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Meanings of education for university students: academic motivation and personal values as predictors

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Abstract. We conducted two studies to determine the meanings that undergraduate students ascribe to their education and how these meanings relate to relevant psychological constructs: academic motivation and values. Ten meanings emerged: career preparation, independence, finding direction for the future, learning, self-development, taking the next step, making social connections, changing the world, stress, and escape. Support was found for many of the predicted relationships. For example, enjoyment motivation positively predicted all of the meanings, except taking the next step, stress, and escape. Also as expected, the values of intellectualism and academic achievement positively predicted learning, self-development, and changing the world. However, contrary to expectations, valuing physical development also emerged as a significant predictor of several of the meanings of education.

Key words: meaning; education; motivation; values; undergraduate students

1. Introduction

Although educators have well-documented views about the meaning and purpose of university education, students bring their own set of meanings to the educational experience. In addition to seeing university as an opportunity for learning, students have increasingly come to view education as a way to enhance their career and earning potential (Astin, Oseguera, Sax, & Korn, 2002). Those who teach undergraduate students certainly recognize differences among students in their approach to their education, differences that would imply variation in what education means to them (Levine & Cureton, 1998; Skorupa, 2002). However, little research has explored the broad range of potential meanings that students might associate with the university experience. The current research was designed to empirically study the meaning of education from the perspective of students. We also sought to explore the psychological underpinnings of such meanings.

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By meaning of education, we are referring to the inner significance that education holds for students. In other words, we are interested in students' interpretations or construals of their personal reality with regard to their educational experience, which may or may not coincide with the views of educators, parents, or peers. Meanings may incorporate, but are not limited to, students' educational goals. For some students the meaning of education may be precisely about fulfilling specific goals, while for others meaning may have little to do with goal attainment. For example, some students may think about their education as the pathway to a desired career, while others may construe education primarily as a source of stress in their lives. Goals have to do with intended outcomes, whereas meaning has to do more broadly with understanding. Our focus in this paper is on the personal significance of the educational experience for students.

How do students interpret the experience of university education? Research that has specifically examined the *meanings* that education holds for students is sparse, but there is a sizeable literature on related and somewhat overlapping constructs, such as educational goals and types of students. For example, numerous studies have considered students' relative emphases on the intrinsic value of liberal education versus the more pragmatic value of career preparation (e.g., see Astin, 1996; Feldman & Newcomb, 1969; Pascarella & Terenzini, 1991). Researchers have also examined the degree to which students endorse the educational goals of self-development and interpersonal skills development (see Pascarella & Terenzini, 1991), and the metaphoric themes in students' descriptions of the undergraduate experience (Lattin, Kerssen-Griep, & Thede, 2002). Of particular relevance to the current work is Astin's (1993) attempt to categorize students. Based on data from the Cooperative Institutional Research Program (CIRP) annual survey of first-year students, Astin developed a typology of students that included the scholarly type who is focused on academic success; the social activist who values social and political influence; the artistic type who is creative and values original work; the hedonist who enjoys partying; the leader who sees her/himself as popular and as having leadership skills; the social type who strives for social status through financial or professional success; and, the uncommitted student who has no clear expectations regarding educational or career ambitions. The evidence that students can be described in these ways implies variation in the meanings that students bring to the undergraduate enterprise. Moreover, just as students are not necessarily classifiable as strictly one type or another, the meaning structure for individual students could also include more than a single meaning. An individual, for example, may see education primarily as her opportunity to prepare for a future career, but to a somewhat lesser degree as a chance to develop her artistic capabilities.

Meanings attached to education are, of course, susceptible to sociocultural influences. The current research is psychological in nature, but students' experience occurs within a broader social context in which parental and social expectations, institutional climate, social values, and broad social

change, can shape the individual experience of education. In fact, the meanings that students hold, and professional evaluations of those meanings, are shaped by various forms of social influence; however, our intention in this work is not to be critical of students who hold 'wrong' meanings of education, but to better understand individual interpretations of a significant social institution. Because of social influence, we might expect to find cultural differences in meaning and differences across time. Cross-sectional research in this area has revealed generational differences in meaning. For example, in a study of adult Finns (Antikainen, Houtsonen, Huotelin, & Kauppila, 1995) differences emerged across three generations of adults: those who were oldest (born before 1936), middle-aged (born between 1936 and 1955), and youngest (born after 1955). Members of the oldest generation who, in fact, had the least access and the most obstacles and interruptions to education, described education as something valuable and worthy of respect. Middle-aged adults, who benefited from increased educational opportunities, were more likely to see education as a means to an end. Members of the youngest generation had the advantage of a wider variety of educational choices, but this advantage coincided with heightened expectations for advanced degrees as a prerequisite for employment. Among this generation education was typically characterized as a commodity and as a source of boredom. Thus, subjective meanings of education seem to have gradually transformed with structural changes and increased access to education; while older adults saw it as an ideal worth striving for, younger people took it for granted or saw it as a burden. Much of the early data regarding the relative importance of liberal learning versus career preparation consistently demonstrated that university students in the U.S. more highly valued learning, and that they placed increased importance on learning over their four years of undergraduate education (Clark, Heist, McConnell, Trow, & Yonge, 1972; Trent & Medsker, 1968). More recently, however, Astin and his colleagues (Astin et al., 2002) have traced a shift in students' priorities that indicate a stronger interest in the pragmatic concerns with career opportunities and the financial benefits of a college education.

The specific meanings that college and university students ascribe to their education may also differ across particular student samples. Compared to a first-year student population whose parents had at least a bachelor's degree, first-generation students were more likely to report attending school in order to help their families financially in the future (Bui, 2002). They also reported a stronger interest in pursuing their education because they sought respect and status for themselves, and honor for their families. Weiner (1999) found that students diagnosed with a psychiatric disability saw their university experience as one which provided a sense of structure and routine to their days that gave them a sense of purpose and heightened motivation; served to reduce their sense of isolation and increase their sense of normalcy; and, created a sense of hope in the face of fears about their future lives. Most of the research on meanings of education has examined specific student

populations such as these. In the current study, we were interested in meanings of education within a general student population.

