A Dialogical Approach of Group Identity Salience and the Academic Competence of Nontraditional College Students

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A DIALOGICAL APPROACH OF GROUP IDENTITY SALIENCE
AND THE ACADEMIC COMPETENCE
OF NONTRADITIONAL COLLEGE STUDENTS

by

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ABSTRACT

As of 2007, approximately 73% of the 18 million college students in this country could be identified as nontraditional (Ross-Gordon, 2011). A key characteristic distinguishing this group from the traditional college student is the influence of multiple roles of the adult learner on the learning and engagement process (Keith, Byerly, Floerchinger, Pence, & Thornberg, 2006). Ross-Gordon remarks on some roles that may provide life experience, an asset to understanding theoretical constructs otherwise immaterial to younger, traditional learners. However, it is important to recognize the complex dynamic of conflicting roles as challenges to the academic competence of nontraditional college students. This research examined the vague definition of the nontraditional student and the factors that influence the learning and engagement processes. Through the lens of Hermans and Gieser's (2012) dialogical self-theory and higher education discourse, a novel examination of group role identity salience is proposed as a useful model for improving the educational and social realities of the adult learner.

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CHAPTER ONE: LITERATURE REVIEW

Defining the Nontraditional Student

Definitions of the nontraditional student are as varied in the research literature as they are in the contextual and philosophical orientation of a particular investigator. Historically, the student population most typical of the late nineteenth century represented women, adults, and multiethnic individuals (Donaldson & Townsend, 2007). Forty years later, social and economic forces brought advances in technology and health care, leading to an increasingly aging population and delayed retirement. At the same time, an emergence of a global economy (Ross-Gordon, 2011) necessitated real-time training for highly skilled workers. Consequently, higher education institutions experienced an exponential increase in population. Around 1981, interdisciplinary scholars began to take notice, calling for a better understanding of the obstacles to student persistence – completion of a degree program (Sissel, Hansman, & Kasworm, 2001; Tinto, 1997). Subsequent findings of persistence rates were inconclusive as the research community struggled to conceptualize a clear taxonomy of the college student population.

Perhaps the most prominent measure of categorizing the student population was chronological age. Taking a cue from the growing body of gerontological research, contrasting age with various levels of cognitive ability and maturity was the norm (Bye, Pushkar, & Conway, 2007; Donaldson & Townsend, 2007; Keith et al., 2006; Macari, Maples, & D'Andrea, 2005; Meehan & Negy, 2003). While some efforts were made to include ethnicity, socio-economic class, disability and residence (Taylor & House, 2009), the use of age as a variable endured. Recognizing this disparity, Johnson and Nussbaum (2012) identified three commonalities of the nontraditional college student: marital and parental status, delayed college

enrollment, and obtaining a GED. Now, students categorized as traditional had a mean age of 20.8 (SD=1.41). Conversely, the nontraditional cluster had a mean age of 27.3 (SD=7.8). Interestingly, 80% of the participants in this latter group reported delayed enrollment into higher education, 60% were married, and 30% were responsible for child dependents. Arguably, these findings may have ignited a trend within higher education research of classifying adult learners into any one of six categories, thus replicating the findings of government research conducted nearly sixteen years earlier.

In 1996, the National Center for Educational Statistics (NCES) defined the nontraditional college student as belonging to *at least* one of the following categories: (1) delaying college enrollment beyond the same calendar year of earning a high school diploma, (2) taking less than 12 credits in a semester, (3) being financialy independent, (4) working more than 35 hours a week, (5) having dependent children, (6) being a single parent, and (7) earning a GED. Further, the traditional college student was defined as someone who graduated high school, enrolled in college during the same calendar year after high school, relies on their parents for financial support, and works part time.

<div align="center">Higher Education and the Adult Learner</div>

The Current State of Research

Within the realm of higher education research, a new dialogue emerged as a taxonomy for classifying the student population gained acceptance. The literature frequently points to the dearth of inquiry and tedium in levels of analyses. For example, questions were raised over seemingly political and elitist motives, sanctioning the relegation of any student over the age of 25 (Donaldson & Townsend, 2007; Kasworm, 2003; Sissel et al., 2001). Specifically, the

editorial boards and reviewers of journal articles espoused a conservative ideology that often

stalled any meaningful research beyond the monotonous variable of age of 25. This was the

subject of analysis by Donaldson and Townsend (2007), who inferred that adult education

research was considered more of a specialty, a subgenre. The authors point to the results of a

content analysis covering seven general subject, peer reviewed education research journals

published from 1990-2003. Only 41 (1.27%) of the 3,217 articles had related to adult

undergraduate students, often studied in contrast with their more traditional peers. Further, the

literature often portrayed nontraditional college students as either invisible, acknowledged,

accepted or embraced. In the end, a new direction was posited, an examination of the interplay

of both groups within a broader context.

The renewed discourse also led to a better understanding of the learning characteristics of

nontraditional students. Researchers recognized the dissimilarity between the widely held

pedagogy model of learning and the meaning making processes associated with the adult learner.

Pedagogy deals with the learning characteristics of children and is firmly rooted in the

behaviorism tenets of observation and subsequent reward and/or punishment (Chaves, 2008).

Yet, as the era of behaviorism declined, subsequent theories of adult learning emerged. As a

result, an examination of more collaborative and applied constructivist ideas allowed for a better

understanding of the adult student (Tinto, 2006). For example, the development of most

contemporary theories of adult learning can be attributed to the German model of andragogy,

made popular in the U.S. by Malcolm Knowles (Chaves, 2008; Ross-Gordon, 2011).

Constructivist in nature, andragogy asserts that adults exhibit a problem-centered approach to

learning, based on practicality. This self-directed method involves past experience when applying meaning to the learning process.

Despite Knowles's expectation of andragogy serving as more of a foundational theory, critics found it lacking when explaining the processes and reasons for learning (Chaves, 2008). To gain a deeper understanding of the external implications involved in the learning process, Mezirow's theory of Transformative Learning (TL) centered on the constructivist notion of dialectical discourse (Mezirow, 2003). As an example of the theoretical work examining women in higher education (Donaldson & Townsend, 2007), Transformative Learning examines the communicative knowledge building processes involved in changing one's perspective of the external world. A key component of this process involves internal self-reflection and external reflective discourse.

