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To the Graduate Council:

I am submitting herewith a dissertation written by Christine Susie Wu entitled "An Investigation of Sense of Identity among College Students." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

John Lounsbury, Major Professor

We have read this dissertation and recommend its acceptance:

Debora Baldwin, Steve McCallum, Richard Saudargas

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Richard Saudargas

Accepted for the Council:

Linda Painter

Interim Dean of Graduate Studies

(Original signatures are on file with official student records.)

An Investigation of Sense of Identity among College Students

A Dissertation Presented for the Doctor of Philosophy Degree

The University of Tennessee, Knoxville

Christine Susie Wu

December 2006

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Abstract

In this study the construct, Sense of Identity was examined. Specifically, variables conceptually related to Sense of Identity will be described, and the nature of any relationships with personality traits including the Big Five personality traits of agreeableness, conscientiousness, emotional stability, extraversion, and openness were explored. Additionally, the study examined the nature of the relationships between narrow personality traits and Sense of Identity. Lastly, the relationships between Sense of Identity and extracurricular activities were investigated. Sense of Identity was positively related to the Big Five personality traits with a range of $r=.32$ to $r=.46$ with $p<.01$. Additionally, the selected Narrow Personality traits were also significantly related to Sense of Identity with Optimism and Career Drive having the strongest relationships with $r=.65$ ($p<.01$) and $r=.62$ ($p<.01$) respectively. The combination of research from multiple academic realms regarding identity into an inclusive concept that is measured empirically, allowed for a more accurate measure of the construct, Sense of Identity. It also provided valuable insight regarding the construct of Sense of Identity and personality, particularly in the academic realm. Implications for theory and future research were discussed.

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Chapter 1

Literature Review

The study of self and its many facets crosses many academic disciplines including: philosophy, theology, education, and psychology. Friedrich Nietzsche is attributed with writing “one’s own self is well hidden from one’s own self” (Elliot, 2001, p. 49). Self or identity can be construed as resulting from an individual’s amalgamation of previous experiences and exchanges with new cognitive developments that ideally facilitate an individual’s progression throughout life (Erikson, 1968). Influenced by the surroundings, an individual’s personality will be shaped and formed continuously until it stabilizes at around age 30 (McCrae & Costa, 1990). The establishment of one’s personality is one of the main tasks of late adolescence (Mishne, 1986). In the rationale for their study, Clancy and Dollinger (1993) made three important observations: (1) personality traits “may influence or provide the foundation for identity-development processes” (p. 225); (2) when considered as a whole, much of the prior literature on the relationship between identity and personality traits (e.g., Adams, Abraham, & Markstrom, 1987; Dellas & Jernigan, 1987; and Tesch & Cameron, 1987) is fragmented and piecemeal; and (3) the Big Five model of personality represents an “organizing scheme” for understanding identity-personality trait relations.

Late adolescence overlaps frequently with going to college. The greatest gains in identity formation appear to occur during this same time frame (Waterman, 1985). The collegial environment is unique from any other in that it can supply an expansive range of experiences that can stimulate an individual to reevaluate previous and current identity

issues and provide possible alternatives (Waterman, 1993, 53-4). College students as a population tend to score higher than adults on neuroticism, openness and extraversion and lower on agreeableness and conscientiousness (Costa & McCrae, 2003). Chickering and Reisser submit that “identity formation becomes the central and continuing task of education” (1993, p. 208). The concept and measurement of identity has been the subject of much discussion and research (e.g., Adams & Fitch, 1982; Bourne, 1978; Lewis, 2003; Marcia, 2002; O’Brien, Kopala, Martinez-Pons, and Kopala, 1999; Schwartz 2001). Identity has been related to many academic and personal variables including cognitive processes (Berzonsky, 2003a), personality traits (Orlofsky & Frank, 1986), persistence/withdrawal (Pascarella & Terenzini, 1991; Waterman & Waterman, 1972), and psychosocial development (Adams, Ryan, and Keating, 2000; Lewis, 2003).

Pulling from multiple fields of study, Sense of Identity is defined in this study as a person who has a firm sense of who he or she is, a purpose in life, a clear set of personal values, knowing what one wants out of life and where one is headed, and having personal goals for the future. Nomothetically related identity theories and specific identity constructs are reviewed initially. Then identity is discussed with respect to academic achievement, cognitive ability, personality traits, and possible interventions or activities which may increase a student’s sense of identity.

Identity Theories and Models

Freud

One of the original observers in the psychological area of self-definition, Freud viewed that an individual’s sense of self as resulting from parental influences which are

crucial in the development of self-definition (Freud, 1955). Introjection which is the primitive incorporation of another's image (Freud, 1955) occurs during the initial phase of superego development. Additionally, Freud believed that this self-definition or self-concept was not susceptible to external or otherwise influences later in life but was formed early in life, preschool years, and was then pretty much set (Schwartz, 2001). Likewise in the educational field, self concept is viewed as a multidimensional construct encompassing an individual's attitudes, feelings, knowledge about one's abilities, skills, appearance and social acceptability (Byrne, 1984).

Erikson

Acknowledging Freud's psychological theories and influences, Erikson also studied identity development in adolescents and proposed a complex array of stages and levels through which individuals pass during their lifespan. Of his stages, the identity synthesis versus identity confusion is frequently referenced in identity studies (Adams, 1982; Berzonsky, 1993, 1999, 2003b; Marcia, 2002; Waterman & Waterman, 1972). This particular stage is considered to occur around the ages of 13-21 or adolescence (Muuss, 1969, p. 9) and includes many students in college (Berger, 2001). Erikson differed from Freud in that he shifted the focus of identity establishment from childhood and its formidable parental influences towards the individual creating his or her unique identity resulting from not just childhood but also influences and experiences throughout life (Schwartz, 2001). However, the initial creation of one's own identity, which may then be adjusted or discarded, symbolized the becoming of an adult (Erikson, 1959, pp. 88-89).

Erikson's identity synthesis versus identity confusion stage describes the results of an individual's efforts to assimilate an entity that the individual is aware of and comfortable with that entity representing him or herself. Identity synthesis involves the revision and adopting of identifications, both those previously formed during childhood and those of contemporaneous times. Conversely, identity diffusion reflects an inability to perform the previously described process of assimilation and acceptance of various identities into a cohesive entity. Ego identity is conceptualized as "the awareness of the fact that there is a selfsameness and continuity to the ego's synthesizing methods and that these methods are effective in safeguarding the sameness and continuity of one's meaning for others" (Erikson, 1980, 22). Creating one's ego identity involves the process of developing one's identity involves selecting and rejecting aspects of past, present, and future expectations and identifications and the interaction of these with the individual. If this amalgamation is successful, then the individual can be described as having ego identity. Erikson considers attaining ego identity or identity synthesis along a single bipolar dimension and not an all-or-nothing set of categories. As a result an individual can be anywhere on the axis from entrenched in a set identity to an absolute rejection of any combination of identities. Since he posits that identity formation is a dynamic process, the ideal location along the continuum between ego syntonic pole of identity synthesis and ego syntonic pole of identity confusion is to be near the midpoint but slightly closer to identity synthesis. Unfortunately, Erikson did not offer specific operational definitions that would facilitate hypothesis testing. Marcia successfully created a measurable typology that represented Erikson's theory (1968).

Marcia

Marcia proffered a set of four ego-identity statuses, which identify ways of coping with adolescent identity crisis as identified by Erikson (1968). The statuses are based on two variables: crisis and commitment. By creating a two by two table based on the levels, absence or presence, for the two variables, an individual could then be classified. *Crisis*, similar to Erikson's conceptualization of exploration, is a time of decision-making (Adelson, 1980, p. 161). *Commitment* indicates the selection of a set of values, beliefs and goals (Marcia, 1988). Individuals can have "either a conferred or a constructed identity" (Marcia, 1993, p. 7). An individual who has initiated the process of constructing one's own identity is also aware of his or her self-involvement. The knowledge of one's participation in the construction of self-identity is then reinforced as the adaptive process of adopting or rejecting additional aspects of self continues throughout life. (Ibid, p.7)

The combination of seeking and exploring of various aspects of one's identity with the decision and incorporation of the varying aspects results in four possible statuses. These statuses are: identity diffusion, identity foreclosure, identity moratorium, and identity achievement.

Identity Diffusion Status

Individuals who are described as having the Identity Diffusion status tend to have little sense of the future, lack self-directed goals towards which to direct their actions. These individuals have neither explored their options nor actively attempted to construct their identity. Not surprisingly, diffused individuals consistently conform when directed by an individual in an authority position (Toder & Marcia, 1973), and are more

influenced by peers. Additionally, when placed under stress, diffused individuals frequently withdraw.

Foreclosure Status

Similarly, those in Identity Foreclosure status have not constructed their identity. The significant difference is that they have committed themselves to an identity, including goals, values, and expectations, constructed for them by others, typically parents or other influential adult figure in their lives. Individuals in the foreclosure status, consider themselves to be close to their parents and condone values which support a tight bond with parents such as obedience and loyalty to conventions (Matteson, 1974). Predictably, foreclosed individuals also exhibit a high need for social approval and low scores for autonomy (Orlofsky, Marcia & Lesser, 1973).

Identity Moratorium Status

The most common status for college students is the Identity Moratorium status (Clancy & Dollinger, 1993). Individuals classified in the Identity Moratorium status, moratoriums, are in the process of exploring various facets of identities and have not yet committed fully to a set goals and values. Moratoriums typically score highest among the four statuses on anxiety (Marcia, 1967) which is consistent with the classification as these subjects are in crises. A common crisis (Marcia, 1967) involves establishing identity separate from familial expectations and authority, as such these individuals typically score low on authoritarianism and experience higher levels of authority conflict.

Identity Achieved Status

Lastly, for those who have explored and have either rejected, accepted or accommodated possible identities until the identities form a cohesive whole have attained Identity Achieved status, or identity achievers (Papalia & Olds, 2003 pp. 245). Identity achievers tend to have higher grades (Cross & Allan, 1970), a higher need for achievement (Orlofsky, 1978), score lower on anxiety (Adams, Ryan, Hoffman, Dobson, & Nielson, 1985). Additionally, when placed under stress, identity achievers actually performed better under stress than individuals in the other statuses.