Extrapolating from Astin's (1993) typology of students, education may mean different things to students. For example, Astin's "hedonistic" students may perceive school as endless opportunities for socializing and having fun. Recent literature suggests that peer culture is an especially powerful influence on students (e.g., Astin, 1996, 1999; Holland & Eisenhart, 1990). Thus, some students may think of the time they spend in college and university as primarily social in nature; for them, university may mean a chance to establish and deepen friendship networks. For others, education may provide the time and support necessary to develop creativity (e.g. Astin's "artist"), or the skills needed to effect social and political change (Astin's "social activist"). For "uncommitted" students, the undergraduate years may be characterized by a sense of alienation from the academic environment; thus, rather than seeing it in terms of positive opportunities, these students may hold relatively negative meanings of education that are linked to feelings of disconnection from the academic world. Also, Antikainen et al.'s (1995) intergenerational findings suggest that today's generation of students may see university less as an opportunity and more as a given, the obvious thing to do following high-school graduation. Thus, while educators may be mostly focused on learning as the purpose of a university education, students themselves may find entirely different meanings, in addition to learning, that figure strongly in their understanding of what education is about.

Moreover, college may hold multiple meanings for any given student. Moffat (1995) found that Rutgers students thought university should be a broadening experience that involves learning, but they also thought that the college years were about coming of age, and the chance to interact with their peers and have fun. Thus, it is entirely possible, likely even, that for individual students there is a configuration of meanings that describes relatively complex interpretations of the college experience, and that students' educational experience may even be enhanced when their conceptions of their experience are richer. Rather than trying to categorize individual students on the basis of a primary meaning, we were interested in the range of meanings students ascribe to their education, and in examining the degree to which each meaning is held.

The current research was designed primarily to explore student perspectives on education. However, as part of this exploration we were interested in how students' meanings of education are related to other psychological constructs. One construct of particular interest is academic motivation. The degree to which individuals are intrinsically or extrinsically motivated to engage in academic work should have some bearing on their approach to educational contexts (Deci & Ryan, 1985; Ryan & La Guardia, 1999). Students who are typically extrinsically motivated should be more likely to view the educational environment through the lens of external rewards, such as

grades, financial gains, or social approval. Intrinsically motivated students may be more likely to experience school in terms of the personal satisfaction derived from creative or analytical work. Self-determination theory (SDT) (Deci & Ryan, 1985) posits that individual behavior is driven by a combination of intrinsic and extrinsic motivations, and empirical investigations support this idea (Amabile, Hennessey, & Grossman, 1986; Amabile, Hill, Hennessey, & Tighe, 1994; Hennessey, Amabile, & Martinage, 1989; Hennessey & Zbikowski, 1993). Moreover, SDT contends that intrinsic and extrinsic motivation can each be fueled by the satisfaction of a variety of psychological needs. Thus, for example, both the joy of independent intellectual discovery or the sense of competence involved in engaging in a difficult task can underlie intrinsic motivation; extrinsic motivation may be experienced as the need for approval or as engaging in a task solely as a means to some other end. Amabile et al. (1994) have differentiated specific components of intrinsic and extrinsic work-related motivation. Individuals who operate from an intrinsic orientation toward work may be motivated by their interest in and enjoyment of an activity; however, another source of intrinsic motivation may be the satisfaction of engaging in a challenging task. Similarly, those with an extrinsic orientation may respond to the rewards of tangible compensation (i.e., money or other material rewards), but they may also be motivated by the social recognition and status that can accrue when a job is well done. It is also possible, of course, that any given behavior may be motivated by a combination of motivations, and that performance may be maximized when more than one source of motivation is activated (Amabile et al., 1994). In this study, we examine the relationships among meanings of education and each of these components of academic motivation.

1.1. OVERVIEW

Study 1 was designed to (a) develop a survey instrument to capture the meanings that students ascribe to education; (b) assess the strength of various meanings; (c) examine whether meanings vary by sex, age, or year in school; and (d) examine the relationships among meanings of education and academic motivation. As we undertook the initial study, we did not yet know all of the meanings that would emerge in the process; however, we did expect to find some of the meanings that have been identified in previous research. We anticipated, for example, that undergraduate students would view university as providing the opportunity to learn; as paving the way for career success and financial gain; as primarily about establishing and developing social ties; and, about the opportunity to learn about the world and how to effect social change.

We expected that the enjoyment component of intrinsic orientation would be positively related to meanings of education that clearly imply student engagement in their work, such as the chance for a liberal education, and

to learn how to effect change in the world. Similarly, we expected positive relationships between the challenge component of intrinsic orientation and the meanings of liberal education and effecting change in the world. We also expected enjoyment motivation to be positively related to the view that education is about establishing and building social ties. For the compensation component of extrinsic motivation, we expected a positive relationship with seeing education as a chance to enhance career and income potential.

2. Method

2.1. PARTICIPANTS

Participants were 653 (481 females and 166 males) undergraduate students at a Midwestern public university. Eighty-seven of the students were taking an upper division psychology class; the other 566 participated as partial fulfillment of a research requirement for their introductory psychology class. The mean age of the participants was 19. Eighty-eight percent were White, 5% were African–American, 3% were Asian, 1% were Hispanic, and 3% specified "other." Seventy percent were first-year students, 14% were sophomores, 10% were juniors, and 6% were seniors.

2.2. PROCEDURES AND MATERIALS

Data were collected in sessions composed of 10–15 participants. Participants filled out a survey that included measures of the meaning of education, academic motivation, and demographic variables.

