An Investigation of Character Strengths in Relation to the Academic Success of College Students

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ABSTRACT – Based on a sample of 237 university undergraduate students, we examined the 24 Values in Action (VIA) character strengths in relation to two indices of academic success--student satisfaction and grade point average (GPA). All 24 character strengths were positively and significantly related to General Life Satisfaction; 22 were significantly, positively related to College Satisfaction; and 16, to GPA. Multiple correlations for each of these sets of predictors were, respectively: R = .57, .47, and .41. Similarities to and differences between the present results and cognate studies based on adult and young adult samples were noted. Individual results were discussed in terms of construct meaning and functional relationships for college student behavior. Findings were interpreted from the perspectives of lifespan development, college student behavior, identity theory, "emerging adulthood", Big Five personality model, and personality research on life satisfaction. Potential implications for college student interventions were drawn, the rich potential for elaborating the construct validity of character strengths vis-à-vis college student behavior was noted, and results were interpreted as providing strong support for the usefulness of the VIA inventory in the college context.

The purpose of this study was to examine character strengths in relation to the academic performance and satisfaction among college students. Although positive

psychology is a relatively new area of inquiry (cf. Seligman, 2002; Seligman & Csikszentmihalyi, 2000), there is already a burgeoning line of conceptual and empirical work devoted to the topic (see, e.g., the special issue of the *American Psychologist*, 2000; and Peterson & Seligman, 2004). Positive psychology represents a movement away from psychological problems, psychopathology, weaknesses, victimology, and deficits in human nature toward a focus on positive behavior, human strengths, virtues, and "what makes life worth living" (Seligman & Csikszentmihalyi, 2000, p. 13). An additional goal of positive psychology is to build human strengths and civic virtue (Seligman & Csikszentmihalyi, 2000).

A fertile setting for studying character strengths is college (by which we are also referring to "university"). The college experience is widely regarded as providing many opportunities for students to develop on a variety of psychological dimensions including values, competences, attitudes, knowledge, beliefs, identity, self-concept, and personality traits (e.g., Astin, 1993; Hamrick, Evans, & Schuh, 2002; Pascarella & Terenzini, 1991). In their synthesis of more than 20 years of empirical research and 2,600 studies, Pascarella and Teremzini (ibid) conclude that there is a relatively consistent set of impacts of college on students that include:

> "an increase in cultural and artistic interests and activities…more positive self concepts; and there is an expansion and extension of interpersonal horizons, intellectual interests, individual autonomy, and general psychological maturity and well-being" (p. 565).

Apart from, perhaps, schools at the elementary through high school levels, it is hard to think of a more propitious setting for studying the gamut of character strengths than college. The purpose of the present investigation was to examine how character strengths of college students are related to two key outcome variables—the academic performance and satisfaction of college students. These variables correspond to the two main types of educational outcomes identified by Astin (1977)—cognitive and affective. Both of these outcomes will be described separately before turning to the specific research goals of the current study.

Academic performance, as represented by a student's cumulative grade-point average (GPA), is generally viewed as the most important indicator of college student performance (cf. Astin, 1993; Pascarella & Terenzini, 1991). Moreover, there has been a long-standing emphasis in psychological research on grades. By way of example, the college students' grades have been studied for over 80 years as a criterion variable against which personality constructs have been validated (e.g., May, 1923; McFadden & Dashiell, 1923).

To date, no published research has examined the relationship between character strengths and GPA; however, significant associations may be expected. As relatively

stable traits which contribute to the fulfillment of desired goals and positive outcomes (Peterson & Seligman, 2004), character strengths should be directly related to the grades of college students, given the overarching importance of grades in the eyes of students, faculty, administrators, and society at large (e.g., Becker, Geer, & Hughes, 1968; Milton, Pollio, & Eison, 1986). In addition, the four Big Five personality traits which Peterson and Seligman conceptualize as having clear counterparts to character strengths—Conscientiousness, Openness, Agreeableness, and Extraversion—have previously been found to be related to collegiate GPA and course grades (Lounsbury, Huffstetler, Leong, & Gibson, 2005; Lounsbury, Sundstrom, Loveland, & Gibson, 2003; Musgrave-Marquart, Bromley, & Dalley, 1997).

