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Relationships Among Overt and Covert Narcissism and Vocational Interests with Respect to Gender

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RELATIONSHIPS AMONG
OVERT AND COVERT NARCISSISM AND VOCATIONAL INTERESTS
WITH RESPECT TO GENDER

BY

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This dissertation is dedicated to my mother and father, whose careers have been spent in service to others.
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ABSTRACT

Larger numbers of students are attending four-year institutions than in previous years and are taking longer to complete their degree programs (Barton, 2002; Wirt, Choy, Rooney, Provasnik, Sen, & Tobin, 2004). These same students may also endorse higher levels of narcissism and have unrealistic expectations for their careers (Twenge, 2006). These trends present a challenge to career development professionals working in university and college settings. To assist students in solving their career problems, these professionals often assess vocational interests using Holland’s theory and his Self-Directed Search (SDS) instrument (Holland, Powell, & Fritzsche, 1994). Yet, little is known about the relationships between narcissism and vocational interests, as they are assessed by the SDS.

There are, however, separate lines of inquiry in the theoretical and empirical literature on narcissism and vocational interests. Narcissism has been well described in both the analytic and cognitive-behavioral traditions (Freud, 1989; Beck & Freeman, 1990). More specifically, two kinds of narcissism, overt and covert, have been empirically distinguished (Wink, 1991). Vocational interests have been described and studied for almost a century (Parsons, 1909). Holland’s Theory and the SDS have also been extensively discussed over the past 35 years (Ruff, Reardon, & Bertoch, 2007). One variable, which has been shown to be related to both narcissism and vocational interests, is gender (Bushman & Baumeister, 1998; Holland, Fritzsche, & Powell, 1994). Therefore, the question posed by this study was, “What are the relationships among overt and covert narcissistic personality traits and assessed vocational interests with respect to gender?”

To answer this question, data were collected for a co-relational study from a final sample of 259 college students enrolled in a career development course at a large southeastern university. In addition to a demographic form, the Narcissistic Personality Inventory (Raskin & Terry, 1988), the Hypersensitive Narcissism Scale (Hendin & Cheek, 1997), and the SDS were administered to measure overt narcissism, covert narcissism, and Holland’s primary and secondary constructs of vocational interests, respectively. Pearson product-moment correlations were calculated by gender among overt narcissism, covert narcissism, the primary constructs (i.e., the six RIASEC code-types), and the secondary constructs of consistency, coherence, differentiation, commonness, and profile elevation. Significant relationships were found between overt narcissism and the Enterprising code-type for both male and female participants. In males,
overt narcissism was found to be significantly related to differentiation using both the high-low and Iachan index methods. However, in females, only the high-low method of calculating differentiation was found to produce a significant relationship with overt narcissism. No significant relationships were found between covert narcissism and Holland’s primary and secondary constructs. As demonstrated by z-tests, no significant differences were found by gender for the relationships between either kind of narcissism and vocational interests. Limitations of the study were reviewed including the fact the sample was significantly higher in overt narcissism and lower in covert narcissism than those in past studies. Findings were discussed using a synthesis of the narcissism and vocational interest literature. Recommendations were made for theory development, practice, and future avenues of research.
CHAPTER 1
INTRODUCTION

For decades, both the popular media and the psychology literature has commented on the apparent increase in narcissism among late adolescents and young adults in our society (Lasch, 1979; Twenge, 2006). A recent meta-analytic study suggested that college students of the early 21st century are more narcissistic than previous generations (Twenge, Konrath, Foster, Campbell, & Bushman, 2008). The concept of narcissism is rooted in the original myth of the vain and self-obsessed Narcissus (Ovid, 1955). It has been conceptualized from analytic (Freud, 1915; Kernberg, 1975; Kohut, 1971) and cognitive behavioral perspectives (Beck & Freeman, 1990). The fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM IV-TR, American Psychiatric Association, 2000) describes narcissism as an overt and serious psychopathology. However, more recent studies have posited the existence of covert (Wink, 1991) or even “healthy” narcissism (Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004).

It has also been suggested that narcissism contributes to the idealism and the alternating grandiosity and despondency, which characterizes adolescence (Jacoby, 1990). A key developmental task of adolescence is the establishment of an identity, which includes a vocational identity (Erikson, 1963; Holland, Daiger, & Power, 1980). For some college-aged adolescents, the exploration associated with the formation of vocational identity is a painful task (Krumboltz, 1983). In fact, the anxiety resulting from career exploration and career decisions has been termed zeteophobia, or the “fear of searching out” (Krumboltz, 1992).

Several theories have been proposed to explain the problems that college students encounter when making career decisions. One such theory is the cognitive information processing (CIP) approach to career problem solving and decision making (Peterson, Sampson, & Reardon, 1991; Peterson, Sampson, Lenz, & Reardon, 2002; Peterson, Sampson, Reardon, & Lenz, 1996; Reardon, Lenz, Sampson, & Peterson, 2000, 2006). From the CIP perspective, those individuals who have difficulty with career problem solving may be experiencing low readiness for decision making (Peterson, Lenz, & Sampson, 2003; Sampson, Reardon, Peterson, & Lenz, 2004). This low readiness may be due to an individual’s limited capability for making a career decision. Complexity in the environment can also lower readiness for career decision making. In the CIP approach, one of several factors considered primary to capability for career choice is possessing an accurate perception of one’s vocational interests (i.e., well differentiated schema
of self-knowledge). Inaccurate perceptions of self are a key element of narcissism (Beck & Freeman, 1990).

The study of vocational behavior and interests is a foundational element in the field of counseling psychology and career counseling (Betsworth & Fouad, 1997). While there is no clear consensus on the etiology of vocational interests (e.g., environment vs. genetics), the construct has become widely investigated in the counseling literature (Hansen, 1984; Holland, 1997). More specifically, Holland’s theory (1963, 1966, 1973, 1997) is cited as being the most influential theory in the practice of vocational assessment. Holland’s Self-Directed Search (SDS, Holland, Powell, & Fritzsche, 1994) is simultaneously a carefully developed, standardized instrument based on Holland’s theory and a “simulated career counseling and planning activity” (Reardon & Lenz, 1998, p. 60). It is thought to be the most frequently used and widely translated vocational assessment in the world (Reardon & Lenz, 1998).

Several “diagnostic signs,” also known as “secondary constructs,” provided by the SDS include congruence of aspirations to summary code, coherence of aspirations, consistency of summary code, and differentiation of summary code scores. These secondary constructs describe an individual’s personal career theory and readiness for career decision making (Reardon & Lenz, 1998). While numerous studies have been conducted relating Holland’s RIASEC theory of vocational interests to other relevant personality constructs (e.g., the Big Five model of personality) (Bullock, 2006; Sullivan & Hanson, 2004), few studies have explored the relationships among vocational interests and the personality traits of narcissism.

Given the potential increase of narcissism among college students (Twenge et al., 2008), the dearth of research in vocational interests that integrates narcissism is an important topic for investigation. Therefore, this will be the topic of study in this paper. The remainder of this chapter includes a statement of the problem, the research questions to be investigated, and the social significance of the study.

**Statement of the Problem**

To date, the relationship between narcissism and vocational interests has not been fully examined in the literature. Existing research has only focused on the measurement of narcissism based on psychoanalytic models of personality and the prevalence of narcissism among individuals pursuing specific occupations. More specifically, two different kinds of narcissism,
overt and covert, have been empirically distinguished. However, there have been few studies conducted relating narcissism to career decision making (Mako, 1991; Robbins, 1983).

Two studies have described possible relationships between overt narcissism and assessed vocational interests (Holland, Johnston, & Asama, 1994; Strack, 1994) in the process of broader investigations on the relationships between personality and vocational interests. However, none of these studies focused on college students seeking career services. Furthermore, no studies have looked at the relationship of covert narcissism and assessed vocational interests. With the exception of profile elevation (Fuller, Holland, & Johnston, 1999), the relationships between secondary constructs in Holland’s theory and narcissism have not been described.

One shortcoming is that these studies have treated narcissism as one of a cluster of other personality traits, using comprehensive instruments of personality, which usually devote only a small percentage of items to measuring each construct. Also, none of the studies conducted have sampled college students seeking career development services. Finally, these studies have not consistently accounted for gender and have not considered possible relationships with age and minority group status, all of which have been shown to be related to both narcissism and vocational interests. These deficits indicate the need for the following research question.

**Research Question**

Given the content and methodological gaps in the literature noted previously, the following research question has been constructed: *What are the relationships among overt and covert narcissistic personality traits and assessed vocational interests with respect to gender?*

**Specific Research Questions and Hypotheses**

1. What is the relationship between assessed vocational interests and overt narcissism with respect to gender?
   
   H1.a: There is no relationship between assessed vocational interests and overt narcissism in males.
   
   H1.b: There is no relationship between assessed vocational interests and overt narcissism in females.
   
   H1.c: There is no significant difference by gender in relationships between vocational interests and overt narcissism.

2. What is the relationship between assessed vocational interests and covert narcissism with respect to gender?
   
   H2.a: There is no relationship between assessed vocational interests and covert narcissism in males.
H2.b: There is no relationship between assessed vocational interests and covert narcissism in females.

H2.c: There is no significant difference by gender in relationships between vocational interests and covert narcissism.

3. What is the relationship between secondary constructs of vocational interests and overt narcissism with respect to gender?

H3.1.a: There is no relationship between consistency and overt narcissism in males.
H3.1.b: There is no relationship between consistency and overt narcissism in females.
H3.2.a: There is no relationship between coherence and overt narcissism in males.
H3.2.b: There is no relationship between coherence and overt narcissism in females.
H3.3.a: There is no relationship between differentiation and overt narcissism in males.
H3.3.b: There is no relationship between differentiation and overt narcissism in females.
H3.4.a: There is no relationship between commonness and overt narcissism in males.
H3.4.b: There is no relationship between commonness and overt narcissism in females.
H3.5.a: There is no relationship between profile elevation and overt narcissism in males.
H3.5.b: There is no relationship between profile elevation and overt narcissism in females.
H3.6: There is no significant difference by gender in relationships between secondary constructs and overt narcissism.

4. What is the relationship between secondary constructs of vocational interests and covert narcissism with respect to gender?

H4.1.a: There is no relationship between consistency and covert narcissism in males.
H4.1.b: There is no relationship between consistency and covert narcissism in females.
H4.2.a: There is no relationship between coherence and covert narcissism in males.
H4.2.b: There is no relationship between coherence and covert narcissism in females.
H4.3.a: There is no relationship between differentiation and covert narcissism in males.
H4.3.b: There is no relationship between differentiation and covert narcissism in females.
H4.4.a: There is no relationship between commonness and covert narcissism in males.
H4.4.b: There is no relationship between commonness and covert narcissism in females.
H4.5.a: There is no relationship between profile elevation and covert narcissism in males.

H4.5.b: There is no relationship between profile elevation and covert narcissism in females.

H4.6: There is no significant difference by gender in relationships between secondary constructs and covert narcissism.

Social Significance of the Study

The career decision-making process of individual students takes place in a larger cultural and sociopolitical context. This context involves multiple stakeholders such as policy makers, college faculty, staff, students, and parents. Evidence of the significance of this topic is shown in the recent debate over graduation rates of students from four year universities and federal policy proposals that would penalize or reward institutions based upon those rates (Burd, 2004). While access to college for high school seniors increased between 1972 and 1992, rates of completion remained unchanged (Barton, 2002). One study compared students who enrolled in four-year colleges in 1989 with those who enrolled in 1995 (Wirt, Choy, Rooney, Provasnik, Sen, & Tobin, 2004). Some 53% of both cohorts completed a degree within 5 years; however, the 1995 cohort was more likely to have no degree and still be enrolled (17% in 1989 vs. 13% in 1995). This 1995 cohort was also less likely to have left postsecondary education without a degree (20% in 1989 vs. 24% in 1995). In short, it appears that while more students are attending four-year institutions, and slightly more are graduating, they may be taking longer to complete their degree programs. Some policy makers have addressed this trend by tying funding to degree completion time (Indiana Commission for Higher Education, 2006) and implementing academic milestones for course scheduling and selection by students (Florida State University, 2007).

The economic cost of longer degree completion times is significant and has been shifting from institutions to students and their families (Kramer, 1993). For the individual, this not only means additional expenses associated with higher education, but the opportunity cost of lost wages. For the institution, additional students remaining enrolled for longer periods of time results in higher costs of facility upkeep and personnel expenses. Furthermore, fewer graduates leads to a smaller, less skilled workforce for employers, which in turn diminishes the tax base for local, state, and national governments.
Professional Significance of the Study

It is often the professional counselor in a college advising, counseling, or career center who is tasked by the institution to provide solutions to the above systemic problems. However, these professionals are often confronted with a herculean workload. In a 2005 nationwide survey of first year college students, some 49% expected to change their major, but only 30% actually took action to do so in their first year (Hurtado, Sax, Saenz, Harper, Osequera, Curley, Lopez, Wolf, & Arellano, 2007). Similarly, one university identified that some 27% of first year students, and 14% of upper division transfer students, changed their major at least once during 1994 (California Polytechnic State University, 2001).

As these students struggle to make career decisions, they may set unrealistically high expectations for themselves. As cited by Twenge et al. (2008), 29% more first-year college students cited financial success as important life goal in 2004 than the 45% of their predecessors did in 1967 (Astin, Oseguera, Sax, & Korn, 2004). Similarly, the Pew Research Center (2007, p. 12) noted that some 64% of 18 to 25 year-olds stated that ‘getting rich’ was the most important goal of their generation (an increase of 19% over the previous generation). Obtaining fame was the second most important goal at 50% (a 21% increase from the previous generation). Helping others came in third at 30% (a 6% decrease from the previous generation).

Students also have high expectations for the level of education they will be able to attain. Yet, these expectations may not be practical. For example, while 51% of high school graduates expected to earn degrees beyond the bachelor’s degree, in reality, only 9% of 25 to 34 year olds hold these degrees (Reynolds, Stewart, MacDonald, & Sischo, 2006). Similarly, 61% of high school graduates expected to hold a professional position by age 30, while only 18% of high school graduates have historically attained these positions (Reynolds et al., 2006).

Therefore, as student bodies grow larger, they appear to be encountering increasing institutional pressure to graduate in a timely manner, while also experiencing an increase in self-imposed pressures to achieve what may be impractical goals for “success.” This phenomenon may result in increased career development services utilization, which would stretch already limited resources. Given this increased demand for services, career development services need effective methods of evaluating student needs and delivering the correct nature and degree of services they make available in a cost-effective manner.
One method of matching student needs to service delivery is the differentiated service delivery model; a component of the previously mentioned CIP approach. While it is often developmentally appropriate for students to revisit previously made career decisions (e.g., changing a major), some students have more difficulty making career decisions than others (Sampson et al., 2004). Students’ efforts to change their majors are hindered by their limited decision-making skills and related cognitive, emotional, and behavioral antecedents that yielded the major change.

The increasingly common narcissism displayed by students has the potential to hinder successful career decision making and further strain career service delivery systems. It is possible that narcissistic personality traits may result in individuals making slower progress in counseling relationships, approaching assessments with a particular bias, or discount information from the external world due to a biased schema. In extreme cases of narcissistic personality disorders, the client may be unable to profit from a helping relationship (American Psychiatric Association, 2000).

It is important that career development professionals in postsecondary institutions provide quality services which prevent or remediate the career decision-making difficulties of students. However, these professionals are challenged by the increasing number of students they must serve and the greater complexity of these students’ problems. Given these circumstances, a better description of the relationships of narcissism to vocational interests may better inform the delivery of career development services and, in-turn, the career decisions of college students.

Theory Bases

The theoretical and empirical literature may inform the investigation of the relationship between narcissism and vocational interests. The psychoanalytic tradition, starting with Freud (1914), and continuing with Kohut (1971, 1975) and Kernberg (1971), forms the foundation of the investigation and treatment of narcissism. More recent theoretical developments, such as cognitive-behavioral theory (Beck & Freeman, 1990) and schema therapy (Young, Klosko, & Weisharr, 2003), have also contributed to our modern understanding of this phenomenon. The research and practice of vocational interest assessment is also firmly grounded in the theory of John Holland (1966, 1973, 1997). More recent theories, such as the cognitive information processing approach (Peterson, Sampson, & Reardon, 1991; Peterson, Peterson, Sampson, Lenz, & Reardon, 2002; Reardon, Lenz, Sampson, & Peterson, 2000, 2006; Sampson, Reardon, &
Lenz, 1996;), have informed the delivery of appropriate services, such as vocational interest and personality assessment, based on client needs and readiness. However, no in-depth discussion of the theoretical relationships between narcissism and vocational interests appears to have occurred in the literature to date.

The following terminology definitions are used throughout this study and are grounded in the theory that is present in the literature:

**Definition of Terms**

Throughout this study, terms may be used that have meanings different from common usage. The following definitions are provided to support the reader’s understanding of the literature review, methodology, results and analyses, and discussion.

**Assessed Interests:** An objective declaration of vocational interests, operationalized on the SDS (Holland, Powell, & Fritzsche, 1994), by the endorsement of activities, occupations, competencies, and self-estimates of skills and abilities (Reardon & Lenz, 1998).

**Coherence:** “…the degree to which codes for a client’s occupational daydreams belong in the same RIASEC category…”, operationalized on the SDS by checking the similarity of the first Holland letters of the first three occupational daydream codes (Reardon & Lenz, 1998, p. 64).

**Commonness:** The frequency with which codes are observed in the population. Common codes are associated with higher stability of choice (Reardon & Lenz, 1998). Codes occurring with a frequency of greater than 4.5% are categorized as high; between 0.11% and 4.49% are categorized as average; and those less than 0.10% are categorized as low.

**Congruence:** The degree of relatedness between two 3-letter RIASEC codes (i.e., a person’s interests and an occupational, leisure, or educational environment). Congruence on the SDS is calculated by the degree of the match between a person’s assessed and expressed interests (Reardon & Lenz, 1998).

**Consistency:** Degree of relatedness within a person or environment of the first two letters in a Holland code (Holland, 1997). Consistency is operationalized on the SDS by how adjacent the first two letters of a three-letter summary code are on the RIASEC Hexagon (Reardon & Lenz, 1998).

**Covert narcissism:** A personality trait characterized by an interpersonal style involving a pattern of conflict leading to anger and shame, giving the impression of labile mood,
interpersonal anxiety, and social withdrawal. Behavioral signs of shyness (inhibition) and constrained affect (passivity) act as defenses which protect a disavowed psychological core of grandiose expectations and entitlements (Masterson, 1993; Wink, 1991). 

**Differentiation:** “…the level of definition or distinctness of a personality profile,” (Reardon & Lenz, 1998, p. 262) reported on the SDS Professional Summary through a continuous Iachan Differentiation Index and a categorical grouping of low, average, or high based upon gender and group norms (Holland, Powell, & Fritzsche, 1994).

**Differentiation High-Low:** A measure of differentiation calculated by subtracting the lowest score in the profile from the highest score in the profile (Holland, Powell, & Fritzsche, 1997; Reardon & Lenz, 1998, p. 262).

**Expressed Interests:** A subjective declaration of vocational interests, operationalized on the SDS by a statement, coding, and summarization of occupational daydreams (i.e., aspirations) (Reardon & Lenz, 1998).

**Gender:** Generally and non-technically, a synonym for sex; but more specifically, the behavioral, social, and cultural attributes associated with sex (Colman, 2006).

**Hexagon:** A six-sided model defining the psychological resemblances among personality types and environments, and their interactions using the RIASEC typology. The distances among the types and environments are inversely proportional to the theoretical relationships between them (Holland, 1997, p. 5).

**Iachan Agreement Index:** A continuous index of congruence between two 3-letter RIASEC codes calculated on the SDS through a weighted sum yielding a minimum score of 1 and a maximum score of 28 (see Appendix A) (Holland, Powell, & Fritzsche, 1994).

**Iachan Differentiation Index:** A continuous index of profile distinctiveness calculated on the SDS by subtracting the average of the second and fourth highest scores from the highest scale score and then dividing this difference by two (see Appendix B). This index is normalized with a minimum score of 2.75 and a maximum score of 15 (Holland, Powell, & Fritzsche, 1994).

**Interest Profile Elevation:** The sum of the six section scores on the SDS (Fuller, Holland, & Johnston, 1999). Scores range from a low of 14 to a high of 300.

**Narcissist:** An individual displaying thoughts, feelings, and behaviors consistent with high amounts of either overt or covert narcissism. The term narcissist does not necessarily
imply a diagnosis of Narcissistic Personality Disorder. While it is more appropriate to use the phrase “person exhibiting narcissistic thoughts, feelings, and behaviors” the term “narcissist” is used in this dissertation for the sake of simplicity. Thoughts, feelings, and behaviors associated with narcissism can be placed on a continuum, with some individuals exhibiting many of these attributes and others exhibiting few, if any.

**Occupational Daydreams**: An expression of vocational interests in the form of future, desirable occupational pursuits (Page 3 of the SDS).

**Overt narcissism**: A personality trait characterized by an interpersonal style and accompanying behaviors, which may include grandiosity, exhibitionism, exploitation and insensitivity to others, and a sense of entitlement. These behaviors hide core beliefs of shame and doubt that, though well defended by overt self-enhancement, denial of weaknesses, and splitting, can yield outbursts of anger and aggression when these beliefs are activated by others (Beck & Freeman, 1990; Dickinson & Pincus, 2003; Kernberg, 1975; Kohut, 1971; Wink, 1991).

**Personality**: “The sum total of the behavioral and mental characteristics that are distinctive of an individual” (Colman, 2006).

**Sex**: “The sum total of biological attributes on which males and females are differentiated” (Colman, 2006).

**Vocational Interests**: “… the expression of personality in work, hobbies, recreational activities, and preferences” (Holland, 1973, p. 7).

**Delimitations**

This study does not include all possible variables related to narcissism and vocational interests as such a database would be unmanageable. For example, demographic variables such as age and ethnicity may relate to both degree and kind of narcissism, as well as the measurement of assessed interests. Furthermore, personality traits other than narcissism (e.g., neuroticism), may also be significantly related to vocational interests. However, these and other variables will not be included, due to the anticipated restricted age range of the sample, cell size limitations, and a desire to avoid assessment fatigue among participants. Finally, the findings of this study will not be generalizable to all individuals, but only to those who typically enroll in university career development courses. This restriction of generalizability may also apply to the
measurement of narcissism and vocational interests by instruments different than those used in this study.
CHAPTER 2
REVIEW OF THE LITERATURE

The review of the literature will begin with a discussion of two forms of narcissism, overt and covert. The discussion will then turn to vocational interests and their assessment. This will include their historical basis, definition, age, gender, culture and ethnicity. Next, the established and possible relationships among these variables will be described. The review will conclude with an analysis of the gaps in the literature, statement of a general research question, and statement of specific research questions and accompanying hypotheses.

Narcissism

This section will contain a discussion of the psychoanalytic and cognitive behavioral conceptualizations of narcissism and its conceptualization as a continuum varying from normal to pathological personality traits. Furthermore, empirical evidence for two different manifestations of narcissistic personality traits will be presented. Finally, the research on relationships between narcissism and career development will be reviewed.

Psychoanalytic Conceptualizations of Narcissism

History. The history of the psychological concept of narcissism is briefly described by Millon (2001). He noted that Havelock Ellis first used the term “narcissism” in a psychological context in an 1898 paper on auto-eroticism in which he described it as “…a tendency for the sexual emotions to be lost and almost entirely absorbed in self admiration” (Ellis, 1898). Later, Ellis (1927) more simply defined it as an individual’s sexual attraction to himself.

Freud, in his 1914 essay, On Narcissism, distinguished between two forms of narcissism, the “primary narcissistic condition” of infancy and the “narcissistic self-cathexis” (Freud, 1989). The first is a normal developmental phase in which the infant’s libidinal energy is directed toward the self, of which all objects in the world are merely an extension. Throughout the course of normal development, the child’s libidinal energy is redirected toward external objects (i.e., “mature object love” for others) and appropriate attachments result. However, if this process is thwarted in some way (e.g., by the polar extremes of a rejecting or over admiring parent), the child introjects the libidinal forces to the self, resulting in the “narcissistic self cathexis.” Freud (1989) noted that this “narcissistic attitude” limits the therapist’s ability to be influential in treatment.
Succeeding Freud, Kernberg (1970) and Kohut (1975) created two contrasting understandings of narcissism. Kernberg retained Freud’s concept of instinctual drives, while Kohut developed “self psychology,” after rejecting many of the conceptualizations of classical psychoanalysis (Consolini, 1999). The conceptualization, etiology, and treatment approaches of each theorist will briefly be summarized.

**Conceptualization, etiology & treatment from Kenberg’s viewpoint.** Kernberg (1996) described narcissism as a “borderline personality organization” of moderate severity, characterized by an integrated, yet grandiose identity, which is protected by primitive defenses, especially splitting. Splitting is the tendency to see objects (i.e., people) as either all good or all bad. This serves to reduce anxiety by increasing the predictability of objects (Rosenthal, 2002). Kernberg identified the etiology of these problems with self-concept as a fixation during the rapproachment phase of the separation-individuation process of child and caretaker; the period of development when the child begins to act independently of the mother (Consolini, 1999). It is during this process that the child would normally cease object splitting (e.g., good person who feeds me vs. bad person who frustrates me) and forms integrated images of self and others within the ego.

However, this process may be thwarted if, during rapprochement, the child’s growth-oriented behavior is punished by the mother’s withholding of affection. Thus, the child is placed in a double bind. To grow, the child needs the caregiver’s support. However, the child will lose that emotional support if it grows. Kernberg did not intend to place the etiology of narcissism solely in the environment. He also suggested that a “constitutionally determined lack of anxiety tolerance in regard to aggressive impulses” might also play a roll in the development of narcissistic pathology (Kernberg, 1970, p. 219-220). That is, the child may experience higher than normal, biologically based, aggressive drives while being unable to tolerate the anxiety created by the possibility of displaying these towards the caregiver.

What results from this fixation, is that the concept of significant others is not integrated into the self (Kernberg, 1996). Furthermore, while the narcissist maintains good reality testing and can distinguish between self and object representations, they experience a disorganization of the superego and persecutory projection on others, as a protection against guilt, which enables antisocial behavior (e.g., exploitation). This is in contrast to the more severe antisocial personality.
Kernberg (1996) noted that narcissists, even “malignant narcissists,” who he described as having ego syntonic aggression (i.e., aggression perceived as a normal part of the self), are capable of having authentic guilt feelings and forming some commitments to others. He postulated that an important factor that might separate moderate, borderline personality pathologies (e.g., narcissism) from more severe pathologies (e.g., schizotypal) is the degree of extraversion in these individuals’ temperaments. “He views the apparent better social functioning of the narcissist as a superficial adaptation that conceals severely maladaptive behavior stemming from pathological internalized object relations” (Consolini, 1999, p. 74). In short, narcissists may present as high functioning individuals, but their psychopathology eventually will manifest in their interpersonal relationships.

With respect to treatment, Kernberg suggested focusing on the defensive splitting made by narcissists within the transference relationship, while remaining “neutral and abstinent” during confrontation of the client’s destructive behavior (Consolini, 1999; Kernberg, 1970). That is, the therapist should not satisfy any of the narcissist’s expressed needs, in order to facilitate the reintegration of the self and object representations within the ego and the formation of a less punishing superego (Consolini, 1999). Thus, Kernberg (1996) concluded that as treatment progresses, the narcissist is likely to return from the pathological grandiose self to a state of identity diffusion, before a new integrated identity is formed.

Conceptualization, etiology & treatment from Kohut’s viewpoint. Based upon his clinical experience, Kohut abandoned the drive theory concepts (i.e., libido cathcted ego and aggression resulting from ego injury) underlying Freud’s and Kernberg’s conceptualizations of narcissism. Instead, he noticed that the “narcissistic needs” of patients were reactivated during treatment and took the form of selfobject transference onto the therapist.

The self, which Kohut regards as the nuclear core of the personality, is considered separate from the ego. The self is comprised of three parts: 1) goals and ambitions, which result in strivings for power, recognition, and success; 2) ideals and standards, which maintain guiding values; and 3) the arc of tension, which forms in the intermediate area between ambitions and ideals which activate an individual’s talents and skills. “Selfobjects are objects which we experience as part of our self; the expected control over them is, therefore, closer to the concept of control which a grown-up expects to have over his own body and mind than to the concept to the control which he expects to have over others” (Kohut & Wolf, 1978, p. 414).
There are two kinds of selfobjects: mirroring and idealized. Mirroring selfobjects are those confirming the child’s innate sense of perfection, while the idealized parent imago are those that the child can admire and with whom the child can join with an image of calmness, infallibility, and omnipotence. Kohut believed that “faulty interaction” between children and their selfobjects could damage all or some of the three parts of the self, resulting in a self disorder described as poor “cohesion, vigour, or harmony” in adulthood (Kohut & Wolf, 1978, p. 414).