Since their introduction, there has been extensive research on these four identity statuses (Adams and Fitch, 1982; Berzonsky, 1985; Berzonsky & Adams, 1999; Lange & Byrd, 2002; Lewis, 2003; Marcia, 1980, 1988, 1993, 2002; Orlofsky & Frank, 1986; Streitmatter, 1993, 1989 Streitmatter & Pate, 1989; Waterman & Waterman, 1972). Noteworthy is the fact that while the identity achieved status is considered the most ideal status, individuals typically cycle through several stages and even leave the identity achieved status and regress into the moratorium status and then shift back into the identity achieved status (Adams & Fitch, 1982). Female ego functions were more likely to remain stable than males; in other words, males were more likely to experience change in identity status during college (Adams & Fitch, 1982). Individuals in college who were identified in the identity achievers status and then withdrew were more likely to leave in good academic standing than those identified as foreclosures or diffusions (Waterman & Waterman, 1972). In a study involving sixth, seventh and eighth graders, achievers scored higher in math while those that were considered to be diffusions had lower

absences and lower math scores. Conversely, moratoriums had higher math scores and more absences (Streitmatter, 1989). Lange and Byrd (2002) examined students and their perceptions regarding academic success in their introductory psychology class. They concluded that individuals who were more mature or had formed an adult identity, achievers and moratoriums, were more likely to correctly estimate their performance and to use more productive study strategies. Orlofsky and Frank (1986) examined personality structures and found that men and women who were achievers or moratoriums were more developmentally advanced regarding themes of mastery, security, and independent activity. Bourne (1978) indicated that achievers and moratoriums are less vulnerable to self-esteem manipulation and have a higher need for achievement (Orlofsky, 1978). Physiological maturity is also related to the identity statuses (Lewis, 2003). Among college students, those younger in age, or Asian, were more likely to be foreclosures or diffusions (Lewis, 2003).

Berzonsky

Berzonsky (1985) examined Marcia's identity status paradigm, notably the diffusion status and its possible relationship to academic difficulty. The results did not support his hypothesis; however, being a freshman in the foreclosed status was associated with academic underachievement. Berzonsky suggested that the first year of university may play a significant role in initiating personal identity crises, which may have a negative academic impact for those who have not gone through the self-exploration process.

Similar to Marcia's extrapolation of Erikson's work, Berzonsky extended Marcia's statuses with his identity style model (1989). While Marcia's statuses are utilized as specific outcomes rather than processes, Berzonsky conceptualized three processing styles--information orientation style, normative orientation style, and diffuse orientation style--which reflect an individual's approach to problem-solving and decision-making. Berzonsky's styles overlap Marcia's statuses (Berzonsky, 1989). Specifically, achievers and moratoriums are seen as utilizing an *information orientation* style since they are utilizing or have utilized exploration as part of their identity building process. Informational style involves information seeking and problem-focused coping (Berzonsky, 1992). Individuals classified as using the informational orientation style would "actively seek out, process, and evaluate relevant information before making decisions." (p. 269). *Normative orientation* style relates to those in Marcia's foreclosed status. Mirroring Marcia's description of foreclosures, individuals who have incorporated an identity created for them by others, normative orientation style describes individuals who have not actively explored facets of their identity, are very comfortable with their prescribed identity, and are fairly resistant to alternative aspects of identity. Lastly, *diffuse orientation* style describes the uncommitted passive (versus active) individuals in Marcia's diffusion category. Behaviors that reflect adopters of this style are characterized by a tendency to "delay and procrastinate until situational consequences and rewards dictate a course of action." (Berzonsky, 1989, p. 169).

Aside from its significant ties to Marcia's statuses, Berzonsky's cognitive approach in his identity style model has been examined for other possible relationships

(Berzonsky, 1992, 1993, 2000, 2003a, 2004; Berzonsky & Kuk, 2000; Berzonsky, Nurmi, Kinney, and Tammi, 1999; Boyd, Hunt, Kandell, & Lucas, 2003). Berzonsky (2004) recognized the influence of parents and examined identity style and parental authority and identity commitment; specifically the parental style of authority and its effects on the development of the child's coping behaviors. Using Baumrind's paradigm of family authority styles-- authoritative, authoritarian, and permissive (Baumrind, 1991)- - Berzonsky analyzed correlations between the strength of possible relationships with his processing styles. Authoritative parenting was positively related to normative and informational style but negatively with diffuse avoidance. Permissive parenting was positively associated with diffuse-avoidance style (Berzonsky, 2004).

Berzonsky (2003) investigated the relationship between identity styles and well being as it related to commitment, additionally in this study he examined the relationship between psychological hardiness scores and the identity styles. Informational style was significantly positively related and diffuse-avoidant was negatively related to hardiness. Berzonsky's results lend support to the proposition that the informational processing style, which is related to the identity achieved status, describes a psychologically and emotionally healthy process, which in turn benefits the student as he or she faces the many stressors in the university environment (Berzonsky, 2003a). Students with an informational style were more likely to initiate information processing (Berzonsky, 1993). Normative style processing individuals were significantly less open to and less willing to consider information that might contradict significant aspects of identity than those with the informational or diffuse/avoidant styles (Berzonsky, 1993). In the same

study, there were no significant sex differences within each processing style. Berzonsky (1992) concluded that students with normative or diffuse/avoidant processing style tend to utilize avoidant oriented or emotion-focused coping strategies, such as denial or temporarily escaping the situation, whilst students that utilized the informational style used a deliberative problem-focused strategies which involves actively assessing the situation adjusting one's concept of self if needed. A situation that can promote many identity crisis experiences is attending college or university.

Based on Chickering's (1969) contention that the demands and stress of entering university students affect their identity, Berzonsky and Kuk (2000) investigated the possible relationships between identity status and identity style in the transition to university. Using Winston and Miller's (1987) Student Developmental Task and Lifestyle Inventory (SDTLI) -- which measures levels of academic autonomy, developing mature interpersonal relationships, and establishing educational purpose, as well as the Identity Style Inventory (ISI), and the Objective Measure of Ego Identity Status (OM-EIS), Berzonsky and Kuk (2000) found that students with higher diffusion scores displayed lower levels of academic autonomy and female students had a better sense of educational involvement than male students. Additionally, in 2000 Berzonsky discovered that students with higher informational and normative scores but lower levels of diffuse/avoidance generally had higher levels of educational purpose. The significance of emotional maturity was also supported by the findings that students who had higher mature social relationships scores were associated with higher informational and lower diffuse/avoidant scores. Berzonsky (2000) provides support to the concept that a

student's personal level of development (emotional, psychological, and social) may play a significant role in the level of difficulty experienced by students as they transition to the university setting. Students who were more highly self-explored tended to operate in a more mature autonomous manner and behave in a manner consistent with the use of the informational style.

Boyd et al., (2003) examined identity processing style and academic success as measured by registering for the next semester and ending the semester in academic good standing in undergraduate students. Males with the diffused processing style were less likely to be in good academic standing than males in other processing styles. Females' academic standing was not significantly related to their processing style (Boyd, et al., 2003). Females had higher information orientation scale scores than men overall, while males had higher diffusion scale scores. Asian-American females were categorized as diffused more often than expected paralleling the results in Lewis' study in 2003. Additionally, Boyd et al. (2003) found higher than expected proportions of African Americans and Hispanics were categorized as normative. Berzonsky's identity styles complement Erikson's and Marcia's ego-identity constructs. However, Marcia's and Berzonsky's constructs encompass a relatively broad sense of identity. Specific higher fidelity identities have also been examined extensively. Descriptions of several of the more pertinent identity concepts as they relate to personality and academic achievement during the adolescent time frame are as follows.

High Fidelity Concepts of Identity

Ethnic Identity

Ethnic identity has been conceptualized and operationalized in a number of different ways. Two concepts that are frequently associated with ethnic identity are acculturation and culture conflict. Acculturation references the interaction between two distinct cultures and culture conflict is when differences between two cultures stresses an individual (Phinney, 1990). Ethnic identity can be described as the degree to which an individual experiences commitment and a sense of belonging to, the attitude towards, and the knowledge and involvement with one's ethnic group (Phinney, 1990). Similar to Erikson's stages, developmental models have been used to examine ethnic identity. Phinney (1989) proposed a multiple-stage process that begins with unexamined ethnic identity and culminates in achieved or committed ethnic identity. The first stage, unexamined ethnic identity, describes individuals who have not been exposed to ethnic issues that may apply to them. These individuals either have not had a reason or interest in exploring personal ethnic issues, diffusion, or they have thoroughly incorporated parental values regarding their own ethnicity without questioning the values, foreclosure. The second stage in ethnic identity formation, according to Phinney, would then be evidenced by the exploration of one's own ethnicity, ethnic identity search, parallels Marcia's moratorium status. Lastly, Phinney's achieved ethnic identity, results from the exploration process and the individual has a deeper understanding of their ethnic identity. It is important to note that attaining this stage does not necessarily guarantee that the individual has become more ethnically involved.

An additional perspective for approaching ethnic identity, acculturation, which occurs when two distinct cultures interact, has been constructed as either a linear bipolar model, with *strong ethnic ties* at one end and *strong mainstream ties* at the other end, or a two dimensional model. The latter is similar in structure to Marcia's identity statuses, ethnic identity can be separated into four categories dependent on the individual's level of identification with his or her ethnic group and with the majority group (Phinney, 1990). If the individual identifies strongly with both ethnic group and majority group, then the individual is described as acculturated, integrated or bicultural. For an individual who identifies strongly with the ethnic group but weakly with the majority group, he or she would be described as ethnically identified, ethnically embedded, separated, or dissociated. However, an individual who identifies weakly with the ethnic group but strongly with the majority group is considered assimilated and, lastly, the individual who identifies weakly with both groups falls into the marginal category (Phinney, 1990). The lack of a universal set of terms to describe these categories lend credence to Phinney's observation that the ethnic identity research would benefit from a universal approach to help provide a common measurement tool with which researchers could compare their specific groups.