The second outcome of interest in this study, the satisfaction of college students, has long been viewed as a key outcome of higher education (Astin, 1977; 1993). As Benjamin and Hollings (1997) observed, "Student satisfaction is an important outcome variable because it appears related to a variety of other variables in which educators place great value…" (p. 213), such as institutional policies, university services, quality of teaching, living arrangements, student involvement in campus activities, courseload, student goals and motivation, among others. Various types of student satisfaction have been studied, ranging from satisfaction with a specific aspect of experience—such as satisfaction with advising—to global life satisfaction. In the interests of parsimony, we followed the conceptual model of Benjamin and Hollings (1995) in viewing student satisfaction as: a) satisfaction with specific domains of college experience ("College Satisfaction"); and b) satisfaction with life as a whole without reference to domains of college experience (General Life Satisfaction). This approach is similar to the larger literature on life satisfaction that distinguishes global life satisfaction and domain-specific satisfaction (Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976).

One of the central tenets of positive psychology is that character strengths contribute to individual well-being and happiness. Accordingly, higher levels of character strengths should be associated with higher levels of life satisfaction. This proposition was clearly verified in a recent study of middle-aged adults (average age 35-40 years) by Park, Peterson, and Seligman (2004). Their results were based on an on-line study that utilized the VIA to assess character strengths and looked at their associations with life satisfaction. All but four of the 24 VIA subscales (Modesty, Creativity, Appreciation of Beauty, and Love of Learning) were significantly related to (general) life satisfaction and six of the VIA subscales—Hope, Zest, Gratitude, Curiosity, Love, and Persistence—were correlated with life satisfaction at the level of .30 and higher. Partial correlations were used for these analyses, with age, gender,

and U.S. citizenship controlled for in the correlations. These findings were interpreted as providing support for the proposition that the character strengths measured in the VIA "are on the whole associated with life satisfaction, expected given their definition as psychologically fulfilling" (Park et al., 2004, p. 612).

Researchers have begun to investigate the nature of these processes from a developmental perspective. A recent study by Isaacowitz, Vaillant, & Seligman (2004) indicates that there is likely to be both continuity and change in the relationship of character strengths to life satisfaction when different segments of the lifespan are considered. They investigated the relationship between character strengths and life satisfaction as a function of differences on the adult lifespan. Specifically, they examined strengths and life satisfaction in three community samples—young adult (age 18-25), middle age (age 36-59), and older adult (age 60 and above). While higher levels of most strengths were positively related to higher levels of life satisfaction for all three groups, there were several differential findings by age group that fit with current lifespan developmental theories. For example, as befits their stage of life, young adults had the highest mean scores on strengths associated with exploring the world creatively, whereas middle-age adults had higher mean scores on "generativity-relevant strengths such as citizenship and kindness, just as Erickson predicts" (*ibid*, p. 195). Also, when the amount of unique variance in life satisfaction predicted by each character strength was examined, Hope was the sole significant predictor for young adults and Loving Relationships was the sole significant predictor for middle-age adults. These results are consistent with the major developmental tasks for each age group.

The central research issue we addressed in the present investigation was the relationship between character strengths and academic success, where success is partitioned into academic performance and student satisfaction. In light of the literature reviewed above, we expected positive relationships between character strengths as assessed by the VIA and: GPA, General Life Satisfaction, and College Satisfaction. The following research questions were addressed:

1) Regarding academic performance, we expected to find positive correlations between the character strengths and GPA. Given the diverse psychosocial environments on campus (Hamrick, Evans, & Schuh, 2002) and the multiple pathways for development of strengths in the college setting (Chickering & Resisser, 1993), we saw no reason not to expect all 24 of the VIA character strengths to be positively and significantly related to GPA. Given the paucity of prior research on the relationship between character strengths and academic performance, we could advance more differentiated hypotheses for only three individual character strengths:

1a) We expected relatively higher magnitude correlations with GPA for the

character strengths of Persistence, Self-Regulation, and Love of Learning. Our rationale for Persistence and Self-Regulation being more highly related to GPA than the other character strengths is that these are the two strengths assessed by the VIA that correspond to Conscientiousness (Peterson & Seligman, 2004). As noted earlier, Conscientiousness is the trait most commonly associated with collegiate GPA (Musgrave-Marquart, Bromley, & Dalley, 1997; Schuerger & Kuna, 1987). As for Love of Learning, this is the character strength assessed by the VIA which is most directly linked at the conceptual level to learning and academic performance. As noted by Peterson and Seligman (2004), love of learning is the "strength that teachers would like to see in their students." (p. 162).