Kohut described three primary disturbances of the self: psychoses, borderline states, and narcissistic disorders. These disturbances varied in terms of the severity and distribution of problems. Simply described, psychoses are the effect of permanent and protracted damage resulting from the minimal cohesion of self due to the almost total lack of mirroring and parent imago selfobjects and biological factors (e.g., schizophrenia). Borderline states are similar to psychoses, but the extent of the deficits in self and their behavioral manifestations are covered by complex defenses. Narcissistic behavior and narcissistic personality disorders were conceptualized by Kohut as being more transient than borderline states and psychoses, and more amenable to analytic treatment, due to the narcissist’s superior ability to tolerate frustration.

According to Kohut, the purpose of treatment is to provide an environment in which the damaged self can recreate and reestablish itself. In contrast to Kernberg, who discouraged the use of “supportive measures” with narcissists to avoid continuing feeding narcissistic needs, Kohut encouraged the use of empathy with narcissists. “Kohut has stated quite clearly that challenging the patient’s grandiosity is not only a useless endeavor, it will likely compel the patient to suppress very powerful wishes and thus make them inaccessible to modification” (Consolini, 1999, p. 81). His rationale was that since the failure to provide empathy resulted in the developmental arrest, treating the client without providing empathy would simply re-traumatize the client.

For Kohut, a significant part of the therapeutic process was creating “optimal frustration” (Kohut, 1984, p. 98). This was accomplished, in part, through two kinds of transference; the mirror transference, in which the need for a source of acceptance-confirming (e.g., mirroring) is invigorated, and the idealizing transference, in which the need for the merger with a source of idealized strength and calmness is revived. According to Kohut, the therapist should provide the functions that the original selfobjects could not provide, until a more cohesive, functional self
develops. “Empathic failures” (e.g., occasions when the therapist does not provide the mirror or idealized other for the client) are used as fodder in the transference relationship to promote healing (Consolini, 1999).

Synthesis of Kernberg’s & Kohut’s viewpoints. In summary, both Kernberg and Kohut focused on the grandiose self, but advocated different conceptualizations and treatment methodologies. Consolini (1999) summarized these differences as follows. For Kernberg, the problem of narcissism was an underlying borderline personality organization, resulting from preoedipal fixation. Kohut viewed the problem as a developmental arrest occurring later in childhood (Kohut & Wolf, 1978). Furthermore, for Kernberg, the etiology of the narcissistic personality was a result of both environmental and constitutional factors, whereas Kohut focused solely on the environment as the source of disruption. In a broader sense, Straker (1987) identified the key difference between Kernberg’s and Kohut’s conceptualization of narcissism in their basic assumptions about humanity. Kernberg, a drive theorist, held the theory that envy, rage, and greed were primary characteristics to be restricted through socialization. In contrast, Kohut felt that these more base affects were learned through socialization and frustration.

For treatment, Kernberg suggested that the therapist directly and coolly confront the narcissist’s defenses and oral aggression to modify the psychopathology and reduce the effect of a punishing superego. However, Kohut recommended that the therapist employ supportive encouragement to help the narcissistic needs of the client to unfold in the transference process, thereby un-sticking the developmental arrest of the nuclear self. Criticisms of Kernberg’s cool and distant approach to treatment have been that it may alienate clients, while Kohut’s empathy may encourage a sense of entitlement, while ignoring aggression, which can lead to exploitive behaviors. Thus, both approaches may be iatrogenic.

Consolini (1999) concluded that the best approach for treating narcissism may be to present a balance of both approaches in therapy. A careful analysis of the therapist’s own countertransference could provide cues for when to switch between the two approaches offered by Kernberg and Kohut (Consolini, 1999). For example, therapists might ask themselves if they were confronting or avoiding confrontation because of their own feelings, when empathy would produce a better result.
Cognitive-Behavioral Conceptualizations of Narcissism

Beck and Freeman (1990) noted that personality disorders can be conceptualized in terms of beliefs, affects and the interpersonal strategies (i.e., behaviors) they adopt. The driving force underlying these concepts is the schema, the tacit rules which govern an individual’s processing of information and eventual behavior. These tacit rules yield views of self, view of others, and negative beliefs which influence cognitions, behaviors, and affects. These thoughts, feelings and behaviors form stereotypical patterns engaged in by individuals with personality disorders. These patterns are either overdeveloped, or underdeveloped, as strategies to cope with environmental chaos or extreme amounts of negative and/or positive reinforcement by others.

According to Beck and Freeman (1990), the rule *I am different from others* is the core of the schema which drives the narcissistic personality. This difference can take on a positive valence of superiority (“superior special schema”) or a negative valence of inferiority (“deficit-rejection-based schema”) when comparing self to others. The beliefs yielded from these schemata are detailed in Table 1. These beliefs support a general strategy in which any behavior that reinforces the individual’s exceptional status is acceptable, regardless of societal rules. Thus, narcissists tend to over-rely on strategies of self-aggrandizement and competiveness, at the expense of sharing and group identification.

When their beliefs are challenged by contrary feedback from others, narcissists can display an aloof or even angry affect (Beck & Freeman, 1990). Narcissists also have high expectations for the behavior of others. They may, at first, idealize others, and then devalue them when their expectations are not met. Similarly, narcissists often swing between dichotomous views of the self as perfect and superior, or totally worthless. Narcissists may have learned these coping strategies from positive life experiences, such as constant flattery, indulgence by parents, or negative life experiences, such as being victimized or placed in the sick role by parents. Similarly being “labeled” as “different” by society, due to ethnic or socioeconomic status, may contribute to narcissistic schemata.
Table 1.

The Cognitive-Behavioral Conceptualization of the Narcissistic Personality

Core Beliefs
- Since I am special, I deserve special dispensations, privileges, and prerogatives.
- I am superior to others, and they should acknowledge this.
- I am above the rules.

Conditional Beliefs
- If others don’t recognize my special status, they should be punished.
- If I am to maintain my superior status, I should expect others’ subservience.

Instrumental Beliefs
- I must strive at all times to insist upon, or demonstrate, superiority.

The long term goal of treatment for narcissists is to modify the schema of I am different and to encourage narcissists to see their commonalities with others (Beck & Freeman, 1990). This is accomplished by helping the narcissist to adjust their grandiose view of self, manage affective reactions to feedback, enhance empathic skills, and eliminate exploitive behavior. Specific tactics, such as systematic desensitization, can also be employed to reduce hypersensitivity to evaluation and help the client benefit from external information.

Schema Therapy Conceptualizations of Narcissism

Schema therapy (Bernstein, 2005) is an approach to cognitive therapy which integrates psychodynamic object relations theory, to work with individuals who do not succeed in more traditional cognitive therapy, due to interpersonal deficits (i.e., personality disorders) preventing the formation of collaborative relationships. This approach is concerned with repeating, self-defeating patterns of thoughts, feelings, and behaviors, which originate in early maladaptive schemas learned during childhood (e.g., mistrust) by the frustration of basic emotional needs. Such frustration might be conceptualized using an attachment model, and/or an object relations model. These schemas and their related maladaptive coping mechanisms are thought to form the cognitive and affective core of personality disorders.

Schema therapy differs from Beck’s cognitive therapy in that the goal of the schema therapy is to alter an individual’s ways of relating to others, in addition to their cognitions. A
schema is “… a broad, pervasive theme or pattern comprised of memories, emotions, cognitions, and bodily sensations regarding oneself and one’s relationships with others developed during childhood or adolescence elaborated throughout one’s lifetime and dysfunctional to a significant degree” (Young, Klosko, & Weishaar, 2003, p. 7). When one or more of the 18 schemas identified by Young and colleagues are activated, an individual’s attempts to cope can be quite disruptive.

The three basic coping mechanisms are schema surrender, schema avoidance, and schema overcompensation. One could consider these parallels of the physiological survival mechanisms of freeze, flight, and fight, respectively. These three mechanisms are employed singly, or in combination, to cope with perceived threats. Once adaptive in early childhood, these coping mechanisms serve to reinforce schemas and become maladaptive during adult life when individuals continue to respond in a stereotyped manner to changed conditions.

A sense of entitlement and grandiosity is one example of an early maladaptive schema possessed by narcissistic individuals (Young, Klosko, & Weishaar, 2003). When narcissists surrender to this schema, they may bully others to obtain satisfaction or brag to others about their own accomplishments (i.e., reinforce the entitlement/grandiosity schema). When narcissists employ schema avoidance, they may keep away from situations, or resist employing skills in which they are not superior to others (i.e., avoid challenging the entitlement/grandiosity schema). Finally, when overcompensating for the entitlement/grandiosity schema, narcissists may attend excessively to others’ needs (i.e., act the opposite of the entitlement/grandiosity schema).

Modes are defined as the activation of multiple schemas, all at once, in predictable patterns that, for normal individuals, result in mood change, but in severe cases, splitting and dissociation. For narcissists, the most commonly encountered modes include the “lonely child”, the “detached self-soother”, and the “self aggrandizer.” At the core of the first two modes are the schema of emotional deprivation and defectiveness; i.e., shame, as described by Kohut (1977). The third mode, which serves to compensate for the previous two, is characterized by schemas of entitlement and grandiosity and coping behaviors that can include dominance, status seeking, and the exploitation of others.

Treatment with schema therapy differs from cognitive behavioral approaches in that schema therapists begin with core schemas, rather than accessible cognitions, generated by these schemas (Young, Klosko, & Weishaar, 2003). This yields a focus on lifelong patterns which
incorporate the past (e.g., childhood experiences and parenting styles), as well as their present experience and symptoms. Rather than the collaborative empiricism of cognitive behavioral therapy, the schema therapist employs empathic confrontation to offer a healthy alternative to ingrained, dysfunctional schemas. Experiential techniques, such as imagery, are also used to stimulate affect and cognitions for exploration during sessions, not simply as a method of rehearsal. Mode dialogue, an adaptation of the empty chair technique, is also employed to help the client experience the differences between maladaptive and healthy schema.

Clinical Description.

Past diagnostic criteria for Narcissistic Personality Disorder. Straker (1987) noted that narcissism was not formally accepted in the diagnostic nomenclature until 1979, which was thought to reflect a new psychopathology emerging from societal changes following World War II. The explicit, behavioral criteria for Narcissistic Personality Disorder (NPD) established in the third edition of the Diagnostic and Statistical Manual III (American Psychiatric Association, 1980) were based upon Millon’s (1969) social-learning formulation of personality, which avoided psychoanalytic concepts. Millon’s description of NPD included: 1) inflated self-image; 2) interpersonal exploitiveness; 3) cognitive expansiveness; 4) insouciant temperament; and 5) deficient social conscience.

Present diagnostic criteria for Narcissistic Personality Disorder. Millon’s (1969) description is reflected in the current criteria for Narcissistic Personality Disorder (301.81) in the text revision of the fourth edition of the Diagnostic and Statistical Manual (DSM-IV TR, American Psychiatric Association, 2000, p. 717). These criteria, which are assumed to be atheoretical in nature, include:

A pervasive pattern of grandiosity (in fantasy or behavior), need for admiration, and lack of empathy, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- has a grandiose sense of self-importance (e.g., exaggerates achievements and talents, expects to be recognized as superior without commensurate achievements)
- is preoccupied with fantasies of unlimited success, power, brilliance, beauty, or ideal love
- believes that he/she is "special" and “unique” and can only be understood by, or should associate with, other special or high-status people (or institutions)
- requires excessive admiration
• has a sense of entitlement, i.e., unreasonable expectations of especially favorable treatment or automatic compliance with his/her expectations
• is interpersonally exploitative, i.e., takes advantage of others to achieve his/her own ends
• lacks empathy: is unwilling to recognize or identify with the feelings and needs of others
• is often envious of others, or believes that others are envious of him/her
• shows arrogant, haughty behaviors or attitudes

However, the diagnostic criteria present in the current DSM-IV are representative only of one kind of extreme narcissism. The literature suggests that narcissism is more of a continuum on which various kinds of narcissism can be aligned in degrees of severity and functioning.  

*Continuum of Narcissism*

It may be intuitive to assume that there are normal and pathological variants of narcissistic traits. However, Lenzenweger and Clarkin (1996) noted the limited evidence that normal personality correlates exist. Furthermore, they noted the narrow degree to which Axis II categorizations fit structures found in personality research (e.g., the “Big Five model”). However, there is both theoretical reasoning and empirical evidence that narcissism is a continuous variable related to varying degrees of adaptation.

Freud (1989) distinguished between healthy and pathological narcissism. Kohut (1975) similarly viewed self-expression as naturally occurring and not necessarily maladaptive. Watson, Little, Sawrie, and Biderman (1992) summarized the literature on self-report measures of narcissism, noting that they can be lined up along a continuum that ranges from the personality disordered to healthy self-esteem. Bursten (1973) described four kinds of narcissists he aligned on a continuum, from functioning to pathological.

*Overt and Covert Narcissism*

Different kinds of narcissism have been described in the psychoanalytic literature from the merger-hungry, contact-shunning, and mirror hungry narcissists suggested by Kohut and Wolf (1978), to the manipulative, paranoid, craving, and phallic narcissists described by Bursten (1973). The original metaphor of Narcissus’s transformation from active hunter to immobile paralytic (Ovid, 1955) may best summarize the present view of narcissism posited by theory and supported by empirical investigation. Currently, two major constructs of narcissism, overt and covert, have been identified in the literature (Dickinson & Pincus, 2003). The overt narcissist is described as grandiose, arrogant, entitled, exploitative, and envious. The covert narcissist is
outwardly self-inhibited and modest, while secretly harboring grandiose expectations for self and others. This distinction parallels the conceptualizations of narcissism by Kernberg (1975) and Kohut (1977), respectively.

**Overt narcissism described.** In some analytic theory, overt narcissism is believed to be the result of defensive grandiosity, which results from parental insensitivity to a child’s emotional needs (Kernberg, 1975). In other studies, it is believed to be the arrested transformation of infantile grandiosity into a more healthy form of self-esteem (Kohut, 1971). In reality, the individual feels quite inferior about himself, using the defense mechanism of splitting to remain unaware of the conflict between his expression of grandiosity and his feelings of inferiority (Kernberg, 1975).

The overt narcissist is also known as the grandiose, “oblivious narcissist,” (Gabbard, 1989) or centrifugal narcissist (Ettema & Zondag, 2002), due to their expansive thoughts and the unawareness of their impact on others (Dickinson & Pincus, 2003). Behaviorally, these individuals may express grandiose fantasies, make demands on others out of a sense of entitlement, devalue others who threaten their self-esteem, and become angry if their expectations are not met. This behavior is thought to result from a fundamental lack of insight by the narcissist into the incongruence between their expectations and reality, and the impact of their expectations on others.

These individuals tend to regulate their self-esteem through overt self-enhancement and denials of weakness. Wink (1991) has associated overt narcissism with greater levels of exhibitionism, aggression, sociability, dominance, and self-acceptance. Overt narcissists were also described by spouses as bossy, cruel, arrogant, argumentative, demanding, aggressive, and exhibitionistic. These behavioral signs are reflected in the DSM-III (and now DSM-IV TR) diagnostic criteria for Narcissistic Personality Disorder. However, the behaviors associated with covert narcissism are not reflected in the diagnostic criteria (Wink, 1991).

**Covert narcissism described.** The covert narcissist (Akhtar & Thomson, 1982; Cooper, 1998; Wink & Donahue, 1997) is known by several names, including closet (Masterson, 1993), hypervigilant (Gabbard, 1989), hypersensitive (Hendin & Cheek, 1997), centripetal (Ettema & Zondag, 2002), and vulnerable (Gersten, 1991; Hibbard & Bunce, 1995; Wink, 1991). Behavioral signs of the covert narcissism include shyness, constrained affect, appearance of empathy, use of external sources to regulate self-esteem, a pattern of interpersonal conflict
leading to anger/hostility and then shame/depression, giving the impression of labile mood,
interpersonal anxiety (especially in developing relationships), social withdrawal and avoidance.
These behaviors are derived from a psychological core organized around grandiose expectations
and a sense of entitlement, which is summarily disavowed.

Empirical evidence for differences. Empirical support for the distinction between overt
and covert narcissism exists in Wink’s (1991) factor analysis of four measures of narcissism.
Using a sample of 350 individuals (76 married couples and 198 University of California,
Berkeley sophomores), Wink (1991) performed a principal components analysis on six scales of
narcissism formulated from the Minnesota Multiphasic Personality Inventory (MMPI, Morey,
Waugh, & Blashfield, 1985; Wink & Gough, 1990). Two orthogonal dimensions, with and
without overlapping items, were identified, which he interpreted as Grandiosity-Exhibitionism
(overt) and Vulnerability-Sensitivity (covert). These findings were replicated by Rathvon and

Wink (1991) employed a variety of assessments, including self-report inventories, trained
observer ratings, and spouse ratings (e.g., California Q Sort, California Psychological Inventory,
and Adjective Checklist) to more thoroughly describe each of the dimensions. The Grandiosity-
Exhibitionism dimension was positively correlated with scales of dominance, sociability, social
presence, self-acceptance scales, exhibition, and aggression. These relationships indicate that
individuals scoring high in this dimension are outgoing, poised, self-assured, and tend to be
forceful, arrogant, and demanding of admiration. Conflicting weak relationships were found
between scales of personal adjustment, realization, and well-being, which Wink interpreted as
grandiose individuals possessing social poise and assurance, but not expressing fulfillment,
integration, and optimism about the future.

Individuals scoring high in the grandiosity-exhibitionism dimension of narcissism were
also rated highly by trained observers on scales of willfulness and autonomy, indicating a
tendency to openly display power, condescension, self-indulgence, independence, and a wide
range of interests. These individuals were also rated highly in direct ratings of narcissism by
trained observers. Spouses described their Grandiose-Exhibitionist partners as being aggressive,
outspoken, show-offs, egotistical, assertive, and not modest. Difficulties of the grandiose
narcissist, “… center on overconfidence, aggressiveness at the cost of others, and an excessive
need for admiration from others” (Wink, 1991, p. 596).
The vulnerability-sensitivity dimension correlated negatively with scales thought to measure dominance, sociability, social presence, and self-acceptance (Wink, 1991). Thus, high scorers in this factor tended to be private and socially reticent individuals who avoided leadership roles and social settings. Negative correlations were found between well-being, realization, and personal adjustment, suggesting that individuals high on this dimension may lack fulfillment, and have difficulty functioning and coping with life stressors. Individuals scoring high in this dimension scored higher on the ratings of hypersensitivity by trained observers. However, individuals scoring high on this factor were not rated highly in direct ratings of narcissism by the observers. Thus, individuals with higher levels of covert narcissism were more difficult to clinically identify, perhaps because of the reliance on the more overt DSM-III criteria, or the somewhat artificial setting in which the observation occurred inhibited expression of more overt behaviors. Also, Hibbard and Bunce (1995) found that overt narcissists displayed significantly higher grandiosity than the vulnerable groups.

Among the married couples in Winks’ study, spouses described their vulnerable-sensitive partners as worrying, anxious, moody, defensive, bitter, and not mature and contented. Wink (1991, p. 596) suggested that these descriptions, “…imply stable and enduring dispositions towards introversion and internality, rather than a transient and state-dependent loss of confidence and social withdrawal.” He concluded that the difficulties most clearly associated with vulnerability-sensitivity included anxiety and pessimism, lack of fulfillment, and vulnerability to life’s traumas.

Dickinson and Pincus (2003) attempted to describe the subtypes of narcissistic personality styles with respect to a control group low in narcissistic personality traits. To accomplish this, they utilized individuals who were not diagnosed with NPD, but who reported high scores on the Narcissistic Personality Inventory. That is, they “aimed at identifying individuals with narcissistic character styles” (Dickinson & Pincus, p. 198). These authors suggested four criteria for the vulnerable narcissistic subtype: 1) entitlement and exploitation; 2) fluctuating self-esteem; 3) “narcissistic social avoidance”; and 4) shameful disavowal of interpersonal needs in response to disappointments.

Lapsley and Aalsma (2006) identified similar patterns when measuring narcissism in a group of 204 late adolescent (M = 20.45 years, SD = 2.06) college students enrolled in developmental and educational psychology classes in a large Midwestern university. Cluster
analysis indicated three distinct groups of narcissists; overt, moderate, and covert. The moderate narcissists reported significantly lower average amounts of anxiety, relationship and family problems, depression, esteem problems, and pathology of separation-individuation. The overt and covert groups showed similar patterns of dysfunction in separation-individuation, anxiety, relationships, and depression. However, the covert group reported more self-esteem and family problems than the overt group. This general pattern was replicated in a second study of 210 additional college students in late adolescence (M = 21.27, SD = 4.57). Gender interactions were not found among the clusters in either study.

*Empirical evidence for similarities.* In Wink’s 1991 study, it was noted that while individuals with covert and overt narcissistic personality traits may engage in different interpersonal behaviors, they tend to share an underlying sense of entitlement and grandiose fantasies of self (Hendin & Cheek, 1997; Wink, 1991). Furthermore, both factors of grandiosity and vulnerability-sensitivity were negatively associated with the self-control scale, suggesting a tendency toward self-indulgent, risk-taking, and impulsive behavior by both overt and covert narcissists. Also, negative correlations with responsibility, socialization, and good impression scales indicated a need for self-expression, even at the expense of others. In addition, spouses rated their partners who scored high, on both grandiose and vulnerable factors, as bossy, demanding, intolerant, argumentative, conceited, arrogant, and cruel.

Wink and Donahue (1997) also established relationships between covert and overt narcissism and boredom in a sample of 106 females enrolled in an introductory psychology class. Both overt and covert narcissism were positively related to an overall measure of boredom proneness ($r = .54, p < .001$ and $r = .18, p < .05$ respectively) and the need for external stimulation ($r = .41, p < .001$ and $r = .28, p < .05$ respectively). Furthermore, overt narcissism correlated significantly with constraint ($r = .35, p < .01$), defined as feelings of impulsivity and restlessness, in response to external constraints on behavior. Covert narcissism, however, correlated with needs for internal stimulation ($r = .26, p < .01$), affective response ($r = .52, p < .001$), and perception of time ($r = .53, p < .001$). In this way, covert narcissists have difficulty keeping themselves interested and entertained, experience meaninglessness and tedium, and perceive time as passing slowly.

In this sample, covert narcissism tended to have an overall stronger relationship to boredom proneness than overt narcissism. The authors noted that boredom may be a helpful
marker for narcissism, because it is not usually perceived in negative terms by clients. They also called for a greater exploration of the relationships between covert narcissism, overt narcissism, and boredom proneness, for more diverse (e.g., male and non-student) populations. The authors concluded, “Boredom is clearly one of only a few self-reported characteristics shared in common by both types of narcissism” (Wink & Donahue, 1997, p. 139).

**Individual Differences and Narcissism**

Both empirical study and clinical experience have demonstrated that narcissism may be related to individual differences. The reader is reminded that between group differences are usually much smaller than within group differences (Dawis, 2002). With this in mind, the literature on the relationships among prevalence, gender, age/development, culture, ethnicity and vocational interests will now be briefly reviewed.

**Prevalence.** According to the DSM IV TR (American Psychiatric Association, 2000), the lifetime prevalence rate of Narcissistic Personality Disorder (NPD) is approximately 0.5-1 percent. However, the estimated prevalence in clinical settings is thought to vary between 2-16 percent. It is often difficult to detect the presence of NPD, due to the presence of acute, co-morbid disorders such as depression, which are often diagnosed first. Only after the difficult or unsuccessful treatment of an Axis I disorder, is personality disorder considered.

As previously discussed, narcissism is assumed to be a normally distributed personality trait. Thus, there are individuals who display narcissistic patterns of thought and behavior who would not fit the criteria for an NPD diagnosis. In fact, Twenge et al. (in–press) have found that college students now endorse an average of two more items on the Narcissistic Personality Inventory (Raskin & Hall, 1979, 1981; Raskin & Terry, 1988) reflecting narcissism, than their predecessors did in the early 1980s.

**Gender.** Males comprise some 50-75% of individuals diagnosed with Narcissistic Personality Disorder (American Psychiatric Association, 2000). Similarly, empirical studies have shown than males report more narcissism than females when responding to the Narcissistic Personality Inventory (Bushman & Baumeister, 1998; Farwell & Wohlwend-Lloyd, 1998). This finding has persisted ($B = -.12, p < .001, d = .26$) when variables of income and age have been controlled (Foster, Campbell, & Twenge, 2003).

Narcissism may also vary in quality by gender. Tschanz, Morf, and Turner (1998) found that males endorse more items relating to exploitiveness and entitlement on the NPI than
females. This pattern was also found by Foster et al. (2003). These findings are consistent with Martin’s (1987) observation that gender-role expectancies for females are to engage in pro, not anti, social behavior.

However, the gap in narcissism between males and females may be shrinking. Twenge et al. (2008) analyzed the available single gender means of a 44 sample subset of their larger 72 sample cross-temporal meta-analytic study on narcissism in college students. They noted that the narcissism scores of females increased to be become more like those of males over a 14 year period from 1992 to 2006 ($B = -.46$, $p < .001$, $k = 43$). This yields a one-seventh of a standard deviation difference (small effect size), where there was once a half standard deviation difference (medium effect size), in scores between males and females.

Age. While narcissistic behaviors are common among children and adolescents, few develop the disorder as adults. The conventional wisdom is that once diagnosed, NPD is resistant to change and that aging, declines in physical and cognitive functioning, and occupational restrictions, exacerbate the disorder (Millon, 1981; Kernberg, 1971). Plakun (1989) found in a 14 year follow-up study that individuals with a primary diagnosis of NPD had a lower level of social and global functioning and higher rates of hospitalization than a group of individuals with a diagnosis of borderline personality disorder. However, a more recent follow-up study of 20 individuals diagnosed with NPD after a period of three years suggested that narcissism may be less stable and enduring than assumed (Ronningstam, Gunderson, and Lyons, 1995). In this study, the presence of narcissistic behavior in interpersonal relationships was predictive of less favorable outcomes. However, the presence of intervening achievements, relationships, and “corrective disillusionsments,” seemed to contribute to a realistic realignment of grandiose self-concept and reduction in other narcissistic behaviors. Thus, Ronningstam and colleagues point out that NPD might be a transient, context dependent state and that some diagnoses may be inaccurate.

For those not diagnosed with NPD, it is assumed that their narcissistic personality traits decline over time. One working theory, “the reality principle,” holds that older people have more opportunity for failure; therefore, they receive corrective feedback that yields less narcissistic cognition and behavior (Foster et al., 2003). Evidence supporting such propositions may have been found in a world-wide, internet-based survey of 3,445 participants by Foster et al. (2003). These authors found a negative relationship between narcissism, as measured by the NPI, and
age, after controlling for income and age \((B = -.22, p < .001, d = .43)\). They also noted that the difference in reported NPI scores between the youngest age group (46 participants who were under 15 years old) and the oldest age group (15 participants who were over 59 years of age) was nearly one full standard deviation. While the overall amount of shared variance between narcissism and age is small (only about 5%), there does appear to be a significant relationship. Of course, these results may also be interpreted to be due to different sociocultural influences between generations.

*Ethnicity & culture.* Foster et al. (2003) explored the implications of ethnicity and culture for the personality trait of narcissism. In summarizing the literature, these authors found that a continuum of self-esteem and individualism appeared to exist, ranging from high to low across groups of Americans who are Black, White, Hispanic, Asian, and American Indian (Gray-Little & Hafdahl, 2000; Oyserman, Coon, & Kemmelmeier, 2002; Twenge & Crocker, 2002). Foster and colleagues predicted that a similar pattern would exist across ethnic groups for narcissism. In their survey, they found that African Americans \((n = 222)\) and Hispanics \((n = 230)\) endorsed small, yet significantly higher, levels of narcissism on the NPI than did Whites \((n = 2564)\) and Asians \((n = 237)\) \((F(3, 3249) = 9.4, p < .001, (n^2_p = .01))\). This small difference remained after controlling for age and income \((B = .09, p < .001, d = .19)\). There was no interaction found between ethnic group and gender. While the order was somewhat different as would be predicted from the literature, small but significant differences were found between ethnic groups.