Oyserman, Harrison, and Bybee (2001) examined racial identity as incorporating three particular aspects of identity: in-group identification, awareness of negative perceptions, and viewing academic achievement as part of one's racial identity. Their subjects were African-American male and female eighth-graders. Results were mixed dependent upon gender. Females' academic efficacy was significantly reduced if they

did not believe that doing well in school was part of being African-American. Males' academic efficacy was unaffected by their belief of whether they considered doing well in school part of being African-American. Examining Black Canadian university students, Smith and Lalonde (2003) found that racial identity was not directly related to academic achievement. Smith and Lalonde (2003) defined racial identity as consisting of three dimensions: centrality (importance of race to self concept), affect (emotions regarding one's race), and in-group ties (commonalities with others of the same race). However, their results did indicate that Black college students who spent more time with other blacks had a more positive psychological state. Students with a healthier mental state were more positive regarding academic orientation, which, in turn, was related positively to higher GPA. Smith's (2003) finding implies a positive indirect relationship between racial identity and academic performance.

Phinney (1990) reviewed research regarding the ethnic identity of adolescents and adults and drew the following conclusions: key aspects of one's ethnic identity consist of self-identification, a sense of belonging, and pride in one's group across groups. The developmental model, commonly used in psychology, theorizes that individuals of ethnicity may choose to explore and resolve any number of issues related to ethnicity at either the group or individual level. Phinney found that many results appeared to contradict each other, but the contradictions may have been due to the way constructs were defined or measured. Phinney suggests that while each ethnicity can be viewed as separate and unique, attempts should be made to create theories and measures which can

span groups in order to be able to provide a comprehensive view of ethnic identity and assist in comparing across groups.

Sexual and Gender Identity

Sexual identity or orientation concerns the locus of sexual attraction—in males, females or both. Gender identity can be considered a multidimensional construct that consists of a “collection of thoughts and feelings one has about one’s gender category and one’s membership in it.” (Carver, Yunger, & Perry, 2003). Sexual identity can comprise the bulk of one’s identity or play a miniscule role in the life of an adolescent (Ponton, 2000). For gay or bisexual men (or sexual minority males), the self-identification of one’s gender and sexual identity typically occurs during the late adolescence or early adulthood (Burke, 1989; Cass, 1979; Coleman, 1982; Troiden, 1989). For individuals of sexual minority, the collegial years appear to be a crucial time for the development of one’s gender and sexual identity. During the late adolescent years, they may be more willing to assert themselves if they haven’t already because this is a time for an individual to begin to identify and weigh the particular aspects of him or herself which will become the primary components of self identification. Swann and Spivey (2004) found that lesbians who had internalized their sexual identity, in other words had already explored and committed to this particular aspect of their identity, had higher levels of self-esteem.

Egan and Perry (2001) broke down gender identity into five components: membership knowledge, gender typicality, gender contentedness, felt pressure for gender conformity, and intergroup bias. These five dimensions help delineate the varying and unique aspects of gender identity. Membership knowledge is the earliest aspects of

gender identity to emerge and consists of the knowledge of belonging to a particular gender category. Beginning as early as two or three years of age, gender constancy – knowledge that one’s sex remains constant regardless of attire, hairstyle, etc. – appears to be fully developed by ages six or seven (Maccoby, 1998; Slaby & Frey, 1975). Gender typicality describes the extent that an individual believes that he or she is characteristic of his or her own gender. Gender contentedness is the amount of satisfaction or dissatisfaction with one’s gender assignment. Egan and Perry (2001) found that gender typicality and gender contentedness were positively related to adjustment (self esteem and peer acceptance). The latter two dimensions, felt pressure for gender conformity – the level of pressure from parents, peers, and self to conform to gender stereotypes – and intergroup bias – the degree to which one believes in the superiority of one’s own sex – were negatively related with adjustment. Carver, Yunger, and Perry (2003) concluded that if individuals were comfortable with their gender identity, they were more likely to have higher levels of adjustment and self-worth. However, for those who were conflicted about varying dimensions of gender identity, the inability to come to terms or accept oneself, scored lower in adjustment. Self-esteem, an aspect of adjustment has a positive relationship with improved adjustment to college (Bettencourt et al., 1999).

Vocational/Career Identity

Erikson believed that the selection of one’s occupational identity was crucial toward the individual’s well being (1980, p. 97). Someone who has established his or her vocational identity has decided on and committed to a particular vocation that reflects consideration of one’s ability, personality, interests and ability to overcome any potential

obstacles to the selected vocation (Gehlert, Timberlake, & Wagner, 1992). The stance that academic work for students parallels occupational work is described in Kuncel, Hezlett, and Ones' (2004) study. Healy's study (1991) indicated a positive relationship between vocational identity and life satisfaction, which might indirectly affect grade point average by decreasing anxiety. Healy's results demonstrated that an increase in anxiety led to increased disruption in decision-making, which lowered scores on tests, ultimately affecting GPA (1991). Gehlert, Timberlake, and Wagner (1992) studied incoming freshman and found no relationship between vocational identity and academic achievement. It is possible that incoming freshmen were unable to identify the relevance of courses taken in their freshman year and their chosen vocation. Courses that are more relevant to career or interests typically are taken later in one's academic career. Usually academic identity or self concept and vocational identity would not be considered equivalents, however if the studied population consists of students, then it is possible to consider attending school and completing the associated 'school work' as a vocation even if school is simply a step towards the ultimate goal/career. Thus, it would make sense that students' views and attitudes towards school and its related workload are equivalent to the non-student worker's values and attitudes towards current employment (Munson & Rubenstein, 1992).

Mitchell (2005) defines academic self-concept as "individual's self perception of his or her academic ability (internal reference), as well as the individual's assessment of how others in a school setting perceive his or her academic behavior (external reference)" (Hattie, 1992; House, 2000, 2001; Koller, Daniels, & Baunert, 2000; Marsh, 1990).

Chickering describes a ‘goal-directed student’ as an individual who has made well-thought goals and is capable of understanding the consequences of his or her actions and how they might affect the attainment of one’s goals. As a result, such a student would spend additional effort on the coursework that lends itself towards reaching one’s goals (1969). Guay, LaRose, and Boivin (2004) studied children during a 10-year longitudinal study and concluded that academic self-concept was a significant predictor of educational achievement which included enrollment in post secondary schools. Academic self-concept is correlated to one’s academic achievement (Byrne, 1984; Guay et al., 2004; Hattie, 1992; House, 2000, 2001), but there are many other variables that have been studied in an attempt to predict students’ academic performance or achievement. Certain personality traits also have been found to have significant ties to academic performance (Boyer & Sedlacek, 1988; Dollinger & Orf, 1991; Lounsbury, Gibson, & Hamrick, 2004; Lounsbury, Sundstrom, Loveland, and Gibson, 2003; McIlroy & Bunting, 2002; Paunonen & Ashton, 2001; Rothstein et al., 1994).

Personality Traits

Clancy and Dollinger’s (1993) results provide empirical support for identity theorists who discuss the importance of such factors as social relations, new experience, and managing stress (e.g., Erikson, 1968; Chickering & Reisser, 1993). I will briefly review the more relevant research regarding personality, including: identity, broad versus narrow bandwidth fidelity, the Big Five personality traits, well-being, achievement motivation, and dynamic self-regulation, academic achievement, and identity.

Broad versus Narrow Bandwidth Fidelity

When analyzing personality dimensions the span of the construct is typically described as -- broad or focused (Broad or narrow bandwidth fidelity), singular or multidimensional (Achievement, Big Five, 16PF), and/or studying a 'normal' population or an identified 'abnormal' population (normal vs. compulsive). The potential conflict between inventories that focus on a very particular aspect of a personality (high fidelity, small/narrow bandwidth) and inventories that cover a wide range of variables (low fidelity, large/wide bandwidth) is examined by Hogan and Roberts (1996). Hogan and Roberts (1996) submit that bandwidth and fidelity are not in conflict with each other but that the fidelity and bandwidth of the criterion and the predictor should be equivalent. Ones and Viswesvaran (1996) disagree with Hogan and Roberts' (1996) stance and claim that broad bandwidth inventories and variables are superior predictors of job performance than narrower measures. Schneider, Hough, and Dunnette (1996) in direct contrast with Ones and Viswesvaran's (1996) position claim that high fidelity measures are more accurate for assessing individuals along specific criteria. Paunonen and Ashton (2001) studied the Big Five factors and facets with regards to prediction of behavior and found that the narrow facets were able to provide better prediction than the five general factors alone. Lounsbury, Sundstrom, Loveland, and Gibson (2003) compared the efficacy of broad versus narrow personality traits in predicting academic performance. Supporting the high fidelity position, Lounsbury, Gibson, and Hamrick (2004) developed a personological measure of work drive that provided incremental validity beyond cognitive ability and the broader personality traits of the Big Five in predicting job

performance in work settings and academic performance in academic settings. Using the Big Five as the broad personality traits and four narrow personality traits, Lounsbury's et al. (2003) results indicated that two of the narrow personality traits, aggression and work drive, predicted academic performance beyond the big five personality traits.

Big Five Personality Traits

Historically, the Big Five personality traits – openness to new experience, conscientiousness, extraversion, agreeableness, and neuroticism (reverse score of emotional stability) has been utilized in predicting work and academic performance (Boyer & Sedlacek, 1988; Dollinger & Orf, 1991; Lounsbury, Sundstrom, Loveland, & Gibson, 2003; McIlroy & Bunting, 2002, Paunonen & Ashton, 2001, Ridgell & Lounsbury, 2004; Rothstein et al., 1994). Of the five personality traits, conscientiousness consistently accounts for significant variance in predicting academic and work performance (Busato, Prins, Elshout, & Hamaker, 2000; De Fruyt and Mervielde, 1996; Dollinger & Orf, 1991; Paunonen & Ashton, 2001). Openness to new experiences has been shown to have a positive relationship with academic performance (Paunonen & Ashton, 2001).