2.2.1. *Meaning of Education*

The Meaning of Education (MOE) questionnaire was developed by the authors to determine the meanings of education in students' lives. Many of the items were derived from the findings of an initial study in which we interviewed 29 undergraduate students from a variety of majors and across all four undergraduate years. The interviews focused on students' educational socialization and experiences, and included specific questions about the meaning of education in their lives. As a starting point, the interview material was analyzed in order to ascertain the range of meanings that students ascribe to their education and as the basis for developing specific questionnaire items.

Research assistants helped to formulate and revise these items, and they and the researchers also created additional items based on their own college experiences. The initial set of 95 items was then administered to other undergraduate students who gave feedback regarding the clarity and relevance of the items (see Appendix for items). Nine items were dropped as a result of this process or because they failed to load on any of the factors (see below).

Participants responded to each of the 86 items on a 10-point scale (1 = agree not at all; 10 = agree very much). They were asked to indicate how much they associated each of the items with a university education. A parallel analysis (O'Connor, 2000, 2001; Turner, 1998) indicated that a 10-factor solution would be most appropriate. We then conducted a principal components factor analysis with varimax rotation that forced the items into 10 factors. All 10 factors had eigenvalues greater than 1.0. The 10 meanings and their descriptions are in Table I. Cronbach's alpha coefficients for the MOE subscales ranged from 0.77 to 0.91 (alpha coefficients for each subscale can be found in Appendix). Mean scores were calculated across all items for each subscale, with higher means indicating stronger endorsement of the particular meaning.

2.2.2. *Academic Motivation*

The Work Preference Inventory (WPI, Amabile et al., 1994) is a 30-item measure intended to determine motivational orientation with regard to work. We used the college student form of the WPI, which is virtually identical to the original working adult version, except that where items on the original form stated "salary and promotions", Amabile et al. substituted the words "grades and awards". Scores ranged from 1 (never or almost never true of me) to 4

Table I. Meanings of education

Label	Description
Career	Education as a way to prepare for a career, and to enhance future earnings and chances of promotion
Independence	The opportunity to mature, increase independence, and prove that one is an adult
Future	Provides a chance to explore the direction one's life might take; a chance to plan for the future
Learning	Learning to think critically; being exposed to new ideas and cultural diversity
Self	Provides opportunities to know and understand oneself better, discover one's passions, and grow as an individual
Next step	The natural next step to take after completing high school; the obvious thing to do
Social	A way to enhance one's social life, including the chance to develop friendships and become involved in extracurricular activities
World	Learning skills that will enable one to make a difference in the world
Stress	A source of stress in one's life
Escape	A chance to escape from the responsibilities of adulthood or from a stressful home situation

(always or almost always true of me). Scores for each subscale are equivalent to the mean across items and higher scores indicate stronger endorsement. The WPI is comprised of four subscales of motivation: challenge, enjoyment, outward, and compensation. Someone who scores high on challenge orientation is motivated by the opportunity to stretch their abilities and to solve difficult problems (e.g., "I enjoy tackling problems that are completely new to me"). Enjoyment orientation involves being motivated by the sheer joy of the work (e.g., "What matters most to me is enjoying what I do"). Students with an outward orientation are driven by other people's perceptions of their work and by the praise they may receive for it (e.g., "I am strongly motivated by the recognition I can earn from other people"). Compensation orientation refers to being highly motivated by income or other compensation that one will receive for work (e.g., "I am keenly aware of the goals I have for getting good grades"). In the current study, the Cronbach's alpha coefficients were 0.75 for challenge, 0.58 for enjoyment, 0.67 for outward, and 0.80 for compensation.

2.2.3. *Demographics*

The demographic items that participants completed included questions regarding their sex, age, and year in school.

3. Results and discussion

Table II presents the means and standard deviations of the MOE arranged in descending order. Participants rated career highest among the meanings. As noted earlier, students' approach to education is subject to shifts in the social and political environment; thus, a lack of confidence in the economy, rising competition in the job market, and increases in tuition fees, may contribute to students' pragmatic and consumerist approach as they pursue undergraduate degrees. Furthermore, as more students from working class backgrounds attend college and university, and as degree completion is frequently touted to students and their parents as the route to job security and financial success, pragmatic concerns are likely to become increasingly important as students construct meanings of their undergraduate experience.

3.1. SEX-RELATED DIFFERENCES

In order to ascertain whether women and men differed on the various meanings of education, *t*-tests were conducted. Table II shows that women had significantly higher mean scores than men on Career, Independence, Learning, Self, and World. Men scored significantly higher than women on Stress and Escape. There were no sex-related differences on Next Step or Social. It is notable that female students scored higher on most of the meanings of education that might be associated with student engagement.

Table II. Means and standard deviations for meaning of education by sex

Meaning of education	Full sample ($n = 653$)		Women ($n = 481$)		Men ($n = 166$)	
	Mean	SD	Mean	SD	Mean	SD
Career	8.19	1.14	8.30[b]	1.03	7.85[b]	1.39
Independence	8.03	1.40	8.17[b]	1.32	7.63[b]	1.57
Direction	7.75	1.80	7.79	1.80	7.60	1.82
Learning	7.60	1.30	7.75[b]	1.19	7.18[b]	1.52
Self	7.38	1.43	7.51[b]	1.37	7.03[b]	1.57
Next step	7.04	2.06	7.00	2.07	7.14	2.05
Social	6.59	1.72	6.62	1.74	6.49	1.68
World	6.36	1.46	6.47[b]	1.38	6.04[b]	1.63
Stress	4.92	1.60	4.80[a]	1.59	5.25[a]	1.60
Escape	4.03	1.45	3.90[b]	1.46	4.42[b]	1.35

Note. For each dependent variable, shared superscripts indicate a significant sex-related difference ([a] $p < 0.01$; [b] $p < 0.001$).

