-standardized to the MMPI-2, the version utilized today.

The MMPI-2 consists of 567 true or false questions that participants complete in their own time. The MMP-2 is available for computer administration as well by paper and pencil. It also can be hand scored or computer scored, and interpretive reports are commercially available. The MMPI-2 consists of seven validity scales and 10 clinical scales. Paired with the clinical scales are content scales, Harris-Lingos subscales, supplementary scales, content-component scales, RC-Scales, PSY-5 scales, and critical items (Graham, 2012).

**NEO-PI-R:** The NEO-PI-R differs from other measures of personality, as it is not a measure of psychopathology. Rather, the NEO-PI-R was developed as a measure of normal personality. It has been developing over the past 40 years, and is the first measure based upon the Five-Factor model (Costa & McCrae, 1992; Costa & McCrae, 1997).

The NEO Inventory was first published in 1978. The developers were interested in three of the Five-Factor models factors: Neuroticism, Extraversion, and Openness. At that time, these factors were conceptualized as the broadest domains and therefore the other two factors Conscientiousness and Agreeableness were not included (Costa & McCrae, 1992; Costa & McCrae, 1997).

The NEO-PI was first published in 1985, and consisted of 181 rationally created items. It also contained two different forms: a self-report form (S), and an Observer Ratings form (R). While the NEO-PI continued to measure facets of Neuroticism, Extraversion, and Openness, it also added the factors of Agreeableness (A) and Conscientiousness (C). The scales were further balanced to control for the effects of acquiescence and one validity question was included. Computer administration, scoring, and interpretation also became available (Costa & McCrae, 1992; Costa & McCrae, 1997).

The current version of the NEO, the NEO-PI-R, was first published in 1989 and consists of 240 statements total. All items are answered on a 5-point Likert rating from *Strongly Disagree* to *Strongly Agree*. It also contains more validity checks such as missing data (do not score protocols with > 40 missing items, or

facet scales with > 3 items), gross acquiescence (> 150 items endorsed agree or strongly agree), and nay-saying (< 50 items endorsed agree or strongly agree). Finally, it contains 30 facet scales, six of which are under each of the domains from the Five Factor Model of Personality (Costa & McCrae, 1992; Costa & McCrae, 1997).

**16 PF:** The 16 PF also differs from other measures of personality, as it too was not developed to be a measure of psychopathology. Raymond Cattell, the creator of the 16PF, sought to apply the scientific methods he was most familiar with to the domain of personality. He also desired to discover the basic elements of personality.

Cattell began his work by first utilizing the previous efforts to adopt the Fundamental Lexical Hypothesis (FLH) to the study of personality. FLH essentially holds that 1) the most useful and important personality characteristics will eventually become part of the language of the people in question, and 2) the most important of these characteristics will eventually be encoded within the language as a single word. In 1936, Allport and Odbert identified approximately 18,000 English words in Webster's New International Dictionary, which they believed described human personality and/or behavior. They further took these 18,000 terms and divided them into four categories, the first of which contained roughly 4500 words they argued best fit the classification of stable and observable traits. Cattell, in the 1940's, took these 4500 words and reduced them to 171 bipolar scales. Further work was completed to reduce the 171 characteristics into

what was considered 46 surface traits. Surface traits can be defined as observable behaviors or traits that are easily defined and noticed. Cattell further reduced the 46 surface traits to a total of 16 primary source traits through a series of factor analyses. Source traits are considered traits that define or describe what is beneath the surface of observable behavior and constitutes what is considered the underlying structure of personality. Cattell's 16 primary source traits became what are known as the 16 personality factors. Through further factor analyses on the 16 basic or primary scales, Cattell identified five global factors, which are said to define personality at a higher and more theoretical level. The 16 Primary Factors are as follows: Warmth (W), Reasoning (B), Emotional Stability (C), Dominance (E), Liveliness (F), Rule-Consciousness (G), Social Boldness (H), Sensitivity (I), Vigilance (L), Abstractedness (M), Privateness (N), Apprehension (O), Openness to Change (Q1), Self-Reliance (Q2), Perfectionism (Q3), and Tension (Q4). The Five Global Factors include: Extraversion (EX), Anxiety (AX), Tough-Mindedness (TM), Independence (IN), Self-Control (SC) (Boyle, Matthews, & Saklofske, 2008; Rodriguez, 2011; Sands Van Sickle, 2003). See Appendix A for a copy of the 16 PF Fifth Edition Individual Record Form, which includes all 21 bipolar factors, presented in Standard Ten Scores (STEN scores), which for each factor has a mean of 5.5 and a standard deviation of 2, along with descriptors for low and high scores for each factor.