Foster et al. (2003) used geographic location as a proxy for individualism in their study, using data reported by Diener and Diener (1995). The authors grouped participants from the “high individualism” cultures of the United States, Canada, and Europe \((n = 2898)\) and compared them to participants from the “low individualism cultures” from Asia and the Middle East \((n = 408)\). Results indicated that NPI scores for the high individualism group \((M = 15.3, SD = 6.7)\) were significantly higher \((r = -.05, p < .01, d = .11)\) than the low individualism group \((M = 14.2, SD = 6.7)\). There was no interaction found between geographic group and gender.

Based on findings from their research, Foster and colleagues suggested that “Cultures that emphasize individualism, independence, and standing out from the crowd are likely to produce more narcissism among their members” (Foster et al., 2003, p. 481). However, the authors also noted that the differences they found, while significant, were small. They cautioned
that overall, variance within ethnic/cultural groups remains larger than the variance between ethnic/cultural groups.

Positive Function of Narcissism

Sedikides et al. (2004) challenged the conventional wisdom that subclinical narcissists are psychologically unhealthy (e.g., more depressed, lonely, and anxious) than individuals with lower levels of narcissism. In a series of five studies, Sedikides et al. (2004) tested the hypothesis that self-esteem mediated the relationship between narcissism and psychological health. These studies were conducted with samples of undergraduate psychology students and married couples who completed the Narcissistic Personality Inventory and measures of self-esteem, depression, anxiety, repression, and social desirability.

These studies established that narcissism is negatively related to both dispositional and daily depression, sadness, loneliness, anxiety, and dispositional neuroticism. Narcissism was also positively related to dispositional and daily subjective well-being. The authors found that a linear relationship between narcissism and psychological health, mediated by self-esteem, emerged consistently throughout their studies. Furthermore, contrary to previous assumptions, this study provided evidence that the self-esteem of highly narcissistic individuals is derived from self-perceptions of competence and likeability.

The findings of Sedikides and colleagues (2004) held, even after controlling for defensiveness, repression, and impression management usually thought to be associated with higher degrees of narcissism. Thus, they state that normal narcissism predicts psychological health, and not simply the illusion of such health. They noted that sense of control of the environment, need for status and power, need for achievement, and self-esteem should be studied as mediators between narcissism and psychological health.

Career Development and Narcissism

Functional role. In Function of Narcissism in Career Development: Benson (1980a), argued that some degree of narcissism is normal and functional in adolescent career development. He summarized writings by Douvan and Adelson (1966) and Offer (1969), who noted that typical adolescents (particularly young males), frequently conceived and organized their futures around somewhat grandiose vocational fantasies, while simultaneously making more realistic plans for pursuing other occupational choices. Each adolescent created and used,
for several months to a few years, an idealized vocational role (in contrast to their actual characteristics and abilities), which was often only superficially connected to the real world.

Benson noted, “These idealized vocational fantasies are not to be confused with the ego ideal. They do not represent a goal for the attainment of narcissistic perfection and gratification. Rather, they are in the nature of self-idealizations representing the maintenance of an illusion of perfection as already achieved and existing parallel with other progressive development” (1980b, p. 261). Comparing these vocational fantasies to transitional objects and imaginary companions, Benson concluded that these all serve as “narcissistic guardians,” which help to protect the individual’s representation of self during developmental conflicts. The “illusory qualities” of these guardians provides a mechanism for maintaining a cohesive self and preventing the employment of disruptive defenses (e.g., regression) to developmental challenges. In short, these fantasies free the individual to explore alternative vocational identities, while being independent from the realities of the object world.

Occupational choice. Narcissists may gravitate toward occupational environments emphasizing interpersonal relationships (Lasch, 1979). The more adaptive traits of narcissism may be beneficial in occupational environments which require leadership, authority, and social confidence (Hill & Yousey, 1998). Furthermore, the grandiosity of narcissism has been stereotypically associated with creative endeavors (e.g., art, theater, and music) (Raskin, 1980).

The military is one occupational environment in which leadership and authority are required for effective job performance. Paunonen, Lönnqvist, Verkasalo, Leikas, & Nissinen (2006) surveyed 200, Finnish military cadets and found that the “positive” qualities of narcissism, high self esteem and confidence, were found to be related to peer evaluations of leadership potential \( r = .33, p < .05 \). More “negative” behaviors associated with narcissism, such as manipulation, were not significantly related to peer perceptions of leadership \( r = -.06 \).

Hill and Yousey (1998) surveyed university faculty \( n = 123 \), politicians \( n = 42 \), and clergy \( n = 99 \) using the NPI (Raskin & Hall, 1979), due to their perceived opportunities for receipt of attention and admiration from others, social prestige, and power. Librarians \( n = 195 \) were also included in the sample as a contrasting group, due to the perception (perhaps stereotyped) that this occupation might be less attractive to individuals requiring greater levels of interpersonal attention. A significant difference in narcissism was found among the occupational groups \( F(3,455) = 5.91, p < .0001 \), with politicians scoring significantly higher than professors,
clergy, or librarians (Tukey HSD \( p < .05 \)). Among the remaining three occupational groups, no significant differences in narcissism were found. Politicians scored significantly higher than other occupations on the leadership/authority subscale of the NPI \( [F(3,455) = 11.73, p < .001] \), Tukey HSD, \( p < .05 \)). Clergy were found to score significantly lower on the Exploitiveness/Entitlement subscale of the NPI \( [(F(3,455) = 3.38, p < .02]) \), Tukey HSD, \( p < .05 \) than the other occupational groups surveyed.

Zondag (2004) studied overt (centrifugal) and covert (centripetal) narcissism among 196 Dutch clergy (69% male, 31% female) using the Nederlandstalige Narcisme Schaal (NNS) a 35-item Dutch language translation of a combination of items from the NPI and HSNS. The authors noted that younger pastors were found to be more overtly narcissistic than older pastors \( (r = -.30, p < .05) \), perhaps indicating the operation of what Foster et al. (2003) described as the reality principle. There were no differences in narcissism scores by gender once age was controlled. The overt narcissism scores of pastors (M = 4.9, SD not reported) were found to rank between university lecturers (M = 4.6, SD not reported) and secondary school teachers (M = 5.2, SD not reported). No differences were found among occupations on scores of covert narcissism.

Raskin (1980) investigated the historically assumed relationship between narcissism and creativity. Creativity was measured using the Barron Symbolic Equivalents Test (Barron, 1988) and a self-reporting questionnaire. Narcissism was measured using the Narcissistic Personality Inventory (NPI, Raskin & Hall, 1979). A significant, but weak, relationship was found between creativity and narcissism among a sample of undergraduate students \( (r = .25, p < .05) \). Significant differences in mean scores of narcissism were also found between groups scoring/self-reporting high amounts of creativity and those scoring/self-reporting low amounts of creativity.

Additional evidence of a possible link between creative occupational pursuits and narcissism was found by Young and Pinsky (2006), who administered the NPI to a group of 200 celebrities (142 males and 58 females) appearing on a syndicated radio call-in show in the United States. These celebrities, categorized as reality TV show contestants, comedians, actors, and musicians, endorsed significantly higher degrees of narcissism than a sample of MBA students and a separate study’s sample of participants from around the United States (Foster et al., 2003). Female celebrities were found to be significantly more narcissistic than their male counterparts, due to higher scores on exhibitionism, superiority, and vanity. Reality show
contestants were found to be the most narcissistic of all four groups, with musicians scoring significantly lower in narcissism than their colleagues.

The literature provides some evidence that narcissism, and its specific components, may be related to specific occupational environments. Hill and Yousey (1998, p. 168) noted that their study, “…demonstrated some support for differing levels of narcissistic characteristics associated with occupational roles.” They predicted that additional studies might find that Holland’s “Enterprising” type would be associated with higher degrees of narcissism, while “Realistic” and “Conventional” occupations would be held by individuals with lower degrees of narcissism.

Decidedness. According to Kernberg (1996), the narcissist’s grandiosity and difficulties in interpersonal relationships can lead to a “…lack of consistent goals in terms of commitment to work or profession…” and “…uncertainty and lack of direction in their lives in many areas…” (p. 121). Furthermore, Winnicott (1965) and Kohut (1977) argued that narcissism is partially defined by a mismatch between one’s true self and one’s external pursuits and goals (false self). This discrepancy was thought to lead to boredom, dissatisfaction, and a lack of fulfillment. Similarly, Kohut (1977) observed that narcissists would often use excitement and challenge to energize their unfocused sense of self. Based upon these observations, a relationship between narcissism and difficulties in individual career development would not be surprising. However, the literature on the relationships among narcissism and career decision-making appears to be quite limited, with only two empirical studies by Robbins (1983) and Mako (1991) relating narcissism to career indecision.

Robbins (1983) created a measure of narcissism related to career development based on Kohut’s psychology of self. This study determined that cohesive psychological structure is comprised of two sets of structures. The first corresponds to a sense of exhibitionism and grandiosity, while the second corresponds to the idealization and acceptance of powerful others. These two structures lead to growth from the infantile nuclear self, to the more adult cohesive self, with ambition for accomplishment and the organization to channel this ambition. Based upon this theory, initial items were created, based upon the constructs of the “consolidation of ambitions” and “consolidation of goals.” These items were later refined and reduced to “grandiosity” and “goal instability,” respectively, through factor analytic instrument construction.
This Self-Expression Inventory was administered to 84 students enrolled in a career and life planning class. The Career Decision Scale (Osipow, 1980), a measure of career decisiveness, was administered at the beginning and end of the course. A second dependent variable, career pursuit, the degree to which individuals are actively implementing their career choices, was obtained by administering two 6-point rating scales. The goal instability scale captured 8% of change in career decidedness as measured by Occupational Alternatives Question (OAQ, Slaney, 1980; Zener & Schnuelle, 1972). While the goal instability and grandiosity scales, together, predicted 20% of the change in career pursuit, as measured by student response to a Likert type item. While the author described the practical utility of these findings as limited, this may be interpreted as additional evidence of the relationship between narcissism and career decision-making behavior.

Mako (1991) explored relationships between career exploration, career indecision, narcissism, and egocentrism. Two hypotheses were examined: 1) individuals who are narcissistic/egocentric engage in fewer career exploration activities; and 2) individuals who are narcissistic/egocentric would be less indecisive about the career decisions, based on the theoretical assumption that such people would be less likely, or less able, to engage in good career decision-making practices. To test these two hypotheses, Mako employed four self-report instruments: the Career Exploration Survey (Stumpf, Colarelli, & Harmann, 1983), the Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1976), the Narcissistic Personality Inventory (Raskin & Hall, 1979, 1981), and the Self-Focus Sentence Completion (Exner, 1973). Surveys were administered to an undergraduate psychology pool at Kent State University. Out of the 300 participants, 296 produced usable protocols. The average age of the group was 20.26 years (SD = 2.71) and tended to be either first or second year college undergraduates.

To test the first hypothesis, a canonical analysis among narcissism, egocentrism, and career exploration resulted in two variates. The first variate was interpreted as an assertive, arrogant, and exploitative form of narcissism being associated with self-exploration activities. The second variate was interpreted as servility, lack of entitlement, expertise, and conceit, being associated with the avoidance of environmental exploration and engagement in self-exploration. Egocentricism was not a significant contributor to either variate. Thus, the first hypothesis was not supported.
A canonical analysis was conducted to test the second hypothesis. This resulted in one root, which suggested that higher levels of career indecision were associated with lower levels of authority and self-sufficiency and higher levels of exhibitionism. Thus, individuals who are indecisive about career decisions tend to be followers, feel less competent and self-sufficient, and yet be exhibitionistic. This was interpreted as partially supporting the second hypothesis. Mako (1991) concluded, “Thus for individuals with narcissistic tendencies, a higher level of career decidedness may be based primarily upon participating in and valuing of self-exploration activities” (p. 127).

Conclusion

Rooted in classical Greek mythology, the concept of narcissism has been described and measured from a variety of psychoanalytic and cognitive behavioral viewpoints. These approaches to understanding narcissism appear to be describing the same phenomenon with a different vocabulary. Originally an extreme, disordered variant of personality, narcissism has, more recently, been considered a normally distributed personality trait. In fact, two different kinds of narcissism, overt and covert, have been empirically described and differentiated in the literature. Age, gender, and culture/ethnicity appear to impact the assessed degree of narcissism. Some limited work has been accomplished in describing the function of narcissism in career development, relating narcissism to occupational choice, and career decidedness. However, it appears that much work remains to be done in relating narcissism to assessed vocational interests.

Vocational Interests

Historical Roots

Vocational interests have been studied and discussed in the literature for approximately 100 years. Frank Parsons (1909) included knowledge of self in the classic book, Choosing a Vocation. A short time later, vocational interests became a focus of study in the 1920’s at the Carnegie Institute of Teaching (Betsworth & Fouad, 1997; Savickas, 1999). In 1943, E. K. Strong published the significant work, Vocational Interests of Men and Women, which was praised at the time for its summary of the literature to date. This study detailed research on the Strong Vocational Interest Blank assessment (Strong, 1927) and framing of vocation in terms of practical issues, rather than abstract theory (Havighurst, 1944; Stone, 1945).
The study of vocation has played a significant role in the discipline of psychology. Super (1955) noted that fields of vocational guidance and psychometrics were an impetus in the creation of the field of counseling psychology itself. The original bylaws of Division 17 of the American Psychological Association stated that one purpose of the division was “...to extend the techniques and methods of psychology to counseling and guidance activities in vocational, personal, educational, and group adjustments; including the disciplinary and behavioral problems encountered in educational institutions” (Meara & Myers, 1999, p. 20). The assessment of vocational interests continues to play a significant role in counseling practice and in research today (Ruff, Reardon, & Bertoch, 2007).

**Vocational Interests Defined**

The word “interest,” in the term vocational interest, is derived from the Latin *inter sum*, which means “to be between” (Savickas, 1999). It should also be noted that “interest” can serve as both a noun and a verb. But beyond its etymology, there is little conceptual agreement on the phenomenon of vocational interests. Instead, the term interest carries multiple meanings. Dewey (1913) and Kitson (1925) saw interest as an “organic union” between the person and the environment (Savickas, 1999). Interests may, therefore, simply be defined as the locus of an individual’s psychological world and the environment. The characteristics of interests have also been qualitatively (attention, feeling of liking, direction, and activity) and quantitatively (duration and intensity) described (Strong, 1955). Each meaning has been defined by the operational definitions and theoretical perspectives of specific investigators (Savickas, 1999). For example, Holland (1973, p. 7) defined vocational interests as “the expression of personality in work, hobbies, recreational activities, and preferences.”

Vocational interests are sometimes confused with “values” (Reardon et al., 2006). While interests focus more on the enjoyment of work activities in the present, values seem to focus on the obtainment of future important or desirable outcomes (Sagiv, 2002). In short, values help individuals to decide what they “should” do. Values might also play a role in determining the importance of vocational interests in making career decisions (Katz, 1993). That is, some people might place more importance on enjoying their work than others (Reardon et al., 2006).

“Skills” are also frequently confused with vocational interests. Skills are cognitive and physical behaviors that individuals can perform well (Reardon et al., 2006). Unlike aptitudes (e.g., eye-hand coordination), which are considered to be genetically based, skills (e.g., shooting
free throws) are assumed to be a primarily learned phenomenon. How confident one is in applying a learned skill has been termed “self-efficacy” (Betz, Borgen, & Harmon, 2006). It has been suggested that skill confidence is intimately related to both vocational interests and personality. For example, an introverted individual may have less confidence in their public speaking skills and, therefore, may be less interested in Enterprising occupations such as sales.

**Theoretical Constructs from Holland’s Theory**

John Holland has been identified as one of the most influential theorists in vocational psychology (Borgen, 1991; Brown & Brooks, 1996, Isaacson & Brown, 1997). Holland’s publications have made, and continue to make, a significant impact in the literature (Ruff et al., 2007; Watkins, Bradford, Lew, & Himmell, 1986). Furthermore, his work has challenged the status quo of the profession; championing the notion that clients are, and should be, active shapers of their careers and active participants in the counseling process (Borgen, 1991; Reardon & Lenz, 1998). The parsimony of the theory’s propositions, the Hexagon model, and related versions of the SDS (Holland, Powell, & Fritzsche, 1994) have created focal points for research and practice, and communication between the two (Borgen, 1991).

There are eight propositions to Holland’s theory (Reardon & Lenz, 1998, p. 19-24), the first four of which are key assumptions (Holland, 1997). These eight propositions include:

1. Most people can be categorized as one of six personality types: Realistic, Investigative, Artistic, Social, Enterprising, or Conventional (RIASEC) (Table 2).

2. There are six model environments which also carry the RIASEC labels. These environments may be occupations, education or training programs, or leisure activities. It is assumed that people with the same personality type are present in greater numbers (e.g., a Realistic environment will have more Realistic people present) (Table 3).

3. People search for environments them to exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles. This is often called the “birds of a feather flock together” proposition. Strong (1943) noted that “birds of a feather flock together” when describing occupations. Strong’s homogeneity assumption has been supported across several different occupations (e.g., counselors, engineers, and police officers) (Betsworth & Fouad, 1997). Occupations may be differentiated based upon the interests of the people in these occupations.

4. A person’s behavior is determined by an interaction between his/her personality and the characteristics of the environment (Holland, 1997).

5. The degree of congruence (or agreement) between a person and an occupation (environment) can be estimated by a hexagonal model. It is assumed that greater
congruence between personality and environment results in greater reinforcement and satisfaction and more stable behavior for a given individual.

6. The degree of consistency within a person or an environment is defined using the hexagonal model.

7. The degree of differentiation of a person or an environment modifies predictions made from a person’s RIASEC profile, from an occupational code, or from the interaction of the two.

8. The identity level of a person or an environment modifies predictions made from a person’s RIASEC profile, from an occupational code, or from the interaction of the two.

The Holland Hexagon (hereafter referred to as the RIASEC Hexagon or simply the Hexagon) has become “vocational psychology’s icon” (Borgen, 1991). Prior to the empirical derivation of the Hexagon by Cole, Whitney, and Holland (1971), the types were not as well ordered or understood (Reardon & Lenz, 1998). As shown in Figure 1, the six interest types are ordered so that correlations are generally higher between adjacent types and lowest between opposite types. Adjacent types are assumed to be more similar in interests and vocational pursuits than opposite types. While not perfectly symmetrical, the generally circular order of the six types has been confirmed in multiple studies (Boyle & Fabris, 1992; Care, 1996; Hansen, Collins, Swanson, & Fouad, 1993; Khan, Alvi, & Kirkwood, 1990; Prediger, Swaney, & Mau, 1993). The Hexagon shape, which Holland chose as a means of visually differentiating his theory from those of others, and RIASEC mnemonic have utilitarian value for practice (Reardon & Lenz, 1998).
Figure 1. The RIASEC Hexagon

Note. A hexagonal model for interpreting inter-class and intra-class relationships among personality types and environments. Correlations are between summary scale scores for the females \( n = 1,600 \) in the 1994 normative sample. Reproduced by special permission of the Publisher, Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, Florida 33549, from the Self-Directed Search Technical Manual by John L. Holland, Ph.D., Copyright 1985, 1987, 1994. Further reproduction is prohibited without permission from PAR, Inc.”
Primary & Secondary Constructs. The eight propositions and the Hexagon provide a foundation for primary and secondary constructs that have informed research and practice. These constructs are thought to be diagnostic of an individual’s career situation and their potential for successful career decision making (Reardon & Lenz, 1998). The two primary constructs include personality type and congruence.

The five secondary constructs include coherence of aspirations, consistency, commonness, differentiation, and profile elevation. While the amount of research and empirical evidence validating these concepts varies, the primary constructs are generally better supported in the literature than the secondary constructs (Reardon & Lenz, 1998). These constructs are explicitly operationalized through the SDS (Holland, Powell, & Fritzsche, 1994).

Personality types. The corners of the Hexagon provide anchor points for the six interest types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Each type has been described through various empirical studies in terms of: preferences for activities and occupations; values; view of self; self-perception of competence and ability; perception by others; and what is avoided (Table 2) (Gottfredson & Holland, 1996). Derivation of these types can occur through techniques that elicit expressed interests from individuals or assessed interests through the endorsement of standardized items. Both assessed and expressed methods are encouraged for use in counseling situations (Hansen, 1984).

One method of eliciting expressed interests from individuals is requesting a list of occupational daydreams, also known as vocational aspirations. This method is the first assessment activity conducted on the SDS Form R. On Form R, individuals are invited to list occupations they have considered to date and later categorize these occupations by Holland code. A summary code for occupational aspirations can then be obtained by using a weighted sum technique, which takes into consideration the position of each Holland type for each three-letter code (Appendix C) (Holland, Powell, & Fritzsche, 1994).

Assessed interests are derived in the SDS by the individual endorsing various activities, competencies, or occupations associated with the RIASEC types. The SDS also includes two self-estimate sections requiring clients to rate their abilities and skills (on a 1 to 7 point scale) compared to others their own age for each RIASEC type. Holland is reputed to have stated that he included two self-estimate sections, because they are “twice as important” as the other sections in the instrument (Reardon & Lenz, 1998, p. 66). While initially greeted with skepticism
by measurement experts, today, these self-estimates scales are thought to provide a snapshot of clients’ self schema of ability and important “jumping off points” for further discussion by counselor and client. These self-estimates are added to the total number of endorsements from the other three sections of the SDS to create six summary scores. The types with the three highest summary scores are then considered to be the person’s summary code.

Expressed occupational daydreams are strongly associated with assessed summary codes on the SDS (Holland & Gottfredson, 1975). In a meta-analysis of 14 studies, Athanasou and Cooksey (1993) found a positive relationship \( r = .46 \) between self-estimated and assessed vocational interests. Furthermore, students were more likely to persist in a major if measured interests were congruent with expressed interests (Laing, Swaney, & Prediger, 1984). However, it was noted by Reardon and Lenz (1998) that the daydreams section of the SDS has received less attention in the literature than other aspects of Holland’s work.
Table 2.  
*A Brief Description of the Holland Personality Typology*

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Realistic</th>
<th>Investigative</th>
<th>Artistic</th>
<th>Social</th>
<th>Enterprising</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferences for activities and occupations</td>
<td>Manipulation of machines, tools and things</td>
<td>Exploration, understanding and prediction, or control, of natural social phenomena</td>
<td>Literary, musical, or artistic activities</td>
<td>Helping, teaching, treating, counseling, or serving others through personal interaction</td>
<td>Persuading, manipulating, or directing others</td>
<td>Establishing or maintaining orderly routines, applications or standards</td>
</tr>
<tr>
<td>Values</td>
<td>Material rewards for tangible accomplishments</td>
<td>Development or acquisition of knowledge</td>
<td>Creative expression of ideas, emotions or sentiments</td>
<td>Fostering the welfare of others, social service</td>
<td>Material accomplishment and social status</td>
<td>Material or financial accomplishment and power in social, business, or political arenas</td>
</tr>
<tr>
<td>Sees self as</td>
<td>Practical, conservative, and having manual and mechanical skills—lacking social skills</td>
<td>Analytical, intelligent, skeptical and having academic talent—lacking interpersonal skills</td>
<td>Open to experiences, innovative, intellectual—lacking clerical or office skills</td>
<td>Empathic, patient, and having interpersonal skills—lacking mechanical ability</td>
<td>Having sales and persuasive ability—lacking scientific ability</td>
<td>Having technical skills in business or production—lacking artistic competencies</td>
</tr>
<tr>
<td>Others see as</td>
<td>Normal, frank</td>
<td>Asocial, intellectual</td>
<td>Unconventional, disorderly, creative</td>
<td>Nurturing, agreeable, extroverted</td>
<td>Energetic, gregarious</td>
<td>Careful, conforming</td>
</tr>
<tr>
<td>Avoids</td>
<td>Interaction with people</td>
<td>Persuasion or sales activities</td>
<td>Routines and conformity to established rules</td>
<td>Mechanical technical activity</td>
<td>Scientific, intellectual, or abstruse topics</td>
<td>Ambiguous or unstructured undertakings</td>
</tr>
</tbody>
</table>

Table 3.
A Brief Description of the Holland Environmental Typology

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Realistic</th>
<th>Investigative</th>
<th>Artistic</th>
<th>Social</th>
<th>Enterprising</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requires</td>
<td>Manual and mechanical competencies, interaction with machines, tools, and objects</td>
<td>Analytical, technical, scientific, and verbal competencies</td>
<td>Innovation or creative ability, emotionally expressive interaction with others</td>
<td>Interpersonal competencies, skills in mentoring, treating, healing, or teaching others</td>
<td>Skills in persuasion and manipulation of others</td>
<td>Clerical skills, skills in meeting precise standards for performance</td>
</tr>
<tr>
<td>Demands and rewards the display of</td>
<td>Conforming behavior, practical accomplishments</td>
<td>Skepticism and persistence in problem solving, documentation of new knowledge, understanding or solution of problems</td>
<td>Imagination in literary, artistic or musical accomplishments</td>
<td>Empathy, humanitarianism, sociability, friendliness</td>
<td>Initiative in the pursuit of financial or material accomplishments; dominance; self-confidence</td>
<td>Organizational ability, conformity, dependability</td>
</tr>
<tr>
<td>Values or personal styles allowed expression</td>
<td>Practical, productive and concrete values; robust, risky, adventurous styles</td>
<td>Acquisition of knowledge through scholarship or investigation</td>
<td>Unconventional ideas or manners, aesthetic values</td>
<td>Concern for the welfare of others</td>
<td>Acquisitive or power-oriented styles, responsibility</td>
<td>Conventional outlook and concern for orderliness and routines</td>
</tr>
<tr>
<td>Occupations or other environments involve</td>
<td>Concrete, practical activity; use of machines, tools, materials</td>
<td>Analytical or intellectual activity aimed at troubleshooting or creation and use of knowledge</td>
<td>Creative work in music, writing, performance, sculpture, or unstructured intellectual endeavors</td>
<td>Working with others in a helpful or facilitating way</td>
<td>Selling, leading, manipulating others to attain personal or organizational goals</td>
<td>Working with things, numbers, or machines to meet predictable organizational demands or specified standards</td>
</tr>
<tr>
<td>Sample occupations</td>
<td>Carpenter, truck operator</td>
<td>Psychologist, microbiologist</td>
<td>Musician, interior designer</td>
<td>Counselor, clergy member</td>
<td>Lawyer, retail store manager</td>
<td>Production editor, bookkeeper</td>
</tr>
</tbody>
</table>

**Congruence.** Congruence is the degree of agreement between any two, three-letter Holland Codes (Holland, Powell, & Fritzsche, 1994). These two codes can represent an assessed code or a potential occupation, education, or leisure environment. Congruence can also be considered when comparing an individual’s expressed summary code of occupational aspirations and an assessed SDS summary code. Individuals whose highest SDS code and first aspiration code match are more likely to pursue their current aspiration than those whose codes do not match (Holland, Powell, & Fritzsche, 1994). In addition to clinical judgment by the counselor, congruence can be calculated by three methods, including inspection of the Hexagon, the Zener-Schnuelle Index (Zener & Schnuell, 1976), and the Iachan Agreement index (Iachan, 1984). The Iachan index can be used for most purposes (Alvi, Khan, & Kirkwood, 1990). Appendix A describes a simple method for calculating the Iachan Agreement Index for two Holland codes (Holland, Powell, & Fritzsche, 1994).

**Consistency.** According to Holland, Powell, and Fritzsche (1994, p. 17), “Consistency refers to the similarity between the types represented by a single Holland code and is determined by the positions of these types on the RIASEC Hexagon.” For example, the code RIA would be considered highly consistent and receive a score of 3 as the Realistic and Investigative code-types are adjacent on the Hexagon (Figure 1). The code of RAI would be moderately consistent, receiving a score of 2. The code RSA would have low consistency and be scored as a 1, since the first two letters are opposite of each other on the Hexagon. Though it is a secondary construct, consistency is considered to be an important diagnostic sign. Higher levels of consistency are related with greater stability in work history and direction in future career choices (Reardon & Lenz, 1998).