Anxiety

A component of the Big Five trait of Neuroticism, anxiety has garnered significant attention in relationship to academic performance (Arthur & Hayward, 1997; Healy, 1991; Healy & Mourtou, 1985; McIlroy & Bunting, 2002). Erikson (1963) believed that anxiety could negatively impact an individual's development by disrupting the learning process or causing the individual to avoid developmental experiences

altogether. Supporting Erikson's position that anxiety disrupts the learning process, Mendoca and Siess (1976) report that if anxiety is reduced prior to a career counseling session, the students were better able to express career maturity after the session. Healy (1991) studied anxiety and its possible relationships with career maturity, academic performance and life satisfaction. In Healy's (1991) path model, anxiety led to a disruption in decision-making and vocational identity which was associated with GPA and satisfaction, respectively. In the same model, anxiety was negatively associated with satisfaction directly and indirectly, negatively associated via vocational identity. Test anxiety, which is particularly relevant in the academic setting, is negatively correlated with test performance (McIlroy & Bunting, 2002), thus affecting a student's overall academic performance. Anxiety has also been subsumed along with depression under the more general construct emotional distress (Arthur & Hayward, 1997) in their study regarding perfectionism and academic achievement. Arthur and Hayward (1997) concluded that socially prescribed perfectionism, standards and expectations prescribed by significant others, was evidenced by aspects of depression and anxiety and ultimately in lower academic performance.

Well-being

Another area of personality encompasses a student's sense of general well-being (Donahue, Robins, Roberts, & John, 1993; Nurmi, Berzonsky, Tammi, & Kinney, 1997; Sheldon, Ryan, Rawsthorne, & Illardi, 1997), satisfaction (Benjamin & Hollings, 1997; Healy, 1991), or self-esteem (Bettencourt, Charlton, Eubanks, Kernahan, and Fuller, 1999; Filozof, Albertin, Jones, Steme, Myers, & McDermott, 1998). An individual's

well-being can be described as a person's evaluation of his or her life as good or bad (Diener, 1984). Levels of well-being have been found to be related to the consistency of trait profiles across differing situations (Donahue et al., 1993). Cohesiveness of the individual across situations also appears to reflect the individual's ability to form an integrative identity including how one behaves and makes decisions, or in other words to commit to a general set of traits and attitudes (Sheldon et al., 1997). If an individual maintains a reasonably consistent trait profile across differing roles, then he or she tends to score higher on well-being measures (Donahue et al., 1993). An individual's consistency and authenticity, behavior which is internally authored, can be considered as indicators of organization which reflect his or hers well-being (Sheldon et al., 1997).

Other factors which may influence an individual's well-being in the academic arena include: academic performance (Filozof et al., 1998), level of involvement with the school (Astin, 1984), and adjustment to college (Bettencourt et al., 1999). Berzonsky's (2003a) research involving university students lends support to the relationship between identity processing styles and well-being in his research regarding identity styles. He found that identity commitment is negatively related with depressive reactions and positively related with adaptive coping strategies. Berzonsky (2003a) investigated the moderated effect of commitment on identity style with regards to psychological hardiness with the results indicating that commitment did explain five percent of the variation in hardiness for individuals who utilized the informational processing style. Also in Berzonsky's (2003) mediational-effects model, commitment mediates the contribution

that the identity processing styles makes to agency – people high in ‘agency’ believe themselves to be capable of setting, pursuing and achieving self set goals.

Achievement Motivation

Parallel to Berzonsky’s concept of ‘agency’ (2003), achievement motivation is positively correlated with academic success (Bell & Short, 2003; Busato, Prins, Elshout, & Hamaker, 2000; McIlroy & Bunting, 2002; Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004) and with four of the “Big Five” personality variables -- extraversion, conscientiousness, agreeableness, and openness to experience (Busato, Prins, Elshout, & Hamaker, 2000). Achievement motivation in educational settings can be described as the drive to attain academic success and to avoid academic failure and other negatively related effects (Busato, Prins, Elshout, & Hamaker, 2000; Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004). Achievement motivation is positively correlated with academic success as measured after first, second, and third years of study (Busato, Prins, Elshout, & Hamaker, 2000). Robbins, Lauver, Le, Davis, Langley, and Carlstrom’s (2004) results indicated that following academic self-efficacy, a student’s self evaluation of his or her ability and chances for success in the academic environment, achievement motivation was the best predictor for GPA. However, the study did not include any typically used measures of personality such as the NEO-PIR Big Five (Costa & McCrae, 2003) or the 16 PF (Cattell, 1949) which may be considered standards for comparison in many personality research settings.

Dynamic Self-regulation

Aligning itself with achievement motivation, the relatively new personality construct of dynamic self-regulation has incorporated the drive aspect of motivation as indicated by Schapiro and Livingston's (2000) description of dynamic self regulation which includes an individual's active and strategic control over behaviors and environment *and* an internally driven disposition to learn. In the academic environment, general regulation strategies are activities used to examine and manage learning processes (Busato, Prins, Elshout, & Hamaker, 2000). Self-regulation is used to describe a student's knowledge *and* utilization of such strategies in order to facilitate learning (Schapiro & Livingston, 2000). Dynamic self-regulation promotes learning and encompasses many of the facets that underlie the motivational aspect of achievement motivation such as: interest, curiosity and enthusiasm (Iran-Nejad, 1990; Iran-Nejad & Chissom, 1992; Schapiro & Livingston, 2000). Students who scored low in dynamic self-regulation had lower GPAs than students who scored high in dynamic regulation (Schapiro & Livingston, 2000). Cantwell and Moore (1996) investigated three dimensions of self-regulatory control: Adaptive Executive Control, Irresolute Executive Control, and Inflexible Executive Control. Self-regulatory control belief is used to describe an individual's tendency towards implementing any given self-regulation process. Adaptive Executive Control involves an individual's predisposition towards strategic planning and monitoring and a flexibility to adapt to changing situations as needed. Irresolute Executive Control refers to an individual's inability to commit to any type of plan or type of self-regulation. Lastly, Inflexible Executive Control describes

individuals who use the same strategy regardless of situation. Cantwell and Moore (1996) indicated that students with either Inflexible or Irresolute Executive Control beliefs were significantly less successful academically than students with Adaptive Executive Control beliefs were more successful academically.

Academic Achievement

The complexity and significance of academic success is reflected in the extensive research of its possible predictors including: cognitive ability or general intelligence (Busato, Prins, Elshout, Hamaker, 2000; Ridgell & Lounsbury, 2004); personality (Bauer & Liang, 2003; Blickle, 1996; Chamorro-Premuzic & Furnham, 2003; De Fruyt & Mervielde, 1996; McIlroy & Bunting, 2002) and identity (Berzonsky, 1985, 2000, 2003; Boyd et al., 2003; Lange & Byrd, 2002; Lewis, 2003; Streitmatter, 1989; Waterman & Waterman, 1972). Additionally, the concept of academic success is commonly assessed as either persistence/retention or withdrawal (Lounsbury, Saudargas, & Gibson, 2004; Lufi, Parish-Plass, & Cohen, 2003; Robbins, Lauver, Le, Davis, Langley, and Carlstrom, 2004); or grades or GPA (Bettencourt, Charlton, Eubanks, Kernahan, & Fuller, 1999; Filozof, Albertin, Jones, Steme, Myers, McDermott, 1998; Robbins, Le, & Lauver, 2005; Schapiro & Livingston, 2000).

Cognitive Ability

Historically, general cognitive ability or *g* has been shown to be a predictor for many behaviors and life outcomes (Brand, 1997; Gottfredson, 1997; Harris, 1940; Schmidt, 2002). Several phrases or terms have been used throughout research to describe intelligence such as *g* (Kuncel, Hezlatt, & Ones, 2004), intellectual ability (Busato, Prins,

Elshout, & Hamaker, 2000), intelligence (Lounsbury, Sundstrom, Loveland, & Gibson, 2003), multiple intelligence (Furnham & Buchanan, 2005), and cognitive ability (Furnham, Chamorro-Premuzic, & McDougall, 2003). The reasoning behind the relationship between intelligence and academic success is that higher levels of intelligence facilitate an individual's ability to assimilate new information, prioritize, and organize one's behaviors (note-taking, attendance, active learning, meeting deadlines, etc.) which lead to higher levels of academic performance. Researchers frequently utilize high school grades or standardized test scores (ACT, SAT, GRE) as previous indicators of cognitive ability (Dyer, 1987; Rothstein et al., 1994). While there is unease among some researchers about standardized tests not specifically created to measure intelligence, administrators and educators are hard pressed to find a more efficient predictor of future GPA when screening large numbers of students.

Personality and Sense of Identity

Clancy and Dollinger (1993) examined personality and identity development using Costa and McCrae's (1985) NEO-PI and Adams, Bennion, and Huh's (1989) Extended Objective Measure of Ego Identity Status (EOM-EIS) which runs parallel to Marcia's taxonomy of four statuses. The results of their study (1993) indicated that there "was significant overlap between the five-factor model of personality" (p. 238) and identity achievement. Their findings are important in that they further elucidate the nomological network for identity; in this case, that identity-achieved students displayed higher levels of Extraversion, Conscientiousness, and Openness as well as lower levels of Neuroticism. For individuals who were identified in the achievement identity dimension,

they tended to be extroverted, more conscientious, and less neurotic than other groups. Research in a number of areas has shown that validity can be enhanced above and beyond the Big Five traits by considering more narrow personality traits, which are defined as either subscales of the Big Five or as traits not encompassed by the Big Five model. For example, Lounsbury, Sundstrom, Gibson, and Loveland (2003) found that Aggression and Work Drive added substantial variance to the prediction of academic performance of middle and high school students beyond the Big Five traits. Paunonen and Nicol (2001) report that narrow traits, such as Self-Discipline, Straightforwardness, and Modesty, added significant incremental variance beyond the Big Five when predicting 12 different criteria, including grade point average, blood donations, absenteeism, and traffic violations. Also, Paunonen and Ashton (2001) found that NEO Conscientiousness-related subscales of Achievement, Self-Discipline, Competence, and Dutifulness as well as the Openness-related subscale of Ideas added significantly to the prediction of collegiate GPA above and beyond the Jackson Personality Inventory Conscientiousness scale. Likewise similar personality traits also have positive relationships with identity achievement (Marcia 1980; Meeus & Deković, 1995) and the possibility of interventions to facilitate these changes are being examined (Archer, 1989, 1994; Berman & Schwartz, 1999).