Cattell published the first version of the 16PF in 1949. The 16PF has undergone revisions in 1956, 1962, 1968, and the most recent being the 16PF Fifth

Edition in 1993. The latest edition consists of 185 multiple-choice items, and all items have a three-point answer format. Scores are given for the 16 primary scales, five global scales, and three response bias scales. The five global scales, all bipolar in nature and self explanatory, are as follows: Extraversion/Introversion, High Anxiety/Low Anxiety, Tough-Mindedness/Receptivity, Independence/Accommodation, and Self-Control/Lack of Restraint. The three response bias scales are the Impression Management Scale (IM), Acquiescence Scale (ACQ), and the Infrequency Scale (INF). The Impression Management Scale (IM) assess if the test-taker is willing to admit behaviors that are not socially desirable. The Acquiescence Scale (ACQ) measures the test-takers' likelihood to agree with any statement that is provided even if the statement was not pertinent to them. The Infrequency Scale (INF) is used to measure if the test taker has been responding in a random pattern. The 16PF contains no time limit, however the average time for a paper and pencil test is estimated at 35-50 minutes, and for computer testing 25-40 minutes. Unlike many other psychological instruments, the 16PF is also available in 35 languages worldwide and all translations are culturally adapted (Boyle, Matthews, & Saklofske, 2008; Cattell, Cattell, Cattell, Russell, & Karol, 2002).

It is the 16PF, Fifth Edition that has most recently been used to develop a measure of the important personality construct of self-knowledge. What follows next is an overview of the construct of self-knowledge, then the development of the new measure of self-knowledge, a review of the research efforts to date on this new



measure, and finally a statement of the purpose of this research project, which is to see if certain demographic variables are related to and potentially predictive of this newly 16PF based measure of self-knowledge.

### **Self-Knowledge as a Trait**

#### ***Definitions of Self-Knowledge***

Pinker referred to self-knowledge as “building an internal model of the world that contains the self” (Pervin & John, 1999, p. 448). Alschuler, Weinmtien, Evans, Tamashiro, and Smith (1977) provide a general definition of self-knowledge as the cumulative sum of the thoughts, feelings, actions and sensations that people experience privately. These thoughts, feelings, actions, and sensations are further processed by individuals and then stored in their memory. Tamashiro, and Smith (1977) have come to the conclusion that self-knowledge is an understanding of whom an individual is and what various characteristics come together to create the personality. Higgins (1996) conceptualizes self-knowledge as how people utilize their knowledge and how this determines their actions, and then what occurs based upon these actions. Finally, Silvia and Gendolla (2001) view self-knowledge as an extension of self-awareness. As people become more self-aware, they will gain the ability to fine tune their self-knowledge and overall make more accurate self-judgments. Perhaps the most accurate picture of self-knowledge, as well as a definition of it, may be found by some combination of the above definitions.

To date, an exact definition of self-knowledge is difficult to find. The lack of definition perhaps stems from the history of self-knowledge. Self-knowledge has

not been a central topic in the field of psychology (Vazire & Wilson, 2012; Wilson & Dunn, 2004). Vazire and Wilson (2012) point to the overarching power of psychoanalysis for years, and the general way psychological researchers have moved away from the topic. Problems with research of self-knowledge also stem from the methodical difficulties it presents (Vaszure & Wilson, 2012). Wilson and Dunn (2004) also suggest that the study of self-knowledge has brought about difficult questions with regards to conscious and unconscious mental processes, which until recently psychologists have had some difficulty operationalize.

Another possible method of determining what constitutes self-knowledge is to discover how it might be similar and different from the plethora of other self-related concepts in psychology that have been studied and researched. For example, there is a rich history of psychological research on such areas as self-schema, self-esteem, self-regulation, self-awareness, self-concept, self-consciousness, etc. What might, however, set self-knowledge apart from these other “self” areas is that, along with the content and processes inherent in all of the “self” areas, self-knowledge implies the presence of an specific evaluative component. That is, self-knowledge seems to also require not only determining it’s content and processes, but also if the content elements actually are accurate (Vazire & Wilson, 2012).

### ***Measurement of the Accuracy of Self-Knowledge***

Various studies have been completed on the ability of participants to accurately predict their own scores on personality measures. The ability of

participants to accurately rate their scores on personality measures could then be potentially utilized as a measure of self-knowledge.

Several studies have been completed to examine the relationship between individuals' ability to predict their own scores and the scores they receive on the objective tests of personality as well as self-report measures. Furnham and Henderson (1983) discovered through the use of five different psychological assessments that participants were capable of partly predicting their own personality scores. They found participants were able to do so on the domains of extraversion, psychoticism, and self-monitoring. Furnham and Varian (1988) utilized the Eysenck Personality Inventory and discovered similar findings. They discovered overall participants more accurately predicted scales they were more familiar with such as extraversion and neuroticism. Furthermore, Furnham (1997) discovered through use of the NEO-Five Factor Inventory, participants were able to accurately predict scores on extraversion, conscientiousness, and neuroticism. Through Furnham's work, it can be concluded some personality traits may be more accurately predicted than others but overall participants are not able to predict their personality traits across all domains.