In the most influential examination of higher education research, new directions of understanding the social realities of the adult student also began to take shape. For example, a key characteristic of "reentry adults" to higher education: managing multiple life roles while in school (worker, spouse, partner, parent, caregiver, community member). Knowing about the role of family context may help institutions more effectively configure their support programs for differing student situations and populations (Tinto, 2006). When considering the multiple life roles of adults (e.g., parent, spouse, employee, and sibling) it is important to understand how these roles interact with one another, and the result of this interaction on the meaning making process (Donaldson & Townsend, 2007).

Academic Competence

In the literature, a systematic method of academic assessment has been met with considerable debate. On one side, leaders of higher education institutions were found to gauge academics within the framework of their own philosophical or subjective criteria. Conversely, the empirical findings of interdisciplinary researchers lacked consensus as to the levels of analysis associated with academic measurement. A number of studies have focused on three key constructs: competence, performance, and achievement. For example, academic performance was examined as the abilities associated with age related attributions or as a self-identity construct of academic competence (Kasworm, 2005; 2010; Meehan & Negy, 2003). In another study, Elliott and DiPerna (2002, p. 87) posited academic competence as "the skills, attitudes, and behaviors of a learner that contribute to academic success." Elliott and DiPerna provide the only criterion-related validity for academic competence. Therefore, the present research operationalized academic competence based on this model. Overall, academic measurement of the nontraditional student population revealed three important expectancies:

(1) Implicit beliefs and stereotypes (Keith et al., 2006) are fueled by an age-related decline in cognitive performance related to one's student identity (Tong & Chang, 2008). Further, the mere perception of the existence of stereotypes, or stereotype threat, has been shown to be a significant predictor (Picho & Brown, 2011).

(2) Adverse effects of stress and anxiety, brought on by one's beliefs regarding chronological age, academic competence and social dynamics (Funk, 2010), contribute to negative self-perceptions of inadequate study skills (Keith et al., 2006). In a study of the salient stressors among the college student population, researchers found significant differences, not

only in academics, but also in peer and social relations, as well as in family and networks. (Hong et al., 2003).

(3) When compared to their younger peers, adult students exhibit higher levels of both intrinsic and extrinsic motivation to learn (Keith et al., 2006). By virtue of self-selecting into higher education and a strong desire for self-actualization, personal growth was found to be more valuable than extrinsic goals (Bye et al., 2007).

While there has been substantial research concerning academic measurement of the student population, studies examining the associated effects of student identity are limited. There had been attempts to conceptualize ones implicit beliefs of accepted social interactions as positional identities. In contrast, Kasworm (2005) identified the explicit construal of social interactions as relational identities. Further research noted the mediating effects of high self-appraisal in some roles. For example, the perception of being a successful mother increased overall confidence, resulting in less anxiety and student related stress (Dill & Henley, 1998). After a full examination of the literature, the previous finding of a strong role identity compensating for a weak role is contrary to all other studies, with the exception of dialogical self theory. Indeed, the thoughts and interactions of the nontraditional student are implicitly influenced by a struggle of identity association between the out-group and the self (Hong et al., 2003; Keith et al., 2006). To gain a better understanding of the construction of one's self-concept, the following section briefly examines the theoretical concepts surrounding identity theory, social identity theory, and ultimately, dialogical self theory.

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<u>Prevailing Theories of Identity</u>

Identity Theory

The self-concept is the basis of identity. It symbolizes the self-meaning, self-worth, and self-cognitions via a dynamic interplay of changing roles, identity, groups, and behavior. The exchange of these identity-related processes is dependent upon the specific environment of the role and the label we give ourselves within a social category. To predict behavior, the relationship between the self and social structure is analyzed through a hierarchy of role positions and their effects on a person's sense of self-meaning and self-worth. The variables of commitment to an identity (salience), the interactions of multiple roles, and the perceived importance of the relationships associated with the identity must be examined when attempting to predict behavior. However, these levels of analysis do not explain the cognitive process involved in self-conception. In addition, the role of identities within the context of intergroup behavior does not take into account the social attributions on the self. Self-definitions are derived from an individual's role, via a stable role identity subject only to change in social context (Hogg, Terry, & White, 1995).

Social Identity Theory

Social identity theory explains the cognitive process of stereotype formation as the separation of "us" and "them" or the "in-group" and "out-group." Social categorization, social identification, and social comparison are the cognitive processes involved in evaluating the defining characteristics that serve as the definition of the individual's self-concept. The two-sociocognitive processes of categorization and self-enhancement serve as the subjective belief structures that attempt to explain a behavior. This identifies both differences and similarities

between and within groups. Proposed by Tajfel in 1972, social identity theory was a move away from explaining stereotyping and prejudice (intergroup perceptions) to the process of self-conceptualization within group contexts. By identifying the internal processes of social categorizations, the individual's role in society is apparent (Hogg & Williams, 2000). The focus on role positions is overlooked, in favor of group dynamic influences on the individual's self-concept. As in identity theory, the self is persistent but subject to change with intergroup relations, not changes of role position (Hogg et al., 1995).

<center>Communities in the Learning Environment</center>

Constructivists envision academic communities as made up of multiple, intersecting, social groups. For example, within a classroom, the active relationship of an exchange of knowledge and meaning-making between the faculty and students defines membership in the *community of learners* (Tinto, Goodsell-Love, & Russo, 1993). The concept of membership within a community has a direct implication on the identity and academic competence of the nontraditional student (Reitzes & Burke, 1980). Dialogical self theory reconceptualizes the *community of learners* concept as a society of mind, where the dynamic interplay of multiple role identities creates dialogical relationships (Ligorio, 2011).