Interventions for Identity Achievement

Due to the positive relationships found during the progression towards identity achievement from identity diffusion and between identity achievement and desirable psychological variables such as autonomy, self-esteem, and internal locus of control

(Bourne, 1978; Erikson, 1968; Marcia 1980; Meeus & Deković, 1995); increased cognitive development (Weiss, 1984); increased ego development (Adams & Shea, 1979) the utility of interventions to facilitate the identity achievement process has been brought forward (Archer, 1989; Marcia, 1989; Waterman, 1989). Additionally, in light of studies that support significant negative relationships with individuals identified in the diffusion or foreclosure identity statuses such as being more likely to be involved with alcohol and/or a variety of drugs (Bishop, Macy-Lewis, Schnekloth, Puswella & Struessel, 1997; Jones & Hartmann, 1985), some researchers feel obligated to identify possible interventions to guide or encourage individual identity growth (Archer 1989, 1994; Markstrom-Adams, Ascione, Braegger & Adams, 1993).

Identity Capital Model

Côté (1996) proffers the concept of identity capital model which involves the ability of an individual to maneuver successfully in society. Identity capital model examines social and personal identity. The various aspects of the identity that the individual forms are considered resources that the individual utilizes to negotiate within society. Vocational status, resulting income level, educational level attained, memberships, patterns of speech, self-esteem, internal locus of control and other characteristics form one's identity capital (Schwartz, 2001). However due to the reduced impact of social institutions such as: unions, religious organization, traditional norms, and large corporations, on the majority of the population in late-modern society such as the United States, large portions of the population are left with little structure and guidance and as such little social capital (Kurtines, 1999). Without guidance, Côté (1997) suggests

that developing a sense of identity becomes a more difficult if not impossible task to accomplish. Reiterating previous research, Côté (1997) found that “self-esteem, sense of purpose, and internal locus of control and continuity and integrity of character” are the most effective predictors of identity capital acquisition. Responsive to the need for intervention, researchers began to investigate possible interventions (Archer, 1989, 1994; Berman & Schwartz, 1999; Marcia, 1989; Markstrom-Adams et al., 1993). Many interventions are within the realm of counseling, not limited to therapy (Jones, 1992; Kroger, 1996; Kroger & Green, 1996) however others fall in the academic realm.

Academic Environment

Archer (1994) stresses the importance of providing an environment that encourages exploration and commitment. The suggested interventions unsurprisingly are based in the academic environment. Adams and Fitch (1982) found positive relationships between academic environments that encourage analytic thinking and broad social awareness with growth in identity development. Additionally, Archer suggests curricula which promote role-playing and social interaction across generations, self-acceptance, and identification of how the past is related to the present, exploration, responsible choice and self-determination (1994). The concept of ‘stretching’ the mind of students with ambiguous situations is not unfamiliar in the field of psychology. Kohlberg’s moral dilemma (1969) which emphasizes the reasoning behind the response and not the “correctness” of the response is traditionally represented in many introductory psychology textbooks (Coon, 2006; Lahey, 2005). Archer proposes that by providing theoretical dilemmas to practice abstract thinking, considering multiple perspectives of a

situation, and evaluating logical alternatives adolescents will be able to apply these skills to their own lives and identities. (1994, p. 123). Enright and Deist (1979) suggest that short-term training based on perspective-taking skills enhances identity growth.

Markstrom-Adams, et al. (1993) study lends support to the intervention of perspective-taking training for college-aged students in order to promote ego-identity formation.

Activities

While interventions might be most effective when tailored to each individual, in a thirteen year longitudinal study starting with students in the sixth grade, Eccles (2003) examined the extracurricular activities of these students, and were able to find positive relationships between pro-social activities such as volunteer service or community service activities and a general sense of well-being. Specifically, students who participate in extracurricular activities tend to achieve better educational outcomes than non-participating students (Eccles, 2003). Additionally, participating in a team sport predicted greater involvement in risky behaviors such as drinking, but were also more likely to enjoy school more and more likely to attend and complete tertiary education.

Students involved in pro-social activities were less likely to engage in risky behaviors such as drinking alcohol, getting drunk, taking drugs, and skipping high school. They were also more likely to enjoy school greater at the 10th grade, have a higher GPA at 12th grade, and more likely to attend college and graduate within 4-6 years.

Participation in team sports was also examined and appeared to promote academic involvement as indicated by “liking school better” than non team sports individuals, had higher GPAs in Twelfth grade, and by age 25-26 had completed more years of tertiary

education (Eccles, 2003). This finding reflects Bettencourt et al. (1999) study which supports the hypothesis that group memberships are positively related to psychological adjustment.

Bettencourt et al. (1999) stress the importance of group memberships for personal functioning regardless of environment. For students entering and adjusting to the collegial climate, the importance of group membership at any level should not be underestimated in its ability to act as a buffer to the myriad conflicts and stressors that present themselves to students (Astin, 1984).

Summary and Areas of Possible Research

As indicated by the review of research regarding identity, it is a multifaceted subject that spans several academic disciplines and theories within each field. From Freud's psychodynamic perspective of self-definition (Schwartz, 2001) to Berzonsky's cognitive processing styles (1985) multiple theories submit that identity is a dynamic state or construct. Additionally, the complexity of identity is reflected in the broad range of higher fidelity concepts of identity including ethnic identity (Oyserman, Harrison, & Bybee, 2001; Phinney, 1989, 1990; Smith & Lalonde, 2003), Sexual/gender identity (Carver, Yunger, & Perry, 2003; Cass, 1979; Coleman, 1982; Swann & Spivey, 2004), vocational/career identity (Gehlert, Timberlake, & Walker, 1992; Healy, 1991) with academic identity as a subset of vocational subset for students (Kuncel, Hezlett & Ones, 2004; Munson & Rubenstein, 1992).

Likewise, personality has been extensively examined (Clancy & Dollinger, 1993; Paunonen & Ashton, 2001); however, there is a paucity of research regarding the nature

of sense of identity in relationship to broad and narrow personality traits (Hogan & Robert, 1996; Lounsbury, Sundstrom, Loveland, Gibson, & Hamrick, 2004; Ones & Viswesvaran, 1996; Scheider, Hough, & Dunnette, 1996) and to typical outcome variables (Boyer & Sedlacek, 1988; Dollinger & Orf, 1991; Lounsbury, Sundstrom, Loveland, & Gibson, 2003; McIlroy & Bunting, 2002, Paunonen & Ashton, 2001, Ridgell & Lounsbury, 2004; Rothstein et al., 1994). Additionally the measures of identity are frequently dichotomous, or all or nothing, such as Marcia's statuses or Berzonsky's styles. Future research could examine sense of identity as a continuous dimension from low to high which would be more reflective of the complex nature of Identity. Additionally, "sense of identity could be examined with regard to frequently utilized personality inventories such as the Big Five (Costa & McCrae, 2003) or Cattell's 16PF (Cattell & Cattell, 1995) to explore the possible nature of its relationships with individual and global personality traits and other traditional outcomes measures such as academic performance. Furthermore as interventions for identity development are in a relatively unexplored state in education, any additional research in this area would help define activities or areas that educators might want to focus their efforts.

Rationale and Hypotheses for the Present Study

The development of identity, and any confusion during the process, is characteristic of students during their late adolescence attending universities (Berger, 2001; Erikson, 1959; Muuss, 1969; Papalia & Olds, 2004). The college experience is regarded as providing "many opportunities for students to develop, among other things, personal and professional identity" (Hamrick, Evans, & Schuh, 2002, p. 135). As

Madison (1969) observed, college represents a unique and highly appropriate setting for studying identity. Moreover, for those individuals who go to college directly from high school, the college experience occurs during a key developmental period for identity development (Waterman, 1985, 1993), and it is regarded as playing a “critical role in identity formation” (Nakkula, 2003, p. 9). The solidification of personality also begins during this timeframe (McCrae & Costa, 1990). In light of the many, unique experiences available to individuals attending tertiary education during late adolescence, further exploration of the relationship between sense of identity and personality during this period is needed.

Finally, the relationship between extracurricular activities and sense of identity was studied. The premise of examining the relationships between sense of identity and participation in extracurricular activities was twofold: 1) to identify factors that may influence identity, a subject on which little is currently known when considered as a personality dimension; and 2) to provide information that might ultimately be useful in designing interventions that help students attain identity achievement. Miller, Galanter, and Pribram (1960) have elaborated in detail how plans and purposes guide behavior. They point out that knowledge, action, and evaluation are essentially connected; knowledge guides action and action is rooted in evaluation, for without comparative values deliberate action is pointless.

Before turning to the research questions investigated in the current study, it should be acknowledged at the outset that the author is using an available archival dataset and it is not possible to change the way constructs are measured. However, despite the

limitations of using such a data source (Bullmer, Sturgis, & Allum, 2006), it is of sufficient quality to permit this study to be conducted.

Research Questions:

- 1) Are each of the Big Five traits related to Sense of Identity? Based on Clancy and Dollinger's findings for identity achievement, I expected that Conscientiousness, Emotional Stability, Extraversion, and Openness would be positively related to Sense of Identity.
- 2) How much of the variance in Sense of Identity can be accounted for jointly by the Big Five traits? This analysis was not performed by Clancy and Dollinger, but it is important to do so to assess the overall predictability of Sense of Identity from the Big Five traits using a multivariate perspective in addition to examining the individual bivariate relationships.
- 3) Are selected narrow traits of the Big Five, such as: Aggression, Optimism, Tough-Mindedness, and Work Drive related to Sense of Identity? Based on research regarding high fidelity/narrow bandwidth concepts in personality research (Hogan & Roberts, 1996), it is important to investigate similar fidelity/bandwidth issues regarding Sense of Identity.
- 4) Do the selected narrow traits of the Big Five add incremental validity beyond the Big Five traits in predicting Sense of Identity? In previous research, Work Drive, a narrow trait of Conscientiousness (Big Five trait) provided incremental validity in predicting performance (Lounsbury, Gibson, Sundstrom, Wilburn, & Loveland,

2003). Should narrow traits of the Big Five have significant relationships then the predictive power of those traits will be examined.