Domains participants struggled to accurately predict on the NEO-Five Factor Inventory were agreeableness and openness-to-experience. Further studies utilizing the 16PF also discovered participants difficulty in predicting "practical vs. imaginative", "suspiciousness", and "astuteness" (Furnham, 1997; Furnham 1989; Friedman, Sasek, & Wakefield, 1976; DeBlassie & Franco, 1983; Winter, 2002;

Miller, 2000). Further studies also determined more skewed predictions toward the social desirability end of the continuum (Furnham, 1997; Furnham 1989; Friedman, Sasek, & Wakefield, 1976; DeBlassie & Franco, 1983; Winter, 2002; Miller, 2000). It can further be determined that the ability of individuals to predict their personality scores is influenced by various factors. These factors include awareness, social desirability, and understanding of the personality measure being presented to them. Several personality traits may also influence the participant's accuracy in predicting their scores (Furnham, 1997; Furnham 1989; Friedman, Sasek, & Wakefield, 1976; DeBlassie & Franco, 1983; Winter, 2002; Miller, 2000). Another explanation for the varied abilities to accurately predict some personality traits over others, may well rest in the given abilities of those predicting the scores. That is, it is conceivable that, along with differences within the traits themselves, the ability to self-predict these traits may better reflect an intra-personal variable, such as the construct of self-knowledge. It is this latter possibility that led to the initial development of the SAPP.

### **Development of the SAPP**

Given the various factors that influence persons' ability to predict their personality scores, Miller (2000) worked on creating a scale that would provide a measure of people's ability to accurately predict their personality traits. Her research had all participants first take the 16PF Fifth Edition. After their completion of the 16PF, they were provided with the 16 PF Fifth Edition Individual Record Form (see Appendix A), and were asked to rate where they felt they would

fall on the 21 bipolar personality dimensions, using the descriptors of the primary and global factors given on the Record Form. Miller then summed the absolute differences between the obtained and predicted scores across all 21 factors to arrive at a potential measure of the degree of accurate self-knowledge. Miller called the measure the Scale of Accurate Prediction of Personality (SAPP). It should be noted that because of the sten scores used on the Record Form, the lowest score one can receive on the SAPP is 0 and the highest is 189. Low scores also reflect a greater degree of accuracy in self-prediction, and higher scores a lower degree of accuracy. Miller's participants scored between 18-79 on the SAPP. Since its introduction, the SAPP has been the focus of numerous studies, designed to test its reliability and validity, as well as identify possible predictors of self-knowledge.

### ***Reliability Studies***

Reliability refers to a measures overall consistency. The form of test reliability most relevant to a measure such as the SAPP is test-retest reliability. Test-retest reliability asks the question: Does the measure consistently produce similar results over a relatively short period of time? Silva (2011) completed a test-retest study of the SAPP measure. Using 62 participants she examined the participants scores between an initial testing session and a second testing session two weeks later. Silva's study yielded significant correlations between scores, however, the significant findings were somewhat below the acceptable correlation for a psychological measure. Due to Silva's correlations yielding results somewhat below the acceptable level, a trio of

studies completed in 2012 sought to replicate her study, as well as extend it by extending the period of time between the two testing sessions.

Hirsch (2012) sought to more directly replicate Silva's study. Fifty-eight participants completed the initial testing session, and then the second testing session two weeks later. The results of Hirsch's study indicated significant moderate correlation between participants SAPP scores, providing an acceptable degree of test-retest reliability.

Sverdlova, also in 2012, sought to replicate Silva's study, but instead of two weeks, used a four-week interval between trials. Her study included the test-retest data from 58 participants. Similar to the results of Silva's study there was a significant correlation between the participants SAPP scores, and higher than those found by Silva (2011).

Finally, Elghossain (2012) completed a similar test-retest study, utilizing two testing sessions six weeks apart. The results indicated a significant correlation between the scores and the correlation also fell within the acceptable range for a psychological measure.

The authors of these three replicative studies also point out that when considering what is an acceptable level of test-retest reliability correlation across numerous scales (i.e., in this case, the 16 primary factors and the five global factors), one must also take into consideration the limiting values of these individual scales' own reliability coefficients. The most recent test-retest reliability data for intervals of two weeks and two months can be found in the

16PF Technical Manual (Conn & Rieke, 1994), and is replicated here in Table 1. As can be seen, the two week test-retest interval for the 16PF, Fifth Edition normative sample ranged from a low .69 to a high of .82. These data temper, then, the somewhat lower reliability results found in the above mentioned three SAPP studies, and thus provide support for the overall reliability of the SAPP measure.

### ***Validity Studies***

Validity (and in this case, construct validity) refers to a measure's overall ability to measure what it is claiming to measure. In the case of the SAPP, the construct is self-knowledge, and more so accurate self-knowledge. There are two different types of construct validity, convergent and divergent validity. Correlation between two measures that claim to measure a similar construct reflects convergent validity. Divergent validity is the lack of correlation between two measures that claim to measure different constructs.

In 2001, Hood sought to investigate the validity of the SAPP and compare the correlations between the Private Self Consciousness Scale and the Tennessee Self Concept Scale, a measure of self-esteem. She predicated there would be significant correlations between the Private Self Consciousness Scale and the SAPP (convergent validity). She further predicted there would be no significant correlation between the SAPP and the Self-Concept scale (divergent validity). Sixty-two participants completed the 16PF, Private Self Consciousness Scale, and the Tennessee Self Concept Scale. Hood then

calculated the SAPP scores for each participant and correlated these scores with the other measures. Her analyses led her to conclude, as predicted, that the SAPP was in fact not correlated with the measure of self-esteem. However, she also found the SAPP was not correlated with the Private Self Consciousness Scale. Her final conclusion based on her analyses was that the SAPP is not a measure of self-consciousness. Glywasky (2003) attempted to replicate Hood's previous study utilizing a larger sample size. She too produced similar findings.