2) Regarding student satisfaction, we initially expected all 24 of the character strengths assessed by the VIA to be positively related to both General Life Satisfaction and Campus Satisfaction. We included Campus Satisfaction in this hypothesis because prior research has shown that General Life Satisfaction and College Satisfaction show similar patterns of relationship to personality traits (Lounsbury, et al, 2005). In terms of more specific expectations, we hypothesized that the six character strengths most highly related to life satisfaction and with effect sizes greater than .30 in previous research with middle-aged adults (Park et al., 2004) would be the most highly related to General Life Satisfaction in the present study

2a) In light of Isaacowitz et al.'s (2004) conclusion that there are both convergences as well as differences in the relationship between character strengths and life satisfaction as a function of life span stage, we also compared the pattern of relationships between character strengths and life satisfaction for college students in our sample with the main adult sample collected by Peterson and Seligman (2004). We compared the young adult and middle-aged adult samples by asking a series of three questions: (a) Which of the 24 correlations between the character strengths and life satisfaction were statistically significant and non-significant in both samples? (b) Which of the character strength-life satisfaction correlations were of "medium" ($r = .30-.49$) and "large" ($r \geq .50$) effect sizes (Cohen, 1977)? (c) What is the rank-order correlation of all 24 correlation coefficients between the college and middle-aged adult samples?

3) In addition, we made an initial estimate of the overall predictability of student success from the assessment of students' character strengths using stepwise multiple regression analysis. More specifically, three sets of stepwise multiple regression analyses were performed with students' character strengths serving as predictors and GPA, General Life Satisfaction, and College Satisfaction serving as the dependent variables. This type of analysis was not performed by Peterson and Seligman, so similar comparisons cannot be made to their middle aged adult samples; however,

such an analysis will facilitate comparisons to other studies which have examined the multiple correlation of personality traits regressed on collegiate GPA (e.g., Lounsbury, Huffstetler, et al., 2005; Paunonen & Ashton, 2001; Paunonen & Nicol, 2001).

Method

Overview of Research Setting

This study represents a field study with a single occasion of measurement. The sample is basically a convenience sample limited in scope to a single university and does not represent a broad sampling of colleges. However, as will be seen below, there is sufficient variability of the measures administered and covariation among measures to permit meaningful statistical inferences to be drawn.

Participants

Students enrolled in two undergraduate psychology courses at a large southeastern state university were recruited to participate in this study. Of the 237 participants in this study, 41% were male (59% female). The age distribution of the sample was: Under 20 years—6%, 20-21—32%, 22-25—47%, 26-30—9%, and over 30---6%. The vast majority of the participants were White, non-Hispanic (97%, n=229). Other racial/ethnic groups represented include two African American females (< 1%), one Hispanic female (< 1%), three Hispanic males (< 1%), and one Asian American male (< 1%). Although the university in which this data was collected is predominately White, non-Hispanic, it should be noted that this sample does under-represent certain racial/ethnic groups, specifically African Americans which constitute the largest minority group on campus.

Procedure

After obtaining human subjects approval from the university's Institutional Review Board, we solicited students in two upper-division psychology courses to participate in the study. Participants received extra course credit for completing an online questionnaire, containing a character strength inventory and student satisfaction scales (described below) along with demographic items assessing age, gender, and traditional versus non-traditional student status (cf. University of Oregon, 2005). Immediately upon completion of the VIA, participants were provided a 5-6 page feedback report summarizing their scores on each dimension and providing in-depth descriptions of the VIA character strengths on which they scored most highly.

Character strengths. The Values In Action (VIA) inventory (Peterson, Park, & Seligman, 2004) was used to measure character strengths. The VIA has 240 items representing 24 character strengths which are listed in Table 2 (for a brief summary of each strength, see Park et al, 2004; for more detailed descriptions, see Peterson & Seligman, 2004). For this administration of the VIA, each item was answered on a five-point Likert scale ranging from 1=Strongly Disagree to 5= Strongly Agree with a midpoint of 3=Neutral/Undecided.