**Coherence of Aspirations.** Coherence of aspirations is the degree to which an individual’s occupational daydreams belong in the same Holland type (Reardon & Lenz, 1998). In other words, coherence attempts to describe the degree of similarity between occupational daydreams. For the SDS, coherence is calculated by the simple inspection of the initial code-types of the first three occupational aspirations listed. High coherence exists when all three initial code-types are the same (e.g., AES, AIS, ASI). Low coherence exists when all three initial code-types are different (e.g., CIE, SIE, AES). Moderate coherence exists when partial agreement occurs. Like consistency, coherence is thought to indicate persistence in occupations with the same code-type.
Differentiation. Differentiation refers to the degree of definition, or distinctness, of a Holland code profile or personality (Reardon & Lenz, 1998). An individual who scores highly on only one code-type would be considered highly differentiated. An individual who scores equally high on all six code-types would be considered undifferentiated. The simplest method for computing differentiation, known as differentiation high-low, is to subtract the highest score from the lowest score from among the six code-types. However, the Iachan Differentiation index is considered the best method to calculate Differentiation (Alvi, Khan, & Kirkwood, 1990). The Iachan differentiation index ($L_1$) averages the second and fourth highest score, subtracts this average from the highest score, and again averages this difference (Appendix B).

Profile Elevation. According to Reardon and Lenz (1998), a profile is the pattern indicating the degree of resemblance to the six ideal Holland types. The profile elevation is the sum of the six section scores in the SDS (Fuller et al., 1999; Holland, Johnston, & Asama, 1994). This index, which ranges from 14 to 300, is simply the total number of positive responses to individual SDS items.

Commonness. Commonness is the frequency with which a given code occurs in the general population (Reardon & Lenz, 1998). People are unevenly distributed across the six types, with some code pairings, such as Artistic with Conventional, being very rare (which is intuitive considering the concept of consistency). In general, it is assumed that individuals with common codes will have a greater number of educational, occupational, and leisure options open to them than those individuals with less common codes.

Critiques of Holland’s Theory

While Holland’s theory has been quite influential, it has also been criticized. Some have noted that the typology predicts best when scores on the SDS are extreme, which is true of all typologies (Reardon & Lenz, 1998). The theory has also been faulted for failing to explain why people develop into certain types (Osipow & Fitzgerald, 1996). It has also been argued that the Hexagon may not be applicable across all groups (Rounds & Tracey, 1996). The use of raw, instead of norm, based scores in the Holland theory based SDS have also been criticized as being gender biased (Daniels, 1994). Holland, Fritzschke, and Powell (1994, p. 53) stated that is because the inventory is “sex fair” due to its single form for both genders and practical evidence. They also argued that it works equally well to positively influence career decision making regardless
of gender. However, Holland and his colleagues argue that the SDS is thought to reflect actual gender differences in vocational interests.

Acquisition and Maintenance of Interests

Hansen (1984) summarized several “determinants” of vocational interests, including: genetics; environmental and social influences; personality traits; and expression of self-concept. Hansen pointed out that these factors undergird the essential differences between static and dynamic conceptualizations of career development and choice; i.e., the structured and process theories described by Reardon et al. (2000). The literature on these factors will next be briefly reviewed.

Genetics. In a twin-study, Moloney, Bouchard, and Segal (1991) found that approximately 45% to 50% of the variance in vocational interest could be attributed to genetics. The remaining 50% of the variance was accounted for by environment or measurement error. Similar findings were made by Lykken, Bouchard, McGue, and Tellegen (1993). In their study, Betsworth, Bouchard, Cooper, and Grotevant (1994) found 36% of the variance in vocational interests attributable to genetics, 9% of the variance to the shared environment, and 55% of variance to the non-shared environment. Thus, Betsworth and colleagues concluded that individual environmental influences are important to the acquisition of interests.

Learning. Additional evidence indicates that interests can be modified through learning. The role of individual learning is highlighted by Krumboltz, who noted that people who have limited life experience often have a difficult time articulating their interests (Lent, Brown, & Hackett, 2002). Some limited empirical evidence supports this view. For example Barak, Shiloh, and Haushner (1992) found that cognitive restructuring influenced preferences for activities among preschool children (i.e., you can modify self-talk to change interests). It is important to note that the assessment of vocational interests is, in and of itself, a learning event (Krumboltz & Jackson, 1993).

Personality. Personality is considered to be intimately related to vocational interests. For example, the analytic tradition viewed interests as representative of pathological fixations or quests of curiosity and power (Bordin, 1990; Savickas, 1999). A study by Strack (1994) related an assessment based on Millon’s (1983) theory to vocational interests. Holland, Johnston, and Asama (1994) examined the relationships between the SDS and a measure of personality, based on the third edition of the Diagnostic and Statistical Manual of the American Psychiatric
Association (DSM-III, 1980). Furthermore, a substantial body of literature exists that relates the empirically derived “Big Five” personality factors to vocational interests (Costa, McCrae, & Holland, 1984, Tokar & Swanson, 1995). Finally, Fuller et al. (1999) combined both a DSM III-based measure of personality with a measure of the five factor model to explore relationships with Holland Types and profile elevation on the SDS.

Strack (1994) surveyed 152 college male ($n = 75$) and females ($n = 77$) enrolled in an introductory psychology class using the Personality Adjective Check List (PACL, Strack 1991) and the SDS. The PACL was based on Millon’s (1983) model of personality, which conceptualizes a continuum of normal to pathological personality. Individuals scoring highly on the confident scale (formerly labeled narcissism) on the PACL are described as self-assured, bold, clever, unempathetic, and condescending. Among males in the sample, the confident scale was found to be significantly related to the Investigative ($r = -.31, p < .01$) and Enterprising ($r = .46, p < .001$) code-types on the SDS. For females in the sample, the confident scale was significantly related to Enterprising ($r = .40, p < .001$) and Conventional ($r = -.27, p < .05$) SDS code-types. It should also be noted that for females, the relationship of the confident scale to the Investigative code-type just fell short of significance ($r = -.21$).

Separate canonical correlation analyses of the scales measuring the six SDS code-types and the eight personality scales of the PACL were separately conducted for males and females. For males, the Enterprising code-type was related to a socially dominant, yet conscientious, interpersonal style ($r = .77$), while the investigate code-type was related to a submissive/inhibited interpersonal style ($r = -.41$). Thus, males described as socially dominant, self-confident, and conscientious were linked to the data related occupations of the SDS (Lamb & Prediger, 1981). For females, the Enterprising ($r = .61$) and Social ($r = .50$) code-types were related to a socially bold, yet conscientious, interpersonal style, while Conventional ($r = -.62$) and Investigative code-types ($r = -.53$) were related to a more introverted style. Thus, females described as extraverted, self-confident, and conscientious were linked to the Data and People occupations of the SDS (Lamb & Prediger, 1981).

Holland, Johnston, and Asama (1994) compared and correlated the scales of the SDS and Personal Styles Inventory (PSI; Silver & Malone, 1993), which they administered to 176 male and 123 female displaced farmers, shoe makers, and employed or unemployed workers who participated in a series of career workshops. Approximately 37% of the males and 54% of the
females were college graduates. On the Narcissism scale of the PSI, females scored, on average, significantly higher ($M = 21.2$, $SD = 8.8$) than males ($M = 19.0$, $SD = 6.9$) ($t = 2.6$, $p < .05$). Also for females, narcissism was correlated with the Artistic ($r = .22$, $p < .05$), Social, ($r = .24$, $p < .01$) and Enterprising ($r = .26$, $p < .01$) code-type scores. No significant relationships were found for males between narcissism and SDS code-type scores. Narcissism was not significantly related to the sum of SDS scores for males ($r = .03$), but was significantly related to sum of SDS scores for females ($r = .20$, $p < .05$).

The five-factor, or “big five,” model of personality has also been found to be appreciably related to the RIASEC Hexagon (Costa, McCrae, & Holland, 1984; Larson, Rottinghaus, & Borgen, 2002). This model is an empirically derived, factor-analytic model of normal personality. Costa and McCrae (1992) define these factors as: 1) Neuroticism: the contrast between adjustment or emotional stability and maladjustment or neuroticism; 2) Extraversion: the extraversion/introversion tendency in people; 3) Agreeableness: associated with interpersonal tendencies; 4) Openness to Experience: which includes such elements as active imagination, aesthetic sensitivity, attentiveness to inner feelings, preference for variety, intellectual curiosity, and independence of judgment; and 5) Conscientiousness: one’s tendency toward planning, organizing, and carrying out tasks.

Costa, McCrae, and Holland (1984) found that Investigative and Artistic types were more Open to experience, while Social and Enterprising types were more related to Extraversion. Tokar and Swanson (1995) found that Openness and Extraversion differentiates the Social Holland type for males, while Openness, Extraversion, and Agreeableness differentiated Holland types for females. In a meta-analytic review of 12 studies relating the Big Five model to the Holland model, Larson et al. (2002) found five substantial and expected correlations for males and females among vocational interests and personality domains. The significant relationships included: 1) Artistic–Openness ($r = .48$); 2) Enterprising–Extraversion ($r = .41$); 3) Social–Extraversion ($r = .31$); 4) Investigative–Openness ($r = .28$); and 5) Social–Agreeableness ($r = .19$). They also found four unexpected correlations: 1) Conventional–Conscientiousness ($r = .29$); 2) Enterprising–Conscientiousness ($r = .29$); 3) Enterprising–Neuroticism ($r = -.24$); and 4) Social–Openness ($r = .22$).

Larson et al. (2002) also found differences in the relationships between vocational interests and the big five model, by gender. The relationship between Realistic and Openness
was positive for females \( (r = .17, p < .002) \), but minimal for males \( (r = -.01, p < .002) \). For males, Conventional and Extraversion were correlated slightly positively \( (r = .16, p < .002) \), but there was no association for females. Conventional and Openness were correlated slightly negatively for females \( (r = -.16, p < .002) \), but for males, the relationship was minimal \( (r = -.05, p < .002) \). The correlation between the Conventional code-type and Conscientiousness was slightly more positive for males \( (r = .30, p < .002) \) than for females \( (r = .21, p < .002) \).

Fuller et al. (1999) attempted to more fully describe and illustrate the connection between personality variables and profile elevation (i.e., the total of all items endorsed on the SDS). The authors administered the Personal Styles Inventory (PSI Silver & Malone, 1993), NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1989) and SDS (Holland, 1985) to a subset (139 females and 180 males) of a larger sample of dislocated workers. These workers had an average age of 40.5 years (no standard deviation reported).

In Fuller et al. (1999), extraversion and openness, as measured by the NEO-FFI, were positively and significantly related to profile elevation on the SDS for both males and females. Furthermore, narcissism was found to be positively related to profile elevation in both males and females \( (r = .17, p < .05; r = .29, p < .001 \) respectively). No significant differences were found between males and females in narcissism (as measured by the PSI), or SDS, profile elevation. But, a MANOVA test on PSI scores, using SDS profile elevation as the independent variable, indicated that females, but not males, were found to have a clear linear relationship between profile elevation and narcissism. Fuller and colleagues suggested that individuals who are more self-oriented (i.e., have greater levels of narcissism) may endorse more items on the SDS than their less narcissistic peers. The authors also posited that this effect may be greater for a different sample of college educated females who have greater flexibility in exploring career options. They speculated that clients with lower profile elevations (i.e., scores less than one standard deviation below the mean) may have personality or adjustment issues that are impacting their career decisions. They also noted that higher profile scores (i.e., scores over one standard deviation above the mean) may indicate greater psychological health, openness to career possibilities, and more positive emotionality and sociability.

Bullock and Reardon (2008) studied the relationships among the five-factor model of personality, RIASEC code-types, and four secondary constructs in RIASEC theory in a sample of university students enrolled in a career development course. They found that profile elevation
was significantly and directly correlated with the personality factors of Extraversion, Openness, and Conscientiousness. Through linear regression, both Openness and Conscientiousness were found to capture significant variance in profile elevation. Openness was found to have both a linear and quadratic relationship with profile elevation. Conscientiousness was found to have a quadratic relationship with profile elevation. Bullock and Reardon interpreted this finding as clients with higher profile elevation scores may be more likely to be open to considering options and be conscientious about completing career counseling tasks. But, the quadratic nature of the relationship suggests that extremely high levels of conscientiousness would have a lower profile elevation, perhaps due to the increased focus on vocational interests.

In a linear regression analysis of profile elevation and secondary constructs, Bullock and Reardon found that differentiation (both Iachan index and the high-low score difference methods) and consistency captured significant amounts of variance of profile elevation, while congruence and coherence did not. This is consistent with the finding by Swanson and Hansen (1986), that profile consistency is related to profile elevation.

The consensus of the literature appears to be that while personality and vocational interests overlap, a measure for one is not a substitute for the other (Bullock, 2006; Gottfredson, Jones, & Holland, 1993). In fact, the best practice may be to supplement traditional interest inventories with other personality measures which capture variables important to career counseling, such as work adjustment, job satisfaction, and workplace relations (Gottfredson et al., 1993). Holland (1999) summarized the evidence that interests and personality inventories are related by noting that: 1) the empirical evidence suggests that interest and personality inventories assess many of the same factors; 2) clinical experience suggests that vocational interests are signs of personality; and 3) research has been furthered by the assumption that interest inventories mimic personality inventories, but not the converse.

**Self-Concept.** According to Wylie (1961, 2001), the concept of self has been studied since the formative days of psychology through the work of William James and Mary Calkins of the introspectionist movement. Freud’s attempt to describe the mind eliminated the whole person and focused instead on the basic drives as played out through the constituent parts of the mind. At this point the “…scientific connotations of the ‘ego’ left the mind of psychoanalysis without a person in sight” (Cooper, Kernberg, & Person, 1989, p. 149). Later, Kohut resurrected the idea of “self” and explicitly did not distinguish between the various definitions of the concept (Cooper,
Kernberg, & Person, 1989; Wylie, 1961). For example, self-concept can be defined in several
different ways including: the person; the person’s mental image of the person; the person’s ideal
self compared to actual self, or as the person’s perceptions of how they appear to others (i.e.,

For Carl Rogers, the self-concept was an outgrowth of social interaction with the
environment (Rogers, 1951). Thus Rogers practiced unconditional positive regard in the clinical
setting to enhance the client’s self-concept (Kahn & Rachman, 2000). Rogers’s goal was for the
client to experience and receive positive feedback for congruence (i.e., behaving in a manner that
is authentic and genuine without need for approval from others). This is in contrast to Kohut’s
focus on self-cohesion and remediation of narcissistic deficits (Kahn & Rachman, 2000).
Whereas Rogers provided unconditional positive regard at all times to build the person’s self-
concept, Kohut’s mirroring was contingent upon the person’s behavior as a method of producing
“optimal frustration” thereby shaping the self-concept (Kahn and Rachman, 2000).

Psychologists have found it difficult to operationalize and measure the broad construct of
self-concept (Betz, 1994, Wylie, 1961). Donald Super contributed to the definition of self-
concept while make a significant contribution to the study of vocational behavior (Betz, 1994;
Herr & Cramer, 1996; Savickas, 2002; Super, 1990). The unitary “self-concept” was
reconceptualized by Super into a “self-concept system” which emphasized multiple
conceptualizations of self with respect to the various life roles that individuals play in relation to
other people (Savickas, 2002). According to Savicaks (2002) the construct has been described in
terms of: 1) self-concept dimensions which influence the content of options among which
individuals choose (i.e., interests); and 2) metadimensions (e.g., esteem, clarity, consistency,
realism, complexity, and efficacy) which are thought to affect the process of choosing.

Super (1990) emphasized the importance of self-concept in career choice and
development. In fact, he placed it as the keystone in his segmented model of career development.
This keystone connected the qualities of the individual (e.g., genetics, personality, etc.) with the
forces of society (e.g., the social environment in which the person is embedded. According to
Super (1953, p. 189), “The process of vocational development is essentially that of developing
and implementing a self-concept: it is a compromise process in which the self-concept is a
product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to
play various roles, and evaluations of the extent to which the results of role playing meet with the
approval of superiors and fellows.” Super further defined the occupation as a mechanism by which the person plays a role “…appropriate to the self-concept” (Super, 1963, p. 1).

**Individual Differences and Interests**

The acquisition and expression of vocational interests may vary based on group differences. In fact, several studies have investigated the phenomenon of vocational interests from the perspective of individual differences. However, Dawis (2002) cautioned against the over interpretation of differences between groups. He noted that mean differences between groups rarely exceed one-half of a standard deviation and that these differences are minimal compared to differences within groups. Dawis (2002, p. 457) noted that, “Group membership cannot substitute for individual assessment.” Furthermore, he stated that one way to weaken stereotypes is to disseminate more information about group variability. Within this context, the literature on the relationships among gender, age, culture, ethnicity, and vocational interests will now be briefly reviewed.

**Gender.** Though males and females respond to interest inventories similarly, there are some differences between the genders (Fouad & Spreda, 1995). Inventories that use raw, rather than normative scoring, such as the SDS, may emphasize these differences. For example, Holland, Johnston, and Asama (1994) found that significant gender differences were most prevalent for the Realistic code and least prevalent on the Enterprising scale of the SDS in a sample of about 300 adults. Some researchers (Anderson, Tracey, & Rounds, 1997; Holland, Fritzsche, & Powell, 1994) have argued that these differences reflect the reality of differences in occupational interests by gender, due to socialization or other sociocultural factors. Others, such as Walsh and Betz (1995), have pointed out that in the case of the Realistic code, items may be biased toward life experiences, in which males participate in greater numbers than females. Also, self-estimates of competencies for specific interest areas (e.g., Realistic) may tap gender specific, lower levels of self-efficacy, instead of interests alone (Betz, 1993).

However, findings by Swan (2005) contradict the assertion of gender bias in the SDS for the Realistic code-type. In a national sample of female carpenters in the United States ($n = 411$), Swan found that females scored within one-half of a standard deviation of their male colleagues ($n = 137$). These females also scored three-quarters of a standard deviation higher than the average male, and greater than two standard deviations above the adult female. Swan concluded
that, contrary to past assertions, the SDS does appear to be adequately describing the interests of females who are engaged in Realistic occupational environments.

Age. For predictive validity, interests must be stable as individuals grow older. The Hexagon appears to describe and predict vocational interests in a stable manner, not only across time, but also across different measures of vocational interests. Three studies which demonstrate this stability are described briefly.

Gottfredson and Holland (1975) investigated the predictive validity of the SDS (1972) by implementing a longitudinal survey with two samples of college students. The first sample of 2,508 freshmen was administered the SDS in the fall of 1970. The second sample of 1,183 students undergoing freshman and transfer orientation at liberal arts colleges were assessed in the summer of 1972. Both groups were sent a follow-up survey in the spring of 1973, providing for a three-year, post-test group and a one-year post-test group.

In the three-year, post-test group, only 1,259 (50%) of the initial sample returned and expressed an occupational choice. In the group of university students, 42% of the males and 58% of the females chose occupations in the category predicted by the SDS three years prior. For the one-year post-test group, 624 (53%) of the initial sample returned the survey and expressed an occupational choice. In this group of students enrolled in a liberal studies college, 40% of the males and 66% of the females expressed occupational choice in the category predicted by the SDS.

The authors noted that assessed predictions for males, but not females, exceeded the base rate prediction. Furthermore, occupational daydreams were more efficient than the summary code for making predictions for both males and females. Holland, Fritzsche, and Powell (1994) noted that, like other interest inventories, the SDS does not provide more efficient predictions than a person’s expressed career choice. In fact, for the liberal studies students, the best one-year prediction of future occupational selections occurred when students’ inventory results and expressed vocational aspirations had the same first letter code (64% for males and 85% for females).

Hansen and Swanson (1983), using the Strong Campbell Interest Inventory (SCII, Campbell & Hansen, 1981), found that vocational interests remained stable for male and female college students after a 3.5 year test-retest interval. The authors also found college students’ interests were stable after a test-retest interval of 12 years (Swanson & Hansen, 1988). It should
be noted that these students’ interests appeared to be more stable after college, than during college. Similar research on adults has also found stability of interests over time without gender differences (Swanson, 1999).

Tracey, Robbins, and Hofsess (2005) summarized the literature by noting the conventional wisdom that adolescents seem to become more practical and realistic in their interests over time. Tracey et al. (2005), found that the interests of male and female high school students, as measured by the UNIACT (ACT, 1995) inventory, which yields scores based on the RIASEC Hexagon, remained stable over successive assessments at grades 8, 10, and 12. However, these students’ scores also increased in differentiation over time, supporting the supposition that interests crystallize as we age.

Culture & ethnicity. Holland’s theory of vocational interests has had a significant impact in the United States and internationally. However, the evidence in the literature for the generalizability of the theory beyond majority Caucasian samples in the United States is mixed. Rounds and Tracey (1996) conducted a meta-analytic study covering 76 samples in 18 countries and 73 samples in the United States. In the non-US countries, the authors found a poor fit for the RIASEC model. These countries included Canada and Australia, the cultural environs of which are considered similar to those of the United States in terms of economy and occupational structure. These differences could not be accounted for by per capita gross national product or Hofstede’s (1980) cultural values of individualism-collectivism and masculinity-femininity. Instead, the authors found that a simpler model partitioning the RIA and SEC types was more universal across cultures than the more highly specific RIASEC model. Additional specific instances of a poor fit between the RIASEC model has been found in Chinese and Japanese college students (Tang, 2001; Tracey, Watanabe, & Schneider, 1997). But, other authors have found data in support of the cultural universality of the RIASEC model in various groups including Croatian secondary school students (Šverko & Babarovic, 2006), Chinese secondary school students (Yu and Alvi, 1996), Native Hawaiians (Oliver & Waehler, 2005), and Korean college students (Tak, 2004).

In their meta-analytic study, Rounds and Tracey (1996) found that Holland’s model did not fit well for samples of African American, Hispanic, and American Indian groups in the United States. This is countered by studies from Fouad, Harmon, and Borgen (1997), Day and Rounds (1998), and Lattimore and Borgen (1999) who concluded that interest structure was
similar across ethnic minority and majority groups in the United States. A possible explanation for these different conclusions is the use of different instruments or sampling methods (Rounds & Tracey, 1996). It should be noted that for the 1994 version of the SDS, the largest mean differences are for gender, and not ethnicity (Holland, 1997).

In summary, the literature indicates that vocational interests remain stable, though they may become more clearly defined as we age. There also appears to be some gender differences in endorsement of vocational interests. However, differences in vocational interests across cultural and ethnic boundaries are perhaps less clear. Fouad (2002) conducted a study investigating differences in structure of vocational interests by ethnicity, age, and gender. Her findings indicated greater differences within ethnic groups due to gender and age, rather than between ethnic groups. Fouad (2002) concluded that counselors should interpret interests within a same-gender normative group as has been practiced since the dawn of vocational interest measurement. “In short, women are more similar in interests to women in other cultures and races, than they are to men of the same culture or race” (Holland, 1997, p. 157).

While describing and understanding group differences is important, individuals should be assessed as individuals on multiple, rather than single, traits (Dawis, 2002). Furthermore, in the assessment of vocational interests, the role of the environment should be considered. The interaction of person and environment causes many more differences than can be described by the assessment of the person alone (Dawis, 2002).

Conclusion

Vocational interests are the expression of an individual’s personality in the environment. Research has shown that vocational interests are the product of both genetic inheritance and learning from the environment, which seems to become more stable as we age. Interests have also been empirically found to be related to several models of personality (e.g., Millon and the Big Five). Holland’s theory has been an influential force in the research and practice of vocational interest assessment. The SDS is a highly practical and utilitarian simulated career counseling activity and assessment based on the robust propositions and primary and secondary constructs of Holland’s Theory. Evidence supports the applicability of Holland’s theory across cultures and ethnic groups. Furthermore, differences found between males and females in vocational interests using the SDS are assumed to reflect real world phenomena.
Critical Analysis of the Literature on Narcissism and Vocational Interests

Narcissism and vocational interests have been separately discussed in the literature for the past century. While clear linkages have been described between some dimensions of personality and vocational interests, the relationship between narcissism and interests is less well established. The following is a critical analysis of the literature surrounding the relationships between two kinds of narcissism, overt and covert, and vocational interests.

There is currently a limited knowledge base on the relationship between narcissism and vocational interests. From a theoretical perspective, overt narcissists may be attracted to occupational environments which provide social interactions that supply opportunities for admiration by, and domination of, others so they can maintain their fragile sense of self. This perspective is supported by studies which show that individuals with higher degrees of overt narcissism appear to be “attracted” to certain occupational environments (e.g., military, politics, teaching, and the pastorate). Conversely, covert narcissists may shun occupations related to Social vocational interests in favor of the safety of solitude.

This simplified model appears to be complicated by gender differences in the expression of both narcissism and vocational interests. For example, males appear to endorse higher levels of overt narcissism and be classified as narcissistic more often than females. Furthermore, there is strong evidence of the differences in patterns of vocational interests between males and females (Reardon, Vernick, & Reed, 2001).

Minimal objective evidence exists that directly explores the relationship of overt narcissism to vocational interests. Only Strack (1994) and Holland, Johnston, & Asama. (1994) have explored this relationship using a global personality instrument, of which narcissism is one of several scales. Evidence from this study indicates a relationship between overt narcissism and Enterprising vocational interests for both males and females (Figure 2). Furthermore, this study found a negative relationship between overt narcissism and Investigative occupational interests among males. A similar negative relationship was found for the relationship between overt narcissism and Conventional vocational interests among females. In general, male narcissists appear to be more attracted to data related (e.g., Enterprising and Conventional) vocational interests, while female narcissists are attracted equally to both data and people (e.g., Enterprising and Social) related occupations.
Additional clues about potential relationships between vocational interests and narcissism may be derived by graphing relationships documented in the literature among vocational interests, such as the Big Five model of personality, overt narcissism, and covert narcissism. Figure 3 represents these relationships, as described in four studies, of which one was a meta-analytic review of the literature (Larson et al., 2002). Regardless of gender, overt narcissism appears to be related to Extraversion, which is, in turn, related to Social and Enterprising interests.
Figure 2. Direct Relationships among the RIASEC Typology and Two Kinds of Narcissism

Legend

Positive Relationship
Negative Relationship

Relationships between RIASEC Typology and Narcissism
Holland, Johnston, & Asama (1994) (Females)
Strack (1994) (Males)
Strack (1994) (Females)
Figure 3. Indirect Relationships among the RIASEC Typology and Two Kinds of Narcissism, via the Five Factor Model
Overt narcissism also appears to be related to Openness, which is, in turn, related to both Artistic and Investigative interests. However, consistent with theory and clinical descriptions, there is a negative relationship between overt narcissism and Agreeableness, which may limit future success in pursuing Enterprising and Social interests.

No studies in the literature have directly examined the relationship between covert narcissism and vocational interests. Among females, covert narcissism has been negatively related to Extraversion, which is directly related to Social and Enterprising interests. Similarly, covert narcissism is negatively related to Openness, which is directly related to Artistic and Investigative interests (for both males and females), as well as Realistic interests (for females). Covert narcissism is also negatively related to Agreeableness, which is directly related to Social and Enterprising interests. As suggested by theory and empirical evidence, covert narcissism may have an “inhibitory” effect on the pursuit of Artistic, Social, and Enterprising vocational interests among females. But this pattern has not been demonstrated for males. It should also be noted that covert narcissism is directly related to Neuroticism, which has been found to be negatively related to Enterprising vocational interests, but also directly related to difficulty with career decision making.

There also appears to be a minimal literature relating either overt or covert narcissism to Holland’s secondary constructs of consistency, differentiation, commonness, and profile elevation. These constructs can be informative in understanding an individual’s personal career theory and readiness for career decision making. One study, by Fuller et al. (1999), directly demonstrated a positive relationship between narcissism and profile elevation. This study, as well as a study by Bullock and Reardon (2008), also demonstrated that profile elevation is positively related to the factors of extraversion and openness, which, as previously stated, are known to be positively related to Narcissism.

As has been directly demonstrated by the two studies, there is the potential for meaningful relationships between overt narcissism and assessed vocational interests. Inferences from relationships with the Five Factor model of personality also provide additional evidence for relationships between overt and covert narcissism and assessed vocational interests. Furthermore, it appears that gender may have an impact on the relationships among these constructs. However, age and ethnicity/culture have been found to be related to both vocational interests and the expression of overt and covert narcissism. As individuals age, vocational interests tend to
crystallize, while narcissism tends to wane through experience. Individuals from more individualistic cultures and ethnic minority groups also tend to endorse greater levels of narcissism than their collectivist and majority peers. Any variance attributed to these variables needs to be controlled, in order for a clearer picture of the relationships among vocational interests, overt narcissism, covert narcissism, and gender, to emerge.