Anderson (2002) also attempted to establish convergent validity, utilizing a different measure. She utilized the Self-Monitoring scale, a scale that measures a participant's willingness and ability to adjust their behavior to certain social situations. It was predicted those who were more self-aware as well as alert to social situation cues would perhaps be more accurately able to predict their personality traits. However, Anderson (2002) was unable to establish convergent validity between the SAPP and the Self-Monitoring scale. Importantly, Both Hood (2001) and Anderson (2002) point out it is possible that the correlation between the two measures and the SAPP did not emerge as predicted due to the differences in the conceptualization of the self. They both argued that it is possible that the SAPP may be reflective of the construct of the self being related to "me" (the self as composed of certain definable traits, characteristics, memories, attributes, etc.), and that the other measures



are more reflective of the construct of the self as “I” (the state variable of the self as the experiencing agent of the individual) (Leary & Tangney, 2012). .

Winter (2002) sought to examine the construct validity of the SAPP by comparing the scores of two different groups of people. It was assumed that the groups would significantly differ in their scores on the SAPP. Winter utilized graduate psychology students and engineering students. It was predicted the psychology students would yield lower SAPP scores (and thus higher levels of self-knowledge) in comparison to the scores of the engineering students. Winter (2002) however, did not find significant differences between the two groups. As with previous studies before Winter’s, it is likely the small sample size (N=32) had the potential to limit the ability for a significant result to emerge. Grossenbacher (2006) sought to replicate Winter’s studies utilizing a larger sample size. Her study utilized not only graduate students in each field, but also expanded to include professionals. Grossenbacher (2006) found significant differences, as those with psychology degrees demonstrated lower SAPP scores. These findings provided some support for the validation of the SAPP.

Two studies by Layton (2005) and Hickey (2005) sought to establish the SAPP’s validity by utilizing a created Concordance Measure (CM). The CM was created by correlating one’s predicted scores with those from others who presumably knew the subject very well and who predicted scores of that individual. It was hypothesized that if a person’s SAPP score correlated

positively with the CM then the construct validity of the SAPP would be supported. Layton (2005) compared the predicted personality scores target individuals had to those of two friends' predication of the individuals' personality scores. The SAPP scores for thirty target individuals were derived, and then correlated with the CM, which was derived from the 64 friends (two per targeted subjects). The study yielded positive results, but did not reach the level of significance needed. Hickey's (2005) study utilized a similar method, however, investigated the relationship between family members predications of individuals personality in comparison to the individuals prediction of their personality. Similar to Layton's study, no significant results were discovered, despite yielding positive results in the predicted direction. In 2006, Wolf attempted to replicate Layton's study, with a larger population size. Wolf's analyses discovered a significant correlation between the individuals SAPP score and the CM measure of peer predictions. Similar to Wolf, Blankemeier (2007) sought to replicate Hickey's 2005 study utilizing a larger sample size. Blankemeier also discovered a significant correlation between individuals' SAPP score and the CM measure of family prediction.

Afanador (2006) examined whether the SAPP scores of those in individual therapy were similar to the ratings of their personality by the therapist they were seeing. He predicated the clients would have lower SAPP scores and these would be correlated with the therapists rating of their self-

knowledge. Afanador's study yielded no significant results. A low sample size was cited as a limiting factor of the study.

### **Prediction/Derivation of the SAPP Utilizing Obtained 16PF Results**

Two of the SAPP studies to date have looked at the relationship between the obtained 21 Factor scores and the derived SAPP scores. The importance of this line of research is to 1) identify given variables that might best yield significant differences between high and low SAPP scores and thus help characterize features of those who better know themselves from those who know themselves less well, and to 2) then be potentially able to derive one's SAPP score from a combination of the predictive variables. This would be critical, as the SAPP would not have to be calculated from a person's self – predictions of the 21 variables, but rather from the obtained scores only.

Miller (2000) conducted a regression analysis to determine which 16PF primary and global factors best predicted the participants SAPP scores. Miller discovered seven personality factors, which differentiated the high and low scores on the SAPP. Five factors emerged as best predictors of the SAPP scores. It was found that individuals who were more receptive and open-minded (low in Global Factor 3 – Tough-mindedness), more abstract in their reasoning (high in Factor B), more accommodating and agreeable (low in Global Factor 4 – Independence), more high energy and driven (high in Global Factor 5 – Tension) , and more unperturbed and relaxed (low in Global Factor 2 – Anxiety) more accurately predicted their personality traits.

### **Demographic Variables as Predictors of SAPP Scores**

Along with the above 16PF scales as predictors, it could be very clinical useful, as well as potentially adding predictive power to the derivation of the SAPP score, to examine the influence of the obtained demographic variables of the data base sample on the SAPP scores. Demographics consist of numerous variables such as age, race, ethnicity, education level or attainment, income, marital status, occupation, religion, birth rate, death rate, and sexual orientation. Demographics are commonly collected to provide information about the sample obtained in research. At times, differences will be found in demographic data across a collected sample, and will impact the generalizability results of the research study. Many researchers often collect data specifically to discover differences among the numerous demographic variables listed above.