<center>Dialogical Self Theory</center>

As a bridging theory, Hermans' Dialogical Self Theory (DST) constructs associations between diverse concepts, research traditions, and practices. The application of DST to multiple areas of research and practices is showing great promise in the literature. From psychotherapy and advertising to cognitive disorders, the DST phenomenon has drawn great interest (Hermans & Gieser, 2012). There appears to be keen interest as to its use within the classroom (Ligorio,

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2011). Hermans points to the limits of the current education philosophy of distributed cognition, contending that student identity is shaped by the quality of interactions with faculty. In other words, the I-position of the teacher greatly influences the I-position of the student (Hermans & Gieser, 2012).

DST examines the processes of the dialogical self (automatic, internal) and dialogue (external, *between* self & other). The *between* is "interiorized to the within, within is exteriorized into the *between*." Self and society are not mutually exclusive yet self is not influenced by society. Together they serve as a "mini society" or "society of mind" (Hermans & Gieser, 2012, p. 4). In the end, changes in the self reflect changes in society, and vice versa. Hermans posits DST as a "dynamic multiplicity of I-positions," each reflecting the range of self-roles within the social context and brain processes. It is this tenant of DST where the static "role" of both identity and social identity theories is given a dynamic "position" or "positioning" movement within the cognitive processes of identity discernment. I-positions are exchanged, within the self and between the self and perceived others, through a process of decentring and centring. I-positions perceived as now, new or possible describe decentring movement whereas centring movement describes positions which are either owned (belong to me) or rejected. Hermans attributes these movements as a spoken "dialogical exchange" of information that contributes to a structured self.

The findings of positional and relational identities in an intergeneration college classroom as reviewed earlier imply "multilayered and multirole negotiations" (Kasworm, 2005, p. 9) similar to the exchange of I-positions. The exchange of concepts and ideas through social interaction generates a *knowledge-building* process. Classroom participation by two or more

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positions supports each other and collaborates to establish a new sub-role within the self. For

example, this collaborative learning moves I-as-perfectionist to I-as-collaborator. This

empowers the learner with responsibility and initiative to self-direct and self-asses the

individual's own processes through which new I-positions are created (Ligorio, 2010).

Therefore, the context of this *building* process of learning and identity is central to the identity

development of the individual.

<center>The Current Study</center>

Ligorio (2011) has identified three trends in the field of education research that could

benefit from the application of DST principles. First, research concerning student identity may

produce critical thinkers and better arguers through participation in dialogical interactions.

Second, the teachers' professional identity is realized as a multivoiced self. The teacher becomes

a learner via movement from I-as-teacher to I-as-student. This supports the collaborative and

active learning environment of the "community of learners" concept. Finally, the reciprocal

relationship between students and teachers encourages a shared vision of acceptable classroom

behavior, how new information should be learned, and the importance of learning this

information.

The current study examined the vague definition of the nontraditional student and the

factors that influence the learning and engagement processes of such students. Through the lens

of Hermans and Gieser's (2012) dialogical self-theory and higher education discourse, a novel

examination of group role identity salience is proposed as a useful model for improving the

educational and social realities of the adult learner. It was predicted that by examining the

interplay among internal and external role identities of nontraditional students, previously

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unforeseen characteristics of personality might be found to be of influence on academic competence. The following research questions were investigated: (1) Are there differences between traditional and nontraditional students in term of academic competence; (2) What impacts academic competence of nontraditional students; and (3) Can measuring group identity salience better explain these differences?

CHAPTER TWO: METHOD

Participants

This research is based on the secondary data from a previous study examining the factors related to college student motivation and performance. The participants consisted of 755 undergraduate students (260 males and 494 females) from the second largest public university in the United States. Ages ranged from 17-51 years ($M = 21.44$; $SD = 5.23$). The majority of participants were Caucasian ($n = 533$, 70.6%).

Measures

This study employed a number of survey instruments to assess the variables associated with academic competence among the college students in the data set.

Student Status

In order to operationalize student status, the aforementioned NCES characteristics served as a model for analysis via two separate surveys. First, a demographic questionnaire was used to determine if any participant reported to have at least one of the following five characteristics: delayed college enrollment (e.g., "*What is your current age*?" and "*What year are you in college*?"), part time student status (e.g., "*How many credit hours are you undertaking this semester?*"), financial independence (e.g., *What is your current age?* if over 24), having dependent(s) (e.g., "*Do you have any children*?"), or is a single parent (e.g., "*Do you have any children?*" and "*Are you married?*").

Unfortunately, data associated with two additional categorizes was not collected in the original study: full time employment and earning a GED. To overcome this limitation, empirical research examining identity association in nontraditional students provided a framework to

determine if a participant was a full time worker. Since most students over the age of twenty-four identify themselves as employees first and students second (Ross-Gordon, 2011), the item "My occupational choice and career plans" within the Identity Development Questionnaire (see Appendix A) (Cheek, Smith, & Tropp, 2002, February) was reinterpreted. This is a 45-item scale that asked participants to rate how strongly they identify with a particular identity, from 1 (*not important to my sense of who I am*) to 5 (*extremely important to my sense of who I am*). Any participant who self-reported the maximum rating of 5 for the item, "My occupational choice and career plans," was subjectively defined as working more than 35 hours per week. The final NCES category, earning a GED, was not examined in this study.

Intrinsic Motivation

Intrinsic motivation was assessed using the Academic Motivation Scale (Bin Amir, Lemonds, Sakhuja, & Shen, 2011) (see Appendix B) on which participants were asked to rate 8 items ($\alpha = .65$) from 1 (*strongly disagree)* to 5 (*strongly agree)*. An example item is "I am willing to work hard in a course to learn the material even if it won't lead to a higher grade." Items were summed to derive a score for intrinsic motivation.

Academic Emotions

Twenty-six items ($\alpha = .84$) from the Achievement Emotions Questionnaire (AEQ) (Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011) were used to assess student emotions regarding their classes (see Appendix C). Participants responded to the items with the following statement in mind: "Now that I am a college student…" Example items include "I get bored studying for my classes" and "I feel irritated when doing assignments for my classes. Response options ranged from 1 (*strongly disagree)* to 5 (*strongly agree).* Twelve of the items were

reversed coded. Items were summed to derive a total score to be used in analyses. Higher scores indicated more positive attitudes toward academics.