Research Question

Given the gaps in the findings and methodology in the literature noted above, the following research question should be answered. What are the relationships among overt and covert narcissistic personality traits and assessed vocational interests with respect to gender? While limited evidence does exist for directional relationships between overt narcissism and the RIASEC scales, no such relationships have been documented between covert narcissism and code-types. Furthermore, with the exception of profile elevation, no evidence exists relating secondary constructs with either overt or covert narcissism. Also, past studies have inconsistently considered relationships with respect to gender. Because of this incomplete and potentially complex network of relationships, and for the sake of parsimony, hypotheses will be stated in the null form (i.e., as bidirectional).

Specific Research Questions and Hypotheses

1. What is the relationship between assessed vocational interests and overt narcissism with respect to gender?
   
   H1.a: There is no relationship between assessed vocational interests and overt narcissism in males.
   
   H1.b: There is no relationship between assessed vocational interests and overt narcissism in females.
   
   H1.c: There is no significant difference by gender in relationships between vocational interests and overt narcissism.

2. What is the relationship between assessed vocational interests and covert narcissism with respect to gender?
   
   H2.a: There is no relationship between assessed vocational interests and covert narcissism in males.
   
   H2.b: There is no relationship between assessed vocational interests and covert narcissism in females.
   
   H2.c: There is no significant difference by gender in relationships between vocational interests and covert narcissism.
3. What is the relationship between secondary constructs of vocational interests and overt narcissism with respect to gender?
   H3.1.a: There is no relationship between consistency and overt narcissism in males.
   H3.1.b: There is no relationship between consistency and overt narcissism in females.
   H3.2.a: There is no relationship between coherence and overt narcissism in males.
   H3.2.b: There is no relationship between coherence and overt narcissism in females.
   H3.3.a: There is no relationship between differentiation and overt narcissism in males.
   H3.3.b: There is no relationship between differentiation and overt narcissism in females.
   H3.4.a: There is no relationship between commonness and overt narcissism in males.
   H3.4.b: There is no relationship between commonness and overt narcissism in females.
   H3.5.a: There is no relationship between profile elevation and overt narcissism in males.
   H3.5.b: There is no relationship between profile elevation and overt narcissism in females.
   H3.6: There is no significant difference by gender in relationships between secondary constructs and overt narcissism.

4. What is the relationship between secondary constructs of vocational interests and covert narcissism with respect to gender?
   H4.1.a: There is no relationship between consistency and covert narcissism in males.
   H4.1.b: There is no relationship between consistency and covert narcissism in females.
   H4.2.a: There is no relationship between coherence and covert narcissism in males.
   H4.2.b: There is no relationship between coherence and covert narcissism in females.
   H4.3.a: There is no relationship between differentiation and covert narcissism in males.
   H4.3.b: There is no relationship between differentiation and covert narcissism in females.
   H4.4.a: There is no relationship between commonness and covert narcissism in males.
   H4.4.b: There is no relationship between commonness and covert narcissism in females.
   H4.5.a: There is no relationship between profile elevation and covert narcissism in males.
H4.5.b: There is no relationship between profile elevation and covert narcissism in females.

H4.6: There is no significant difference by gender in relationships between secondary constructs and covert narcissism.

Conclusion
Both vocational interests and narcissism have a long theoretical and empirical history in research and practice. However, only minimal direct and indirect evidence exists for the relationships among expressed and assessed vocational interests and two forms of narcissism, overt and covert. Given the potential for increased demand for vocational counseling services and the apparent increased degree of narcissism among college-aged youth, it seems prudent to fill the gaps in understanding between these variables. This paper turns to the methodology by which these gaps will be filled.
CHAPTER 3
METHODOLOGY

The purpose of this study was to describe the relationships among overt and covert narcissism and assessed vocational interests and with respect to participant gender. The methodology used to investigate the previously stated research questions and hypotheses is described in this chapter. Included in this description is information about the participants, procedures, variables, instruments, research design, and planned data analyses.

Participants

Participants were recruited from 10 sections of a career development course during the Fall 2007 and Spring 2008 semesters at a large research university in the southeastern United States. Based upon statements made in student data sheets, students enrolled themselves in the course for a variety of reasons, most prominently to resolve career planning problems such as major choice, occupational choice, or transition to the world of work. However, some 27 of 259 students (10.4% of the final sample) stated they enrolled to earn “easy A,” “pass,” or needed to fill a credit hour gap in their schedule to graduate on-time. Individual students are often referred to the course by faculty, parents, academic advisors, or friends after expressing a lack of direction in life.

While the initial sample consisted of 323 undergraduate students, a final sample of 259 participants was used in this study. The demographics of the final sample are compared to the university undergraduate population in Table 4. About 64 individuals who were initially enrolled in the career development course did not complete the study, resulting in a mortality rate of approximately 20%. Cases were eliminated due to attrition, missing data (e.g., incomplete instruments), or dropping the course before instruments were complete.

Dropped participants were reviewed to determine the existence of demographic patterns. Demographic data for these individuals are shown in Table 5, with the exception of seven participants whose demographic data were missing. Typical non-completers averaged 20.98 years of age ($SD = 1.66$), were college juniors ($M = 3.32, SD = 1.02$), and had a first choice of occupation along with alternatives as indicated by the Occupational Alternatives Question ($M = 2.44, SD = .802$).
Table 4.
Sample Demographics Compared to University Population

<table>
<thead>
<tr>
<th>Variable</th>
<th>Participant Sample (N = 259)</th>
<th>% of University Undergraduate Population (N = 31,508)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>% of Sample</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>129</td>
<td>49.8</td>
</tr>
<tr>
<td>Male</td>
<td>130</td>
<td>50.2</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>16</td>
<td>6.2</td>
</tr>
<tr>
<td>19</td>
<td>55</td>
<td>21.2</td>
</tr>
<tr>
<td>20</td>
<td>40</td>
<td>15.4</td>
</tr>
<tr>
<td>21</td>
<td>68</td>
<td>26.3</td>
</tr>
<tr>
<td>22</td>
<td>49</td>
<td>18.9</td>
</tr>
<tr>
<td>23</td>
<td>13</td>
<td>5.0</td>
</tr>
<tr>
<td>24</td>
<td>6</td>
<td>2.3</td>
</tr>
<tr>
<td>25</td>
<td>5</td>
<td>1.9</td>
</tr>
<tr>
<td>26-38</td>
<td>8</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>51</td>
<td>19.7</td>
</tr>
<tr>
<td>American Indian</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Asian-American</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Caucasian</td>
<td>175</td>
<td>67.6</td>
</tr>
<tr>
<td>Hispanic-American</td>
<td>15</td>
<td>5.8</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td>Preferred not to respond/not reported</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Academic Class</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>Sophomore</td>
<td>59</td>
<td>23</td>
</tr>
<tr>
<td>Junior</td>
<td>41</td>
<td>15</td>
</tr>
<tr>
<td>Senior</td>
<td>136</td>
<td>53</td>
</tr>
</tbody>
</table>

Note: a This information retrieved from Florida State University Institutional Research for Fall 2007 [http://www.ir.fsu.edu/student/headcount.htm](http://www.ir.fsu.edu/student/headcount.htm). Numbers may not total 100% as not all population data is displayed.
Table 5.
Demographics of Participants Leaving Study

<table>
<thead>
<tr>
<th>Variable</th>
<th>Participants Leaving Study Sample (n = 64)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
</tr>
<tr>
<td>Male</td>
<td>28</td>
</tr>
<tr>
<td>Missing</td>
<td>7</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>20</td>
<td>6</td>
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<tr>
<td>21</td>
<td>19</td>
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<tr>
<td>22</td>
<td>9</td>
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<td>5</td>
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<td>24</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>Missing</td>
<td>7</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>15</td>
</tr>
<tr>
<td>American Indian</td>
<td>0</td>
</tr>
<tr>
<td>Asian-American</td>
<td>1</td>
</tr>
<tr>
<td>Caucasian</td>
<td>35</td>
</tr>
<tr>
<td>Hispanic-American</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
</tr>
<tr>
<td>Preferred not to respond</td>
<td>0</td>
</tr>
<tr>
<td>Missing</td>
<td>7</td>
</tr>
<tr>
<td>Academic Class</td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>4</td>
</tr>
<tr>
<td>Sophomore</td>
<td>11</td>
</tr>
<tr>
<td>Junior</td>
<td>5</td>
</tr>
<tr>
<td>Senior</td>
<td>37</td>
</tr>
<tr>
<td>Missing</td>
<td>7</td>
</tr>
</tbody>
</table>

Of the group of 64 non-completers, 32 (10% of the initial sample) dropped the course, typically during the first week of class, before completing all instruments. This finding, which was expected due to the drop-add process for class registration, resulted in approximately 20% of the 150 available seats in the five class sections “turning over.” An additional 15 individuals (5% of initial sample) took the course for partial credit (one or two credit hours) which prevented their completion of all research instruments.

While no participants asked to withdraw from the study, some 13 students (4% of initial sample) remained enrolled in the course for three credit hours, but did not complete all
instruments in the study. The Self-Directed Search, which was presented as a class assignment separate from initial data collection, was the instrument most often not completed by this sub-group. Demographic data, which are available on only seven of these 13 students, suggested that while diverse, non-completers tended to be male minorities, averaging 21 years of age, and having junior or senior class standing. An additional four individuals (1% of the initial sample) could not be categorized as dropped, partial-credit, or enrolled due to missing case identifiers. The demographics of non-completers did not appear to be disproportionate to those of study completers.

Table 4 presents demographic data for both the remaining sample ($N = 259$) and the Fall 2007 undergraduate population for the university. The sample was split almost equally between males and females. Sample participants self-identified as African-American ($n = 51, 19.7\%$), Asian-American ($n = 4, 1.5\%$), Caucasian ($n = 176, 67.6\%$), Hispanic-American ($n = 15, 5.8\%$), and Other ($n = 7, 2.7\%$). Three participants (1.2\%) preferred not to respond to the ethnicity prompt. Participants’ ages ranged from 18 to 38 years of age ($M = 20.9, SD = 2.2$). Seniors made up the majority of the sample ($n = 136, 53\%$), with sophomores the next largest group ($n = 59, 23\%$) of participants. Juniors ($n = 41, 15\%$) and freshmen ($n = 23.9\%$) were the third and fourth largest academic classes in the sample.

Several potential differences emerged when the final sample was compared with the university population as a whole (Table 4). While females exist in larger numbers in the university population (56\% vs. 49.8\%), the sample was almost equally balanced. African-Americans also appeared to be over-represented and Hispanic- and Asian-Americans underrepresented in the sample when compared to the university population. The sample also appeared to be older than the average university population with the sample’s 136 seniors falling between 20 and 38 years of age. However, these differences do not appear to be dramatic enough to question the generalizability of the sample to other university students, specifically those who might enroll in a career decision-making course.

As shown in Table 6, the average year in university for the final sample of participants was $3.13 (SD = 1.05)$. Responses to the Occupational Alternatives Question (OAQ) averaged $2.43 (SD = .81)$ indicating that participants typically had both occupational alternatives and a first choice. Means for age, year in school, and OAQ by gender are also shown in Table 6. No significant differences were found between genders on these variables.
Table 6.
Means and Standard Deviations of Demographic Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample (N = 259)</th>
<th>Gender</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Age</td>
<td>20.90</td>
<td>2.20</td>
<td>21.16</td>
</tr>
<tr>
<td>Year In School</td>
<td>3.13</td>
<td>1.05</td>
<td>3.25</td>
</tr>
<tr>
<td>OAQ</td>
<td>2.43</td>
<td>.81</td>
<td>2.39</td>
</tr>
</tbody>
</table>

*p < .01, two tailed  **p < .001, two tailed

Procedures

Approval for the use of these procedures with human participants was obtained from the institutional review board for the university (Appendix D). Students were recruited to participate in the study during the first week of class by the principal investigator or a confederate reading a script (Appendix E). Potential participants read over the consent form (Appendix F) and were given an opportunity to voluntarily participate. Both the script and informed consent were approved by the appropriate institutional review mechanisms. The students were made aware verbally and through written informed consent that choosing not to participate would in no way affect their grade in the course. In addition, participants could withdraw without penalty during any part of the study.

Participants were administered the research packet by the principal investigator or confederate, who read from a standard script (Appendix E). During the data collection session, which lasted approximately 30-45 minutes for each course section, the following forms and measures were completed: informed consent, demographic data sheet (Appendix G), Narcissistic Personality Inventory (NPI) (Raskin & Terry, 1988; Appendix H), and Hypersensitive Narcissism Scale (HSNS) (Hendin & Cheek, 1997; Appendix I). Two additional instruments, the
Goal Instability Scale (GIS) (Robbins & Patton, 1985; Appendix J) and the Career Thoughts Inventory (CTI) (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996) were completed during data collection for use in separate studies. The CTI, which due to copyright restrictions cannot be included in its entirety in this dissertation, contains items such as “Choosing an occupation is so complicated, I just can’t get started” and “I’m afraid I’m overlooking a publication” (Sampson, et al, 1996, p. 130-131).

While the content of the GIS and the CTI were not expected to inappropriately influence participant responses to the measures used in this study, the order of these instruments was randomized to control for potential order effects (McCall, 1923).

In the third week of class, as part of the normal class procedure, students completed the paper and pencil version of the Self-Directed Search (SDS) (Holland, Fritzsche, & Powell, 1994). Data from these instruments were entered and scored using the computer software program Self-Directed Search Software Portfolio for Windows® (Reardon & PAR Staff, 2001) by course instructors. The Professional Summary report resulting from this software program was photocopied and securely filed for research purposes (Appendix K). On the last day of class, participants completed the Career Thoughts Inventory post-test as is customary in the course. Participants were provided with a debriefing document explaining the purpose of the study. This document contained contact information for the principal investigator and faculty supervisor for use by participants with additional questions or concerns.

Data from the demographic form and SDS Professional Summary were hand-keyed into a Microsoft Access database by the principle investigator who has 20 years of experience in data collection and management. Data from the NPI, HSNS, and CTI were optically scanned into the database. All data were proofed for potential systematic or randomly occurring errors. All identifying information was removed from the dataset to further protect participant anonymity. Data were then be exported from the Access database into the Statistical Package for the Social Sciences Version 16 (SPSS, 2008) for statistical analysis.

Variables

The variables of interest in this study included participants’ gender, age, and ethnicity recorded from demographic information sheets regularly used by class instructors. Overt narcissism and covert narcissism were operationalized respectively using scores from the Narcissistic Personality Inventory (NPI) (Raskin & Hall, 1981; Raskin & Terry, 1988; Appendix
Overt narcissism is a personality trait characterized by an interpersonal style and accompanying behaviors, which may include grandiosity, exhibitionism, exploitation and insensitivity to others, and a sense of entitlement. These behaviors hide core beliefs of shame and doubt that, though well defended by overt self-enhancement, denial of weaknesses, and splitting, can yield outbursts of anger and aggression when these beliefs are activated by others (Beck & Freeman, 1990; Dickinson & Pincus, 2002; Kernberg, 1975; Kohut, 1971; Wink, 1991). Covert narcissism is a personality trait characterized by an interpersonal style involving a pattern of conflict leading to anger and shame, giving the impression of labile mood, interpersonal anxiety, and social withdrawal. Behavioral signs of shyness (inhibition) and constrained affect (passivity) act as defenses which protect a disavowed psychological core of grandiose expectations and entitlements (Masterson, 1993; Wink, 1991).

Primary and secondary construct vocational interest data were recorded from the Professional Summary (Reardon & PAR Staff, 2001; Appendix L) generated by the computer-based version of the SDS Form R (Holland, Fritzsche, & Powell, 1994). Primary constructs included the Realistic, Investigative, Artistic, Social, Enterprising, and Conventional types. Secondary constructs included consistency, coherence, differentiation (using both the Iachan index and the High-Low method), commonness, and profile elevation. The High-Low method was calculated by subtracting the lowest primary construct score from the highest primary construct score. Interest profile elevation was derived by adding participants’ primary construct scores recorded from the Professional Summary report.

Instruments

Descriptive data for participants were collected using a simple demographic form. Overt narcissism was measured by the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). Covert narcissism was measured by the Hypersensitive Narcissism Scale (HSNS; Hendin & Cheek, 1997). Vocational interests, profile elevation, and the interest secondary constructs were measured using the Self-Directed Search (SDS; Holland, Fritzsche, & Powell, 1994).

*Demographic Form and Occupational Alternatives Question*

Information on participant gender, age, ethnicity, year in school, and major were collected using the demographic form regularly used in the career development course (Appendix G). This form also contains a measure of occupational decidedness, the Occupational
Alternative Question (OAQ; Zener & Schnuelle, 1972, modified by Slaney, 1980). The OAQ consists of two prompts, “List all the occupations you are considering right now” and “Which occupation is your first choice? If undecided write undecided.” The OAQ has demonstrated concurrent validity with other measures of career indecision (Slaney, 1980; Slaney, Stafford, & Russell, 1981). The OAQ is scored as follows: 1 = first choice listed with no alternatives, 2 = first choice listed along with alternatives, 3 = no first choice listed, just alternatives; and 4 = no first choice nor alternatives listed (Peterson et al., 1991). Higher scores are interpreted as representing higher levels of career indecision (Slaney, 1980). Pilot testing of the form was not necessary given the use of this measure in numerous other studies where data was collected from students in this course (Sampson, Peterson, Reardon, & Lenz, 2008).

Narcissistic Personality Inventory

The Narcissistic Personality Inventory (NPI; Raskin & Hall, 1981; Raskin & Terry, 1988; Appendix H) is the most widely-used and researched objective measure of overt narcissism in normal populations (Campbell, Goodie, & Foster, 2004; Chatham, Tibbals, & Harrington, 1993). Assumptions of the NPI are that narcissistic personality traits characteristics are normally distributed and not necessarily pathological (Burstein & Bertenthal, 1986; Mullins & Kopelman, 1988). The NPI is easy to use, standardized, and has been shown to have good reliability and validity with minimal issues of bias.

Administration and scoring. The NPI is a 40-item, forced-choice, paper-and-pencil instrument measure. Each item is a pair of statements, where one statement is indicative of narcissism while the other is not. For example, it is assumed that narcissists would be more likely to choose the statement “I like to look at my body” over the statement “My body is nothing special” due to higher levels of vanity. The instrument is scored by summing the total number of items selected which reflect narcissism, giving a minimum score of 0 and a maximum score of 40.

Standardization. A brief history of the development of the NPI may be helpful in understanding this instrument’s standardization. An original 54 item NPI (Raksin & Hall, 1979) was developed using an internal consistency and item total correlation strategy in order to explore individual differences in narcissism as expressed in nonclinical populations. Items for this instrument were based in the clinical criteria for Narcissistic Personality Disorder as described in the third edition of the Diagnostic and Statistical Manual of Mental Disorders.
Emmons (1984, 1987) found a four factor structure which she labeled Leadership/Authority (L/A), Self-Absorption/Self-Admiration (S/S), Superiority/Arrogance (S/A), and Exploitiveness/Entitlement (E/E). Eight week alternate form reliability of .72 was found by Raskin and Hall (1981). Internal consistency Cronbach coefficient alphas for the total scale and four factors were found to be .87, .69, .81, .70, and .68, respectively (Emmons, 1987).

Raskin and Terry (1988) reworked the NPI to better reflect the theoretical and behavioral complexities of the construct of narcissism (e.g., presence of exploitiveness and exhibitionism) reflected in the DSM III (American Psychiatric Association, 1980) using a multivariate analysis approach. Data for this effort were derived from 1,018 undergraduate students (479 males, 529 females, $M = 20$ years, $SD = 6.7$) who completed the 54-item NPI between 1979 and 1985.

Fourteen of the original 54 items were dropped resulting in the present day 40-item measure which yields a full scale score as well as seven subscale scores labeled authority, exhibitionism, superiority, entitlement, exploitiveness, self-sufficiency, and vanity. This briefer instrument was found by the authors to correlate .98 with the original 54 item scale. Raskin and Terry (1988) reported mean scores for undergraduate students on seven factors of the 40-item NPI as follows: total ($M = 15.55$, $SD = 6.66$), authority ($M = 4.16$, $SD = 2.17$), exhibitionism ($M = 2.21$, $SD = 1.74$), superiority ($M = 2.54$, $SD = 1.36$), entitlement ($M = 1.67$, $SD = 1.40$), exploitiveness ($M = 1.47$, $SD = 1.69$), self-sufficiency ($M = 2.09$, $SD = 1.50$), and vanity ($M = 1.37$, $SD = 1.08$). Similarly, a separate study by Foster et al. (2003) of 2,546 participants from around the United States found a mean total score on the 40-item NPI of 15.3 ($SD = 6.8$).

Reliability. Internal consistency (Guttman lambda 3) for the total scale score was found to be .83 while reliabilities for the seven factors ranged from .73 to .50 (Raskin & Terry, 1988). In a more recent study of 175 college students, del Rosario and White (2005) found that the 40-item NPI demonstrated significant test-retest reliability over a 13 week period for the total scale ($r = .81, p < .01$) and subscales ($r = .80$ to $r = .73$, all $p < .01$). These authors found two sets of coefficient alphas for the total score ($\alpha = .80$ at time one and $\alpha = .82$ at time two for total score) and subscale scores ($\alpha = .72$ to .39 at time one and $\alpha = .74$ to .30 at time two). Due to problems in internal consistency, also noted by Raskin and Terry (1988), the authors concluded that only the full-scale and authority scale of the 40-item NPI are reliable enough to be of much utility (del Rosario & White, 2005).
Validity. The items of the NPI appear to have good face validity (for clinicians) given that the items are based in the DSM III diagnostic criteria for Narcissistic Personality Disorder (Raskin & Terry, 1988). According to Lapsley and Aalsma (2006), the NPI has been established as part of a rich nomological network of external criteria of narcissism and related constructs. Evidence of convergent validity is strong as the NPI has been positively correlated with the Eysenck Personality Questionnaire’s psychoticism ($r = .23, p < .05$) and extraversion scales ($r = .23, p < .05$) (Raskin & Hall, 1981). Further evidence of convergent validity was established by Auerbach (1984) who found the NPI to be positively ($r = .55, p < .001$) related to the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1982) Narcissistic scale (scale 5). Raskin (1981) also found that the NPI was positively correlated with the use of first person singular pronouns ($r = .26, p < .05$) and negatively with first person plural pronouns ($r = -.29, p < .05$). Emmons (1981) also found positive relationships between the NPI and disinhibition ($r = .49, p < .05$), experience-seeking ($r = .37, p < .05$), and susceptibility to boredom ($r = .31, p < .05$). The NPI was not significantly correlated with the Marlowe-Crowne Social Desirability Scale (Auerbach, 1984). It has been suggested that the NPI’s force choice dyads may protect it from the influences of social desirability (Watson, Grisham, Trotter & Biderman, 1984). There is also limited evidence of the predictive validity of the NPI with psychiatric samples (Prifitera & Ryan, 1984).

Factorial validity of the 40-item NPI was explored by Kubarych, Deary, and Austin (2004) through exploratory and confirmatory analysis. Their findings suggested that a hierarchical factor structure of the NPI would be best, with a general narcissism factor and three subfactors of power, exhibitionism, and specialness. Underlying these three subfactors may be the eight factors paralleling the DSM III diagnostic criteria for narcissism that were the goal of Raskin and Terry’s revision. However, the factor analysis of the NPI may be complicated by the dichotomous nature of the items (Kubarych et al., 2004).

Potential biases. As previously discussed, significantly more males are diagnosed with narcissistic personality disorder than females (American Psychiatric Association, 2000). Furthermore, the degree and quality of narcissism seems to differ between males and females with females endorsing less exploitiveness and entitlement than males (Bushman & Baumeister, 1998; Tschantz et al., 1998). In their analysis on gender and narcissism, Tschantz et al. (1998, p. 868) explained that female narcissists engage in fewer exploitive behaviors, “…because they
violate culturally held expectations regarding appropriate female behavior.” In short, the NPI is based on DSM III diagnostic criteria which are themselves culture bound.

As previously discussed, significant differences have been found between ethnic and cultural groups in NPI scores (Foster et al., 2003). However, differences within ethnic groups are far larger than differences between ethnic groups. Narcissism, as measured by the NPI, also appears to be positively related to the cultural value of individualism; but gender differences in narcissism persist regardless of ethnicity and culture.

**Summary.** Based upon a solid theoretical and clinical foundation, the NPI is the most commonly used research measure of overt narcissism in normal populations. It appears to reflect both differences in kind and degree of narcissism between males and females, without bias between ethnic groups. While the instrument has shown strong validity and reliability, the internal consistency of the factor structure appears to have been weakened in the revision of the original 54-item instrument to the 40-item instrument used in the present day. For this reason, only the total score of the NPI will be used in this study as a measure of overt narcissism.

**Hypersensitive Narcissism Scale**

The Hypersensitive Narcissism Scale (HSNS, Hendin & Cheek, 1997, Appendix I) is a ten-item, single dimension measure of covert narcissism. It was reduced by Hendin and Cheek (1997) from Murray’s (1938) longer “Narcism” scale. The HSNS is easy to use, appropriately standardized, and has been shown to have acceptable internal consistency and good validity with minimal issues of bias.

**Administration and scoring.** An example item on the HSNS is, “I often interpret the remarks of others in a personal way.” Responses to each item are made on a 5-point Likert Scale (1 = “Not at all true of me” through 5 = “Very true of me”). The final score is calculated by summing the responses to each item. Thus, for the HSNS, the minimum possible score is ten points and the maximum score is 50 points.

**Standardization.** Through empirical investigation, the authors selected those items from Murray’s original set of 20 items which correlated with a composite of two MMPI-based measures of covert narcissism: the Narcissistic Personality Disorder Scale (Ashby, 1978) and the Narcissism Hypersensitivity Scale (Serkownek, 1975). These ten items were also inspected in relation to the NPI (Raskin & Terry, 1988) for relatedness to overt narcissism. Means for three
samples of undergraduate students were, two female ($N = 109$ and $N = 151$) and one male ($N = 143$) with scores of $28.7$ ($SD = 6.2$), $29.7$ ($SD = 4.7$), and $29.3$ ($SD = 8.1$), respectively.

**Reliability.** Internal consistency was also found to be acceptable ($\alpha = .72$, $\alpha = .75$, and $\alpha = .62$ for each of three samples) for a relatively short scale of ten items (Hendin & Cheek, 1997). Due to the somewhat low coefficient for the male sample, the authors reported data for a fourth male sample ($\alpha = .76$, $M = 29.8$, $SD = 6.2$) (Cheek & Melchior, 1985). An additional study using the HSNS found similar internal consistency ($\alpha = .75$) for the HSNS (Ryan, Weikel, & Sprechini, 2008). These reliabilities are acceptable for research purposes (Nunnaly, 1978). Information on the stability of the HSNS was not available in the literature.

**Validity.** Individual items on the HSNS seem representative of the vulnerable yet self-centered nature of covert narcissism and indicate good face validity of the instrument. The selection of ten items to be representative of covert narcissism and not related to overt narcissism supports the instrument’s content validity. The construct validity of the HSNS was also demonstrated during the instrument’s development. In Hendin and Cheek’s two female samples, correlations of the HSNS with the MMPI-based composite measure of covert narcissism were strong ($r = .63$, $p < .01$ and $r = .61$, $p < .01$) and correlations with total NPI scores were insignificant or weak ($r = .02$, ns; $r = .16$, $p < .05$). For the male sample, the HSNS was again uncorrelated with the total score for the NPI ($r = -.04$, ns). Consistent with past findings (Emmons, 1987; Watson et al., 1984) that both covert and overt narcissism share features of exploitive and entitled behavior, the HSNS was moderately correlated ($r = .34$, $p < .01$) to the Exploitiveness/Entitlement scale for the NPI.

The convergent validity of the HSNS also appears to be good. Hendin and Cheek (1997) found that the instrument correlated as expected with the five-factor model of personality as measured by the *Big Five Inventory* (John, Donahue, & Kentle, 1991). In their sample, they found a small negative relationship with extroversion ($r = -.28$, $p < .01$), a moderate negative relationship with agreeableness ($r = -.44$, $p < .01$), a moderate positive relationship with neuroticism ($r = .51$, $p < .01$) and a weak negative relationship with openness ($r = -.18$, $p < .05$). There was a weak and insignificant relationship with conscientiousness ($r = -.12$, ns). Discriminate validity has been demonstrated by the lack of correlation between the HSNS and total score on the NPI (Hendin & Cheek, 1997).
Factor analysis of each of the three samples resulted in all ten scale items loading significantly on the first unrotated factor with average value of .30 or greater (Hendin & Cheek, 1997). The instrument’s authors described the HSNS as assessing the covert “face” of narcissism which may be considered a facet of the higher order construct that Maslow (1942) labeled “psychological insecurity” and Waller, Tellegen, McDonald, and Lykken (1996) labeled “negative emotionality.” Such interpretation would be consistent with the previously noted correlation between the HSNS and neuroticism (John et al., 1991).