Many studies have been conducted to discover differences in personality across various demographics. With regards to personality, the studies vary greatly in topic, conclusion, and purpose. For example, a study by Fagley (2012) sought to discover if appreciation could explain the variance in life satisfaction when controlling for age, gender, ethnicity, the Big 5 personality factors, and gratitude. Another study compared online pathological gamblers and non-online pathological gamblers and further assessed their gambling behavior, sociodemographic features,

psychopathology and personality (Jiminez-Murcia et al., 2011). A study conducted by Duberstein, Meldrum, Fiscella, Shields, & Epstein (2007) discovered patients ratings of greater satisfaction with physicians was related to the physicians demographics as well as personality traits, specifically openness and conscientiousness. Other studies simply discussed personality across different cultures (e.g., Carlo, Knight, Roesch, Opal, & Davis, 2014).

### **Statement of Purpose for the Present Study**

No study to date has looked specifically at the potential co-varying and predictive effects of selected demographic variable on the SAPP score. Given that, the purpose of the present study looked to do just that.

The current study examined the results of regression and chi square analyses to determine differences between demographics and those who had high SAPP scores from those who had low SAPP scores. It was hoped that this would allow for more information to be gathered with regards to the possible demographics differences of the rather large population utilized in the past SAPP research studies. It was also hoped that this research would bring to light those demographic variables that might co-vary with the SAPP measure, and in doing lead to better prediction of self-knowledge .

## **Method**

### **Subjects**

SAPP data has been collected on 645 respondents over the last decade. The current study utilized the existing data from this database. Subjects included students enrolled in a small private college, individuals from the community, and outside professionals. The database was randomly divided into two sub-samples, and analyses were performed equally on the two sub-samples as a means of confirming the reliability of the results.

### **Procedure and Analyses**

The current study investigated the demographics of the database, which include age, gender, ethnicity, marital status, employment, and geographic region. The current database of 645 participants was utilized and a series of multiple regressions were completed to discover the potential predictability of the demographic variables on the SAPP scores.

### **Hypotheses**

While data pertaining to personality and demographics may be various and vast, research pertaining to demographics and self-knowledge is scarce. It can be hypothesized however that a difference between genders will be seen in participant's abilities to predict their personality score. Weisberg, DeYoung,

and Hirsh (2011) discovered that women reported higher scores on Extraversion, Agreeableness, and Neuroticism scores. A study by Chapman, Duberstein, Sorensen, and Lyness (2007) also discovered women reporting higher scores on Neuroticism and Agreeableness. Further studies (Feingold, 1994) found men to score higher in the area of Extraversion (Assertiveness specifically), and women to score higher in the area of Agreeableness, specifically in the areas of Nurturance, Sympathy, Empathy, and Concern for Others. As the SAPP study has discovered those who are more warm, agreeable, and outgoing were better able to predict their scores than those who were more restrained, and tough-minded (Miller, 2000), it is, possible that women who score higher on these traits, will be better able to predict their personality.

Goldberg, Sweeney, Merenda, & Hughes (1998) report, there are many limitations in research completed between age and self-reported personality, however, the domain of Conscientiousness allows for predictions to be made. It can be predicted that those who fall into older age cohorts are likely to be more conservative, traditional, well-organized, dependable, practical, and economical all of which are facets in the area of Conscientiousness. As for the areas of race/ethnicity as well as education, research utilizing large samples is still needed and there appear to be no quantitative reviews done in the relation of personality variables (Goldberg, Sweeney, Merenda, & Hughes, 1998).

For this study, it was first hypothesized that a difference in ability to accurately predict ones personality score will emerge across the gender demographic. It is specifically hypothesized that women will more accurately predict their personality scores than will men. The second hypothesis is that a difference in ability to accurately predict ones personality score will be seen in age; specifically, those who are older in age will show a tendency to more accurately predict their scores. Due to minimal research in the areas of ethnicity, geography, occupation, marital status and education utilizing large samples, this study is unable to make a directional prediction. However, analyses will still be run with the following variables for research purposes.



## **Results**

The current study utilized a database containing 645 participants. All subjects predicted their scores on the 16PF then proceeded to complete the 16PF. A SAPP score was then calculated using both the participants obtained and predicted scores on the 16PF.

### **Demographic Results**

Demographics for participants in this study can be found in Table 2. The age of participants ranged from 16-81 years old with a mean age of 28.6 and a standard deviation of 12.37. 58% of the sample identified as female and 42% identified as male. In regards to ethnicity, 71% of the sample were Caucasian, 11.9% were Hispanic, 9.3% were Asian 2.3% were African American, and .2% were Indian American. 5.3% of the sample provided the response of “other” in regards to their ethnicity. For the occupation variable, 61.2% of the sample identified as students. 21.6% indicated they were in white-collar jobs, 8% reported they were in “other” occupations, 4.3% reported being unemployed or a homemaker, 3.4% reported being retired, and 1.6% reported being in blue-collar jobs. With regards to geographic region, the majority of participants (78.9%) were from the Southeast region. 13.1% reported being from the Northeast, 4% from the Midwest, 3.8% from

the Southwest, and .2% from Canada. The mean years of education for the sample was 16.07% years (range 11-23) with a standard deviation of 2.18.