Academic Competence

Academic competence was assessed via the constructs of academic skills and academic enablers (Elliott & DiPerna, 2002), including student-rated indices of intrinsic motivation, academic emotions, Big-5 personality characteristics, and identity development. Items were summed to create a score for academic competence that was used in analyses. Alpha reliability for the scale was .65.

Student Stress Scale

Thirty-three items ($\alpha = .75$) from Mullen and Costello's (1981) student stress scale were used to measure participants' current level of stress (see Appendix D). Questions ask participants if particular events, such as "death of a close friend," have happened to them within the past 6 months. Response options are dichotomous. Questions were summed to derive at a total stress measure to be used in analysis.

Anxiety Questionnaire

Thirty-three questions ($\alpha = .95$) from the Burns Anxiety Inventory (Burns & Eidelson, 1998) were used to measure participants' current anxiety level (see Appendix E). Questions asked if participants have had specific feelings, such as "feeling things around you are strange, unreal, and foggy" or "fears of cracking up or going crazy," within the past week. Response options range from 1 (*not at all*) to 4 (*a lot).* Questions were summed to derive at a total anxiety measure that was used in analysis.

Personality Traits

The Big Five Inventory (BFI) (Benet-Martínez & John, 1998) was used to assess participants' level of extraversion, agreeableness, conscientiousness, neuroticism, and openness (see Appendix F). This is a 44-item scale that asked participants to rate themselves on a scale of 1 (*disagree strongly*) to 5 (*agree strongly*) on items intended to assess the big five personality traits. Eight items (α = .80) were summed to determine level of extraversion with three items being reversed scored. Nine items (α = .80) were summed to determine level of agreeableness with four items being reversed scored. Nine items (α = .85) were summed to determine level of conscientiousness with four items being reversed scored. Eight items (α = .79) were summed to determine level of neuroticism with three items being reversed scored. Ten items (α = .84) were summed to determine level of openness with two items being reversed scored.

Student Identity

The AIQ-IV (Cheek et al., 2002, February) was used to assess participants' identity orientations (see Appendix G). This is a 45-item scale that asked participants to rate items on a scale of 1 (*not important to my sense of who I am*) to 5 (*extremely important to my sense of who I am*). Ten items (α = .86) were used to assess personal identity orientation. Ten items (α = .92) were used to assess participants' relational identity orientation. Seven items (α = .85) were used to assess social identity orientation. Eight items (α = .79) were used to assess collective identity orientation.

Group Identity Salience

The Group Identity Repertoire-College (GIR-C), inspired by Hermans (2001) Personal Position Repertoire (PPR), assessed the collective identities of the nontraditional students in the

sample. The method, "can be adapted and revised according to the purposes and needs of individual researchers or practitioners in their specific settings and circumstances" (p. 324). For the present study, group identity salience was measured via an idiographic analysis of prevalence (strength) based on Likert scale ratings of 1 (*not important to my sense of who I am*) to 5 (*extremely important to my sense of who I am*) on two distinct questionnaires.

The Big-5 Inventory (BFI) was employed to examine the multivoicedness of the participant's internal group identities (role positions) (Benet-Martínez & John, 1998). Through the lens of dialogical self theory, the trait constructs examined in the BFI are reconceptualized as situation-specific and self-reflective. Rather than constructing a personality profile, the internal role positions (rows) and external role positions (columns) were each contextually examined in relation to one another (Hermans & Gieser, 2012). BFI items were selected based on the research questions within the present study. In addition, seven items from the AIQ-IV student identity questionnaire were also included in the measure of internal role positions. External role positions were selected from the AIQ-IV questionnaire that most closely related to the research questions of this study.

<div align="center">Procedure</div>

All participants were recruited through psychology courses and received research credit or class extra credit for their participation. All participants read an explanation of research prior to completing the online questionnaire. Participants took on average 31.80 minutes to complete the questionnaire.

Preliminary analyses indicated that missing data for the current study was less than 3% missing. Therefore, a simple mean substitution imputation method was used (Kline, 2010). This

method involves replacing the missing data with the overall mean value for the variable. There is the possibility that replacing missing data in this manner can distort the distribution of the data. However, comparison of variable distributions before and after imputation indicated that this method had no detectable effect on the data. The new data set was used in analyses. The preliminary analysis also examined the reliability of scales, distributional characteristics, and the intercorrelations of measures.

CHAPTER 3: RESULTS

Research Question One: Are There Differences Between Traditional and Nontraditional Students in Academic Competence?

A one-way between subjects ANOVA was conducted to compare the effect of student status (IV) on academic competence (DV). A significant effect was identified, $F(1, 753) = 63.19$, $p = .00$). Participants claiming to have at least one of the nontraditional characteristics ($n = 433$, $M = 396.71$, $SD = 35.27$) displayed differences in academic competence when compared to traditional college students ($n = 322$, $M = 376.93$, $SD = 31.75$).

An additional ANOVA was conducted to compare the effect of whether a participant was minimally (1/6), moderately (2/6), highly (3 or more/6) or claiming to have all six (6/6) of the nontraditional characteristics. A significant effect was found only with participants reporting to have all six of these characteristics, $F(162, 59) = 1.45$, $p = .00$.

Research Question Two: What Impacts Academic Competence of Nontraditional Students?

To determine what factors related to being an adult student combine to predict academic competence for this population, hierarchical multiple-regression analyses were conducted for academic competence. The results are reported in Table 1.

The control variables of moderately traditional and highly traditional were entered into the first block of the model. A significant effect was not identified, $R^2 = 0.00$, $F(2, 430) = .92$, $p = .40$. Classifying nontraditional students as belonging to one or more of the NCES characteristics did not improve the ability of the initial model to predict academic competence.