3.2. YEAR IN SCHOOL

Results from a one-way ANOVA revealed significant differences in the meanings of education based on year in school (see Table III). Consistent with findings from previous studies (Bowen, 1977; Feldman & Newcomb, 1969), students in their first-year of school scored higher on Career than did fourth-year students. Perhaps as students approach the end of this phase of their lives, they recognize more fully the unique opportunities that the undergraduate experience offers, and become less career-focused as a result. Alternatively, more advanced students who are about to embark on their careers may be questioning the relevance of their education to the work they will soon be doing. First-year students also scored higher on Direction than did fourth-year students. In addition, students in their first-year had a higher mean on Independence than students in subsequent years. On Next Step, students in their first year and third year had a higher mean than those in their fourth year. Students in their first and second years had higher means on Social than those in their third and fourth years. In addition, those in their third year had a higher mean than those in their fourth year. There were no significant differences by year in school on Learning, Self, World, Stress, or Escape.

3.3. INTERCORRELATIONS AMONG THE MEANINGS OF EDUCATION

Table IV presents intercorrelations among the MOE variables.

Table III. Differences in meaning of education by year in school

Meaning of education	Year					
	First ($n=458$)	Second ($n=91$)	Third ($n=66$)	Fourth ($n=36$)	F	p
Career	8.30[a]	8.09	7.90	7.58[b]	6.69	0.001
	1.06	*1.16*	*1.31*	*1.53*		
Independence	8.21[a]	7.73[b]	7.53[b]	7.47[b]	8.65	0.001
	1.25	*1.66*	*1.63*	*1.75*		
Direction	7.91[a]	7.54	7.37	6.94[b]	5.06	0.002
	1.75	*1.90*	*1.86*	*1.82*		
Learning	7.62	7.46	7.53	7.92	1.18	*ns*
	1.27	*1.38*	*1.46*	*1.23*		
Self	7.41	7.22	7.38	7.54	0.60	*ns*
	1.36	*1.64*	*1.66*	*1.25*		
Next step	7.18[a]	6.75	7.19[a]	5.78[b]	6.04	0.001
	2.04	*2.09*	*1.99*	*2.07*		
Social	6.81[a]	6.53[a]	6.14[b]	4.84[c]	17.62	0.001
	1.58	*1.68*	*1.87*	*2.18*		
World	6.36	6.29	6.44	6.41	0.15	*ns*
	1.41	*1.53*	*1.81*	*1.31*		
Stress	4.84	5.01	5.27	4.96	1.49	*ns*
	1.60	*1.52*	*1.58*	*1.81*		
Escape	4.11	3.83	3.94	3.77	1.51	*ns*
	1.42	*1.43*	*1.48*	*1.75*		

Note. Standard deviations are in italics below means. For each dependent variable, values with different superscripts differ significantly from each other ($p < 0.026$).

3.3.1. *Age*

As might be expected given the results for year in school, Pearson correlational analyses indicated that age was negatively related to several of the MOE variables including Career, Independence, Direction, Self, Next Step, Social, and Escape (see Table V).

3.3.2. *Academic Motivation*

Correlation coefficients for the MOE variables, age, and academic motivation variables are shown in Table V. Multiple regression analyses were used to examine the extent to which the academic motivation variables (Enjoyment, Challenge, Outward, and Compensation) predicted the meanings of education. In order to control for sex, age, and year in school, these variables were entered into the equation first, and the academic motivation variables were then included in the model (see Table VI).

Table IV. Intercorrelations among meanings of education

Predictors	Career	Independence	Direction	Learning	Self	Next step	Social	World	Stress
Independence	0.44**								
Direction	0.44**	0.47**							
Learning	0.53**	0.45**	0.38**						
Self	0.49**	0.55**	0.51**	0.73**					
Next step	0.25**	0.29**	0.26**	0.05	0.10*				
Social	0.43**	0.50**	0.45**	0.42**	0.47**	0.27**			
World	0.52**	0.39**	0.33**	0.66**	0.59**	0.09	0.43**		
Stress	0.04	0.09	0.12*	−0.05	0.02	0.39**	0.10*	0.03	
Escape	−0.01	0.22*	0.25*	0.01	0.12*	0.30**	0.30**	0.04	0.43**

*$p < 0.01$.
**$p < 0.001$.

Table V. Zero-order correlations for meanings of education with academic motivation and age

Predictors	Career	Independence	Direction	Learning	Self	Next step	Social	World	Stress	Escape
Enjoyment	0.28**	0.24**	0.21**	0.41**	0.40**	0.04	0.26**	0.34**	0.01	−0.02
Challenge	−0.03	−0.14**	−0.14**	0.09*	−0.06	−0.17**	−0.01	0.13**	−0.22**	−0.18**
Outward	0.15**	0.08*	−0.03	−0.05	0.01	0.21**	0.11*	−0.01	0.24**	0.18**
Compensation	0.29**	0.12*	−0.02	0.13**	0.10*	0.08	0.13**	0.15**	−0.08*	−0.15**
Age	−0.12*	−0.31**	−0.23**	0.01	−0.12*	−0.21**	−0.31**	−0.00	−0.02	−0.15**

*$p < 0.01$.
**$p < 0.001$.

Table VI. Beta coefficients for meanings of education regressed on academic motivation, sex, age, and year in school

Predictors	Career	Independence	Direction	Learning	Self	Next step	Social	World	Stress	Escape
Enjoyment	0.25**	0.24**	0.23**	0.39**	0.38**	0.05	0.24**	0.31**	0.07	0.04
Challenge	−0.03	−0.13**	−0.17**	0.01	−0.00	−0.14**	−0.01	0.08	−0.21**	−0.16**
Outward	0.12*	0.05	−0.01	−0.05	0.02	0.17**	0.10*	0.00	0.19**	0.16**
Compensation	0.22**	0.05	−0.01	0.07	0.04	0.06	0.07	0.09	−0.06	−0.15**
Sex	−0.09	−0.09	0.03	−0.14**	−0.10*	0.09	0.04	−0.09	0.14**	0.18**
Age	−0.02	−0.34**	−0.23**	0.00	−0.20**	−0.20**	−0.24**	−0.00	−0.11	−0.17**
Years 1 and 2	−0.02	0.00	0.01	0.01	0.04	−0.03	0.01	0.02	0.05	−0.06
Years 1 and 3	−0.07	−0.01	−0.00	−0.01	0.07	0.08	−0.03	0.03	0.11*	0.00
Years 1 and 4	−0.09	0.13*	0.05	0.09	0.17**	−0.02	−0.09	0.04	0.09	0.04
Adjusted R^2	0.18**	0.18**	0.11**	0.19**	0.18**	0.10**	0.17**	0.13**	0.12**	0.12**

*$p < 0.01$.
**$p < 0.001$.