## **Split Half Linear Regression Analyses**

Previous studies had divided the sample into two random samples each a random half sample utilizing a random number generator. Each sample then underwent a regression analyses. Furthermore, the results were compared for reliability (Mazur, 2015).

In the current study the split half data set was utilized. A step-wise multiple linear regressions were then conducted on the sample to predict the SAPP score based on the each of the demographic variables available. The predictors included Age, Gender, Ethnicity, Geography, Occupation, Marital Status and Education. It was found the following variables did not add predictive value to the model and therefore they were not included: Age, Ethnicity, Geography, Occupation, and Marital Status. A multiple regression was then completed utilizing the following variables that added significant predictive value: Gender and Education. Gender  $b = .12$ ,  $t(640) = 3.2$ ,  $p < .001$  and Education  $b = -.14$ ,  $t(640) = 3.6$   $p < .001$  significantly predicted SAPP scores. Gender and Education also explained a significant proportion of the variance in SAPP scores.  $R^2 = .04$ ,  $F(2,640) = 13.62$ ,  $p < .001$ . Conclusions can be made that males more accurately predicted their personality scores than

females. However, it should be noted the size of the effect was considered small. Results of these analyses can be found in Table 3.

The data set was then split by gender and intercorrelation measures were run between the SAPP and education to assess any interactions between gender, SAPP score, and education. Results of the analysis show that the individual effects of each gender and education had an influence on the SAPP scores with the exception of male participants. However, as a women's education increased their ability to accurately predict their personality score decreased. It should be noted the effect for education was small and only explained 3.8% of the variance. Results of this analysis can be found in Tables 4 and 5.

## **Discussion**

With regards to the first hypothesis of the study, the results of the linear regression indicated gender did predict a significant proportion of variance. Specifically, men were more likely to accurately predict their personality scores than women. This differs from the studies hypothesis that women would more accurately predict their scores. The second hypothesis regarding age did not show any predictive value and therefore was not utilized in the model. This differs significantly from the hypothesis' prediction that age would show predictive value. It should also be noted that for the findings mentioned above the effect sizes were small.

While it was not hypothesized, it was found that Education predicted a significant proportion of the variance in SAPP scores. More specifically, no change was seen among men, however, as women's education increased their ability to accurately predict their SAPP scores decreased.

It should be noted the current sample consists primarily of college-aged female, Caucasian individuals located in the South East. Future studies should focus on investigating these measures across a wider measure of demographic variables.

## References

- Afanador, J.H. (2006). Expert validation of the Scale of Accurate Personality Prediction (SAPP). Unpublished master's thesis, Florida Institute of Technology.
- Alschuler, A., Weinmstein, G., Evans, J., Tamashiro, R., & Smith, W. (1977). Education for what? Measuring self-knowledge and levels of consciousness. *Simulations 7 Games*, 8(1). 29-47.
- Anderson, A. (2002). A validation of the Scale of Accurate Personality Prediction using the Self-Monitoring Scale. Unpublished master's thesis, Florida Institute of Technology.
- Beutler, L. E., & Groth-Marnat, G. (2003). *Integrative assessment of adult personality* (2<sup>nd</sup> ed.). New York: Guilford Press.
- Boyle, J.G., Matthews, G., & Saklofske, H.D. (2008). The sage handbook of personality theory and assessment (Vol 2). Thousand Oaks, CA: SAGE Publications Ltd.
- Blankemeier, C.E. (2007). A validation of the Scale of Accurate Personality Prediction using self versus family member comparisons. Unpublished master's thesis, Florida Institute of Technology.
- Cattell, R. B., Cattell, K. S., Cattell, H. E. P., Russell, M., & Karol, D. (2002). *16 personality factor questionnaire*, fifth edition. Champaign, IL: Institute for Personality and Ability Testing, Inc.

- Cervone, D., & Pervin, L. A. (2010). *Personality theory and research* (11<sup>th</sup> ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- Chapman, B. P., Duberstein, P. R., Sörensen, S., & Lyness, J. M. (2007). Gender Differences in Five Factor Model Personality Traits in an Elderly Cohort: Extension of Robust and Surprising Findings to an Older Generation. *Personality and Individual Differences*, 43(6), 1594–1603.  
<http://doi.org/10.1016/j.paid.2007.04.028>
- Corey, G. (2012). *Theory and practice of counseling and psychotherapy* (9<sup>th</sup> ed.). Belmont, CA: Brooks/Cole.
- Costa, T. P., McCrae, R.R. (1992). Normal personality assessment in clinical practice: The NEO personality inventory. *Psychological Assessment*, 4(1), 3-13.
- Costa, T. P., McCrae, R.R. (1997). Stability and change in personality assessment: The revised NEO personality inventory in the year 2000. (1997). *Journal of Personality Assessment*, 68(1), 86-94.
- DeBlassie, R. R. & Franco, J. N. (1983). The difference between personality inventory scores and self-ratings in a sample of Hispanic subjects. *Journal of Non-White Concerns*, 11(2) 43-46.
- Duberstein, P., Meldrum, S., Fiscella, K., Shields, C. G., & Epstein, R. M. (2007). Influences on patients' ratings of physicians: Physicians' demographics and personality. *Patient Education and Counseling*, 65(2), 270-274.  
[doi:http://dx.doi.org.portal.lib.fit.edu/10.1016/j.pec.2006.09.007](http://dx.doi.org.portal.lib.fit.edu/10.1016/j.pec.2006.09.007)