Group identity measures (e.g., personal identity, social identity, relational identity, and collective identity) were added to the second block. The results of the regression indicated that

three predictors explained 69.5% of the variance, $R^2 = 0.70$, F (6, 426) $= 165.10$, $p = .00$. It was found that personal identity predicted academic competence the most strongly ($\beta = 2.35$, $p = .00$), followed by relational identity ($\beta = 1.62$, $p = .00$) and collective identity ($\beta = 1.24$, $p = .00$).

The third block of the regression model consisted of the following internal identity variables: family, friend, partner, close friends, spouse, and student. A significant effect was not identified [($R^2 = 0.70$, F (6, 420) $= 1.07$, $p = .39$)] when group identity measures were held constant.

The fourth block of the regression model contained 14 external identity predictors (others react, looks, emotions, thoughts, attractive, my age, impression, fear, unique, abilities, self-evaluation, career, academics, and connected). The results of the regression explained 71.3% of the variance, $R^2 = 0.73$, F (14,406) $= 2.90$, $p = .00$. Self-evaluation ($\beta = -4.02$, $p = .01$), academic emotions ($\beta = -3.41$, $p = .02$), and attractive ($\beta = -3.37$, $p = .04$) had a strong negative impact as predictors in this model. Thus, lower scores on these measures predict lower academic competence in nontraditional college students.

The fifth block of the regression model added the Big-5 predictors of extraversion, agreeableness, conscientiousness, neuroticism, and openness. All of the Big-5 predictors were significant and increased the ability of the model to predict academic competence by 18%. The greatest impact was seen in conscientiousness ($\beta = 1.58$, $p = .00$) and openness ($\beta = 1.49$, $p = .00$).

Intrinsic motivation was the only predictor added in the sixth block of the regression. The result was significant, $R^2 = 0 .94$, F (1,400) $= 237.47$, $p = .00$), allowing the model to explain 93% of the variance in academic competence.

<u>Research Question Three: Can Group Identity Salience Better Explain These Differences?</u>

The Group Identity Repertoire-College (GIR-C), inspired by Hermans' (2001) Personal Position Repertoire (PPR), assessed the collective identity of the nontraditional students in the sample.

Group Identity Salience

Measuring group identity salience required two systematic procedures. First, an overall prominence rating was obtained by summing the values of each internal identity (rows) within the repertoire. Next, as a measure of internal consistency (Zomer, 2006), the Euclidian distance (absolute value) between each internal identity rating and corresponding external identity rating was calculated. For example, the distance between Goals (5) and Family (3) equals a Euclidean distance of 2. The smaller the Euclidean distance between an internal and external identity, the greater the similarity of the internal identity among the nontraditional students in the sample. An overall Euclidean distance value was obtained by summing the calculated values of each internal identity (rows) within the repertoire.

The results of the analysis (see Table 2) revealed 13 clusters of internal roles identities along with their associated Euclidian distance (EC) measures. Surprisingly, while commitment to a student identity revealed a relatively low prominence rating of 79 ($M = 76$), the EC measure of 8 ($M = 17$) implies that this group most strongly identified with the role of a student. Since this finding is contrary to all of the student identity research described earlier, further examination of the rationale surrounding its use as a measure of student identity on the AIQ-IV survey was warranted. The item, "My role of being a student in college" was found to be theoretically based on a method of self-identity research called autophotography, which

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examines self-referent photos taken by participants. Within the literature, the use of

autophototography as research data has been shown to be over generalized and depreciatory

(Carey, 2006; Dollinger, 1996). Future research should utilize empirically supported measures

of student identity.

The GIR-C revealed additional group identity affiliations that were consistent with

elements of many of the adult learning theories reviewed earlier. For example, the BFI traits of

efficiency, perseverance, and curiosity were among the most prominent for this group. High

prominence and internal consistency measures associated with self-evaluation revealed a strong

tendency of the nontraditional students in the sample to compare its physical appearance and

appropriate social behaviors within the context of the entire group. The feeling of being unique

and distinct from others was especially salient. In contrast, the low prominence and high ED

scores indicate a rather weak affiliation with the constructs of aloof, disorganized, attractiveness,

age, fear, and abilities.

CHAPTER FOUR: DISCUSSION

The primary goal of the current study was to examine group identity salience and academic competence through the lens of Herman's dialogical self theory (DST). Given the tentative results of the GIR-C, this novel measure may provide some value to researchers involved in exploring the constructivist notion of collective voicing. To that end, the present research sought to understand the changes of the self, at group level, within the context of higher education; a uniting of the psychological mechanisms associated with the knowledge building process with the educational philosophy of constructivism (Ligorio, 2010).

An aim of the present research was to use existing empirical data regarding the dissimilarities of academic measurement among the college student population. Given that nontraditional students continue to be excluded from meaningful and practical research efforts, (Donaldson & Townsend, 2007; Hong et al., 2003; Kasworm, 2005; 2010; Keith et al., 2006; Macari et al., 2005; Sissel et al., 2001; Tinto, 2006), it follows that a new dialogue is needed (Ross-Gordon, 2011). The following research questions were investigated: (1) Are there differences between traditional and nontraditional students in term of academic competence; (2) What impacts academic competence of nontraditional students; and (3) Can measuring group identity salience better explain these differences?

Are there differences between traditional and nontraditional students in academic competence?

To answer this question, a one-way between subjects ANOVA was conducted to compare the effect of student status on academic competence. As expected, the effect was significant, replicating the results of a number of studies showing a distinction among academic measures when classifying the student population (Chartrand, 1990; Kasworm, 2005; 2010; Ligorio, 2010;

Macari et al., 2005; Ross-Gordon, 2011; Sissel et al., 2001). Surprisingly, regardless of age, this result applied to any student self-identifying as having either at least one or all six of NCES characteristics. This has important implications, since 84.78% (*N*=273) of the participants were defined as nontraditional, based on this measure. Clearly, the habitual practice of classifying the student population as either traditional or nontraditional inhibits the breadth of future inquiry.

What impacts the academic competence of nontraditional students?

Hierarchical multiple-regression analyses were conducted to examine how student status, role identities (group, internal and external), BFI traits and motivation measures predicted academic competence. With respect to student status, the unusual results of the previous ANOVA were not repeated, since it did not improve the ability of the initial model to predict academic competence. Thus, the sustained heterogeneity of the student population necessitates alternate methods for predicting measures related to academic activities.