Potential biases. Schurman (2000), using a sample of non-clinical volunteers \((N = 91)\) recruited through the author’s social networks in San Francisco, documented the relationship of age, ethnicity, and student status to covert narcissism as measured by the HSNS. The mean age of this sample was approximately 37 years \((SD = 20)\). Of the total sample, 60% were female, 71% Caucasian, and 91% had at least some college education. A negative relationship \((r = -.29, p < .01)\) was found between covert narcissism and age. While gender had no observed effect on covert narcissism, a significant difference \((t = 4.34, p < .0001)\) in scores between Caucasians \((M = 27.38)\) and Asians \((M = 35.44)\) (who comprised 20% of the sample) was found. Also, students where found to have significantly greater \((t(80) = 4.27, p < .0001)\) amounts of covert narcissism \((M = 32.73)\) than nonstudents \((M = 26.04)\). This suggests that ethnicity and age, but not gender, may be important variables in the endorsement of covert narcissism.

Summary. Derived from previous and longer measures of hypertensive narcissism, the HSNS is an internally consistent and valid measure of covert narcissism. Age and ethnicity were found to be significantly effect the amount of covert narcissism endorsed on the HSNS in at least one study. However, there were no significant differences in amount of covert narcissism by gender. One drawback for the measure is the lack of reported test-retest reliability in the literature. However, several research studies that used the HSNS successfully as a one-time measure of covert narcissism found similar degrees of internal consistency. The utility and validity of this brief, 10-item measure of covert narcissism outweighs the lack of documented test-retest reliability.

Self-Directed Search

The Self-Directed Search Form R (SDS; Holland, Fritzsche, & Powell, 1994) is a simulated career counseling activity built on Holland’s theory (Holland, 1997). This instrument is the outcome of 40 years of work by John Holland which began in 1953 with the Vocational
Preference Inventory. This work, in turn, led to the typology and theory on which the SDS is based (Reardon & Lenz, 1998). The SDS allows individuals to both express and assess their vocational interests in an easy to use, quick, and economical manner.

Administration and scoring. To express their interests using the SDS, individuals are invited to list up to eight vocational aspirations and code them by the six RIASEC types using the provided Occupations Finder (a reference list cross walking occupations to RIASEC types). Because eliciting vocational aspirations is merely making a list of occupational daydreams, specific psychometric data for this construct are not included in the SDS Technical Manual (Holland, Fritzsche, & Powell, 1994). A summary code for aspirations is calculated using a weighted sum technique based on the three-letter code of the first five aspirations (Appendix C).

Vocational interests are assessed on the SDS through the individual’s dichotomous (e.g., like or dislike, yes or no) endorsement of lists of activities, competencies, and occupations organized under each of the six RIASEC types. Individuals are also asked to self-estimate their ability and their skill for each RIASEC type on a seven point Likert scale (e.g., Low = 1 and High = 7). The SDS is scored by simply adding the number of positive endorsements to the ability self-estimates and skill self-estimates for each RIASEC type. This results in a range of 1 to 42 possible points for each code-type. The code-types are ordered from highest to lowest and the codes with the three highest sums are considered the individual’s summary code for assessed vocational interests.

Code-types which have equal scores are considered “tied.” These ties are broken using first the total of the occupations section, then activities, and competencies sections, based on the statistical reliability of the scales in these sections (Holland, Fritzsche, & Powell, 1994; Reardon & Lenz, 1998). In the unlikely event that codes remain tied, they are ordered according to the Hexagon (i.e., RIASEC). Additional measures of primary and secondary constructs (e.g., congruence, consistency, differentiation, etc.) are derived according to methods previously described in the literature review of this paper and in the Professional User’s Guide (Holland, Powell, & Fritzsche, 1994). The Self-Directed Search Software Portfolio for Windows ® (Reardon & PAR Staff, 2001) makes the process of coding expressed interests (i.e., occupational daydreams) and the generation of assessed summary codes and secondary constructs easier and potentially more accurate. The Professional Summary report generated by this software can be viewed in Appendix L.
Standardization. The latest version of the SDS (Holland, Fritzsche, & Powell, 1994) was developed from the items of the 1985 edition and 70 new items to a sample of 701 high school students, college students, and adults. Retained items were highly correlated with a code-type (but not other code-types), exhibited acceptable item-corrected total scale correlations for males and females, and were endorsed by at least 5% of males and females in the sample. This final assessment was standardized on a sample of 2,602 students and working adults from 25 states and Washington, DC. College students (female, \( n = 715 \); male, \( n = 399 \)) sampled at nine community colleges and 19 colleges/universities comprised almost 43% of the sample. Holland, Fritzsche, and Powell (1994, p. 19) noted that only “trivial” correlations were found between summary scales and age and that no substantial differences were found in high-point codes by ethnicity. Female college students endorsed the Realistic occupations scale less at a rate of 9%, but this is defended by Holland and colleagues as acceptable given that all other scales were endorsed by at least 10% of males and females. A complete table of means and standard deviations for each section of the SDS for college students is available in the SDS Technical Manual (Holland, Fritzsche, & Powell, 1994, p. 18).

Reliability. For college students in the standardization sample, individual RIASEC scales for the activities, competencies, occupations, and summary scales have internal consistency estimates (KR-20) ranging from .72 to .93 (Holland, Fritzsche, & Powell, 1994, p. 22). Holland, Fritzsche, and Powell (1994) noted that internal consistency appears to have improved over time with repeated revisions of the instrument. In a subsample of subjects (\( n = 73 \), median age = 20), test-retest reliability was cited as ranging from \( r = 0.76 \) to \( r = 0.89 \) over a 4 to 12 week interval.

Validity. Given the item content and the transparent nature of the scoring process, face validity of the SDS appears to be strong. Content validity also might be assessed as good given the robust proposition and definitions provided by Holland’s theory and its inclusion of both expressed (i.e., internal representations of occupational options over time) and assessed (i.e., potential options) vocational interests. Evidence of the construct validity of the SDS has been reported in over 500 investigations (Holland, Fritzsche, & Powell, 1994). Convergent validity of the SDS has also been shown to correlate as expected with theoretically related personality traits such as Costa and McCrae’s Five Factor model (Fuller et al., 1999). Savickas, Taber, and Spokane (2002) have also established convergent and discriminant validity of the current, 1994, version of the SDS through a comparison of scales and scores among the Self-Directed Search,
Strong Interest Inventory (Harmon, Hansen, Borgen, & Hammer, 1994) and three other vocational interest assessments.

Concurrent validity has also been well established for the SDS. For college students in the normative sample, the highest, assessed summary code matched the current vocational aspirations and college major choices of females and males between 47.9% and 60% of the time (Holland, Fritzsche, & Powell, 1994). Predictive validity studies of past versions of the SDS (which are substantially equivalent to the current version) have shown similar results (Savickas et al., 2002). These findings are consistent with criterion validity studies for vocational interest assessments in general (Holland & Rayman, 1986). Factorial validity of SDS has been established through the exploration of the RIASEC circumplex in several studies (Boyle & Fabris, 1992; Darcy & Tracey, 2007; Hansen et al., 1993; Khan et al., 1990).

Potential Biases. As previously discussed, the presence of bias in the Self-Directed Search depends on one’s point of view. In general, the consensus in the literature is that the SDS reflects actual gender related differences in interests and that the differences between cultural and ethnic groups are exceeded by the differences within these groups (Holland, 1997). However, interest patterns may have changed thereby making the standardization of the most recent version of the SDS version (Holland, Fritzsche, & Powell, 1994) somewhat dated. For example, an increased emphasis on activities such as home improvement may have increased average scores for the Realistic code-type among both males and females (Swan, 2005).

Summary. Based on over 30 years of research and development, the SDS is perhaps the definitive learning and assessment tool based in Holland’s RIASEC theory. This “simulated career counseling and planning activity” (Reardon & Lenz, 1998, p. 60) permits the collection of information about both expressed and assessed vocational interests from participants. The validity and reliability of the instrument has been well documented in repeated studies. The issue of gender and culture bias has also been explored. It appears differences that do exist between the genders on scores reflect real world, perhaps culturally based, differences in preferences. It also appears that gender differences in SDS scores may have decreased over time. The SDS has also been successfully translated and deployed around the world within both western and non-western cultures. The almost universal acceptance of the SDS and its psychometric properties suggests that it should be used as the measure of vocational interests for this study.
Research Design

A co-relational study (Marczyk, DeMatteo, & Festinger, 2005) was conducted to examine the relationships among the variables described. This design was selected due to the limited and unclear relationships documented in the literature between vocational interests and narcissism.

Data Analyses

Participant demographics (i.e., mean age, ethnicity, and gender) and mean scores and standard deviations for all measures were reported. Pearson product-moment correlation matrices between predictor and criterion variables were inspected for males and females for hypotheses 1, 2, 3, and 4 (Cohen & Cohen, 1983). After converting Pearson correlations to z-scores, z-tests were conducted to test for significant differences relationships by gender. Given the large number tests being executed, the risk of committing a Type 1 error (rejecting the null hypothesis when it is true) was mitigated by setting a significance level of $p < .01$ for comparison tests. Use of a more stringent method of controlling family-wise error, such as the Bonferroni correction (Bonferroni, 1937), would increase the risk of committing a Type 2 error (e.g., failing to reject a null hypothesis which should be rejected), thereby undermining the exploratory goals of this study. Age and ethnicity was also inspected with relation to narcissism and vocational interests to determine if variance attributed to these variables should be partitioned and hypotheses 1, 2, 3, and 4 should be retested.
CHAPTER 4
RESULTS

The research question addressed by this study was: What are the relationships among overt and covert narcissistic personality traits and assessed vocational interests with respect to gender? To answer this question and related hypotheses, Pearson product-moment correlations, Z-tests, and ANOVAs were performed using a predetermined significance level of $p < .01$. The results of these analyses are documented in this chapter, including the characteristics of the participants and the results for each hypothesis by specific research question.

Characteristics of the Participants

Data from 259 participants (130 males and 129 female) were analyzed to address the four research questions posed by this study. Several preliminary analyses were conducted prior to testing hypotheses associated with the research questions. Internal consistencies for the Narcissistic Personality Inventory (NPI, Raskin & Terry, 1988) and the Hypersensitive Narcissism Scale (HSNS, Hendin & Cheek, 1997) were examined for the total sample and by gender (see Table 7). The reliability of the HSNS ($\alpha = .71$) is sufficient for research purposes and internal consistency is stronger for the NPI ($\alpha = .84$) (Nunnaly, 1978). These reliabilities are similar to those found in previous studies presented in the measures section of Chapter 3. Scale reliabilities for the Self-Directed Search (SDS) were not calculated as individual item responses were not available. As previously discussed, the reliability of the SDS has been well established with KR-20 statistics ranging from .72 to .93 for the individual RIASEC scales for the activities, competencies, occupations, and summary sub-scales (Holland, Fritzsche, & Powell, 1994, p. 22).

Table 7.
Cronbach’s Alpha Internal Consistency of Narcissism Measures by Gender

<table>
<thead>
<tr>
<th>Measure</th>
<th>Sample (N = 259)</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males (n = 130)</td>
<td>Females (n = 129)</td>
</tr>
<tr>
<td>NPI (overt narcissism)</td>
<td>.84</td>
<td>.86</td>
</tr>
<tr>
<td>HSNS (covert narcissism)</td>
<td>.71</td>
<td>.71</td>
</tr>
</tbody>
</table>
Since age and ethnic minority status have been found to be related to narcissism (Foster et al., 2003), these relationships were explored using Pearson product-moment correlations. These findings are shown in Table 8. No significant relationships were found; therefore, age and ethnicity did not require statistical control during additional analyses. As established previously (Hendin & Cheek, 1997; Schurman, 2000), no relationship was found between overt narcissism and covert narcissism in the current sample ($r = -.01, ns$).

Table 8. 
Correlations between Age, Minority Status, and Narcissism

<table>
<thead>
<tr>
<th></th>
<th>Overt</th>
<th>Covert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.075</td>
<td>-.014</td>
</tr>
<tr>
<td>Minority Status</td>
<td>.066</td>
<td>.043</td>
</tr>
</tbody>
</table>

* $p < .01$, two tailed  ** $p < .001$, two tailed

As shown in Table 9, calculations of means, standard deviations, and ranges for predictor and criterion variables were derived for the sample. The sample mean for overt narcissism (19.61, $SD = 6.95$) was significantly higher than those reported for combined gender samples of college students by Raskin & Terry (1988) ($t(1275) = 8.68, p < .001$) and Foster et al. (2003) ($t(2803) = 9.70, p < .001$). The sample mean for covert narcissism (26.39, $SD = 5.66$) was significantly less than the sample mean reported by Hendin and Cheek (1997) for separate samples of female college students ($t(408) = 6.07, p < .001$) and male college students ($t(400) = 4.21, p < .001$).

Table 9 also demonstrates that for the entire sample, the mean scores of Holland’s primary constructs were highest for the Enterprising (31.32, $SD = 9.55$), Social (29.15, $SD = 9.13$), and Conventional (20.38, $SD = 9.26$) types. These findings can be compared to the frequency of high-point codes for vocational interests in Table 10. Participants endorsed items associated with the Enterprising code-type most often (41.3%), followed by the Social (33.2%), and Artistic (9.3%) code-types. Thus, almost three quarters of the sample was assessed to have primarily Enterprising or Social vocational interests. A similar pattern of interests was found in a previous sample drawn from this career development course (Reardon, Lenz, & Strausberger, 1996).
Table 9.  
*Means and Standard Deviations of Measures*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overt Narcissism</td>
<td>19.61</td>
<td>6.95</td>
<td>4 – 35</td>
</tr>
<tr>
<td>Covert Narcissism</td>
<td>26.39</td>
<td>5.66</td>
<td>11 – 43</td>
</tr>
<tr>
<td>Interest Primary Constructs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Realistic</td>
<td>16.29</td>
<td>10.56</td>
<td>2 – 48</td>
</tr>
<tr>
<td>Investigative</td>
<td>17.44</td>
<td>9.07</td>
<td>2 – 45</td>
</tr>
<tr>
<td>Artistic</td>
<td>18.80</td>
<td>10.56</td>
<td>2 – 49</td>
</tr>
<tr>
<td>Social</td>
<td>29.15</td>
<td>9.13</td>
<td>11 – 49</td>
</tr>
<tr>
<td>Enterprising</td>
<td>31.32</td>
<td>9.55</td>
<td>5 – 49</td>
</tr>
<tr>
<td>Conventional</td>
<td>20.38</td>
<td>9.26</td>
<td>2 – 46</td>
</tr>
<tr>
<td>Interest Secondary Constructs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistency</td>
<td>2.60</td>
<td>.61</td>
<td>1 – 3</td>
</tr>
<tr>
<td>Coherence&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.87</td>
<td>.775</td>
<td>1 – 3</td>
</tr>
<tr>
<td>Differentiation (High – Low)</td>
<td>26.97</td>
<td>7.82</td>
<td>9 – 46</td>
</tr>
<tr>
<td>Differentiation (Iachan)</td>
<td>6.23</td>
<td>2.81</td>
<td>1 – 16</td>
</tr>
<tr>
<td>Commonness</td>
<td>2.14</td>
<td>.42</td>
<td>1 – 3</td>
</tr>
<tr>
<td>Profile Elevation</td>
<td>133.37</td>
<td>32.17</td>
<td>41 – 250</td>
</tr>
</tbody>
</table>

<sup>a</sup>*N = 255 due to 4 cases without occupational aspirations*
A significant difference was found between high-point codes for males and females ($\chi^2 = 46.87, df = 5, p < .01$), indicating that males and females endorsed different interests. As shown in Tables 10 and 11, the top three high-point codes and three highest mean scores of males were in agreement (Enterprising ($M = 33.54, SD = 8.69$), Social ($M = 27.07, SD = 8.40$), and Realistic ($M = 21.88, SD = 11.18$)). However, the high-point codes and average code-types of females differed slightly, with high-point codes consisting of Social, Enterprising, and Artistic types and the highest average scores being among the Social ($M = 31.24, SD = 9.38$), Enterprising ($M = 29.08, SD = 9.88$), and Conventional ($M = 20.39, SD = 9.58$) code-types.

Also shown in Table 11, univariate ANOVAs were conducted to compare genders on predictor and criterion measures using an a priori alpha of .01 to control for Type 1 error. No significant differences were found by gender for the measures of overt and covert narcissism. Significant differences were found between males and females on scales measuring Realistic ($F[1, 257] = 101.49, p < .001$), Social ($F[1, 257] = 14.22, p < .01$), and Enterprising ($F[1, 257] = 14.85, p < .001$) vocational interests. Significant differences were also found between genders on secondary vocational interest constructs of commonness ($F[1, 257] = 57.44, p < .001$) and profile elevation ($F[1, 257] = 10.19, p < .01$).
Table 11.
Means and Standard Deviations of Measures by Gender

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males (n = 130)</td>
<td>Females (n = 129)</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Covert Narcissism</td>
<td>25.85</td>
<td>5.66</td>
<td>26.94</td>
<td>5.64</td>
<td>2.39</td>
</tr>
<tr>
<td>Overt Narcissism</td>
<td>20.64</td>
<td>6.52</td>
<td>18.58</td>
<td>7.23</td>
<td>5.78</td>
</tr>
<tr>
<td>Interest Primary Constructs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Realistic</td>
<td>21.88</td>
<td>11.18</td>
<td>10.66</td>
<td>5.94</td>
<td>101.49**</td>
</tr>
<tr>
<td>Investigative</td>
<td>18.72</td>
<td>9.42</td>
<td>16.16</td>
<td>8.55</td>
<td>5.24</td>
</tr>
<tr>
<td>Artistic</td>
<td>18.05</td>
<td>11.01</td>
<td>19.55</td>
<td>10.07</td>
<td>1.32</td>
</tr>
<tr>
<td>Social</td>
<td>27.07</td>
<td>8.40</td>
<td>31.24</td>
<td>9.38</td>
<td>14.22**</td>
</tr>
<tr>
<td>Enterprising</td>
<td>33.54</td>
<td>8.69</td>
<td>29.09</td>
<td>9.88</td>
<td>14.85**</td>
</tr>
<tr>
<td>Conventional</td>
<td>20.37</td>
<td>8.97</td>
<td>20.39</td>
<td>9.58</td>
<td>.00</td>
</tr>
<tr>
<td>Interest Secondary Constructs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistency</td>
<td>2.52</td>
<td>.66</td>
<td>2.67</td>
<td>.55</td>
<td>4.02</td>
</tr>
<tr>
<td>Coherence a</td>
<td>1.84</td>
<td>.758</td>
<td>1.90</td>
<td>.795</td>
<td>.307</td>
</tr>
<tr>
<td>Differentiation (High –Low)</td>
<td>26.08</td>
<td>7.79</td>
<td>27.86</td>
<td>7.78</td>
<td>3.368</td>
</tr>
<tr>
<td>Differentiation (Iachan)</td>
<td>6.14</td>
<td>2.88</td>
<td>6.31</td>
<td>2.74</td>
<td>.225</td>
</tr>
<tr>
<td>Commonness</td>
<td>1.96</td>
<td>.19</td>
<td>2.32</td>
<td>.50</td>
<td>57.44**</td>
</tr>
<tr>
<td>Profile Elevation</td>
<td>139.62</td>
<td>33.16</td>
<td>127.08</td>
<td>29.97</td>
<td>10.19*</td>
</tr>
</tbody>
</table>

* p < .01, two tailed ** p < .001, two tailed
a Note: n=128 for males and 127 for females, F(1, 254)

A frequency count of programs of study (i.e., majors) recorded by participants on the demographic form was performed. The “Top Ten” participant majors and their associated...
Holland types are summarized in Table 12. While the majority of these majors have both Enterprising and Social types in their codes, the Investigative type appears most frequently in the first position.

Table 12. 
Most Frequent Majors by Gender

<table>
<thead>
<tr>
<th>Major</th>
<th>Holland Type</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Social Science</td>
<td>SIE</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Economics</td>
<td>ISE</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Business</td>
<td>ERS</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Undecided</td>
<td>n/a</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Sociology</td>
<td>IER</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Applied Economics</td>
<td>ISA</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Criminology</td>
<td>ISE</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>International Affairs</td>
<td>IES</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Sports Management</td>
<td>ERS</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>IER</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>n/a</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>n/a</td>
<td>130</td>
<td>100</td>
</tr>
</tbody>
</table>

| **Females**                  |              |    |    |
| Business                     | ERS          | 19 | 15 |
| Sociology                    | IER          | 14 | 11 |
| Undecided                    | n/a          | 11 |  9 |
| Interdisciplinary Social Science | SIE          |  6 |  5 |
| Psychology                   | ISE          |  6 |  5 |
| Criminology                  | ISE          |  5 |  4 |
| English-Creative Writing     | ASE          |  5 |  4 |
| Environmental Studies        | IER          |  5 |  4 |
| International Affairs        | IES          |  4 |  3 |
| Communications               | ESR          |  3 |  2 |
| Other                        | n/a          | 51 | 40 |
| Total                        | n/a          |129 |100|


Responses on the course demographic form indicated that some 137 of the 259 (53%) participants had changed, or planned to change, their majors from those first declared to the university. Some 11 (4%) participants began their studies as undeclared and had chosen a major or remained undecided. An additional 17 (7%) participants did not record their first declared
major. The remaining 94 (36%) participants planned to remain in the major declared upon matriculation. The top-five initially declared and “changed to” majors were counted for the 137 participants who changed majors. The top five of each of these majors are displayed in Table 13.

Table 13.  
Most Frequent Major Changes

<table>
<thead>
<tr>
<th>Major</th>
<th>Holland Type</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially Declared Majors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>ERS</td>
<td>38</td>
<td>28</td>
</tr>
<tr>
<td>Biology</td>
<td>IAR</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Nursing</td>
<td>SIE</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Communications</td>
<td>ESR</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Psychology</td>
<td>ISE</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>n/a</td>
<td>59</td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td>n/a</td>
<td>137</td>
<td>100</td>
</tr>
<tr>
<td>“Changed to” Majors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociology</td>
<td>IER</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>Undecided</td>
<td>n/a</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Interdisciplinary Social Science</td>
<td>SIE</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Business</td>
<td>ERS</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Sports Management</td>
<td>ERS</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>n/a</td>
<td>68</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>n/a</td>
<td>137</td>
<td>100</td>
</tr>
</tbody>
</table>

a Note: This information retrieved from Rosen, D. Holmberg, K., & Holland, J. L. (1997). The Educational Opportunities Finder. Lutz, FL: PAR, Inc.

A separate frequency count was conducted of participants’ most recent vocational aspirations. The aspirations were categorized by course instructors from the first occupational daydream recorded by participants on the Self-Directed Search instrument. The top-five occupational titles of the most recent vocational aspiration and their associated code-types are summarized by gender in Table 14. Similarly, a frequency count by gender was conducted for the top-five, code-types of the most recent vocational aspiration (Table 15).
Table 14.  
*Most Frequent Occupational Titles of Recent Vocational Aspirations by Gender*

<table>
<thead>
<tr>
<th>Occupational Title</th>
<th>Holland Type</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawyer</td>
<td>ESI</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Professional Athlete</td>
<td>SRC</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Athletic Director</td>
<td>SER</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Coach, Professional Athlete</td>
<td>SRE</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate Agent</td>
<td>ESR</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>n/a</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>n/a</td>
<td>128</td>
<td>100</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawyer</td>
<td>ESI</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Business Manager</td>
<td>ESC</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Actor</td>
<td>AES</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Lobbyist</td>
<td>ESA</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Writer, Prose, Fiction, &amp; Non-Fiction</td>
<td>AIE</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>n/a</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>n/a</td>
<td>127</td>
<td>100</td>
</tr>
</tbody>
</table>

a Note: Titles derived by class instructors using occupational titles available in the Self-Directed Search Software Portfolio for Windows ® (Reardon & PAR Staff, 2001) based upon raw data recorded by students in the Occupational Daydreams section of the Self-Directed Search Form R (Holland, 1994). b n = 128 for males and n = 127 for females
Table 15. 
**Most Frequent Code-types of Recent Vocational Aspirations by Gender**

<table>
<thead>
<tr>
<th>Holland Type</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESR</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>ESI</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>AES</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>ESC</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>ESA</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>IRE</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>SER</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>60</td>
<td>47</td>
</tr>
<tr>
<td><strong>Total</strong>b</td>
<td>128</td>
<td>100</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESR</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>AES</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>ESC</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>ESA</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>ESI</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>74</td>
<td>58</td>
</tr>
<tr>
<td><strong>Total</strong>b</td>
<td>127</td>
<td>100</td>
</tr>
</tbody>
</table>

a Note: Titles derived by class instructors using occupational titles available in the Self-Directed Search Software Portfolio for Windows® (Reardon & PAR Staff, 2001) based upon raw data recorded by students in the Occupational Daydreams section of the Self-Directed Search Form R (Holland, 1994). b n = 128 for males and n = 127 for females.

The Aspirations Summary Code (Appendix C) for the sample and by gender was also calculated for all three-letter code-types of recent vocational aspirations. For both the sample and male participants, the order of the vocational aspirations summary code was ESIARC. For females, the order of vocational aspirations summary code was SEIARC.

Additional co-relational analyses were conducted to address the four research questions and related hypotheses. These analyses are reviewed below in order.

**Research Question One**

1. What is the relationship between assessed vocational interests and overt narcissism with respect to gender?

   H1.a: There is no relationship between assessed vocational interests and overt narcissism in males.
H1.b: There is no relationship between assessed vocational interests and overt narcissism in females.

H1.c: There is no significant difference by gender in relationships between vocational interests and overt narcissism.

The correlation matrix in Table 16 shows significant, positive relationships between overt narcissism and Enterprising vocational interests for both males \((r = .44, p < .001)\) and females \((r = .49, p < .001)\). Thus, hypotheses H1.a and H1.b were rejected. Z-tests were conducted to test for significant differences between these independent correlations for males and females. These tests failed to exceed the critical value of 2.58 necessary for statistical significance; therefore, hypothesis H1.c failed to be rejected.

Table 16.
Correlations between Overt Narcissism and Primary Constructs by Gender

<table>
<thead>
<tr>
<th>Primary Constructs</th>
<th>Gender</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males ((n = 130))</td>
<td>Females ((n = 129))</td>
</tr>
<tr>
<td>Realistic</td>
<td>-.04</td>
<td>-.03</td>
</tr>
<tr>
<td>Investigative</td>
<td>-.16</td>
<td>-.03</td>
</tr>
<tr>
<td>Artistic</td>
<td>.10</td>
<td>.05</td>
</tr>
<tr>
<td>Social</td>
<td>.09</td>
<td>.11</td>
</tr>
<tr>
<td>Enterprising</td>
<td>.44**</td>
<td>.49**</td>
</tr>
<tr>
<td>Conventional</td>
<td>-.04</td>
<td>.04</td>
</tr>
</tbody>
</table>

* \(p < .01\), two tailed  ** \(p < .001\), two tailed

Research Question Two

2. What is the relationship between assessed vocational interests and covert narcissism with respect to gender?

H2.a: There is no relationship between assessed vocational interests and covert narcissism in males.

H2.b: There is no relationship between assessed vocational interests and covert narcissism in females.

H2.c: There is no significant difference by gender in relationships between vocational interests and covert narcissism.

The correlation matrix in Table 17 shows no significant relationships between covert narcissism and vocational interests for both males and females. Thus, hypotheses H2.a and H2.b
failed to be rejected. Z-tests were conducted to test for significant differences between these independent correlations for males and females. These tests failed to exceed the critical value of 2.58 necessary for statistical significance; therefore, hypothesis H2.c failed to be rejected.

Table 17. 
Correlations between Covert Narcissism and Primary Constructs by Gender

<table>
<thead>
<tr>
<th>Primary Constructs</th>
<th>Gender</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realistic</td>
<td>Males</td>
<td>-.03</td>
</tr>
<tr>
<td>Investigative</td>
<td>Males</td>
<td>-.02</td>
</tr>
<tr>
<td>Artistic</td>
<td>Males</td>
<td>-.05</td>
</tr>
<tr>
<td>Social</td>
<td>Males</td>
<td>-.17</td>
</tr>
<tr>
<td>Enterprising</td>
<td>Males</td>
<td>-.17</td>
</tr>
<tr>
<td>Conventional</td>
<td>Males</td>
<td>-.04</td>
</tr>
</tbody>
</table>

* p < .01, two tailed  ** p < .001, two tailed

3. What is the relationship between secondary constructs of vocational interests and overt narcissism with respect to gender?