Controlling for sex, age, and year in school, as expected, the meanings of Learning, Self, and World, were all positively predicted by Enjoyment motivation. All of these meanings are consistent with what are commonly considered goals of a liberal education. These findings suggest that students who work primarily out of enjoyment and interest in their academic work are more likely to see education as an opportunity for a liberal education.

In contrast, Career was positively predicted by Enjoyment, but also by Compensation, as expected, and by Outward. In other words, the student who works for the enjoyment of it, but also does her best in order to get good grades and the recognition that comes with them will be more likely to interpret her undergraduate years as preparation for career success. Thus, career preparation is a predominant meaning of education for these students, and moreover, extrinsic motivation figures strongly for those who are career-focused. The more they work for the intrinsic satisfaction of it, the more career focused these students are, but this comes with an overlay of needs for both social recognition and compensation.

Independence and Direction were positively predicted by Enjoyment, but both were also negatively predicted by Challenge. In other words, the student who works on projects he enjoys, but avoids assignments that are daunting in their difficulty and complexity, is more likely to expect that dependency and reliance on others will weaken when he attends college, and to think of the college years as a time to explore options for the future.

The Social meaning was positively predicted by Enjoyment and, as expected, by Outward motivation. Thus, students who operate from a combination of the intrinsic motivation of enjoyment and interest in what they are doing and the extrinsic motivation of concern with how they are being viewed by others are more likely to experience university as providing opportunities for meeting other people and establishing social ties.

The meanings of Next Step, Stress, and Escape stood out in that none were predicted by Enjoyment. Instead, Next Step and Stress were both negatively predicted by Challenge and positively predicted by Outward motivation. In other words, students who tend not to be drawn to challenging activities, but who function more out of a need for social recognition of their accomplishments, are more likely to view education as simply the next step in their lives and as a source of stress, boredom, and time pressure. Finally, Escape was positively predicted by Outward motivation, and negatively predicted by Challenge and Compensation motivation. Students who view education as an escape from the demands of adult life fit the same profile as that for Next Step and Stress, but they also tend to be less motivated by grades or monetary rewards.

Study 1 sheds light on the range of meanings that students make of the educational experience, and demonstrates that these meanings are related to motivational orientations in ways that can help us make sense

of the variation among students. In Study 2, we explored whether students' personal values are related to the meaning of education.

4. Study 2

The centrality of values in human attitudes and behavior has long been recognized in social and personality psychology (Allport, 1961; Rokeach, 1973). Values are currently understood to be abstract cognitive structures that help to organize experience, as well as guide behavior; are assumed to be relatively stable; are linked to attitudes, but are more general in nature; and, are affectively charged as well (Feather, 1982, 1992; Rokeach, 1973; Schwartz & Bilsky, 1987). Values have been linked to personality variables (Bilsky & Schwartz, 1994), and to behaviors (see Hitlin & Piliavin, 2004 for a review). As broad organizational structures, values can provide a framework for the construction of meaning (Feather, 1980; Rohan, 2000). In other words, the meanings individuals construct about their experience and environment should to some extent be grounded in personal values. Thus, we should expect to find significant and interpretable relationships between the particular values held by individuals and the meanings they ascribe to events, objects, or experiences.

In the current study, we examine the relationship between personal values and meanings of education in the lives of undergraduate students. Scott (1965) identified a set of 12 personal values of particular relevance to a student population. Among these were several we expected would relate to students' meanings of education: intellectualism, social skills, academic achievement, status, kindness, and creativity. We expected intellectualism (valuing broad intellectual and cultural interests, as well as knowledge of current events and political issues) and Academic Achievement (valuing studiousness and academic success) to be positively related to Learning, Self, and World, the meanings most closely linked to common conceptions of liberal education. However, we also expected Academic Achievement to be related to Career due to its emphasis on success. We expected Social Skills (valuing proper etiquette, eliciting good impressions and popularity, and the facilitation of smooth social relations) to relate to Social; but also to Career because of the importance of these skills to career success; and also to Next Step because both of these seem linked to a concern with normative behavior. Status (valuing leadership qualities and the respect of others) was expected to be related to Career and to Social. Kindness (caring for others and concern for their welfare) was expected to be related to World because an interest in making the world a better place should be predicated by a concern that extends beyond the self. We predicted that Creativity (valuing innovation, change, originality, and the creation of art) would be related to Learning, Self, and World because thinking in new and creative ways is central to liberal education, though perhaps not as strongly

as some of the other values because of the particular emphasis on artistic activity.

5. Method

5.1. PARTICIPANTS

Participants were 254 (164 females and 90 males) undergraduate students. Students participated as partial fulfillment of a research requirement for their introductory psychology class. The mean age of the participants was 19. Eighty-eight percent were White, 5% were African–American, 4% were Asian, 2% were Hispanic, and 2% specified "other." Seventy-seven percent were first-year students, 17% were sophomores, 6% were juniors, and 2% were seniors.

5.2. PROCEDURES AND MATERIALS

Data collection sessions were conducted with approximately 10–15 participants. Participants completed a survey that included measures of the meaning of education, personal values, and demographic variables.