The BFI constructs of personal, relational, and collective identities, improved the ability of the model to predict academic competence up to 69.5%. However, when specific internal role identities (i.e., family, friend, partner, close friends, spouse, and student) where added to the model, a significant effect was not found. Further, a subsequent block containing 14 specific external identity predictors (e.g., the way others react to me, my looks, and my age) added a scant 1.5% to the predictive ability of the regression model. These findings suggest a curious implication: since identity constructs contain multiple measures within a specific dimension of identity, perhaps an alternate measure will facilitate the comparison of multiple, specific role identities in relation to one another.

The fifth block of the regression model was able to explain 75% of academic competence. All of the BFI traits were found to be significant predictors, especially conscientiousness and openness. This result was not surprising, replicating a number a studies noting that high levels of intrinsic and extrinsic motivation contribute to this trait (Bye et al., 2007; Oyserman & Destin, 2010; Taylor & House, 2009). For the present study, the addition of intrinsic motivation to the final block of the regression model resulted in the explanation of 93% of the variance in academic competence. Nontraditional students exhibit higher levels of motivation and conscientiousness than their student peers.

Can measuring group identity salience better explain what effects academic competence?

As a proposed method for the systematic measurement of group identity salience, the empirical data produced by the GIR-C replicated a number of key findings within the literature. With respect to overall prominence ratings, the multivoicedness of internal group identities (role positions) was found to be most salient when the constructs of efficiency, perseverance, and curiosity were elicited within the classroom (Bye et al., 2007; Pekrun et al., 2011; Reitzes & Burke, 1980; Thunborg, Bron, & Edstróm, 2012). In addition, high prominence and internal consistency measures associated with self-evaluation revealed a tendency for the collective voicing of the nontraditional students in the sample to compare its physical appearance and appropriate social behaviors within the context of the out-group. The constructs of being unique and distinct from others were especially salient. These findings provide a contextual voice to the extent processes associated with the construction of stereotypes (Keith et al., 2006; Miguel, Miller, Kwak, Lee-Gonyea, & Gonyea, 2011; Picho & Brown, 2011).

The GIR-C also examined the qualitative aspect of collective voicing via the contextual processes of positioning and counter-positioning. This dialogical relationship is revealed when the internal role positions of the group are compared to the external role identities associated with the group. For example, the collective voice of a commitment to age as a role construct elicited negligible ratings across the entire range of external role identities for which they may encounter. This implies that chronological age plays little to no role when construing self-identity. In addition, the collective voicing of values, goals, reliable, and tense were found to be the most salient role identities within the interpersonal context of the classroom. The constructivist notion of the classroom as a community of learners requires the interchange of information during the knowledge building process. While a commitment to goals and being reliable are an important component for academic competence, high levels of stress may adversely affect the meaning-making process (Funk, 2010; Keith et al., 2006).

<u>Limitations of Study</u>

Limitations of this study include the fact that it was conducted at one university in the Southeastern United States. Results, therefore, cannot be generalized to nontraditional students who reside in other areas of the United States. The questionnaire was also completed in an online setting and was a self-report measure, so the participants could not be monitored. It is quite possible that participants were not 100% truthful when answering the questionnaire. In addition, this research was based on the analysis of secondary data. Consequently, this archived data set did not collect data associated with the variables of full time employment and earning a GED. As previously mentioned, the present study subjectively coded this data.

The development of the GIR-C is a novel adaptation of group identity measurement based on Hermans' personal position repertoire (PPR). While idiographic in nature, the present study endeavored to employ a measure of internal consistency based on The Team Confrontation Method (Zomer, 2006). Other methods of establishing validity within the context of the present study are unknown. In addition, the PPR is designed to measure the strength of the relationship between internal and external identities based on self-reported ratings given by the participant. The present study identified these relationships via a practical analysis of 'self and other' roles. The data obtained for these measures was elicited via an identical Likert scale rating used on the original PPR.

<u>Implications for Future Research</u>

The primary goal of the current study was to examine group identity salience and academic competence through the lens of Herman's dialogical self theory (DST). Measuring group identity salience is a relatively new prospect. While the usual statistical methods had been employed in this endeavor, a modified or adapted methodology of Hermans' PPR technique is in its infancy and may deserve further inquest. This is especially relevant when examining the interactions both within the group and between the group and the outside.

As "a bridging theory" (Hermans & Gieser, 2012, p. 439), this study leveraged DST to draw out the contextual relativism of group role identities within the learning and engagement process of nontraditional students. Yet recently, there has been a muted acceptance within the research community with respect to examining the college student population as one homogeneous group. Therefore, as constructivist-teaching methods continue to gain popularity

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via online learning environments, measuring the collective uniformity of voice of the student

populace may afford practical insights within the realm of interdisciplinary researchers.

Table 1 Predicting Academic Competence: Hierarchical Multiple Regression Analysis

Predictor	β	R^2	F_{change}	R^2_{change}
Step 1: Student Status			.92	.00
HighNT	5.51	.38		
MinNT	3.86	.23		
Step 2: Group Identity Salience			246.15	.70
Collective	1.24	.00		
Personal	2.35	.00		
Social	1.79	.36		
Relational	1.62	.00		
Step 3: Internal Identities			1.07	.01
Student	2.05	.04		
Family	1.25	.18		
Partner	1.04	.48		
Friend	1.01	.59		
Close Friends	-.31	.83		
Spouse	1.41	.38		
Step 4: External Identities			2.90	71.3
Abilities	-.52	.56		
Career	1.01	.40		
Unique	-.96	.42		
Fear	-.44	.71		
My Age	-1.32	.18		
Others_React	.55	.69		
Faculty/Peers	3.19	.02		
Emotions	-3.40	.02		
Self Eval	-4.01	.01		
Looks	-.32	.80		
Thoughts	2.74	.11		
Impression	1.31	.35		
Connected	-2.83	.09		
Attractive	-3.37	.04		
Step 5: The Big 5			132.53	89.1
Neuroticism	.40	.00		
Extraversion	.88	.00		
Openness	1.49	.00		
Agreeableness	.78	.00		
Conscientiousness	1.60	.00		