- 5) How much of the variance in Sense of Identity can be accounted for jointly by the Big Five and narrow personality traits? Reflecting the complex nature of Sense of Identity it is possible that the best prediction comes from a combination of broad and narrow traits (Hogan & Roberts, 1996).
- 6) What is the nature of the relationship between extracurricular activities and Sense of Identity? Bettencourt et al. (1999) and Eccles (2003) provide support for extracurricular activities which are positively related to educational outcomes but the relationship between extracurricular activities and sense of identity have not yet been explored.
- 7) How much unique variance in Sense of Identity is accounted for by self-report of participation in extracurricular activities after controlling for Big Five and also how much unique variance in Sense of Identity is accounted for by extracurricular after controlling for Big Five and narrow traits? Based on Eccles et al. (2003) extracurricular activities may provide significant predictability beyond personality traits.

Chapter 2

Method

Overview

The data from this study were provided by an archival dataset maintained by Resource Associates, Inc. The original data were collected as part of an IRB-approved study conducted at a major southeastern university as part of an ongoing effort to provide normative and validity data for an adolescent personality inventory (see, Lounsbury, et al., 2003)

Participants

The sample for this study was comprised of a total of 481 students enrolled in an introductory psychology course and a First-Year Studies program, at a large, public southeastern U. S. state university . Demographic characteristics of the sample were: Gender--68% female (32% male); year in school--79% Freshmen, 15% Sophomore, 3% Junior, 3% Senior; Age—3% under 18, 81% 18-19, 8% 20-21, 3% 22-25, 2% 26-30, and 3% over 30; race/ethnic status—12% African American, 81% Caucasian, 2% Hispanic, 2% Asian, 1% Native American, and 2% “Other”.

Procedure

In the original data collection, after obtaining human subjects approval from the university’s Institutional Review Board (IRB), participants were solicited to take a personality inventory on-line. Upon completion of the inventory, participants were provided a feedback report summarizing their personality characteristics and implications for a variety of areas related to being a student, including area of study, social life,

managing stress, study habits, living situation, and using campus resources. Students in the introductory psychology course were offered extra credit for participation. All data were collected between September 1, 2004 and December 30, 2004. Data for this study were provided by Resource Associates, Inc. with approval for this procedure secured from the university's IRB.

Measures

Demographic and Student Classification Variables

The age, sex, gender, and racial/ethnic status of students were assessed using categorical items. They were also asked where they lived while in college. In addition, to obtain a broad spectrum of different types of students which have been implicated in the general literature on college students as meriting separate attention for research and practice, we included student categories provided by the Nontraditional Student Resource Guide (University of Oregon, 2005) to ask respondents whether each of these characteristics applied to them: Marital status (Single or Married/divorced), sexual identity (gay, lesbian, or bisexual), working 20 or more hours per week while going to college, caregiver status (have child(ren) and/or family members to support; having to care for a dependent or disabled adult), family background (low-income family background, first member of your immediate family to attend college), Disability (as defined by Americans with Disability Act), international student, transfer student, re-entry study (returning to college after a long break).

Personality

The personality measure used in this study was the Resource Associates' Adolescent Personal Style Inventory (APSI) for College Students. The APSI is a normal personality inventory contextualized for adolescents and has been used for early, middle, and late adolescents (Jaffe, 1998) from middle school through high school and college. It measures the Big Five Traits of Agreeableness, Conscientiousness, Emotional Stability, Extraversion, and Openness as well as other "narrow" personality traits and Sense of Identity. Scale development, norming, reliability, criterion-related validity, and construct validity information for the APSI can be found in Lounsbury, Gibson, and Hamrick (2004); Lounsbury, Gibson, Sundstrom, Wilburn, and Loveland (2003); Lounsbury, Hutchens, and Loveland (in press); Lounsbury, Loveland, Sundstrom, and Gibson, (2003); Lounsbury, Saudargas, & Gibson, 2004; Lounsbury, Sundstrom, Loveland, and Gibson (2003); and Lounsbury, Tatum, Gibson, Park, Sundstrom, Hamrick, and Wilburn (2003).

The research reported in the above studies demonstrates that the APSI constructs are internally consistent and display generally high convergence with common traits on other, widely used personality inventories, including the 16 PF, NEO-PI-R, Myers-Briggs Type Inventory (e.g., the APSI measure of Extraversion correlates .77 with NEO-PI-R measure of Extraversion (Lounsbury, Gibson, & Hamrick, 2004)). Moreover, the Big Five measures of the APSI significantly predict collegiate academic performance (Lounsbury, Sundstrom, Loveland, & Gibson, 2003; Ridgell & Lounsbury, in press) and the APSI Big Five and Sense of Identity measures are significantly related to academic

performance, life satisfaction, and intention to withdraw from school for college students (Lounsbury, Huffstetler, Leong, & Gibson, in press; Lounsbury, Saudargas, Gibson, & Leong, in press; Lounsbury, Saudargas, & Gibson, 2004). Moreover, an adult version of the APSI has been found to be related to job performance, job satisfaction, and career satisfaction in a wide variety of occupations in many different business and industry settings (Lounsbury & Gibson, 2004). In addition, Lounsbury, Huffstetler et al. (in press) found that the APSI Sense of Identity was correlated more highly with collegiate academic performance than the Big Five traits.

The APSI Sense of Identity scale also correlates highly ($r = .80, p < .01$) with Bennion and Adam's (1986) Identity Achievement subscale (combined) of their Objective Measure of Ego Identity Status inventory and it correlates .14 with their Foreclosure subscale. The eight items comprising the APSI Sense of Identity Scale are presented below, for which item responses were made on a five-point Likert scale: 1=Strongly Disagree; 2= Disagree; 3=Neutral/Undecided; 4=Agree; 5=Strongly Agree. For the present sample, the coefficient alpha for the Sense of Identity Scale was .85.

Sense of Identity Items:

1. I have a definite sense of purpose in life.
2. I have a firm sense of who I am.
3. I have a set of basic beliefs and values that guide my actions and decisions.
4. I know what I want out of life.
5. I have a clear set of personal values or moral standards.
6. I don't know where I fit in the world. (reverse-scored)
7. I have specific personal goals for the future.
8. I have a clear sense of who I want to be when I am an adult.

A brief description of the Big Five and narrow traits measured in this study along with their coefficient alphas is provided below:

Big Five Personality Traits

Agreeableness—being agreeable, participative, helpful, cooperative, and inclined to interact with others harmoniously. (Coefficient alpha = .81).

Conscientiousness—being conscientious, reliable, trustworthy, orderly, and rule-following. (Coefficient alpha = .78).

Emotional Stability—overall level of adjustment and emotional resilience in the face of stress and pressure. This was conceptualized as the inverse of neuroticism. (Coefficient alpha = .83).

Extraversion—tendency to be sociable, outgoing, gregarious, warmhearted, expressive, and talkative. (Coefficient alpha = .84).

Openness—receptivity and openness to change, innovation, new experience, and learning. (Coefficient alpha = .76).

Narrow Personality Traits

Aggression-- inclination to fight, attack, and physically assault another person, especially if provoked, frustrated, or aggravated by that person; disposition to become angry and engage in violent behavior. (Coefficient alpha = .77).

Optimism--having an optimistic, hopeful outlook concerning prospects, people, and the future, even in the face of difficulty and adversity as well as a tendency to minimize problems and persist in the face of setbacks. (Coefficient alpha = .83).

Tough-Mindedness-- appraising information and making decisions based on logic, facts, and data rather than feelings, sentiments, values, and intuition. (Coefficient alpha = .75).

Work Drive—being hard-working, industrious, and inclined to put in long hours and much time and effort to reach goals and achieve at a high level. (Coefficient alpha = .85).

Extracurricular Activities Questionnaire

Based on reviews of the literature regarding college student involvement (Astin, 1984), a compendium of 30 years of research on what affects college students (Pascarella & Terenzini, 1991) and student activities (Bettencourt et al., 1999; Eccles, 2003), a set of 30 items was constructed by Resource Associates to measure a range of extracurricular activities, including sports, recreation, religion, travel, student government, dating, socializing, entertainment, substance usage, and computer-related activities. The full set of 30 items and instructions is presented in the following Figure 1. Respondents indicated frequency of participation using the following five-point scale: 1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Very Often or All the Time.

1. Participated in student clubs or organizations.	1	2	3	4	5
2. Participated in student government.	1	2	3	4	5
3. Participated in study groups.	1	2	3	4	5
4. Visited a museum or art exhibit or cultural event.	1	2	3	4	5
5. Attended a musical concert.	1	2	3	4	5
6. Attended a formal lecture, debate, talk, or speech.	1	2	3	4	5
7. Gone to church, synagogue, mosque, or religious event.	1	2	3	4	5
8. Prayed, meditated, or engaged in spiritual activity.	1	2	3	4	5
9. Met/talked with a professor or instructor outside of class.	1	2	3	4	5
10. Traveled out of state.	1	2	3	4	5
11. Taken road trips with friends.	1	2	3	4	5
12. Played sports (e.g., intramural or pickup or alone).	1	2	3	4	5
13. Engaged in outdoor recreation/sports (such as hiking, skiing, fishing).	1	2	3	4	5
14. Performed volunteer or community service work.	1	2	3	4	5
15. Served as Big Brother/Sister or mentored someone younger.	1	2	3	4	5
16. Participated in a political campaign.	1	2	3	4	5
17. Been in a serious, romantic relationship.	1	2	3	4	5
18. Been in a sexual relationship.	1	2	3	4	5
19. Drank alcohol.	1	2	3	4	5
20. Experienced a traumatic event (e.g. sexual assault, death of a parent).	1	2	3	4	5
21. Participated in counseling or psychotherapy.	1	2	3	4	5
22. Participated in career planning/exploration activity or program.	1	2	3	4	5
23. Socialized/hung out with friends.	1	2	3	4	5
24. Socialized/hung out with International students or students of different ethnic group than mine.	1	2	3	4	5
25. Spent time with my family (e.g., parents, siblings).	1	2	3	4	5
26. Watched television or videos.	1	2	3	4	5
27. Gone to movies.	1	2	3	4	5
28. Listened to music on radio, stereo, CD's, IPOD, or other device.	1	2	3	4	5
29. Used the Internet for research or practical purpose.	1	2	3	4	5
30. Used the Internet or surfed the Web for fun, amusement, or personal recreation.	1	2	3	4	5

Figure 1: Extracurricular Activities Questionnaire

Chapter 3

Results

Descriptive statistics for this study's variables are presented in Tables 1 and 2. The intercorrelations of the study variables are presented in Tables 3 and 4. Table 3 displays the intercorrelations between Sense of Identity and the Big Five traits as well as the narrow personality traits. Table 4 presents the intercorrelations between Sense of Identity and specific Extracurricular Activity items.