5.2.1. *Meaning of Education*

In the current study, Cronbach's alpha coefficients for the MOE were 0.84 for Career; 0.86 for Independence; 0.92 for Direction; 0.90 for Learning; 0.90 for Self; 0.79 for Next Step; 0.90 for Social; 0.82 for World; 0.87 for Stress; and 0.81 for Escape.

5.2.2. *Values*

The Personal Value Scales includes 154 items designed to identify college students' values. The original Personal Value Scales consist of 12 scales; for the purpose of brevity in this study, eight of these scales were used. We chose five scales that we expected would relate to the MOE: Intellectualism (valuing intellectual, cultural, and social interests), Social Skills (valuing smooth social relations), Academic Achievement (valuing studiousness and academic success), Creativity (valuing innovation, change, and creativity), Kindness (valuing the welfare of others), and Status (valuing leadership and respect of others). We also included two scales for which we did not expect a relationship: Nonconformity[1] (valuing nonconformity, individualism, freedom of thought and action, and outspokeness), and Physical Development (valuing physical fitness and appearance). Participants were asked to respond to items on a three point scale ("always dislike," "depends on situation," and "always admire"), indicating the degree to which they admire particular traits, behaviors, and characteristics in others. Each subscale includes both positively and negatively worded items

and items were reverse scored when appropriate. Scores for each subscale were derived by calculating means across all relevant items. Following Scott (1965), "depends on situation" was scored as rejecting a value. For example, on a positively worded item, "always dislike" and "depends on situation" would be coded as a 0, while "always admire" would be coded as a 1. In the current study, Cronbach's alpha coefficients were 0.81 for Intellectualism, 0.75 for Social Skills, 0.80 for Academic Achievement, 0.76 for Creativity, 0.76 for Status, 0.78 for Kindness, 0.79 for Noncomformity, and 0.68 for Physical Development.

5.2.3. *Demographics*
The demographic items that participants completed included questions regarding their sex and age.

6. Results and discussion

Mean scores for the MOE were very similar to those in Study 1, and they fell in exactly the same order. Career had the highest mean at 8.15 while Escape had the lowest mean at 4.05. As in Study 1, women had significantly higher mean scores than men on Independence, $t(252) = 2.51$, $p < 0.01$; Self $t(252) = 2.36$, $p < 0.01$; Next Step $t(252) = 1.97$, $p < 0.05$; and Social $t(250) = 2.06$, $p < 0.05$. There were no sex-related differences on Career, Direction, Learning, World, Stress, or Escape.

Pearson correlational analyses were conducted to examine the relationships between the meanings of education, age, and values.[2] Zero-order correlations are shown Table VII. Consistent with the findings of Study 1, age was negatively-related to Independence, Direction, Next Step, Social, and Escape. Evidence was found for all of the predicted relationships between meanings and values variables.

Multiple regression analyses were conducted using the meanings of education as the dependent variables (see Table VIII). As with Study 1, age and sex were entered first, and all of the values variables were entered next.

As expected, for Learning, Self, and World, the values of both Intellectualism and Academic Achievement emerged as significant predictors. Thus, controlling for age, sex, and all the other personal values, students who most valued broadly-defined intellectual pursuits, and those who most valued academic success, were more likely to hold meanings of education that are closely aligned with liberal education. These students tended to define education in terms of opportunities to learn, to better understand themselves and grow as individuals, and to figure out how to make the world a better place.

Also as expected, seeing education as career preparation and enhancement was predicted by valuing Status (having leadership qualities and the respect of other people).

Table VII. Zero-order correlations for meanings of education, values, and age

Predictors	Career	Independence	Direction	Learning	Self	Next step	Social	World	Stress	Escape
Intellectualism	0.18**	0.16**	0.11	0.38***	0.27***	0.06	0.09	0.34***	−0.01	−0.06
Academic ach.	0.31***	0.24***	0.12*	0.36***	0.32***	0.17**	0.25***	0.34***	−0.13*	−0.02
Social skills	0.37***	0.39***	0.25***	0.27***	0.26***	0.22***	0.32***	0.30***	0.02	0.05
Status	0.38***	0.26***	0.11	0.32***	0.27***	0.20***	0.36***	0.32***	−0.04	0.07
Creativity	0.15*	0.08	0.07	0.25***	0.21***	0.06	0.05	0.25***	0.11	0.16**
Kindness	0.21***	0.18**	0.07	0.20**	0.15*	−0.02	0.18**	0.22***	−0.02	−0.11
Nonconformity	−0.01	0.03	−0.01	0.14*	0.18**	−0.03	0.04	0.09	−0.02	0.07
Physical dev.	0.27***	0.26***	0.22***	0.12	0.16**	0.26***	0.34***	0.09	0.04	0.19**
Age	−0.07	−0.20**	−0.26***	0.08	−0.09	−0.21***	−0.18**	0.08	0.02	−0.12*

*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

Table VIII. Beta coefficients for meanings of education regressed on sex, age, and values

Predictors	Career	Independence	Direction	Learning	Self	Next step	Social	World	Stress	Escape
Intellectualism	0.04	0.09	0.10	0.24**	0.14*	0.02	0.01	0.18**	−0.00	−0.10
Academic ach.	0.08	0.01	−0.02	0.17*	0.15*	0.05	0.02	0.15*	−0.20**	−0.07
Social skills	0.11	0.29**	0.21**	0.08	0.12	0.11	0.06	0.10	0.11	0.08
Status	0.22**	0.03	−0.08	0.11	0.04	0.06	0.24**	0.13	−0.07	−0.04
Creativity	0.07	−0.05	0.04	0.04	0.01	0.03	−0.09	0.11	0.22**	0.23**
Kindness	0.10	0.03	−0.01	0.06	−0.01	−0.12	0.10	0.08	−0.01	−0.14*
Nonconformity	−0.11	0.06	−0.02	0.03	0.13	−0.04	0.03	−0.05	−0.09	0.01
Physical devel.	0.10	0.14*	0.17**	−0.01	0.06	0.18**	0.21**	−0.05	0.07	0.20**
Sex	0.00	−0.07	0.01	0.09	−0.06	−0.09	−0.05	0.06	0.06	0.03
Age	−0.08	−0.17**	−0.25**	0.06	−0.07	−0.19**	−0.17**	0.06	0.02	−0.10
Adjusted R^2	0.19***	0.19***	0.12**	0.20**	0.14**	0.11**	0.20**	0.19**	0.03	0.08***