Step 6: Motivation			237.47	93.1
Intrinsic Motivation	1.76	.00		

Table 2 Results from the Group Identity Repertoire - College (GIR-C)

Euclidean Distance		More Group Identity Salience	
	Relatively Low	High Prominence	Low Prominence
		Thoughts, Self, Dreams, Self-Evaluation, Curious, Efficient, Social, Perseverance, Unique, Cooperative, Student	Relaxed, Full of energy, Ingenious, Worries, Lazy, Assertive, Shy, Reflective
	Relatively High	Less Group Identity Salience	
		High Prominence	Low Prominence
		Values, Goals, Reliable, Tense	Aloof, Disorganized, Attractive, My Age, Fear, Abilities

APPENDIX A
IDENTITY DEVELOPMENT QUESTIONNAIRE

These items describe different aspects of identity. Please read each item carefully and consider how it applies to you using the following scale:

(a) = Not important to my sense of who I am
(b) = Slightly important to my sense of who I am
(c) = Somewhat important to my sense of who I am
(d) = Very important to my sense of who I am
(e) = Extremely important to my sense of who I am

1. The things I own, my possessions
2. My personal values and moral standards
3. My popularity with other people
4. Being a part of the many generations of my family
5. My dreams and imagination
6. The ways in which other people react to what I say and do
7. My race or ethnic background
8. My personal goals and hopes for the future
9. My physical appearance: my height, my weight, and the shape of my body looks
10. My religion
11. My emotions and feelings
12. My reputation, what others think of me
13. Places where I live or where I was raised
14. My thoughts and ideas
15. My attractiveness to other people attractive
16. My age, belonging to my age group or being part of my generation
17. My gestures and mannerisms, the impression I make on others
18. The ways I deal with my fears and anxieties
19. My sex, being a male or a female
20. My social behavior, such as the way I act when meeting people
21. My feeling of being a unique person, being distinct from others
22. My relationships with the people I feel close to
23. My social class, the economic group I belong to whether lower, middle, or upper class
24. My feeling of belonging to my community
25. Knowing that I continue to be essentially the same inside even though life involves many external changes
26. Being a good friend to those I really care about
27. My self-knowledge, my ideas about what kind of person I really am
28. My commitment to being a concerned relationship partner
29. My feeling of pride in my country, being proud to be a citizen
30. My physical abilities, being coordinated and good at athletic activities
31. Sharing significant experiences with my close friends
32. My personal self-evaluation, the private opinion I have of myself
33. Being a sports fan, identifying with a sports team
34. Having mutually satisfying personal relationships

35. Connecting on an intimate level with another person
36. My occupational choice and career plans
37. Developing caring relationships with others
38. My commitments on political issues or my political activities
39. My desire to understand the true thoughts and feelings of my best friend or romantic partner
40. My academic ability and performance, such as the grades I earn and comments I get from teachers
41. Having close bonds with other people
42. My language, such as my regional accent or dialect or a second language that I know
43. My feeling of connectedness with those I am close to
44. My role of being a student in college
45. My sexual orientation, whether heterosexual, homosexual, or bisexual

APPENDIX B
ACADEMIC MOTIVATION SCALE

Please rate the following statements using this scale:
  (a) Strongly disagree
  (b) Disagree
  (c) Neutral
  (d) Agree
  (e) Strongly agree

1. I am willing to work hard in a course to learn the material even if it won't lead to a higher grade.(I)
2. When I do well on a test, it is usually because I am well-prepared, not because the test is easy.(I)
3. I frequently do more reading in a class than is required simply because it interests me.(I)
4. I frequently talk to faculty outside of class about ideas presented during class.(I)
5. Getting the best grades I can is very important to me.(E)reverse code
6. I enjoy the challenge of learning complicated new material.(I)
7. My academic experience (i.e., courses, labs, studying, discussions with faculty) will be the most important part of college.(I)
8. My academic experiences (i.e., courses, labs, studying, discussions with faculty) will be the most enjoyable part of college.(I)

APPENDIX C
ACADEMIC EMOTIONS SCALE

Please rate the following statements using the following scale:
- (a) Strongly disagree
- (b) Disagree
- (c) Neutral
- (d) Agree
- (e) Strongly agree

Now that I am a college student….

N1. I get bored studying for my classes.
N2. When I am preparing for an exam, I feel weary.
N3. It is boring doing assignments for my classes.
N4. The subjects I have to study irritate me.
N5. When I am sitting at my desk for a long time preparing for my classes, I could throw my notes through the window.
N6. I feel irritated when doing assignments for my classes.
N7. I feel anxious when I study for my classes.
N8. When I think about the classes I have to study for, I become anxious.
N9. When I am preparing for an exam, I become anxious.
N10. When I think about an exam, I have a lump in my throat.
N11. I feel anxious when I am doing assignments for my classes.
N12. I feel ashamed thinking I might have not prepared for an exam properly.
P13. I am ashamed when I cannot do assignments for my classes.
P14. I am ashamed of the poor quality of my preparation for my classes.
P15. I feel ashamed not having started preparing my class exams earlier.
P16. I feel great when I study for my classes.
P17. I am pleased working on assignments that prepare me for my class exams.
P18. I am pleased doing assignments for my classes.
P19. I am happy solving hard problems when I prepare for my classes.
P20. I feel optimistic about the preparation for my class exams.
P21. I am sure that everything will go well on my next class exam.
P22. I am confident for my class exams when I see how I solve the problems or complete assignments.
P23. I am optimistic when I think about my class exams.
P24. I am proud of the way I am preparing my classes.
P25. I feel proud thinking of somebody noticing the quality of my preparation for my class exams.
P26. I feel proud when I do exercises with my classes in mind.