- Elghossain, R. (2012). Examining the test-retest reliability of the Scale of Accurate Personality Prediction. Unpublished master's thesis, Florida Institute of Technology.
- Fagley, N. S. (2012). Appreciation uniquely predicts life satisfaction above demographics, the big 5 personality factors, and gratitude. *Personality and Individual Differences, 53*(1), 59-63.  
doi:<http://dx.doi.org.portal.lib.fit.edu/10.1016/j.paid.2012.02.019>
- Feingold, A. (1994). Gender differences in personality: a meta-analysis. *Psychological Bulletin, 116*, 429-456.
- Friedman, A F., Sasek, J, & Wakefield, J., A., Jr. (1976). Subjective ratings of Cattell's 16 personality factors. *Journal of Personality Assessment, 40*, 303-305.
- Furnham, A.(1989). Predicting one's own and others' 16PF scores. *Current Psychological Reviews and Research, 8*, 30-37.
- Furnham, A.(1997). Knowing and faking one's five-factor personality score. *Journal of Personality Assessment, 69*(1), 229-243.
- Furnham, A. & Henderson, M.(1983). The mote in thy brother's eye, and the beam in thine own: Predicting one's own and others' personality test scores. *British Journal of Psychology, 74*, 381-389.
- Furnham, A. & Varian, C. (1988). Predicting and accepting personality test scores. *Personality and Individual Differences, 9*(4), 735-748.

- Glywasky, K.E. (2003). Re-evaluation of the Scale of Accurate Personality Prediction as a valid measure of self-knowledge. Unpublished master's thesis, Florida Institute of Technology.
- Goldberg, L.R., Sweeney, D., Merenda, P.F., & Hughes, J.E. (1998). Demographic variables and personality: The effects of gender, age, education, and ethnic/racial status on self-descriptions of personality attributes. *Personality and Individual Differences*, 24(3), 393-403.
- Grossenbacher, A.S. (2006). A validation of the Scale of Accurate Personality Prediction using a priori comparison. Unpublished master's thesis, Florida Institute of Technology.
- Harwood, T.M., Beutler, L.E., & Groth-Marnat, G. (2011). *Integrative assessment of adult personality (3<sup>rd</sup> edition)*. New York: Guilford Press
- Higgins, E.T. (1996). The "self-digest": Self-knowledge serving self-regulatory functions. *Journal of Personality and Social Psychology*. 71(6), 1062-1083.
- Hickey, J.L. (2005). A validation of the Scale of Accurate Personality Prediction. Unpublished master's thesis, Florida Institute of Technology.
- Hirsch, S. (2012). Test-retest reliability of the Scale of Accurate Personality Prediction. Unpublished master's thesis, Florida Institute of Technology.
- Hood, C.A. (2001). A measure of the accuracy of self-predicted personality traits. Unpublished master's thesis. Florida Institute of Technology.



Jiménez-Murcia, S., Stinchfield, R., Fernández-Aranda, F., Santamaría, J. J., Penelo, E., Granero, R., . . . Menchón, J. M. (2011). Are online pathological gamblers different from non-online pathological gamblers on demographics, gambling problem severity, psychopathology and personality characteristics? *International Gambling Studies*, 11(3), 325-337.

doi:<http://dx.doi.org.portal.lib.fit.edu/10.1080/14459795.2011.628333>  
3

Layton, E.E. (2005). A validation of the Scale of Accurate Personality Prediction using self versus other comparisons. Unpublished masters thesis, Florida Institute of Technology.

Mazur, L.A. (2015). An examination of 16PF primary factors as predictors of the Scale of Accurate Personality Prediction (SAPP). (Unpublished doctoral dissertation). Florida Institute of Technology, Melbourne Florida.

Miller, K.L. (2000). *A measure of the accuracy of self-predicted personality traits*. (Unpublished doctoral dissertation). Florida Institute of Technology, Melbourne Florida.

Robins, R.W. Norem, J.K, & Cheek, J.M. (1999). Naturalizing the self. In L.A. Pervin, & O. P. John (Eds.), *Handbook of Personality*. New York NY: The Guilford Press.