*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

Independence and Direction were predicted by the values of Social Skills and, unexpectedly, Physical Development. Although we did not predict this, it seems reasonable that placing value on making a good impression and working toward smooth social relationships might be related to seeing the university experience as the chance to mature and find one's own way in the world, and even to seeing education as time in which to consider what to do in one's life. However, the relationships between Physical Development and the meanings of Independence and Escape makes less immediate sense. We will return to this issue after reporting the remainder of the regression findings.

The Social meaning of education was predicted by valuing Status and Physical Development. Although valuing Social Skills was correlated with the Social meaning of education ($r = 0.32$; as we predicted), in the regression analyses Social Skills did not emerge as a significant predictor.

The only significant predictor to emerge in the regression analyses for Next Step was Physical Development.

Interestingly, Stress was positively predicted by Creativity and *negatively* predicted by Academic Achievement. While this may at first seem counterintuitive, it is likely that students to whom academic success is highly important are the very students who will prepare well and work hard in order to succeed. They may also be more likely to succeed, thereby reducing their overall level of stress over the long-term. While those who value academic achievement may experience the pressures associated with meeting high expectations and producing quality work, their experience of these pressures could be very different from students who care little about academic achievement, who work too little and too late, and who ultimately experience the stress of having to cram for exams, find ways to improve poor grades, and retake failed courses. The link between Creativity and Stress is also interesting. Mann (2001) argues that student (and faculty) alienation may come from a variety of sources, including an increased focus on efficiency, performance, assessment, and socially prescribed educational and life course norms, and from the suppression of autonomous creativity in learning institutions. It may be that for students who strongly value creativity, the university setting can lead to a sense of alienation so that education is experienced as a source of stress.

Both Creativity and Physical Development emerged as positive predictors of Escape, while Kindness emerged as a negative predictor. Although Escape was the least popular meaning of education in both of these studies, these data may be capturing the lived experience of a subset of the student population who are coping with life challenges through outlets of artistic expression. For some students, the undergraduate years may offer refuge from the restrictions of responsible adulthood, and greater freedom and creative outlets through which to express concerns about personal and social issues. The finding that Escape is negatively predicted by Kindness is

also notable. Students who interpret the university experience as the opportunity to escape for a time from the demands of the external world are less likely to value kindness. Note also that there is a significant, positive zero-order correlation between valuing kindness and seeing education as making a difference in the world (though this relationship is not significant when controlling for all other variables in the regression analyses). It may be that valuing kindness promotes a more outward looking orientation, so that students who highly value caring for others are more likely to interpret their experience through a lens that captures the potential for making positive changes in the world. This is not to say that students who see school as an escape would not go on to engage in positive and productive activities, but simply that kindness may be a value that shapes our interpretation of how to act on the world in particularly significant ways.

We return now to the value of Physical Development. When we consider all of the meanings for which the Physical Development value emerged as a predictor, a pattern becomes clear. First, physical development was *not* related to the meanings of Career, Learning, Self-development, or World, all of which are relatively goal-related. Each involves striving toward some gain (e.g., knowledge, financial and professional success) and implies a more explicit and immediate sense of purpose than most of the meanings predicted by Physical Development. Therefore, it seems likely that for students who strongly value physical fitness and attractiveness the university experience may be less goal-oriented and more about biding one's time. Today's undergraduate students are certainly subject to cultural pressures to pay attention to physical appearance; they live in a world in which looking fit, healthy and attractive is increasingly important. The current findings suggest that for students who strongly adopt cultural values that emphasize physical attributes, university may be experienced less as an opportunity for purposeful engagement, and more as a state of limbo, or perhaps a set of hoops through which they must jump, before fully taking on the responsibilities of adulthood.

7. General discussion

The findings from these two studies reveal the variety and relative importance of meanings that education holds for students. Moreover, they demonstrate links between these meanings and the relatively stable characteristics of motivational orientation and personal values. Students who engage in their work out of interest and enjoyment, who hold values such as intellectualism and academic achievement, and to whom education holds the promise of learning, may be more likely to fulfill the ideal of the professors who teach them. However, the data presented in these studies reflect the reality of many college and university classrooms in which students vary widely on all

of these variables. These data are, of course, correlational; thus, we need to be careful about assuming directionality. Indeed, as students progress through their undergraduate years, the relationships among motivation, values and meaning are probably reciprocal to some degree. However, for those who aim to influence the meaning that education holds for students, it may be useful to know that shifts in either motivational orientation or values could have an impact on students' perceptions of what the educational context has to offer. Furthermore, if attempts are made to facilitate particular visions of what education could be, they should probably be implemented early in students' tenure as undergraduates since beginning students are likely to be more receptive to new and different ways of thinking about their situation (Stewart, 1982; Stewart, Sokol, Healy, & Chester, 1986) and students' expectations and work habits become set in the first year of school (Schilling & Schilling, 1999). However, if students' meanings of education are rooted in their value system, changes in the way students approach their university education may occur only as a result of a broad shift in the cultural ideals that inform personal values.

In the current study, we focused on specific meanings of education and their linkages to other psychological constructs. However, it may also be useful to explore configurations of meanings (e.g., high learning, high career, low social). It may be, for example, that such things as student satisfaction, engagement, and persistence are related to particular configurations of meaning. Furthermore, the congruence between students' perceptions of what education is and what it *ought* to be may also shed light on students' experience. As mentioned above, students' apparent lack of engagement in the educational process may not be due so much to individual failings as to a sense of alienation as a result of social and institutional pressures and constraints (Mann, 2001).