Satisfaction. Our student satisfaction measure was taken directly from Lounsbury et al's. (2005) study, which used a set of 22-items to measure General Life Satisfaction and College Satisfaction. Fifteen General Life Satisfaction items asked respondents to rate their satisfaction with "Yourself", "How much fun you are having", "the place where you live", health and physical condition, financial situation, friendships, "your love life", social life as a whole, safety and security, "Your level of personal maturity", job (if applicable), prospects for the future, and "Your Life as a Whole". Seven College Satisfaction items asked respondents how satisfied they were with "How much you are learning in school", "Your rate of progress toward a college degree", "The availability of courses you want or need", "The general quality of professors you have taken courses from", "The availability and quality of academic advisors", "Your academic major" and "Your GPA". Responses for the satisfaction items were made on a seven-point Likert scale: 1—Very Dissatisfied, 2—Dissatisfied, 3—Slightly Dissatisfied, 4—Neutral, 5—Slightly Satisfied, 6—Satisfied, 7—Very Satisfied.

Academic Performance. The student's academic performance was measured by self-reported grade-point-average (*GPA*). Students indicated their cumulative GPA on a seven-point scale used previously by Lounsbury, et al, 2005): 1—less than 1.50, 2—1.50-1.99, 3—2.00-2.49, 4—2.50-2.99, 5—3.00-3.49, 6—3.50-3.99, and 7—4.00. This seven-point, self-reported GPA scale was found in a separate study to be correlated .77 with actual cumulative GPA for non-Freshmen (Lounsbury et al., 2005).

Results

Descriptive statistics and coefficient alphas for the study variables are presented in Table 1 along with the correlations between the 24 VIA measures and: General Life Satisfaction, College Satisfaction, and GPA. It should first be noted that coefficient alphas for the VIA strengths were generally quite good (cf., Lounsbury, Gibson, & Saudargas, 2006), with 18 of the alpha's in the .80 and above range, and the other six alphas in the .76 to .79 range. Regarding the first research question, as can be seen in Table 2, sixteen of the VIA strengths were significantly, positively

Table 1
Descriptive Statistics and Coefficient Alphas
for the VIA and Satisfaction Measures

VIA Measure	Mean	SD	Coefficient alpha
Beauty	3.57	.74	.86
Bravery	3.76	.59	.80
Citizenship	3.82	.56	.76
Creativity	3.69	.65	.87
Curiosity	3.85	.58	.81
Fairness	3.89	.60	.84
Forgiveness	3.60	.68	.86
Gratitude	4.00	.62	.85
Hope	3.90	.56	.79
Humor	3.97	.63	.86
Integrity	3.95	.53	.78
Judgment	3.84	.57	.82
Kindness	4.03	.61	.85
Leadership	3.79	.60	.83
Love	4.04	.61	.81
Love of Learning	3.45	.70	.82
Modesty	3.43	.65	.81
Persistence	3.73	.65	.86
Perspective/Wisdom	3.80	.55	.80
Prudence	3.40	.64	.79
Self-Regulation	3.43	.66	.76
Social Intelligence	3.84	.54	.81
Spirituality	3.75	.80	.89
Zest	3.68	.59	.79

Note. *n* = 237

correlated with GPA, ranging from a high of $r = .31$ ($p < .01$) for Persistence to a low of $r = .13$ ($p < .05$) for Modesty. As predicted, higher magnitude correlations with

GPA were observed for the VIA strengths of Persistence (the highest correlation among the 24), Self-Regulation (3rd highest), and Love of Learning (4th highest).

Table 2
Correlations of VIA Strengths with General Life
Satisfaction, College Satisfaction, and GPA

VIA Measure	General Life Satisfaction	College Satisfaction	GPA
Zest	.48**	.29**	.16*
Love	.45**	.15*	.02
Hope	.43**	.37**	.22**
Self-Regulation	.41**	.34**	.26**
Curiosity	.41**	.22**	.19**
Leadership	.40**	.26**	.14*
Citizenship	.40**	.25**	.14*
Forgiveness	.40**	.26**	.10
Social Intelligence	.40**	.13	.10
Fairness	.39**	.31**	.24**
Integrity	.39**	.25**	.15*
Perspective/ Wisdom	.38**	.26**	.21**
Humor	.38**	.14*	-.01
Kindness	.37**	.18**	.05
Bravery	.36**	.16*	.14*
Gratitude	.35**	.20**	.09
Persistence	.32**	.34**	.31**
Spirituality	.30**	.17*	.17*
Beauty	.28**	.19**	.15*
Judgment	.25**	.26**	.27**
Prudence	.22**	.32**	.25**
Love of Learning	.21**	.16*	.26**
Creativity	.20**	.10	.06
Modesty	.16*	.26**	.13

Note. *n* = 205 for all correlations involving GPA; *n* = 237 for all other correlations
*p < .05   **p < .01