H3.1.a: There is no relationship between consistency and overt narcissism in males.

H3.1.b: There is no relationship between consistency and overt narcissism in females.

H3.2.a: There is no relationship between coherence and overt narcissism in males.

H3.2.b: There is no relationship between coherence and overt narcissism in females.

H3.3.a: There is no relationship between differentiation and overt narcissism in males.

H3.3.b: There is no relationship between differentiation and overt narcissism in females.

H3.4.a: There is no relationship between commonness and overt narcissism in males.

H3.4.b: There is no relationship between commonness and overt narcissism in females.

H3.5.a: There is no relationship between profile elevation and overt narcissism in males.

H3.5.b: There is no relationship between profile elevation and overt narcissism in females.

H3.6: There is no significant difference by gender in relationships between secondary constructs and overt narcissism.
The correlation matrix in Table 18 shows significant relationships between overt narcissism and the secondary vocational interest construct of differentiation for both males and females. Differentiation as calculated by the high-low method was found to be significantly related to males ($r = .27, p < .01$) and females ($r = .27, p < .01$). Differentiation, as calculated by the Iachan Index method, was found to be significantly related to only males ($r = .33, p < .001$). Thus, hypotheses H3.3a and H3.3b were rejected, while the remaining hypotheses, H3.1 through H3.5, failed to be rejected. Z-tests were conducted to test for significant differences between these independent correlations for males and females. These tests failed to exceed the critical value of 2.58 necessary for statistical significance; therefore, hypothesis H3.6 failed to be rejected.

Table 18.
Correlations between Overt Narcissism and Secondary Constructs by Gender

<table>
<thead>
<tr>
<th>Vocational Interests Secondary Constructs</th>
<th>Gender</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n = 130)</td>
</tr>
<tr>
<td>Consistency</td>
<td>.08</td>
<td>.11</td>
</tr>
<tr>
<td>Coherence(^a)</td>
<td>.09</td>
<td>.13</td>
</tr>
<tr>
<td>Differentiation (High-Low method)</td>
<td>.27(^*)</td>
<td>.27(^*)</td>
</tr>
<tr>
<td>Differentiation (Iachan method)</td>
<td>.33(^**)</td>
<td>.21</td>
</tr>
<tr>
<td>Commonness</td>
<td>.12</td>
<td>-.02</td>
</tr>
<tr>
<td>Profile Elevation</td>
<td>.12</td>
<td>.21</td>
</tr>
</tbody>
</table>

\(^* p < .01, \text{two tailed}\)  \(^** p < .001, \text{two tailed}\)

\(^a\)Note: \(n = 128\) for males and \(n = 127\) for females

Research Question Four

4. What is the relationship between secondary constructs of vocational interests and covert narcissism with respect to gender?

H4.1.a: There is no relationship between consistency and covert narcissism in males.

H4.1.b: There is no relationship between consistency and covert narcissism in females.

H4.2.a: There is no relationship between coherence and covert narcissism in males.

H4.2.b: There is no relationship between coherence and covert narcissism in females.

H4.3.a: There is no relationship between differentiation and covert narcissism in males.
H4.3.b: There is no relationship between differentiation and covert narcissism in females.

H4.4.a: There is no relationship between commonness and covert narcissism in males.

H4.4.b: There is no relationship between commonness and covert narcissism in females.

H4.5.a: There is no relationship between profile elevation and covert narcissism in males.

H4.5.b: There is no relationship between profile elevation and covert narcissism in females.

H4.6: There is no significant difference by gender in relationships between secondary constructs and covert narcissism.

The correlation matrix in Table 19 shows no significant relationships between covert narcissism and secondary constructs of vocational interests for both males and females. Thus, null hypotheses 4.1 through 4.5 failed to be rejected. Z-tests were conducted to test for significant differences between these independent correlations for males and females. These tests failed to exceed the critical value of 2.58 necessary for statistical significance; therefore, hypothesis H4.6 failed to be rejected.

Table 19.
Correlations between Covert Narcissism and Secondary Constructs by Gender

<table>
<thead>
<tr>
<th>Vocational Interests Secondary Constructs</th>
<th>Gender</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td></td>
<td>(n = 130)</td>
<td>(n = 129)</td>
</tr>
<tr>
<td>Consistency</td>
<td>-.06</td>
<td>-.10</td>
</tr>
<tr>
<td>Coherencea</td>
<td>-.02</td>
<td>.11</td>
</tr>
<tr>
<td>Differentiation (High-Low method)</td>
<td>-.10</td>
<td>.08</td>
</tr>
<tr>
<td>Differentiation (Iachan method)</td>
<td>-.08</td>
<td>.06</td>
</tr>
<tr>
<td>Commonness</td>
<td>-.04</td>
<td>.10</td>
</tr>
<tr>
<td>Profile Elevation</td>
<td>-.13</td>
<td>.07</td>
</tr>
</tbody>
</table>

* p < .01, two tailed  ** p < .001, two tailed

Note: n = 128 for males and n = 127 for females
CHAPTER 5
DISCUSSION

The general research question that served as the focus of this study was: What are the relationships among overt and covert narcissistic personality traits and assessed vocational interests with respect to gender? This broad question yielded four specific research questions, each with several hypotheses. Following a brief discussion of the characteristics of the participants, each of these four research questions and their associated findings will be examined from the perspective of the literature reviewed in Chapter 2. This will be followed by a summary of the limitations of the study in the areas of sampling, measures, and data analyses. The discussion will conclude with a synopsis of the implications of the findings for theory development, research, and the practice of career advising and career counseling.

Characteristics of the Participants

Before addressing the specific research questions, it may be helpful to discuss briefly the participants’ scores for overt narcissism, covert narcissism, and vocational interests. Of specific importance is the sample’s significantly greater level of overt narcissism and lower level of covert narcissism than what was found in previous samples (Foster et al., 2003; Hendin & Cheek, 1997; Raskin & Terry, 1988). This finding has the potential to impact the generalizability of these findings beyond the sample. For example, individuals higher in overt narcissism may be more likely to participate in the career development class than their less narcissistic counterparts. That is, individuals with high narcissism may be more likely to value career exploration activities, especially the self-focused activities, which are typical of career development courses (Mako, 1991). Likewise, covert narcissists may likely view such self-reflective experiences, especially those that occur in a group setting, as threatening and thus avoid them.

While males have historically endorsed greater amounts of overt narcissism than females, this difference has decreased over time (Twenge et al., 2008). This sample appears to continue this trend with no difference in endorsement of overt narcissism between males and females (Table 11). Similarly, no difference was found in endorsement of covert narcissism by gender, which has been previously reported by Lapsley and Aalsma (2006).

Prior research indicated that overt narcissism varies significantly across ethnic (Twenge & Crocker, 2002) and age groups (Foster et al., 2003); however, there was no relationship between ethnicity and age and either form of narcissism measured in this sample (Table 8). This
may be due to the restricted range of age and the relatively homogenous ethnic representation in
the sample (Table 4).

In this study, males endorsed significantly higher amounts of Realistic and Enterprising
interests than did females (Table 11). This is consistent with findings by Holland, Johnston, and
Asama (1994) who found that gender differences were most prevalent on the Realistic scale and
least prevalent on the Enterprising scale of the SDS. Similarly, female participants endorsed
significantly higher amounts of Social interests than did male participants. With the exception of
commonness and profile elevation, there were no significant differences between males and
females on secondary constructs of vocational interests. Female participants also reported
significantly more common vocational interests than did male participants. Common codes are
associated with greater stability and less common codes with change (Holland, Powell, &
Fritzsche, 1994). Thus, the males in this sample may encounter more difficulty than their female
counterparts in finding environments that fit their vocational interests.

Previous research by Lippa (1998) demonstrated that gender is related to the people-
things dimension (Prediger, 1982), which underlies the Hexagon. Thus, females are more likely
to endorse people-related interests while males are more likely to endorse thing-related interests.
In this sample, almost 75% of the population showed Enterprising and Social interests in the first
or second position of their three-letter code-type, indicating a similar orientation toward people
regardless of gender. It was in the third position that males and females differed in their
endorsement patterns. Here, female participants endorsed higher levels of Conventional interests
and males endorsed higher levels of Realistic interests. This is again consistent with previously
established findings on gender differences in endorsement patterns on the Self-Directed Search
(Holland, Fritzsche, & Powell, 1994).

It has been noted that the Enterprising type avoids “scientific, intellectual, or abstruse
topics” (Gottfredson & Holland, 1996, p. 3), yet several participants in the study reported
selecting majors that have a substantial, if not primarily Investigative focus (Table 12). Similarly,
many of the participants’ first choice majors upon matriculating to the university, and their most
recent occupational daydreams, were of an Investigative nature (Tables 13 and 14). Furthermore,
for both males and females, the third position of the aspirations summary code was Investigative
(i.e., ESI for males and SEI for females). This is in contrast with the low number of Investigative
high-point codes (Table 10) and the low endorsement of Investigative interests (Table 11) on the
SDS assessment. From the viewpoint of Holland’s theory, there may be a small degree of incongruence between these individuals’ vocational interests and their aspirations, yet they have pursued majors that are more inline with their aspirations than their interests.

A possible explanation for this pattern is the movement of sample participants from initially declared majors, such as business and biology, to majors such as sociology and interdisciplinary social science (Table 13). These latter two majors have been found anecdotally to be second choice majors for individuals who did not gain entry to their first choice major due to their academic performance. In fact, the interdisciplinary social science major is often the “default” major for students who have difficulty making progress in other majors for academic or other reasons.

To summarize, the differences between genders in vocational interests are consistent with past findings in the literature. Similarly, the lack of a difference between males and females on overt and covert narcissism is not surprising. However, the unique nature of this sample (e.g., focus on Enterprising interests, high levels of overt narcissism, low levels of covert narcissism, etc.) should be considered during the remaining discussion. Next, the four specific questions on the relationships between narcissism and vocational interests will be addressed.

Research Question One

The first specific research question was: What is the relationship between assessed vocational interests and overt narcissism with respect to gender?

Using a co-relational design, overt narcissism was found to be associated significantly with only one primary construct of vocational interests, the Enterprising type (Table 16). The difference in the magnitude of associations between males and females was statistically insignificant. Thus, the constructs of overt narcissism and Enterprising vocational interests share approximately 19% to 24% of variance, indicating an effect size of small degree regardless of gender (Cohen, 1988). This finding repeats those of Holland, Johnston, and Asama (1994) and Strack (1994) on the relationship between overt narcissism and the Enterprising type. Also, given the literature on the relationship between narcissism and leadership-related occupations, this finding is not surprising (Hill & Yousey, 1998; Paunonen et al., 2006).

What was unexpected in this study was the lack of significant relationships between overt narcissism and other vocational interest types. Past studies found positive relationships between overt narcissism and the Artistic and Social types (Holland, Johnston, & Asama., 1994; Strack
Furthermore, individuals with high degrees of narcissism have been found in occupations in the arts and social services (Young & Pinksy, 2006; Zondag, 2004). These previous findings are consistent with the RIASEC order of the Hexagon and Prediger’s (1982) conceptualization of these three Holland types as located at the “people” end of a people/things continuum.

In this sample, however, it is exclusively the Enterprising vocational interests that are associated with high levels of overt narcissism. As summarized in Table 2, Holland described the Enterprising type as preferring occupational activities involving persuading, manipulating, or directing others, valuing material accomplishment and social status; possessing a view of self as having sales and persuasive abilities, and being energetic and gregarious. Many of Holland’s terms and concepts overlap those used to describe overt narcissism in the psychoanalytic (Kernberg, 1975; Kohut, 1971) and cognitive behavioral (Beck & Freeman, 1990, Table 1) literature, the DSM-IV TR diagnostic criteria (American Psychiatric Association, 2000), and Wink’s (1991) empirical descriptions. Furthermore, one can intuit how narcissists would thrive in Enterprising occupational environments that require skills in persuasion and the manipulation of others, reward dominance and self-confidence, and value pursuit of power (Table 3). Finally, there may be a degree of item overlap between overt narcissism items on the NPI and the Enterprising scale on the SDS. Therefore, some of the relationship found between these two variables in this study may be due to not only to theoretical relatedness, but also to similar responses to similarly worded items. For example, “I am a born leader” on the NPI is similar to “I know how to be a successful leader” from the SDS.

But which psychological mechanisms may account for the commonalities between overt narcissism and Enterprising vocational interests? From the psychoanalytic view, the socially intensive nature of Enterprising occupational environments would meet the needs of overt narcissists for mirroring selfobjects and would enable the maintenance of a grandiose self-concept through opportunities to manipulate, exploit, and dominate others (Kernberg, 1996; Kohut, & Wolf, 1978). Such environments, especially if they are hierarchical and authority driven, may allow narcissists to rejoin with lost idealized selfobjects through mentorship and superior-subordinate relationships.

From the cognitive behavioral perspective (Beck & Freeman, 1990), the emphasis on individual rewards for individual effort, status, and wealth in Enterprising environments may reinforce the core beliefs of narcissists that they are special and entitled. Their conditional beliefs
may also lead to the exploitation of co-workers and subordinates (e.g., if you pick up my dry cleaning, you are a team player). From the view point of schema therapy (Young, Klosko, & Weishaar, 2003), many fast-paced, high-stress Enterprising occupational environments may affectively excite narcissists, thus activating early maladaptive schema. For example, making a tight deadline might first activate avoidance and then overcompensation schema in narcissists.

Research Question Two

The second specific research question was: What is the relationship between assessed vocational interests and covert narcissism with respect to gender?

Regardless of participant gender, covert narcissism was not related significantly to any of the six primary constructs of vocational interest (Table 17). This was unexpected given the potential associations suggested by the previous relationships identified among covert narcissism, the five-factor model of personality, and the RIASEC typology (Figure 3). Past findings by Hendin and Cheek (1997) and Larson et al. (2002) might imply a negative relationship between covert narcissism and the Enterprising code-type. Furthermore, reviewing Holland’s brief descriptions of the personality typology, one might expect the “shyness and constrained affect” of the covert narcissist described by Masterson (1993) and Wink (1991) to be positively related to greater levels of Realistic and Investigative vocational interests. However, this was not observed, perhaps due to the sample’s low covert narcissism scores and the limited number of participants endorsing the Realistic and Investigative code-types as primary areas of interest.

What may be more important, however, is the nature of covert narcissism as compared to that of overt narcissism. Regardless of the theory basis, overt narcissists depend on social relationships in the environment for the maintenance of their self-concept. In contrast, covert narcissists eschew the environment and instead depend on behaviors (e.g., social withdrawal) and psychological defenses (e.g., rationalization and denial) for maintenance of their grandiose self-concepts. Furthermore, while overt narcissism appears to be related clearly to at least one self-concept dimension that influences vocational options (i.e., Enterprising interests), covert narcissism may likely be related to what Savickas (2002) described as the meta-analytic dimensions of self-concept. For example, covert narcissism may be related to metacognitive constructs of self-talk, self-awareness, and monitoring and control, which are considered to impact not only the acquisition of knowledge of self and options, but also the process of career
decision making (Peterson et al., 1991; Sampson et al., 2004). In short, it appears that the construct of covert narcissism, while similarly labeled and theoretically related to overt narcissism, is “something different,” especially in the domain of vocational interests. This proposition is supported by the lack of relationship between overt and covert narcissism found in this study and in past research (Hendin & Cheek, 1997; Schurman, 2000).

Research Question Three

The third specific research question was: What is the relationship between secondary constructs of vocational interests and overt narcissism with respect to gender?

Significant relationships between overt narcissism and the secondary vocational interest construct of differentiation were found for both males and females (Table 18). Differentiation, as calculated by the high-low method, was found to be related significantly to males and females. Differentiation, as calculated by the Iachan Index method, was found to be related significantly only to males. Thus, the vocational interest profiles of individuals endorsing higher amounts of overt narcissism appear to be more distinct than those who endorse lower amounts of overt narcissism.

Holland and colleagues described individuals with high differentiation as, “… more predictable; that is they should have more stable choices and careers and should be more likely to exhibit the characteristics attributed to the types” (Holland, Powell, & Fritzspehe, 1994, p. 37). In general, individuals with more highly differentiated profiles are assumed to resemble more closely the personality characteristics and traits associated with their high-point code (Reardon & Lenz, 1998). While differentiation is considered a weak indicator compared to other secondary constructs (e.g., congruence or consistency), it is still assumed to have interpretive value (Reardon & Lenz, 1998). For example, individuals with higher differentiation could be assumed to possess more tightly focused interests, thereby contributing to a less-problematic career decision-making process.

However, the assertion that narcissism is associated with greater clarity of vocational interests is opposed to Kernberg’s (1996) position that narcissists are less consistent in their goals and lack direction in their lives. For instance, this position is also not supported by previous findings between differentiation and vocational identity (Leung, Conoley, Scheel, & Sonnenberg, 1992). Perhaps an explanation for this contradiction is that narcissism is defined partially by a mismatch between one’s true self and one’s external pursuits and goals (false self)
(Kohut, 1977; Winnicott, 1965). That is, overt narcissists may possess a clear picture of their interests as viewed through their self-concepts, but this picture may not be a functional one in relation to the demands of the environment.

An additional finding is the affect of the different methods of calculating differentiation (Table 18). Specifically, when using the high-low method, overt narcissism was found to be related significantly to differentiation for both males and females. However, when using the Iachan method this relationship was found only in males. As previously defined, the high-low method is a more gross measure of differentiation than the Iachan index method, which is more nuanced and sensitive to the shape of the interest profile. In this study, the Iachan index may be affected by the significantly higher profile elevation of male compared to female participants. Furthermore, the vocational interest scores of male participants averaged highest on the Enterprising, Social, and Realistic code-types, while the scores of female participants averaged highest on Social, Enterprising, and Conventional code-types. Also, a significant difference was found between males and females on scores for the Realistic type, but not on the Conventional type. Thus, the discrepant findings between the two methods of calculation could be attributed to different response patterns and thus different interest profiles by gender.

This study did not repeat the finding by Fuller et al. (1999) that demonstrated a positive relationship between overt narcissism and profile elevation (Table 18). This result and the lack of association between overt narcissism and the remaining secondary constructs of consistency, coherence, and commonness is consistent with the narrow finding of the relationship between overt narcissism and the Enterprising code-type. For relationships between overt narcissism and the secondary constructs to have been found, additional significant relationships would need to be present between overt narcissism and the remaining five code-types. For example, a significant relationship between overt narcissism and consistency would be more likely if there were relationships between overt narcissism and the Social or Conventional code-types adjacent to the Enterprising code-type. The lack of a relationship between overt narcissism and profile elevation again highlights the very narrowly focused Enterprising interests of this sample.

**Research Question Four**

The fourth specific research question was: What is the relationship between secondary constructs of vocational interests and covert narcissism with respect to gender?
No significant relationships were found between covert narcissism and secondary constructs of vocational interests (Table 19). Again, this is not surprising given the lack of relationships between covert narcissism and primary constructs of the RIASEC types. As in the discussion of the nonsignificant findings for Research Question 3, these findings may result from the definition of the secondary constructs in terms of the primary constructs; 2) the dominance of the Enterprising type in the sample; and 3) the possibility that covert narcissism is unrelated to the more descriptive typologies of vocational interests, but instead to more meta-analytic variables, such as dysfunctional career thoughts.

In review, only Enterprising vocational interests and differentiation were found to be related to overt narcissism in this study. These findings persisted regardless of gender, with the exception of differentiation calculated by the Iachan method, which was significant only for males. Covert narcissism was not found to be related to either primary or secondary constructs of vocational interests. Finally, there were no significant differences between the genders on relationships of narcissism to vocational interests. Prior to considering the implications of these findings, the following study limitations should be considered.

Limitations of the Study

Several limitations to this study could impact the internal and external validity of its findings. These potential limitations include sampling, measures, and data analyses. Each will now be briefly discussed.

Limitations in Sampling

This sample was significantly more overtly narcissistic and less covertly narcissistic than previous samples of college students found in the literature. Despite this finding, the sample was generally reflective of the university population as a whole in both demographics and vocational interests. Due to lack of narcissism data on the university population, it is unknown if the sample and university differed on this characteristic.

However, both males and females with strong Enterprising interests appear to have been present in large numbers in this sample. Furthermore, systematic influences, such as students being referred to the class by academic advisors from specific majors (e.g., interdisciplinary social science), may also have impacted the composition of the sample. A more diverse sample in which the vocational interests of individuals are representative of the general population of adolescents and adults may enhance the generalizability of this study beyond the career
development class and university population from which the sample was taken. Furthermore, better representation of the Realistic, Investigative, and Conventional code-types in the sample may have resulted in different findings, especially with regard to the variable of covert narcissism. Given these limitations, the previously mentioned restricted age range, and the somewhat ethnically homogeneous sample, statements about the generalizability of these findings to more diverse groups should be made with caution.

Limitations in Measures

In general, the measures employed in this study were reliable. Specifically, internal consistencies of the HSNS and NPI were comparable with past studies. However, the reliability ($\alpha = .71$) of the HSNS was just sufficient for use in research applications (Nunnaly, 1978). This somewhat low internal consistency is most likely due to the short, ten-item length of the scale. Furthermore, while the reliability of the NPI was much stronger ($\alpha = .84$), a coefficient alpha approaching .90 would be preferred for diagnostic work with individuals.

A possible constraint of the NPI is in its item structure. The items on the NPI are dichotomous and ipsative in nature. On each item, participants compare themselves to the two options presented and select the option most like them. This item presentation may result in a wider distribution of variance than actually exists, thereby creating more extreme scores. The NPI may benefit from items depicting more extreme thoughts, feelings, and behaviors associated with covert narcissism which individuals possessing “midrange” narcissism may be less likely to endorse. Furthermore, the dichotomous nature of the items may also result in factorial instability for the instrument. The factor structure of the NPI also appeared to become less stable with the revision of this instrument from 54 to 40 items (Kubarych et al., 2004). This may limit additional analyses on how facets of narcissism, such as Entitlement/Exploitation and Vanity relate to vocational interests. While it is widely used in the literature, a more detailed analysis of the role of item structure in the NPI may be helpful.

Limitations in Data Analyses

The exploratory nature of this study necessitated the computation of several correlations and statistical comparisons which are vulnerable to familywise error. The traditional approach of Bonferroni correction (Bonferroni, 1937) would have resulted in too stringent a test of statistical significance, thereby undermining the goal of the study. Thus, an a priori alpha value of .01 was established for statistical significance to mitigate the risk of committing a Type I error (rejecting
the null hypothesis when it is true). In the process, however, several significant findings at the $p < .05$ level may have been overlooked, thus leading to the commission of several Type 2 errors (i.e., failing to reject a null hypothesis which should be rejected). Yet, the strategy adopted in this study was perhaps the most practical course of action, which yielded the strongest findings for consideration.

**Implications**

When working with a concept as old as narcissism and a theory of vocational interests as well researched as Holland’s, it may be easy to over interpret the limited findings of this study. However, there are some important implications of the findings of this study for future work in theory, research, and practice. The discussion of these implications will be followed by the conclusion of this study.

**Implications for Theory Development**

In Chapter 2 of this study, several theoretical conceptualizations of overt and covert narcissism were considered. These include the analytic approaches of Freud (1989), Kernberg (1975), and Kohut (1971); the cognitive behavioral conceptualization of Beck and Freeman (1991), and the schema therapy framework of Young et al. (2003). Additionally, Holland’s (1997) typology of personality and environments was also reviewed. Super’s conceptualization of self-concept may provide a common ground among these theoretical approaches for additional theory building (Super, Savickas, & Super, 1990).

Super emphasized the importance of self-concept as being the bridge between the qualities of the individual and the forces of the environment (i.e., society) in the career development process. As described by Super et al. (1990), their definition of self-concept unifies the subjective world described by the above personality theories with the more objective world depicted by Holland’s theory of vocational interests. Thus, comparisons are made possible among objective self, objective environment, subjective self, and subjective environment. Comparisons between the objective and subjective dimensions produce “estimates of realism” (i.e., objective environment versus subjective environment) and “accuracy of self-appraisal” (i.e., objective self versus subjective self). It is exactly in these two areas where overt narcissists have difficulty functioning. For example, individuals having higher levels of overt narcissism may underestimate the requirements of the environment (e.g., the rigor of prerequisite science classes prior to medical school) and may over estimate their cognitive resources to meet the demands of
the environment (e.g., their math skills entering a Calculus class). Thus, it appears that the relationship between narcissism and Enterprising vocational interests may lend additional support to Super’s conceptualization of self-concept.

This study may also provide indirect evidence of the importance of considering prestige in theories of vocational interests. As summarized by Gottfredson (1996), prestige has long been considered an important variable in occupational attainment. It has been suggested by Tracey and Rounds (1996) that prestige is an important third dimension to add to Prediger’s (1982) data-ideas and people-things dimensions underlying the Hexagon. Level of vocational interests was included by Holland (1965) on the Status scale on the Vocational Preference Inventory, which preceded the Self-Directed Search. Today, information on occupational level remains in the interpretive materials for the Self-Directed Search. In this study, overt narcissism may be acting as a proxy for occupational prestige, a sociological construct that reflects the stratification of modern society (Nakao, 2001). Kernberg (1970) noted that obsession with prestige and social status is associated with narcissism. The finding of a positive relationship between Enterprising vocational interests and overt narcissism may reflect the importance of high status and prestige occupations among narcissists. For example, the Enterprising occupation of politicians has been found to be high in both prestige and endorsement of narcissism (Hill & Yousey, 1998).

Furthermore, the Investigative type which was expressed in many of the participants’ occupational daydreams and first declared majors would add additional support to the proposition that prestige is an important factor in the occupational preferences of the participants in this study.

In more concrete terms, this study provided additional convergent validity evidence for Holland’s typological description of Enterprising personality characteristics. It also replicates previous findings on the “sex fairness” of Holland’s theory and assessments. The construct of differentiation also appears to be weakly related to the certainty of self that accompanies higher levels of overt narcissism. In the domain of personality theory, this study also provided additional evidence to the proposition that females are becoming as narcissistic as males. However, no evidence was found that ties covert narcissism to vocational interests. This construct of narcissism may be better investigated relative to what Savickas (2002) termed the meta-analytic features of vocational self-concept, such as the metacognitive skills of self talk, self-awareness, and monitoring and control (Sampson et al., 2004).
Implications for Research

While this study touched on vocational aspirations to describe the sample of participants, no studies in the literature have reviewed the relationship of narcissism (overt or covert) to expressed vocational interests. This is unfortunate given that expressed interests, such as vocational aspirations, have been found to predict occupational pursuits better than assessed interests across multiple measures (Holland, Fritzsche, & Powell, 1994). Related to this issue is the concept of congruence between expressed and assessed vocational interests. This area of investigation might be especially promising for evaluation of the relationship between narcissism and vocational aspirations. Thus, potential relationships between expressed interests, their congruence with assessed interests, and overt and covert narcissism should be investigated.

The incidental finding of potential differences between initial majors, expressed occupational aspirations, and assessed vocational interests among this somewhat overtly narcissistic sample of college students leads to the concepts of congruence (Holland, Powell, & Fritzsche, 1994), incongruence (Kohut, 1977; Rogers, 1951), estimates of realism, and accuracy of self-appraisal (Super, 1990). Incongruities between self and environment may lead to the boredom displayed by narcissists (Wink & Donahue, 1997) and less stability in career choice (Reardon & Lenz, 1998). Therefore, there may be value in studying the relationship of narcissism to differences in preferred vs. actual major pursuit, similar to a study conducted by Robbins (1983). Other research applications of the incongruity concept in exploring the relationship between narcissism and vocational interests may be in comparing self with ideal-self, self with “looking glass self,” and self vs. the perceptions of others.