Regarding the first research question, all five broad personality variables were positively and significantly related to Sense of Identity. Conscientiousness and Emotional Stability were most strongly related ($r=.46, p<.01$) to Sense of Identity with Openness and Extraversion followed, $r=.39, p<.01$ and $r=.38, p<.01$ respectively. Agreeableness was also positively related with Sense of Identity ($r=.32, p<.01$).

Table 1: Mean and Standard Deviation for Sense of Identity and Big Five Personality Traits

	Sense of Identity	Conscient iousness	Emotional Stability	Extroversi on	Agreeable ness	Openness	Valid N
N	481	481	481	481	481	481	481
Mean	3.9452	3.3892	3.1299	3.4566	3.7362	3.9018	
SD	.67001	.59909	.73475	.41782	.59742	.59580	

Table 2: Mean and Standard Deviation for Selected Narrow Personality Traits

	Aggression	Career Drive	Optimism	Self Drive	Work Drive	Toughmindedness	Visionary	Valid N
N	481	481	481	481	481	481	481	481
Mean	2.4007	3.1804	4.0502	3.5096	3.2506	2.4571	3.0083	
SD	.75079	.37163	.61892	.51470	.73345	.53395	.63647	

Table 3: Intercorrelations between Sense of Identity and Personality Variables

	Sense of Identity
Big Five Personality Traits (Broad)	
Conscientiousness	.46**
Emotional Stability	.46**
Extraversion	.38**
Agreeableness	.32**
Openness	.39**
Narrow Personality Traits	
Aggression	-.17**
Career Drive	.62**
Optimism	.65**
Self Drive	.41**
Work Drive	.43**
Toughmindedness	-.21**
Visionary	.12**

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

Table 4: Intercorrelations between Sense of Identity and Extracurricular Activities

Item	Extracurricular Activity Item	Sense of Identity
1	Participated in student clubs or organizations.	.14**
2	Participated in student government.	.07
3	Participated in study groups.	.16**
4	Visited a museum or art exhibit or cultural event.	.15**
5	Attended a musical concert.	.14**
6	Attended a formal lecture, debate, talk, or speech.	.15**
7	Gone to church, synagogue, mosque, or religious event.	.29**
8	Prayed, meditated, or engaged in spiritual activity.	.30**
9	Met/talked with a professor or instructor outside of class.	.28**
10	Traveled out of state.	.22**
11	Taken road trips with friends.	.23**
12	Played sports (e.g., intramural or pickup or alone).	.11*
13	Engaged in outdoor recreation/sports (such as hiking, skiing, fishing).	.18**
14	Performed volunteer or community service work.	.14**
15	Served as Big Brother/Sister or mentored someone younger.	.10*
16	Participated in a political campaign.	.05
17	Been in a serious, romantic relationship.	.17**
18	Been in a sexual relationship.	.01
19	Drank alcohol.	-.09
20	Experienced a traumatic event (e.g. sexual assault, death of a parent).	-.10*
21	Participated in counseling or psychotherapy.	-.14**
22	Participated in career planning/exploration activity or program.	-.00
23	Socialized/hung out with friends.	.22**
24	Socialized/hung out with International students or students of different ethnic group than mine.	.13**
25	Spent time with my family (e.g., parents, siblings).	.23**
26	Watched television or videos.	.07
27	Gone to movies.	.11*
28	Listened to music on radio, stereo, CD's, IPOD, or other device.	.18**
29	Used the Internet for research or practical purpose.	.23**
30	Used the Internet or surfed the Web for fun, amusement, or personal recreation.	.13**

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

Concerning the third research question of the relationships between the narrow personality traits and Sense of Identity, Optimism was most significantly related ($r=.65$, $p<.01$) with Career Drive trait following closely ($r=.62$, $p<.01$). Additionally, Work Drive and Self Drive were positively related to Sense of Identity with $r=.43$ ($p<.01$) and $r=.41$ ($p<.01$) respectively. The Visionary trait was also positively related but had the weakest though still significant relationship with $r=.12$, $p<.01$. It should also be noted that two of the narrow traits were negatively related to Sense of Identity, Aggression ($r=-.17$, $p<.01$) and Toughmindedness ($r=-.21$, $p<.01$).

Most of the Extracurricular Activity items were significantly correlated with Sense of Identity. The items with the greatest correlations referenced participating in spiritual ($r=.30$, $p<.01$) or religious activities ($r=.29$, $p<.01$) or interacting with professors/instructors ($r=.28$, $p<.01$), family ($r=.23$, $p<.01$), or going on a road trip with friends ($r=.23$, $p<.01$).

Using the SPSS statistical package (SPSS version 14.0, 2006), a series of hierarchical multiple regressions was utilized to examine the unique variance accounted for by the Big Five traits, the Narrow Personality traits and Extracurricular Activities. Stepwise regressions were conducted in order to control the order of the variables entered into the regression. By doing so, the R^2 change of the variable entered at the last step (Step 3) would be the amount of unique variance that the last entered variable explained beyond the first 2 variables.

For example the stepwise regression in Table 5 shows the first variable, the Big Five personality traits entered first. Then the Narrow personality traits variable was

Table 5: Hierarchical Multiple Regression analysis for Sense of Identity – Extracurricular Activities entered last

Step	Variables Entered	R	R ²	R ² change
1	Big Five Personality Traits	.69*	.47*	.47*
2	Narrow Personality Traits	.74*	.55*	.08*
3	Extracurricular Activities	.78*	.60*	.05* unique

* $p < .01$

Table 6: Hierarchical Multiple Regression analysis for Sense of Identity – Narrow Personality Traits entered last

Step	Variables Entered	R	R ²	R ² change
1	Big Five Personality Traits	.69*	.47*	.47*
2	Extracurricular Activities	.74*	.55*	.08*
3	Narrow Personality Traits	.78*	.60*	.06* unique

* $p < .01$

entered, and finally, the last variable, Extracurricular Activities variable was entered.

The R^2 change statistic represents the amount of variance the variable explains while controlling for any variables entered previously. The p-value for accepting a variable set was .001 and the p-value for removing a variable set was .005.

Table 5 displays the variance explained at each stage of the stepwise regression with Extracurricular Activities entered last. Table 6 displays the variance explained at each stage of the stepwise regression with Narrow Personality traits entered last and Table 7 displays the variance explained at each stage of the stepwise regression with Big Five Personality traits entered last. As indicated by Tables 5 through 7, each of the three sets of variables added incremental and unique variance beyond the other two variable sets controlling for the variance that the first two sets were able to explain.

Table 7: Hierarchical Multiple Regression analysis for Sense of Identity – Big Five Personality Traits entered last

Step	Variables Entered	R	R ²	R ² change
1	Extracurricular Activities	.54*	.29*	.29*
2	Narrow Personality Traits	.74*	.55*	.27*
3	Big Five Personality Traits	.78*	.60*	.05* unique

* $p < .01$

As displayed in Table 5, the Extracurricular Activities variable was entered last after the Big Five personality traits variable and the Narrow personality traits variable. The Extracurricular Activities variable was able to explain 5 percent (R^2 change = .05, $p < .01$) of the variance after controlling for the first two sets of variables. Additionally, when the Narrow personality traits variable was entered last, the R^2 change = .06 ($p < .01$) they were able to explain six percent of the variance of Sense of Identity beyond the variance explained by the Extracurricular Activities variable and the Big Five personality variable. Lastly, when the Big Five personality variable was entered last, it too, was able to explain unique variance, five percent, (R^2 change = .05, $p < .01$) after controlling for the variance explained by the Extracurricular Activities variable and the Narrow personality traits variable.

Regarding the second research question of how much variance in Sense of Identity can be accounted for jointly by the Big Five traits, Table 5 which has the Big Five personality trait variable entered at the first step shows a R -value of .69 and a R^2 of .47 ($p < .01$). This indicates that the Big Five personality traits variable alone explains forty-seven percent of the variance in Sense of Identity. The second step of Table 5 answers the fourth research question of whether the Narrow personality traits variable

adds incremental validity. With the Big Five personality trait variable already explaining forty-seven percent of the variance, the addition of the Narrow personality traits variable in the second step results with a $R=.74$, $R^2=.55$ and R^2 change of $.08$ ($p<.01$) which indicates that the addition of the second set of variables, Narrow personality traits variable, in the equation add an additional eight percent of the variance. Answering the fifth research question regarding the amount of variance that can be explained by both broad and narrow personality traits, the $R^2=.55$ ($p<.01$) indicates that the two personality variables combined were able to explain fifty-five percent of the variance with regards to Sense of Identity. The combination of all three sets of variables, Big Five personality traits, Narrow personality traits and Extracurricular Activities, explained sixty percent of the total variance.

The final research question addresses whether extracurricular activities add incremental validity beyond the Big Five traits, Table 6 displays the hierarchical regression model where the Big Five is entered first and then the extracurricular activities follow. The addition of the extracurricular activities variable increases the R^2 value by $.08$ ($p<.01$) so that the final $R^2=.55$ ($p<.01$). Thus, the addition of the activities participation did add incremental validity above and beyond the Big Five in predicting Sense of Identity. The extracurricular activities variable also provided and explained unique variance beyond the Big Five and narrow Personality traits as indicated by the increase of R^2 value of $.05$ ($p<.01$) in the last step of Table 7.