Regarding the second research question, as can be seen in Table 2, all 24 of the VIA strengths were significantly, positively correlated with General Life Satisfaction, ranging from a high of $r = .48$ ($p < .01$) for Persistence to a low of $r = .16$ ($p < .05$) for Modesty. Also, all but two of the VIA strengths (Social Intelligence and Creativity) were significantly, positively correlated with College Satisfaction, with correlations ranging from a high of $r = .37$ ($p < .01$) for Hope to a low of $r = .10$ (n.s.) for Creativity. In terms of magnitude of effect for the correlations between VIA strengths and General Life Satisfaction, none were in the high range (i.e. $r \geq .50$); however, nine of the correlations were in the medium effect size range of .30-49, namely, Zest, Love, Hope, Self-Regulation, Curiosity, Leadership, Citizenship, Forgiveness, and Social Intelligence. The pattern of correlations between VIA strengths and General Life Satisfaction were fairly similar to the corresponding correlations between VIA strengths and life satisfaction in Park et al. (2004)'s Sample 1. We computed a Spearman rank-order correlation between these 24 correlations in our study and Park et al's, which produced a value of $rho = .71$ ($p < .01$).

Regarding the third research question, when a stepwise multiple regression analysis was performed to examine the predictability of General Life Satisfaction from the set of 24 VIA measures, four variables entered the equation at a significant level—Zest, Love, Self Regulation, and Judgment , producing a multiple correlation of $R = .57$ ($R^2 = .325$, $p < .01$). With College Satisfaction as the dependent variable, again four variables entered the equation at a significant level—Hope, Social Intelligence, Self Regulation, and Fairness—producing a multiple correlation of $R = .47$ ($R^2 = .22$, $p < .01$). In the case of GPA as the dependent variable, five significant predictors emerged—Persistence, Love of Learning, Humor, Fairness, and Kindness—producing a multiple correlation of $R = .41$ ($R^2 = .17$, $p < .01$).

Discussion

The present findings provide extensive support for the general hypothesis that character strengths are positively related to the academic success of college students, where success is operationalized as both student satisfaction and academic performance. Given that college is a milieu where students typically are free from parental oversight and the constraints of occupation and parenting, and in view of the multiple pathways for development of strengths and the different ways such positive outcomes can be achieved on campus (cf. Chickering & Reisser, 1993), it is not surprising that so many of the character strengths assessed by the VIA were related to student satisfaction (all 24 in the case of General Life Satisfaction and 22 of the 24

in the case of College Satisfaction) and to GPA (16). It is interesting to note that there were generally higher magnitude correlations between character strengths and general life satisfaction in our college sample—with the median $r = .38$—than in the adult samples reported by Park et al. (2004) where, for example, the median correlation was $r = .235$ in their Sample 1. This difference (which is significant) could reflect either contextual differences about the college environment itself or developmental/maturational differences between early and mid-adults. The college environment is much less structured and constrained than the home/work environment of most adults. Factors not typically relevant for college students may moderate the association between character strengths and general life satisfaction in older adult populations including characteristics of the work environment, the presence and quality of marital relationships, and the presence and age of children. Fortunately, one of the samples in the Isaacowitz et al. (2004) can help shed some light on whether the generally higher magnitude correlations between character strengths and life satisfaction in our study may be attributable to the college environment or age level. They recruited a community sample of young adults in the 18-25 age range through "written and electronic advertisements." Although some individuals in their young adult sample were college students (they did not specify how many), Isaacowitz and his colleagues treated their sample as representative of the larger community and so shall we. We observe that the median correlation between character strengths and life satisfaction in their young adult sample was $r = .25$ ($p < .01$). Comparing this value to the .235 value reported above for the Park et al. (2004) adult sample and our .38 sample, we suggest that the generally higher magnitude of correlations between VIA strengths and life satisfaction in our sample versus the Park et al's (2004) adult sample and Isaacowitz et al's young adult sample may be attributable to this being a sample of college students in the college setting, with its multiple and diverse pathways for personal development and expression of values (Chickering & Reisser, 1993; Hamrick et al, 2002).