From a psychometric perspective, the relationships between narcissism and vocational interests as measured by the Self-Directed Search are ripe with potential research questions. Analyses that are more detailed can be conducted on the relationship of the “subscales” of the SDS to overt narcissism with respect to gender. For example, an individual who scores high on overt narcissism may endorse higher self-estimates of abilities than one with lower overt narcissism. Similarly, individuals high in covert narcissism may underrate their abilities. Through its competency and abilities scales, the SDS also supports comparison of the demands of the environment to self-estimates of ability. This feature of the SDS provides a mechanism for measuring the distance between personal expectations and requirements of occupational environments and allows comparison of this distance with degree of narcissism. Furthermore,
certain factors of the NPI may capture the majority of the shared variance between overt narcissism and the Enterprising code-type. While this investigation may be hindered by the somewhat unstable factor structure of the 40-item NPI, one might hypothesize that its Exploitative/Entitled factor may be related to Enterprising vocational interests. These relationships may also vary by gender.

**Implications for Practice**

Career practitioners should be careful not to overly pathologize their more narcissistic clients. After all, narcissism plays a functional role in development by protecting individuals’ self-concepts from harm and allowing the consideration of different occupational roles (Benson, 1980b). Furthermore, moderate levels of narcissism have been found to contribute to positive emotional health (Sedikides et al., 2004). However, high narcissism individuals may approach the career decision-making process with idealistic expectations for their achievement and a sense of entitlement about the opportunities awaiting them in the world of work.

The Cognitive Information Processing (CIP) approach to career problem solving and decision making (Peterson et al., 1991; Sampson et al., 2004) provides a convenient framework to describe how overt narcissism may impact a client’s readiness for career decision making and the provision of career services. In the domain of self-knowledge, this study suggested that overtly narcissistic qualities may be associated with high Enterprising scores and well differentiated profiles on the Self-Directed Search. Reardon and Lenz (1998) noted that interpretation of the Self-Directed Search can be adapted to the type of individual being advised or counseled. Thus, for clients who are well differentiated, score highly on the Enterprising code-type and display behaviors consistent with idealistic expectations and entitlement, a frank and non-judgmental dialogue about the client’s self-concept may be helpful. Examples of idealistic expectations may include making inflated estimates of earning potential or expecting significant leadership positions without the required experience. An example of entitlement might be the pursuit of occupational options inconsistent with past effort and academic performance. During this discussion, assessment results could be interpreted with respect to the client’s expressed views of self as they relate to others. A review of the client’s values orientation to prestige and power may also be helpful. In fact, these clients may enjoy such an exchange, as they are the topic of conversation.
In the options knowledge domain, practitioners can work with the client to review past explorations of education and occupational options. In this domain, assessing the client’s knowledge and expectations about various options will be important. Unfortunately, clients high in overt narcissism may not be particularly motivated to seek or access information not already present in, or consistent with their worldview. When asked about past information-seeking behaviors, these overtly narcissistic clients may dismiss such activities as not useful. However when pressed for details, it may become clear they have not vigorously explored the resources which they know are available to them. Thus, more active reality testing by the client of occupational, educational, and leisure environments (e.g., job shadowing, volunteering, and interning) may provide fodder for processing new information that is contradictory to the client’s self-concept.

In the domain of decision-making skills, overt narcissists may fall short in their skills at executing decisions. Overconfidence and a sense of entitlement among these clients may lead them to overestimate the return on their limited efforts (Campbell et al., 2004). Worse yet, an unsuspecting practitioner may be exploited to solve problems and carry out decisions by more overtly narcissistic clients (e.g., I need you to write my resume). Whether overt narcissists ignore their failures or succeed by exploiting others, the underlying problem is that they may not have adequate knowledge and skills for coping with future career problems and decisions. These deficits in knowledge and decision-making skills can lead to quite a difficult career path. Thus, it may be especially important for practitioners to teach their more narcissistic clients how to estimate required effort, reality test their initial choices, execute a concrete plan, and accurately evaluate efforts toward achieving their career goals.

Such efforts may enhance the client’s metacognitive skill of monitoring and control. It is in the executive processing domain where clients high in overt narcissism may be most in need. For example, while narcissists may be self-absorbed, they are not necessarily self-aware. In fact, overt narcissists have been described as “oblivious” (Gabbard, 1989). Self-awareness, the ability to perceive and acknowledge internal emotional and physical signals, is important for successful career decision making. Also, while some clients may have negative career thoughts that undermine their capability for career decision making (Sampson et al., 1996, Sampson et al., 2004), the high overt narcissism client may have thoughts that are “too positive.” Their self-talk, while optimistic, may reveal their inner thoughts and core beliefs characterized by Beck and
Freeman (1991, Table 1). Furthermore, as with negative thoughts, positive thoughts can also be subject to cognitive errors (e.g., magnification) and have the potential to distort information about self and options. Thus, career services practitioners must not only help their more overtly narcissistic clients learn about themselves and their options, but also to gain metacognitive skills to enhance their career decision making.

However, practitioners should proceed carefully when engaging a client who is expected to possess a high degree of overt narcissism. Making too direct a challenge to the client’s self-concept, which emphasizes the incongruence of expectations with reality, may undermine the working relationship and lead to negative reactions from these individuals. Instead, a more effective intervention may implement a combination of techniques from the theories discussed in this study. First, the practitioner may wish to build the relationship by employing empathy and Roger’s (1951) unconditional positive regard. Second, while building a working alliance, the practitioner will want to note instances of behaviors that are consistent with overt narcissism (e.g., grandiosity, entitlement, and exploitation). Third, if warranted, the practitioner may employ cognitive behavioral approaches to identify, test, and alter the less functional thoughts, behaviors, and beliefs that characterize the individual’s self-concept and expectations for future employment (Beck & Freeman, 1991). Finally, the practitioner may wish to implement tactics from schema therapy to help clients avoid common response modes (e.g., avoidance or overcompensation) and the ensuing affective fallout when their expectations are not met.

Twenge (2006, p. 78) summarized the career expectations of present day college students with the phrase “You Can Be Anything!” She argued that this expectation is not congruent with reality and that the vocational aspirations of students will far exceed the need for professionals in the future (Twenge, 2002). “During the next decade, we are going to see a lot of young people who will be disappointed that they cannot reach their career goals” (Twenge, 2006, p. 79). These young people, who are more narcissistic than past generations, will turn to career professionals for help.

Durkheim (1964), as summarized by Gottfredson (1996), described the importance of congruence between a population’s vocational capacities and job opportunities. Gottfredson (1996) further noted, “Occupational discontent would arise if the distribution of available employment diverges dramatically from the distribution of interests both in terms of field and prestige” (p. 70). Fortunately, there is good news for the Enterprising students in this study’s
sample who wish to fulfill their interests in persuading and leading others. The Enterprising and Social vocational interests associated with “in-person services” were projected to account for 30% of forecasted growth between 1994 and 2005 (Reardon & Lenz, 2000). In actuality, during the period from 1960 to 2000, employment in the “people” related Enterprising and Social areas nearly doubled, from 17% to 30%, and 9% to 16%, respectively (Reardon, Bullock, & Meyer, 2007). However, it is unclear because of the increased levels of narcissism in today’s college students if they will be satisfied with the status of the positions they find waiting for them.

Conclusion

This study examined the relationships among overt and covert narcissism and vocational interests with respect to gender. It was undertaken in an attempt to better inform the provision of career services to college students who may be more narcissistic than previous generations and have inaccurate or exaggerated expectations about their careers. This personality characteristic may impact the assessment of vocational interests, an activity that occurs frequently on university campuses.

This study found a modest, positive relationship between overt narcissism and endorsement of the Enterprising code-type on the Self-Directed Search (Holland, Powell, & Fritzsche, 1994). A similar relationship was found between overt narcissism and profile differentiation. There were no significant relationships observed between covert narcissism and primary or secondary constructs of vocational interests. There were also no significant differences in these relationships by gender. Consistent with past findings, however, there were differences in patterns of endorsement of vocational interest by males and females.

These findings may have highlighted the role of prestige in assessing and exploring vocational interests. Furthermore, additional avenues of research were suggested, including investigations of the relationship of overt narcissism to expressed occupational aspirations, the relationship of covert narcissism to more meta-analytic facets of vocational self-concept (e.g., dysfunctional career thoughts), and the relationship of facets of narcissism to responses to vocational interest subscales (e.g., ability self-estimates, occupational aspirations, etc.). Based upon the literature review and these findings, a theory-based approach to interpreting vocational interest assessments with high overt narcissism individuals was also briefly described. However, additional research and improved practice will be insufficient without consideration of the societal context within which college students are making career decisions.
APPENDIX A

PROCEDURE FOR CALCULATING THE IACHAN AGREEMENT INDEX
Procedure for Calculating Iachan Agreement Index

1. Write down the number from the table below that corresponds to a match between the first letter of the occupation code and any letter of the person’s three-letter summary code.
2. Write down the number from the table that corresponds to a match between the second letter of the occupation code and any letter of the person’s three-letter code.
3. Write down the number from the table that corresponds to a match between the third letter of the occupation code and any letter of the person’s three-letter code.
4. Add these three numbers together.

For example, an aspirations summary code of REI and assessed summary code of REI would yield an Iachan Agreement index of 22 + 5 + 1 = 28.

Table for Calculating Iachan Agreement Index

<table>
<thead>
<tr>
<th>Occupation code</th>
<th>SDS Summary Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First letter match</td>
</tr>
<tr>
<td>First letter</td>
<td>22</td>
</tr>
<tr>
<td>Second letter</td>
<td>10</td>
</tr>
<tr>
<td>Third letter</td>
<td>4</td>
</tr>
</tbody>
</table>

APPENDIX B

PROCEDURE FOR CALCULATING THE IACHAN DIFFERENTIATION INDEX
Procedure for Calculating the Iachan Differentiation Index

To calculate the Iachan Differentiation Index (L₁) use the equation:

\[ L₁ = \frac{1}{2} (X₁ - \frac{X₂ + X₄}{2}) \]

where:

X₁= highest score in profile
X₂= second highest score
X₄= fourth highest score

For example given the following RIASEC Scores on the Self Directed Search:

R=37  I=22  A=36  S=27  E=14  C=17

\[ L₁ = \frac{1}{2} (37 - \frac{36 + 22}{2}) = 4 \]

Procedure for Obtaining a Summary Aspirations Code

**Occupational Daydreams (Aspirations)**

Career Counselor        SEA  
Licensed Vocational Nurse  SAI  
Lawyer                   ESI  
Social Services Counselor SAE  
Psychologist             SIA  
Dental Technician         REC

**Procedure**

Step 1: Count the number for each code letter in the first position and write this count in the table below.

Step 2: Repeat step 1 for positions 2 and 3.

Step 3: Multiply each count by the weight at the top of the position columns.

Step 4: Sum the products to get six total scores.

Step 5: Rank order the code letters from highest to lowest total score. Select the code letters of the three highest scores as your aspirations summary code. (Ties should be handled as described in Reardon and Lenz (1998).

<table>
<thead>
<tr>
<th>Code Letter</th>
<th>1st Position Weight (x 3)</th>
<th>2nd Position Weight (x 2)</th>
<th>3rd Position Weight (x 1)</th>
<th>Weighted Sum</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1 x 3</td>
<td>3</td>
</tr>
<tr>
<td>I</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>(2 x 2) + (2 x 1)</td>
<td>4</td>
</tr>
<tr>
<td>A</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>(2 x 2) + (2 x 1)</td>
<td>6</td>
</tr>
<tr>
<td>S</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>(4 x 3) + (1 x 2)</td>
<td>14</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>(1 x 3) + (2 x 2) + (1 x 1)</td>
<td>8</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1 x 1</td>
<td>1</td>
</tr>
</tbody>
</table>

Aspirations Summary Code: SEA

APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER
Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 • FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 8/9/2007

To: Darrin Carr [dcarr@admin.fsu.edu]
Address: 2490
Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
Relationships among personal characteristics, vocational interests, and career thoughts of college students enrolled in a career development course.

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Expedited per 45 CFR § 46.110(7) and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 8/6/2008 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: James Sampson, Advisor [jsampson@admin.fsu.edu]
HSC No. 2007.619
Data Collection Script

1. Hello, I am (principal investigator's name here). As a part of this SDS 3340 class, we are conducting a research study of students’ personal characteristics, thoughts, and vocational interests with respect to their career decisions. We believe this project will help us obtain a better understanding of the career-decision making process.

2. Participation involves reading and signing the Consent Form, and then completing four questionnaires using the papers provided in the order they are presented in your folder. When I give you your folder please leave them closed on your desk.

3. Pass out folders to participants, making sure each folder is given to the correct student.

4. Please open your folder and read the Informed Consent Form with me.

5. Read informed consent form.

6. Ask the following questions and provide appropriate feedback to participant responses.
   
a. What are the risks of participating in this research?
b. What are the benefits of participating in this research?
c. Who can you contact if you have further questions or concerns?

7. If you choose to participate in the study, please sign the informed consent form and print your name below the signature.

8. Now please complete the assessments in the order they are presented in your folder. Please read the directions for each instrument carefully. Notice that each assessment has your unique code number. Make sure the code written on the label of your folder and the code on each answer sheet matches. Do not fill in any other identifying information on the answer sheets other than your answers.

9. Please begin. Once you have completed the survey forms, return your folder to me. Leave the signed copy of your informed consent in the folder and take your copy with you.

10. As participants leave check that
   
a. Informed Consent is signed and dated
b. Instruments are complete
Posttest Data Collection Script

1. Hello, I am (principal investigator's name here). As a part of this SDS 3340 class, we are conducting a research study of students’ personal characteristics, thoughts, and vocational interests with respect to their career decisions. We believe this project will help us obtain a better understanding of the career-decision making process.

2. At the beginning of the semester, many of you read and signed an Informed Consent Form, and then completed four questionnaires. When I give you your folder please leave them closed on your desk. (*Pass out folders to participants, making sure each folder is given to the correct student whose name is listed on the informed consent.*)

3. Please open your folder and verify that:
   a. Your name is on the informed consent form in the folder
   b. Make sure the code written on the label of your folder and the code on the enclosed answer sheet matches.

4. Do not fill in any other identifying information on the answer sheets other than your answers.

5. Once you have completed the survey forms, return your folder to me. Leave the signed copy of your informed consent in the folder.

6. Now please complete the enclosed assessment. Be sure to read the directions for the assessment carefully.

7. As participants turn in the folders please:
   a. **Check the Informed Consent is in each folder.**
   b. Verify All 48 items on the assessment are complete.

8. When you leave the room, I will offer you a debriefing paper describing the research you participated in today. Please direct all questions about the research to the investigators listed in the debriefing paper. All questions about extra credit should be directed to me (the lead instructor of this section of SDS 3340)
APPENDIX F

INFORMED CONSENT FORM
Informed Consent Form

Relationships Among Personal Characteristics, Vocational Interests, And Career Thoughts of College Students Enrolled in A Career Development Course

Dear SDS 3340 Student,

We are doctoral students under the direction of Professor Robert Reardon and Professor James P. Sampson, Jr. in the Department of Educational Psychology and Learning Systems in the College of Education at Florida State University. We are conducting a research study to examine the relationships among personal characteristics, career thoughts, and vocational interests.

Your participation today will involve completing four different paper-based assessments about personal characteristics. Completion of all four of these forms should take about 45 minutes. The name field on each assessment will be blocked out and each form will be identified with a number only. Also, information from class demographic forms and the Self Directed Search which you will complete later in the semester will be matched to these assessments by the researchers using the number provided. The demographic forms, Self Directed Search data, and these consent forms will be stored separately from the questionnaires. Finally, you will be asked to complete a follow-up questionnaire on the last day of class at the end of the semester. After the conclusion of data collection for the study you can elect to participate in a short debriefing over the study's purpose. You will not be offered individual feedback from the assessments you take today.

Information obtained from you during the course of this study will remain confidential, to the extent allowed by law. You responses to the questionnaires, demographic form, and consent form will be stored in locked cabinets, out of public view and under the control of the principal investigators and/or faculty advisors. Data collected from this study will be retained in a secure manner until December 30, 2014, after which time it will be destroyed. The results of the research study may be published, but your name will not be used, and the results will be presented in group format only.

Your participation in this study is voluntary. You will not be paid for your participation. If you choose not to participate or to withdraw from the study at any time, there will be no penalty; it will not reduce your grade in SDS 3340. Participants in the study will receive 5 points extra credit added to their total points earned in the course. Other opportunities for extra credit will also be available throughout the semester.

The discomfort and risk reasonably expected by your participation in this project is that you may become more aware of personal characteristics that relate to career decision making. This awareness may engender mild sadness, anxiety, or thoughts and feelings of depression. If you experience such a reaction after participating in this study, please contact the Career Center (850-644-6431) or the University Counseling Center (850-644-2003) to discuss your situation.

Although there may be no direct benefit to you, a possible benefit of your participation is that you may gain a better understanding of factors influencing you career decision making. This information also has the potential to improve the ability of counselors and advisors to address issues that may interfere with career problem solving and decision making. It may also help future SDS 3340 students and instructors improve their skills and knowledge in this area.

If you have any questions concerning this research study, please call Sara Bertoch or Darrin Carr (or their faculty supervisors Robert Reardon, Ph.D., or James P. Sampson, Jr. Ph.D., respectively) at (850) 644-6431. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at (850) 644-8633.

Sincerely,

Sara Bertoch, M.S., Ed.S. & Darrin Carr, M.S.

I give my consent to participate in the above study.

(signature)  (date)

(Print Your Name Here)
APPENDIX G

DEMOGRAPHIC INFORMATION SHEET
SDS 3340 STUDENT DATA SHEET

Name___________________________________________________          Date_______________________

Soc. Sec. No. (last 4 digits)______________________        Expected Graduation Date___________________

FOR QUESTIONS 14-15 AND 18-25, PLACE THE NUMBER IN THE SPACE IN THE RIGHT MARGIN WHERE INDICATED:

1. Major (print major or “undecided”)………………………1. _____________________________________

2. Advisor (Name)………………………2.____________________________________________________

3. Campus Address ………___________________________________________________________________

___________________________________________________________________

4. Local Telephone…….. ___________________________________________________________________

5. E-mail Address……… ___________________________________________________________________

6. Permanent Address…...___________________________________________________________________

___________________________________________________________________

7. Are you active in campus organizations?  Which?  ____________________________________________

_____________________________________________________________________________________

8. Outline your previous employment or work experience.   _________________________________________

_____________________________________________________________________________________

9. How did you learn of this course?  _________________________________________________________

_____________________________________________________________________________________

10. What are your objectives in taking this course?  ____________________________________________

_____________________________________________________________________________________

11. Number of Hours This Semester……………………………………………………………………11.__________

12. Age (in years)…………………………………………………………………………………………12. __________

13. Sex    (1=Male  2=Female).………………………………………………………………………13. __________

(continue over ➔)

123
14. Ethnic Group (write in number) ................................................................. 14. ______
   1. American Indian  
   2. Asian-American  
   3. African-American  
   4. Hispanic-American  
   5. Caucasian  
   6. Other  
   7. Prefer not to respond  

15. Year in school (write in number) .......................................................... 15. ______
   1. Freshman  
   2. Sophomore  
   3. Junior  
   4. Senior  
   5. Graduate Student  
   6. Other  

16. List all the occupations you are considering right now.  

   __________________     ____________________  ____________________  
   __________________  

17. Which occupation is your first choice? (If undecided, write “undecided.”)  

   ____________________  

18. How well satisfied are you with your first choice? (write in number) ................. 18. ______
   1. Well satisfied with choice  
   2. Satisfied, but have a few doubts  
   3. Not sure  
   4. Dissatisfied and intend to remain  
   5. Very dissatisfied and intend to change  
   6. Undecided about my future career  

Mark a rating number from 1 (Strongly Disagree) to 7 (Strongly Agree) that best responds to items 19-25.

19. Decisions about my career tend to directly affect my health  

20. Decisions about my career create a great deal of tension  

21. I have felt fidgety or nervous as a result of having to make career decisions  

22. If I did not worry about my career, my health would probably improve  

23. Problems associated with my career decisions have kept me awake at night  

24. I have felt nervous before attending classes that made me think about my career  

25. I often think about my career even when I am doing other things  

APPENDIX H

NARCISSISTIC PERSONALITY INVENTORY
Below are several pairs of attributes (i.e., descriptions of you). Choose the one that you MOST AGREE with.

1. a) I have a natural talent for influencing people.
   b) I am not good at influencing people.

2. a) Modesty doesn't become me.
   b) I am essentially a modest person.

3. a) I would do almost anything on a dare.
   b) I tend to be a fairly cautious person.

4. a) When people compliment me I get embarrassed.
   b) I know that I am a good person because everybody keeps telling me so.

5. a) The thought of ruling the world frightens the hell out of me.
   b) If I ruled the world it would be a better place.

6. a) I can usually talk my way out of anything.
   b) I try to accept the consequences of my behavior.

7. a) I prefer to blend in with the crowd.
   b) I like to be the center of attention.

8. a) I will be a success.
   b) I am not too concerned about success.

9. a) I am no better or no worse than most people.
   b) I think I am a special person.

10. a) I am not sure if I would make a good leader.
    b) I see myself as a good leader.

11. a) I am assertive.
    b) I wish I were more assertive.

12. a) I like having authority over other people.
    b) I don't mind following orders.

Continued on Back
13. a) I find it easy to manipulate people.
b) I don't like it when I find myself manipulating people.

14. a) I insist upon getting the respect that is due me.
b) I usually get the respect I deserve.

15. a) I don't particularly like to show off my body.
b) I like to show off my body.

16. a) I can read people like a book.
b) People are sometimes hard to understand.

17. a) If I feel competent I am willing to take responsibility for making decisions.
b) I like to take responsibility for making decisions.

18. a) I just want to be reasonably happy.
b) I want to amount to something in the eyes of the world.

19. a) My body is nothing special.
b) I like to look at my body.

20. a) I try not to be a show off.
b) I will usually show off if I get the chance.

21. a) I always know what I am doing.
b) Sometimes I am not sure what I am doing.

22. a) I sometimes depend on people to get things done.
b) I rarely depend on anyone else to get things done.

23. a) Sometimes I tell good stories.
b) Everybody likes to hear my stories.

24. a) I expect a great deal from other people.
b) I like to do things for other people.

25. a) I will never be satisfied until I get all that I deserve.
b) I will take my satisfactions as they come.

26. a) Compliments embarrass me.
b) I like to be complimented.
27. a) I have a strong will to power.
   b) Power for its own sake doesn't interest me.
28. a) I don't care about new fads and fashion.
   b) I like to start new fads and fashion.
29. a) I like to look at myself in the mirror.
   b) I am not particularly interested in looking at myself in the mirror.
30. a) I really like to be the center of attention.
   b) It makes me uncomfortable to be the center of attention.
31. a) I can live my life anyway I want to.
   b) People can't always live their lives in terms of what they want.
32. a) Being in authority doesn't mean much to me.
   b) People always seem to recognize my authority.
33. a) I would prefer to be a leader.
   b) It makes little difference to me whether I am a leader or not.
34. a) I am going to be a great person.
   b) I hope I am going to be successful.
35. a) People sometimes believe what I tell them.
   b) I can make anyone believe anything I want them to.
36. a) I am a born leader.
   b) Leadership is a quality that takes a long time to develop.
37. a) I wish someone would someday write my biography.
   b) I don't like people to pry into my life for any reason.
38. a) I get upset when people don't notice how I look when I go out in public.
   b) I don't mind blending into the crowd when I go out in public.
39. a) I am more capable than other people.
   b) There is a lot I can learn from other people.
40. a) I am much like everybody else.
   b) I am an extraordinary person.
APPENDIX I

HYPERSENSITIVE NARCISSISM SCALE
HSNS

Answer the following questions by deciding to what extent each item is characteristic of your feelings and behavior. Choose a number from the scale printed below and blacken the matching bubble on the red answer sheet provided.

1 = very uncharacteristic or untrue, strongly disagree
2 = uncharacteristic
3 = neutral
4 = characteristic
5 = very characteristic or true, strongly agree

1. I can become entirely absorbed in thinking about my personal affairs, my health, my cares or my relations to others.

2. My feelings are easily hurt by ridicule or the slighting remarks of others.

3. When I enter a room I often become self-conscious and feel that the eyes of others are upon me.

4. I dislike sharing the credit of an achievement with others.

5. I feel that I have enough on my hands without worrying about other people's troubles.

6. I feel that I am temperamentally different from most people.

7. I often interpret the remarks of others in a personal way.

8. I easily become wrapped up in my own interests and forget the existence of others.

9. I dislike being with a group unless I know that I am appreciated by at least one of those present.

10. I am secretly "put out" or annoyed when other people come to me with their troubles, asking me for my time and sympathy.
APPENDIX J

GOAL INSTABILITY SCALE
Directions: Following are a number of statements that reflect various ways in which we can describe ourselves. After reading each statement, one at a time, circle a number along the scale which ranges from 1, Strongly Agree, to 6, Strongly Disagree. There are no right or wrong answers so please just make your best judgment. Simply try to rate the extent to which you agree with each statement. Do not spend too much time with any one statement. Circle the number which best fits for each statement and do not leave any unanswered.

Please Circle A Number For Each Statement, Along:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Moderately Agree</th>
<th>Slightly Agree</th>
<th>Slightly Disagree</th>
<th>Moderately Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

1. It’s hard to find a reason for working.  
   Agree: 1 2 3 4 5 6  
2. I don’t seem to make decisions by myself.  
   Agree: 1 2 3 4 5 6  
3. I have confusion about who I am.  
   Agree: 1 2 3 4 5 6  
4. I have more ideas than energy.  
   Agree: 1 2 3 4 5 6  
5. I lose my sense of direction.  
   Agree: 1 2 3 4 5 6  
6. It’s easier for me to start than to finish projects.  
   Agree: 1 2 3 4 5 6  
7. I don’t seem to get going on anything important.  
   Agree: 1 2 3 4 5 6  
8. I wonder where my life is headed.  
   Agree: 1 2 3 4 5 6  
9. I don’t seem to have the drive to get my work done.  
   Agree: 1 2 3 4 5 6  
10. After a while I lose sight of my goals.  
    Agree: 1 2 3 4 5 6  

Agree Disagree
APPENDIX K

SELF-DIRECTED SEARCH FORM R PROFESSIONAL SUMMARY
**The Self-Directed Search Professional Summary**

Client Name:  
Client ID: (not specified)  
Reference Group: College

<table>
<thead>
<tr>
<th>SDS Scores:</th>
<th>R</th>
<th>I</th>
<th>A</th>
<th>S</th>
<th>E</th>
<th>C</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>8</td>
<td>11</td>
<td>7</td>
<td>EIS</td>
</tr>
<tr>
<td>Competencies</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>RSE</td>
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<tr>
<td>Occupations</td>
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<td>8</td>
<td>7</td>
<td>8</td>
<td>13</td>
<td>5</td>
<td>EIS</td>
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<tr>
<td>Self-Estimates I</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>SER</td>
</tr>
<tr>
<td>Self-Estimates II</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>RSE</td>
</tr>
</tbody>
</table>

| Summary Scores    | 29| 34| 23| 39| 47| 33| ESI  |
| Percentiles       | 94| 90| 58| 71| ≥99|82|

**OF Selection Codes:** ESI, EIS, SEI, SIE, IES, ISE

**Diagnostic Signs:**

- **Congruence:** High (Iachan Index = 27)
- **Summary Code:** ESI
- **Aspirations Summary Code:** ESR
- **Coherence of Aspirations:** Low
- **Consistency:** High
- **Differentiation:** Average (Iachan Index = 5.50)
- **Commonness:** Average

**Aspirations Listed:**

- Sales-Service Promoter: AES
- Teacher, Elementary School: SAE
- Production Planner: REI
- Human Resource Advisor: ESR
- Health Care Facility Administrator: SER

**Aspirations Summary Code:** ESR

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NOTES

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BIOGRAPHICAL SKETCH

Darrin Carr is a doctoral candidate in the Combined Counseling Psychology and School Psychology program within the Department of Educational Psychology and Learning Systems at the Florida State University (FSU) College of Education. During his studies, Darrin was awarded a College Teaching Fellowship (1999) and named a Peterson Fellow (2000) and Herb & Josie Rand Fellow (2001) by FSU’s College of Education. Darrin successfully completed his predoctoral internship requirement at Kansas State University Counseling Center in the summer of 2005.

An undergraduate alumnus of FSU in psychology, Darrin returned to FSU after obtaining a Master of Science in Instructional Systems Technology and serving six years on staff at the Indiana Career and Postsecondary Advancement Center (ICPAC) at Indiana University in Bloomington, Indiana. While at ICPAC, Darrin worked with the Indiana Department of Workforce Development to design and deploy one of the first Internet-based career information delivery systems. Darrin currently serves as the Program Director for Career Advising, Counseling, and Programming at the FSU Career Center.