The order of importance of the various meanings was identical across the two studies (with minor variation for male students); however, this may in part be due to the fact that both of the studies were conducted on the same university campus. Although we observed variation among the students in these two studies, contextual differences that exist across different types of schools are not captured in the current research, and should be explored in future research. Furthermore, these studies were cross-sectional. Longitudinal research tracking changes in meaning over time could be useful in discovering factors that contribute to shifts in how students interpret their educational experience during the course of their undergraduate education. Moreover, tracking students beyond graduation to assess retrospective accounts as well as post-graduate conceptions of the meaning of education would provide further insight into shifts in meaning. In the current study, the relationship between age and the meanings of education were similar to those for year in school. Wolf's (1985) study of older (aged 60–80) adult education and community college students revealed consistency between current

and prior conceptions of education; however, these accounts were retrospective. Longitudinal research on the meaning of education could also pursue the question of changes in perspective across the lifespan.

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Notes

[1]Scott referred to this personal value as Independence; however, it differs conceptually from Independence as a meaning of education, thus we refer to it as Nonconformity.
[2]There were too few juniors and seniors in Study 2 to conduct analyses by year in school.

Appendix

Items are listed here by subscale (though they were randomly ordered in the questionnaire) and are followed by factor loadings. Students were given the following instructions. "A university education means different things to different people. Below is a list of some common meanings that people often associate with education. Using the scale below, please circle the number that indicates how much you associate each of the following meanings with university education. There are no right or wrong answers. We are interested in what university education means to you."

Career ($\alpha = 0.87$)

Increased job opportunities (0.80).
Increased chance of promotions and raises in career (0.75).
Higher paying jobs (0.66).
A higher standard of living than you would have otherwise (0.65).
Prepares you for a future career (0.62).
A sense that you are accomplishing something worthwhile (0.57).
Making connections that further career plans (0.49).
To seek something more in life (0.47).
A way to develop useful skills (0.47).
Enables you to learn job skills (0.44).
Provides some structure in your life (0.31).

Independence ($\alpha = 0.83$)

A chance to show that you can stand on your own two feet (0.74).
A chance to gain independence (0.69).

Being treated like an adult (0.67).
Proving to yourself and others that you are an adult (0.64).
Gaining maturity (0.44).

Future ($\alpha = 0.89$)

Figuring out what to do next (0.54).
A way of figuring out what to do in life (0.53).
Finding direction in life (0.52).

Learning ($\alpha = 0.90$)

Enhances appreciation for cultural diversity (0.73).
Exposes you to different ideas (0.72).
Develops tolerance for social and cultural diversity (0.68).
Encourages appreciation of new and different perspectives (0.63).
It provides new perspectives on the world and the way it works (0.60).
Being able to expand one's mind (0.57).
The opportunity to engage in intellectual growth (0.51).
A time for creativity to flourish (0.42).
It challenges people to think deeply (0.41).
Making connections between fields of study (0.41).

Self ($\alpha = 0.90$)

Helps to make sense of personal experiences (0.68).
A chance to identify your values and beliefs (0.67).
A time to discover how you fit into the world (0.66).
Challenges your beliefs about the world (0.65).
The process of self-discovery (0.64).
An opportunity for increased self-awareness (0.64).
A place to discover your passions (0.55).
Getting to know yourself better (0.50).
Developing emotional maturity (0.50).
Self-fulfillment (0.44).
Provides a way of satisfying one's curiosity about things (0.37).

Next Step ($\alpha = 0.77$)

The normal thing to do after high school (0.73).
The natural next step in life (0.70).
Expected by family (0.57).

Social ($\alpha = 0.91$)

A good way of meeting people and making new friends (0.81).
A chance to connect with other people (0.80).
Social opportunities come more easily (0.78).
Sense of community (0.77).
A way to find friends with similar interests (0.74).
An enhanced social life (0.67).
School spirit and allegiance (0.67).

Provides opportunities for pursuing dating and romantic relationships (0.64).
Going to sporting events (0.62).
Involvement in student organizations (0.59).
Involvement in cultural activities (e.g., theater, music) (0.51).
Learning to work with others (0.37).

World ($\alpha = 0.84$)

Helps people to make the world a better place (0.68).
Helps people to make a difference in the world (0.64).
Provides fulfillment by allowing you to help others (0.62).
Provides tools for changing the world (0.60).
Opportunities to work closely with professors (0.54).
Having contact with professors (0.53).
Encourages thinking about solutions to world problems (0.52).
Helps to make sense of the world (0.46).

Stress ($\alpha = 0.87$)

Creates anxiety and a sense of pressure (0.81).
A source of stress (0.77).
Causes burn-out and discouragement (0.74).
Takes time away from doing enjoyable things (0.70).
Forces other responsibilities to be put on hold (0.65).
A balancing act with other life demands (0.63).
Something forced on people by society (0.58).
Creates stress by forcing people to figure out future goals (0.56).
Causes tension with close others (e.g., parents, spouse) (0.53).
Memorizing useless facts (0.45).
Boredom (0.43).
A way to avoid the disapproval of family members (0.39).

Escape ($\alpha = 0.82$)

Biding time before life really begins (0.68).
Putting off the responsibilities of adulthood (0.64).
Not having to get a full-time job (0.64).
Buying time before deciding on a career (0.62).
Enjoying a few years of freedom before entering the workforce (0.60).
Not connected to real people and their problems (0.56).
A chance to rebel (0.52).
Leaving a stressful home situation (0.50).
Getting out of your hometown (0.45).
Stifles/inhibits creative expression (0.43).
Removed from the real world (0.41).

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Biographical notes

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Michelle N. Smith recently received her B.S. from Grand Valley State University. She has been involved in research on the meaning of education for three years and is planning to soon begin a doctoral program in Clinical Psychology.