    On the other hand, the VIA was developed as a general instrument applicable for a wide range of individuals varying with respect to age, gender, ethnicity, occupation, and other demographic characteristics (Peterson & Seligman, 2004). Thus, we would expect our findings to be similar to equivalent findings in other samples, and they were. For example, the rank order of correlations between the VIA strengths and life satisfaction in Isaacowitz et al's (2004) main sample of adults was similar to those in our study. Hope and Zest were the first and second highest correlations in their sample, versus first and third in ours; Humor and Bravery were ranked 12 and 14 in their sample versus 13 and 15, respectively, in ours; and, finally, Modesty was lowest and Creativity was second to lowest in both their sample and

ours. The relatively high rank-order correlation between the rankings of correlations in their samples and ours further demonstrates the overall similarity of relationships.

The individual relationships between character strengths and academic success are also interesting in their own right. In the case of academic performance, there is a fairly straightforward interpretation, based on construct meaning, for the higher magnitude relationships. To illustrate, regarding the five character strengths (Persistence, Judgment, Self-Regulation, Love of Learning, and Prudence) which correlated at a magnitude of .25 or higher with GPA, students who have higher levels of self-regulation, persist more in their studies, and engage in objective analysis and critical thinking are likely to have higher GPA's than students who are lower on these characteristics. Also, students who have a greater love of learning would be expected to engage voluntarily in a number of behaviors leading to better grades, including attending classes, reading and studying course materials, and mastering concepts presented in textbooks and lectures. In addition, students who are more prudent in how they spend their time and what decisions they make, are more likely to perform better academically. In the case of life satisfaction, because all of the character strengths were significantly correlated with General Life Satisfaction and all but six of the correlations were of a least medium effect size, a focus on individual correlations is less interesting than the broader question of why there was such a pervasive pattern of positive relationships. Although there are many different conceptual approaches one could take to address this question, three important considerations are the multi-dimensional nature of life satisfaction, the rich opportunities for positive experiences available on campus, and the different ways character strengths can affect life satisfaction. A clear and consistent meta-result from reviews of research findings on life satisfaction and subjective well-being (e.g., Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976; Diener, 1984) is that there are many domains of experience that contribute to global life satisfaction, such as friendships, romantic relationships, type of living situation, leisure activities, recreational pursuits, religious faith, health, involvement in organizations, and educational involvement and attainment, to name but a few. The attributes represented by the VIA strengths may affect any of these domains individually or in concert, and, thus, contribute to life satisfaction. Similarly, many different pathways (such as student-faculty relationships, participation in learning communities, and developmental advising), that lead to positive student outcomes can be found in compendia of research on college student adjustment and development (e.g., Astin, 1977; Chickering & Reisser, 1993; Pascarella & Terenzini, 1991). These pathways may be directly or indirectly influenced by the various character strengths considered. In some cases, there is a direct correspondence between character

strengths and important developmental factors for college students. For example, the VIA measure of Integrity is fully consonant with one of Chickering and Reisser's (1993) seven key developmental vectors for college students—*Developing Integrity*. The third consideration is the different ways character strengths can affect life satisfaction. Each of the character strengths can lead to different behaviors and experiences that influence life satisfaction, such as Love of Learning leading to mastering new areas of knowledge which, in turn, leads to intrinsic satisfaction and extrinsic satisfaction resulting from recognition for good grades. Also, in the present context character strengths can color perceptions of events such that different students "experience the same life events in a more positive or negative fashion" (DeNeve & Cooper, 1998, p. 215), as is likely the case for such traits as Zest and Hope. Also, character strengths may help diminish the impact of stressful events for students, such as failing an exam, through cognitive appraisal which can lead to more positive and persistent coping mechanisms (cf. McNeil, Kozma, Stones, & Hannah, 1986) by students who are, say, higher on Hope.

Components of the present results are also consistent with several different theoretical positions and empirical trends. Positive correlations with student satisfaction for Love, Leadership, Gratitude, and Humor are consistent with movement away from isolation and toward intimacy, which are the basis for Erikson's Stage 6 developmental crisis for young adults (Erikson, 1957). Also, several of the VIA strengths can be viewed as reflecting intrinsic motivation (cf. Deci, 1975) or intrinsic values, in which case the positive relationships between student success and such character strengths as Love of Learning, Creativity, Curiosity, and Beauty are consonant with research showing a normative shift over the college years toward intrinsic values, interests, and activities (Astin, 1993; Sheldon, 2005). In their comprehensive review of how college affects students, Pascarella and Terenzini (1991) summarize the results of many different studies as demonstrating relatively consistent, positive psychosocial changes, social/political attitudes and values, and moral development that correspond to many of the V IA character strengths, including Love, Self-Regulation, Citizenship, Fairness, Integrity, Kindness, Perspective/Wisdom, and Beauty. In addition, VIA strengths such as Zest and Humor are concordant with Arnett's (2000) conceptualization of "emerging adulthood" as a time of dynamic, fluid experiences.