- Rodriguez, M. (2011). *Scale of accurate personality prediction: A generalizability study to the hispanic population* (Unpublished doctoral dissertation). Florida Institute of Technology, Melbourne Florida.
- Rozin, P., Haidt, J., McCauley, C., Dunlop, L., & Ashmore, M. (1999). Individual differences in disgust sensitivity: Comparisons and evaluations of paper-and-pencil versus behavioral measures. *Journal of Research in Personality, 33*, 330-351.
- Silvia, P. J., & Gendolla, G. H. E. (2001). On introspection and self-perception: Does self-focused attention enable accurate self-knowledge? *Review of General Psychology, 5*, 241-269.
- Sverdlova, M. (2012). Test-retest reliability of the Scale of Accurate Personality Prediction. Unpublished master's thesis, Florida Institute of Technology
- Weisberg, Y. J., DeYoung, C. G., & Hirsh, J. B. (2011). Gender Differences in Personality across the Ten Aspects of the Big Five. *Frontiers in Psychology, 2*, 178. <http://doi.org/10.3389/fpsyg.2011.00178>
- Winter, S.N. (2002). *A measure of construct validity of the scale of accurate personality prediction*. (Unpublished doctoral dissertation). Florida Institute of Technology, Melbourne Florida.
- Wilson, T.D., & Dunn, E., W. (2004). Self-knowledge: It's limits, value, and potential for improvement. *Annual Review of Psychology, 55*, 493-513

- Wolf, A.T. (2006). A re-validation of the Scale of Accurate Personality Prediction using self versus peer comparisons. Unpublished master's thesis, Florida Institute of Technology.
- Vazire, S., & Wilson, T.,D. (2012). *Handbook of self-knowledge*. New York: Guilford Press.

## Tables

Table 1  
Reliability Estimates for 16PF Fifth Edition Scales

	Internal Sample		Consistency		Test 2- week	Retest 1- month
	1 N=820	2 N=2500	3 N=1340	Average <sup>a</sup> N=4660	N=204	N=159
Primary Scale						
Warmth (A)	.69	.69	.74	.70 (0.82)	.83	.77
Reasoning (B)	.76	.77	.68	.74 (0.75)	.69	.65
Emotional Stability (C)	.78	.78	.77	.78 (0.91)	.75	.67
Dominance (E)	.71	.66	.70	.68 (0.81)	.77	.69
Liveliness (F)	.73	.72	.70	.72 (0.68)	.82	.69
Rule-Consciousness (G)	.74	.75	.77	.75 (0.97)	.80	.76
Social Boldness (H)	.86	.85	.87	.86 (0.74)	.87	.79
Sensitivity (I)	.79	.77	.79	.78 (0.98)	.82	.76
Vigilance (L)	.74	.74	.70	.73 (1.02)	.76	.56
Abstractedness (M)	.74	.74	.75	.74 (1.01)	.84	.67
Privateness (N)	.77	.75	.78	.76 (0.87)	.77	.70
Apprehension (O)	.78	.78	.79	.78 (0.94)	.79	.64
Openness to Change (Q1)	.71	.64	.68	.66 (1.11)	.83	.70
Self-Reliance (Q2)	.78	.78	.78	.78 (0.89)	.86	.69
Perfectionism (Q3)	.73	.71	.76	.73 (0.96)	.80	.77
Tension (Q4)	.75	.76	.74	.75 (0.93)	.78	.68
Global Scale <sup>b</sup>						
Extraversion					.91	.80
Anxiety					.84	.70
Tough-Mindedness					.87	.82
Independence					.84	.81
Self-Control					.87	.79

<sup>a</sup> Average internal consistency values were weighted with respect to sample size. Standard error of measurement estimates, using weighted standard deviations, are presented in parenthesis.

<sup>b</sup> Internal Consistency values are not available for the global factor scales because their scores are derived from combinations of the 16 primary factor scales.

Table 2  
Summary of Demographic Variables

Demographic Variable	Frequency	Percent
GENDER		
Female	374	42.0%
Male	271	
RACE		
Caucasian	458	71.0%
Hispanic	77	11.9%
Asian	60	9.3%
Other	34	5.3%
African American	15	2.3%
Indian American	1	.2%
MARITAL STATUS		
Single	347	72.9%
Married	98	20.6%
Divorced	23	4.8%
Separated	5	1.1%
Widowed	3	.6%
OCCUPATION		
Student	345	61.2%
White Collar	122	21.6%
Other	45	8.0%
Unemployed/Homemaker	24	4.3%
Retired	19	3.4%
Blue Collar	9	1.6%
GEOGRAPHY		
Southeast	375	78.9%
Northeast	62	13.1%
Southwest	19	3.8%
Midwest	18	4.0%
Canada	1	.2%
EDUCATION		
Less than 12 Years	1	.2%
High School Completed	31	4.9%
Some College	198	31.5%
College Degree	146	23.3%
Graduate or Professional Training	253	40.2%

Table 3  
Split Half Linear Regression Analyses

Variable	Unstandardized b	SE	$\beta$	t
Gender	3.3	1.0	.12	3.1**
Education	-.85	.24	-.14	-3.6**

Note:  $F(2,640) = 13.62, p < .001, R^2 = .04$

\* $p < .05$ , \*\* $p < .01$

Table 4  
Intercorrelations of Females, SAPP, and Education

Variables	M	SD	1	2
SAPP	40.35	12.75		-.197**
Education	16.35	2.19	-.197**	

\*\* $p < .01$

Table 5  
Intercorrelations of Males, SAPP, and Education

Variables	M	SD	1	2
SAPP	44.19	13.15		-.066
Education	15.69	2.12	-.066	

\*\* $p < .01$