Chapter 4

Discussion

Sense of Identity and Personality

Similar to Clancy and Dollinger's (1993) findings supporting the relationship between personality and identity, current data show both broad and narrow personality traits are significantly related to sense of identity. The relationship between personality traits and sense of identity is also consistent with a priori notions about the applicability of personality trait research across situations (Boyer & Sedlacek, 1988; McCrae & Costa, 2003; Rothstein et al., 1994).

All five of the Big Five personality traits were positively correlated with the Sense of Identity trait which substantiates previous research (Berzonsky, 2003b; Orlofsky & Frank, 1986) showing relationships between identity processing styles and personality traits. Additionally, this study supports Clancy and Dollinger's (1993) finding of positive relationships between Identity Achievement, Emotional Stability, Conscientiousness and Extraversion. Furthermore, the amount of variance that the Big Five personality traits explained with regards to Sense of Identity adds support to the potency of the Big Five model (McCrae & Costa, 1992, 2003).

The stability of the individual who has a purpose driven life is reflected in the positive correlation of between Sense of Identity and Emotional Stability. Individuals who score high in emotional stability can be described as people who have a high level of adjustment and resilience particularly in times of stress and pressure (Costa & McCrae, 2003). Since time spent at college or university is frequently a period of questioning and

exploring values, it is associated with multiple sources of stressors (Archer, 1989; Astin, 1976; Marcia, 2002). The positive relationship between Sense of Identity and Emotional Stability reflects a similar finding that individuals who are identity achievers (Adams, et al., 1987; Clancy & Dollinger, 1993; Marcia, 1988) are resistant to attempts to affect self-esteem and are more efficient under stressful situations than those in the other identity statuses (Marcia & Friedman, 1970). Since the Sense of Identity trait involves the individual knowing his or her own values, purpose in life, and what he or she wants out of life, it reflects similar aspects of Marcia's Identity Achievement status (Marcia, 1989). A student who has been able to develop his or her sense of identity will have the ability to question given values and accommodate and adjust to multiple dynamic situations without feeling threatened or overwhelmed. Such an individual is likely to be emotionally stable.

The positive relationship between Sense of Identity and Conscientiousness adds credence to Clancy and Dollinger's (1993) and Adams, et al., (1987) studies which indicated a positive relationship. The nature of the relationship corresponds with the characteristics of individuals considered to be conscientious who typically are rule-following, reliable, and orderly (McCrae & Costa, 1990). These traits might lend themselves to students conscientiously exploring their major and vocational choice when directed by faculty or academic advisors. Another key aspect of an individual's willingness to explore aspects of his or her identity is the Big Five personality trait of Openness (Clancy & Dollinger, 1993).

Clancy and Dollinger's study (1993) indicated that Openness was positively related to the information oriented styles but negatively to the normative identity styles. The differing relationship is particularly noteworthy as both, normative and information oriented processing styles have similar relationships with the remaining Big Five Traits: Extraversion, Agreeableness, Neuroticism, and Conscientiousness. This difference indicates that Openness may be a crucial trait for differentiating between Marcia's achieved and normative statuses.

Like the other Big Five personality traits, the positive relationship between Agreeableness and Sense of Identity adds support to previous research that has indirectly associated Agreeableness with aspects of identity (Duriez, et al., 2004) and has the lowest though still significant correlation of the Big Five traits.

Consistent with previous research findings that narrow personality traits should be considered dependent on the situation (Puanonen & Ashton, 2001), Sense of Identity is significantly related with several narrow personality traits. The correlations in Table 2 indicate that several of the narrow personality traits were correlated significantly to Sense of Identity.

Optimism, described as having an optimistic outlook even in the face of adversity, was positively correlated with Sense of Identity which may reflect the ability to handle the multiple stressors of the college environment (Archer, 1989; Astin, 1976, 1993; Marcia, 2002). Additionally other narrow traits were also significantly related to Sense of Identity in decreasing order of strength of relationship: Career Drive, Work Drive, and Self Drive. These dimensions reflect an individual's willingness and ability to

concentrate on activities that will facilitate reaching self-imposed goals. These findings are similar to previous research (Paunonen & Nicol, 2001) which indicates that narrow personality traits might be able to explain greater amounts of variance of a specific topic being investigated. However since only a few narrow personality traits were measured in this study, further exploration of additional facets [narrow personality traits] and Sense of Identity is warranted.

Reflective of the complex and dynamic nature of Sense of Identity the combination of the Big Five and the narrow traits was better able to explain variance than either group of variables alone. However, since this research is still preliminary with regards to personality and identity, further research is warranted before conclusions of strength and true nature of relationships between personality and Sense of Identity.

Sense of Identity and Extracurricular Activities

Reflective of student development research, the Extracurricular Activities variable was also significantly related to Sense of Identity among college students. How student participation in extracurricular activities may affect the student is one of many factors interwoven throughout student development research (Astin, 1984; Bettencourt, et al, 1999).

Before discussing how specific items of the extracurricular activities measures relate to previous research, it should be clarified that these activities are not personality traits. While a student's participation in different types of extracurricular activities is likely influenced by the student's personality, activity participation is a different type of variable than personality constructs in that participation is dependent on the environment,

what is available to the student. The dependency on what is available in the academic environment and the community defines the extracurricular activities variable in a manner unique from personality variables. Personality dimensions are internally based and internally and externally affected. However, variables such as extracurricular activities participation may be internally motivated but must rely on the availability of the activity which is typically externally based. As such, by providing the appropriate academic environment with the proper types of activities should facilitate the development of the student (Astin, 1984; Bettencourt, et al, 1999; Chickering, 1993).

The majority of the extracurricular activities items that had significant relationships with Sense of Identity were also in alignment with many of Chickering and Reisser's multiple vectors leading to college student's development of identity (1993). The items, 8 and 7, with the strongest correlation to Sense of Identity reflect Chickering's (1969) fifth vector of establishing one's identity. The next grouping of items, 9, 11, 17, and 23, that appeared to pull similar aspects of life involved interpersonal relationships between family, faculty, significant other and friends. These items reflect, Chickering's fourth vector which involves increasing tolerance and capacity to treat others as individuals and a shift towards more intimate friendships and relationships. Items that parallel Chickering's sixth vector of developing purpose, vocational and avocational, include items 1, 4, 5, 10, 13, 14, 28, and 29 and describe a student who is investigating various cultural, recreational activities as well as community and civic responsibilities.

Limitations and Future Implications

The initial limitation is the fact that I was unable to administer other types of assessments that are related to Sense of Identity in order to ascertain a more comprehensive picture of identity such as the Extended Objective Measure of Ego Identity Status II (EOM–EIS–II; Bennion & Adams, 1986) which measures Marcia’s identity statuses, the Identity Style Inventory (Berzonsky, 1989), The Identity Status Interview: Late Adolescent College Form (Marcia & Archer, 1993), Erwin Identity Scale (EIS) (Erwin & Delworth, 1980) which measures Chickering’s Identity Vector (1993), and Winston’s (1990) Student Developmental Task and Lifestyle Inventory (SDTLI). Also the issues of self report on a measure should be considered. Additionally as the study was limited to students in a single geographic location, during a limited time period, and at a large public university, generalizability is also a limitation. It is unknown whether these results will be directly applicable to other individuals who are of different geographic location, ethnicity, culture, educational setting and age range.

Future research could clarify the nature of the relationship between identity and other narrow personality traits and provide additional support for the results of the broad personality traits. Moreover, the relationships between personality traits and Marcia’s (1980) four statuses and Berzonsky’s (1989) cognitive processing styles could be examined. Furthermore a longitudinal study involving students not just throughout their academic career, which is when identity is formed according to Erikson (1968), but at least through to the age of thirty when personality stabilizes (McCrae, 1993) could help in clarifying the nature of identity.

Research is also needed to help clarify the nature and direction of the relationship between personality and identity (Sampson; 1978; van Hoof & Raarjmakers, 2003). The direction of this relationship and the location of where and if extracurricular activities should have a position in the relationship has not yet been identified. Answering this question would require a longitudinal study of the students from prior to entering college to post college years. Personality and identity measures would be collected in addition to extensive queries in the behaviors of the students. However, considering that personality or temperament is considered a characteristic of a newborn baby (Papalia & Olds, 2005) and identity is typically not considered to be developed until adolescence (Erikson, 1969). It would seem that chronologically personality must precede identity. Yet the nature of the influence has yet to be determined. Do students who have achieved identity exhibit more conscientiousness behavior and a more open perspective or is it these individuals who conscientiously examined life's opportunities and were open to multiple experiences more able to develop their identity? Is the relationship bi-directional? Additionally could extracurricular activities or the academic environment be a moderator variable between these variables regardless of the direction or nature of the relationship?

Logically, the participation in extracurricular activities of individuals including but not limited to participation in formal and informal organizations/activities, such as religion, social, charitable, school specific, community, committees, clubs, and meetings should be examined to see if there a relationship between any single or grouping of these activities and the possible effects on or being affected by Sense of Identity and

personality. This could help guide any interventions that might be created to assist individuals in developing their identities (Archer, 1989; Bettencourt et al., 1999).

Conclusion

The results of the present study indicate that broad and narrow personality traits are indeed positively related to Sense of identity. In addition, each set of personality traits added incremental validity over and beyond one set of personality traits alone. A different type of variable, extracurricular activities, is also shown to explain additional and significant variance beyond the personality variables, both broad and narrow. The added explanation reinforces the complexity of the nature of the developing identity (Chickering & Reisser, 1993; Erickson, 1968) and the need for our colleges and universities to provide a range of environmental experiences such as: encouraging analytic thinking, encouraging social awareness (Adams & Fitch, 1982), providing theoretical dilemmas (Archer, 1994), and practicing perspective taking exercises (Enright & Diest, 1979) to facilitate such development (Chickering & Reisser, 1993; Hamrick, et al, 2002). Overall, the study supported the theoretical questions of the nature of the relationships between Sense of Identity and personality traits and extended the research into the nature of identity.

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