Taken as a whole, the findings of our study indicate that character strengths are extensively, positively related to student success with all 24 strengths significantly correlated with General Life Satisfaction, 22 strengths significantly correlated with Campus Satisfaction, and 16 strengths significantly related to GPA. It is clear to us that in the college context the VIA is a very germane, useful instrument that holds

great promise for the study of character strengths of college students. The extent of bivariate relationships, as well as the magnitude of many individual correlations and the multiple correlations, demonstrates that the VIA can generate substantial criterion-related validity in this context. Also, in view of the convergence of the present findings with similar results using other types of personality constructs, diverse theoretical frameworks, and different types of samples, we surmise that future research is likely to establish a rich nomological network and substantial construct validity for character strengths.

Some important implications of the present study can be drawn for practitioners, including college student personnel, counselors, advisers, and psychotherapists who work with students in college. There are many different kinds of activities and interventions that can be developed to increase positive psychological outcomes based on character strengths (see, for example, Linley & Joseph, 2004; Seligman, Steen, Park, & Peterson, 2005). Some relatively simple techniques such as asking people to write about three good things that happened each day and why they happened have been found to make people feel happier and less depressed for up to six months (Seligman et al., 2005). What is appealing about the practical value of the present results is that practitioners have so many different options to choose from when trying to work with a college student to increase their well-being or academic success by emphasizing character strengths. If, for example, one considers a strategy of identifying a student's top five character strengths (i.e., what Seligman et al., 2005 term "signature strengths"), and developing procedures to increase positive actions and experiences, there should always be several different approaches available for any given student. Moreover, for any individual character strength there should be multiple types of interventions, which increases the opportunities for identifying and tailoring procedures that best fit the student's needs, resources, constraints, and personal preferences.

While the present results are encouraging, an open question at this point is how character strengths compare to other constructs such as values and personality traits (e.g., the Big Five) in accounting for variation in GPA and life satisfaction. The multiple correlation for predicting GPA using the VIA in this study ($R = .41$) compares favorably to at least one other study (Lounsbury, Huffstetler, Leong, & Gibson, 2005) using the Big Five ($R = .30$) and the Big Five plus one narrow trait ($R = .34$). The multiple correlation for predicting General Life Satisfaction using the VIA in this study ($R = .57$) is slightly below that of another study (Lounsbury, Saudargas, Gibson, & Leong, 2005) using the Big Five ($R = .67$) and the Big Five plus narrow traits ($R = .72$). One important question for future research to address is the relative efficacy of character strengths in accounting for variation in important

criteria such as GPA and life satisfaction compared to other types of constructs such as values and personality traits. In this vein, we are currently conducting a comparison of the joint and unique predictability of GPA and life satisfaction based on the Big Five personality traits, narrow personality traits, and the VIA. Other possible areas for future investigation include whether character strengths can predict actual GPA, based on objective data rather than self report; and criteria measured in a predictive paradigm, rather than the concurrent design used here. Other important criteria could also be examined in relation to character strengths, particularly college completion and dropout. In addition, longitudinal research in this area is needed to help clarify the stability of character strengths and casual relations with other variables. Repeated measures of the character strengths would allow researchers to assess how strengths change over time, and, as a function of different kinds of experience, such as changing majors or studying abroad.

There are several limitations of the current study that should be acknowledged. Since a single university in the Southeastern U. S. served as the study setting, the generalizability of the findings to other colleges and universities in different geographic locales is unknown. Also, over four-fifths of the study participants were Caucasian and under age 26 which leaves the generalizability of findings to different races or ethnicities and different age groups an open question. Then, too, we only examined self-reported GPA rather than actual GPA from student records.

Nevertheless, the results of the present study are noteworthy insofar as they demonstrate extensive, and in some cases, substantial, relationships between character strengths and student satisfaction and academic achievement. Overall, the present results show convergence with, as well as divergence from, other studies of character strengths and life satisfaction using adult and community samples. We conclude that the college setting offers a rich opportunity to elaborate the construct validity relations for character strengths, whether considered individually or in concert. We expect to see future studies clarify and extend the present findings for the criterion-related validity of character strengths.

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