APPENDIX D
STUDENT STRESS SCALE

Please state if any of the following has happened to you in the past 6 months using:
   (a) Yes
   (b) No

   1. Death of a close family member
   2. Death of a close friend
   3. Divorce between parents
   4. Jail term
   5. Major personal injury or illness
   6. Marriage
   7. Being fired from a job
   8. Failing an important course
   9. Change in the health of a family member
   10. Pregnancy
   11. Sex problems
   12. Serious argument with a close friend
   13. Change in financial status
   14. Change of major
   15. Trouble with parents
   16. New girl- or boyfriend
   17. Increased workload at school
   18. Outstanding personal achievement
   19. First semester in college
   20. Change in living conditions
   21. Serious argument with an instructor
   22. Lower grades than expected
   23. Change in sleeping habits
   24. Change in social activities
   25. Change in eating habits
   26. Chronic car trouble
   27. Change in number of family get-togethers
   28. Too many missed classes
   29. Change of college
   30. Dropping of more than one class
   31. Minor traffic violations

APPENDIX E
ANXIETY QUESTIONNAIRE

Please rate on the following scale how much the following has bothered you during the past week.

(a) Not at all
(b) Somewhat
(c) Moderately
(d) A lot

1. Anxiety, nervousness, worry, or fear
2. Feeling that things around you are strange, unreal or foggy
3. Feeling detached from all of part of your body
4. Sudden unexpected panic spells
5. Apprehension or a sense of impending doom
6. Feeling tense, stressed, "uptight," or on edge
7. Difficulty concentrating
8. Racing thoughts or your mind jumps from one thing to the next
9. Frightening fantasies or daydreams
10. Feeling that you're on the verge of losing control
11. Fears of cracking up or going crazy
12. Fears of fainting or passing out
13. Fears of physical illness or heart attacks or dying
14. Concerns about looking foolish or inadequate in front of others
15. Fears of being alone, isolated, or abandoned
16. Fears of criticism or disapproval
17. Fears that something terrible is about to happen
18. Skipping or racing or pounding of the heart
19. Pain, pressure, or tightness in the chest
20. Tingling or numbness in the toes or fingers
21. Butterflies or discomfort in the stomach
22. Constipation or diarrhea
23. Restlessness or jumpiness
24. Tight, tense muscles
25. Sweating not brought on by heat
26. A lump in the throat
27. Trembling or shaking
28. Rubbery or "jelly" legs
29. Feeling dizzy, lightheaded, or off balance
30. Chocking or smothering sensations or difficulty breathing
31. Headaches or pains in the neck or back
32. Hot flashes or cold chills
33. Feeling tired, weak, or easily exhausted

APPENDIX F
THE BIG FIVE INVENTORY (BFI)

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please use the scale below to indicate the extent to which you agree or disagree with each statement.

(a)Disagree strongly
(b)Disagree a little
(c)Neither agree nor disagree
(d)Agree a little
(e)Agree strongly

I see Myself as Someone Who...

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

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

APPENDIX G
THE GROUP IDENTITY REPERTOIRE – COLLEGE (GIR-C)

	Family	Others Reaction	Religion	Reputation	Impression	Social	Close Relations	Social Class	Community	Friend	Partner	Citizen	Close Friends	Personal Relationships	Spouse	Career	Caring Relationships	Faculty/Peers	Connected	Overall prominence	Euclidan distance
	3	3	1	3	3	4	5	3	3	5	5	3	4	4	5	5	4	4	4		
Values	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	95	24
Dreams	4	4	5	4	4	4	5	5	5	5	5	4	4	4	5	5	4	4	4	84	13
Goals	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	95	24
Looks	3	4	4	3	3	4	4	4	3	4	4	4	4	4	4	5	4	4	4	73	10
Emotions	4	4	4	4	4	4	5	4	4	5	5	4	4	4	5	5	4	4	4	81	10
Thoughts	4	5	5	5	4	5	5	4	5	5	5	5	4	4	5	5	4	4	4	87	16
Attractive	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57	18
My Age	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57	18
Fear	3	3	4	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	59	18
Unique	4	4	4	3	4	4	5	4	4	5	5	4	4	4	5	5	4	4	4	80	9
Self	5	5	5	5	4	4	5	5	5	5	5	4	4	4	5	5	4	4	4	87	16
Abilites	3	3	3	3	3	5	3	3	3	3	3	3	3	3	3	3	3	3	3	59	18
Self-Evaluation	4	5	5	5	4	4	5	4	4	5	5	4	4	4	5	5	4	4	4	84	13
Student	4	4	4	4	3	4	5	4	4	5	5	3	4	4	5	5	4	4	4	79	8
Thorough	5	5	5	5	4	4	5	4	5	5	5	5	5	4	5	5	4	4	4	88	17
Relaxed	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	76	15
Curious	4	4	5	4	4	4	4	4	4	5	5	4	4	4	5	5	4	4	4	81	12
Full of energy	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	76	15
Reliable	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	95	24
Tense	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	95	24
Ingenious	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	76	15
Disorganized	4	2	1	4	4	4	1	1	2	1	1	4	1	2	1	1	4	4	2	44	35
Worries	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	76	15
Lazy	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	76	15
Assertive	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	76	15
Aloof	2	2	4	2	2	2	1	2	2	1	1	2	2	2	1	1	2	2	2	35	42
Perserverence	4	4	4	4	4	4	5	4	4	4	5	4	4	4	5	5	4	4	4	80	11
Shy	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	76	15
Efficient	4	4	4	4	4	4	5	4	4	5	5	4	4	4	5	5	4	4	4	81	10
Sociable	4	4	5	4	4	4	4	4	4	5	5	4	4	4	5	4	4	4	4	80	13
Reflective	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	76	15
Cooperative	4	4	4	4	4	4	4	4	4	4	5	4	4	4	5	5	4	4	4	79	12
Overall prominence	134	133	136	135	131	138	139	131	134	142	141	134	132	132	144	144	134	134	130		

Note: The values within the matrix represent the strength of the relationship between a particular internal identity (rows) and an external identity (columns). Overall prominence is the sum of all values for each row or column. Euclidian distance values represent high collective identity (lower scores) and low collective identity (higher scores).

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