

This is an unedited manuscript in press in the

*Career Development Quarterly*

Please note that the published version has undergone minor additional editing in style and content.

Please cite as:

Hirschi, A. (in press). Effects of orientations to happiness on vocational identity achievement. *Career Development Quarterly*.

## **Effects of Orientations to Happiness on Vocational Identity Achievement**

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## **Effects of Orientations to Happiness on Vocational Identity Achievement**

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There is an increased interest in vocational psychology and career counseling regarding the link between career development and well-being, yet little is known about how different ways to achieve well-being or happiness relate to career development. This study explored the relationship between three orientations to happiness (meaning, pleasure, and engagement) and vocational identity achievement among two groups of Swiss adolescents ( $N = 268$ , eighth grade;  $N = 208$ , eleventh grade). Controlling for the effects of gender, nationality, age, attended school-type and a happy personality disposition comprised of emotional stability, extroversion, and agreeableness, the results indicated that more orientation to meaning and engagement but not to pleasure positively related to identity achievement.

In recent years, there has been increased interest in investigating the relationship between career development and subjective well-being (Lent, 2004; Walsh, 2008). The importance of this research field is supported by empirical studies (Creed, Prideaux & Patton, 2005; Hirschi, 2009; Patton, Creed & Muller, 2002; Skorikov, 2007; Skorikov & Vondracek, 2007a) suggesting a reciprocal relationship between subjective well-being and positive career development. However, little research is available how different approaches to achieve subjective well-being (often equated with happiness, Diener, Suh, Lucas & Smith, 1999) are related to career development. The present study makes a contribution to this literature by investigating for the first time how different orientations to happiness relate to positive adolescent career development in terms of vocational identity achievement.

### *Relation of Well-Being and Positive Adolescent Career Development*

Due to the emerging movement of positive psychology (Peterson, 2006) there is increased interest in investigating the correlates, antecedents, and consequences of subjective well-being, or happiness (Diener, et al., 1999). Subjective well-being is a multifaceted construct encompassing cognitive and affective components in varying temporal dimensions and refers to person's evaluation of their lives (Diener, et al., 1999; Kim-Prieto, Diener, Tamir, Scollon & Diener, 2005). Happiness is one of the most central affective indicators of subjective well-being and often used synonymously (Diener, et al., 1999), as is the case in the present paper. Research (see Park, 2004, for a review) indicated that subjective well-being is a core component for positive youth development. For example, lower life satisfaction was found to be related to depression, loneliness, and a variety of psychological disorders. On the other hand, adolescents and youth with higher life satisfaction are less involved in violent problem behavior and show more self-esteem, or intrinsic motivation. Higher life-satisfaction can also act as a buffer against psychological disorders and stressful life events (Park, 2004).

Research (Bloor & Brook, 1993; Creed, Patton & Bartrum, 2002; Creed, et al., 2005; Patton, et al., 2002; Skorikov, 2007) indicated that subjective well-being is related to higher levels of career adaptability and a more developed vocational identity in adolescence. Longitudinal research indicated that higher well-being predicts more adaptive career development (Patton, et al., 2002) but also that more career adaptability promotes well-being and adjustment (Creed, et al., 2005; Hirschi, 2009; Patton, et al., 2002; Skorikov, 2007; Skorikov & Vondracek, 2007a) suggesting a reciprocal relationship between subjective well-being and positive adolescent career development.

#### *Different Ways to Well-Being and Happiness*

One way that can lead to more well-being is experiencing meaning in life, an idea which has received attention in the career literature (Lent, 2004). For example, the experience of meaning and purpose in life and career is a central component of a sense of calling or vocation to one's career (Dik & Duffy, 2009). Empirical research (Duffy & Sedlacek, 2007) indicated that the presence of a calling correlated positively with career decidedness, comfort, self clarity, and choice-work salience among U.S. college students. Closely related to meaning is religiousness and spirituality as one possible, but not necessary, route to meaning and purpose (Steger & Frazier, 2005). The relation of religiousness and spirituality has also gained increased interest in relation to career development (see Duffy, 2006, for a review) and empirical research (Duffy & Blustein, 2005; Duffy & Lent, 2008) show positive relations to career adaptability and career decision-making self-efficacy. Finally, having a sense of purpose in life also received attention in the larger literature on positive youth development as a developmental asset with positive relations to affect (King, Hicks, Krull & Del Gaiso, 2006) and self-efficacy (DeWitz, Woolsey & Walsh, 2009).

The notion that a sense of purpose and meaning in life is important for positive development and well-being was a view pioneered by Aristotle as *eudaimonic* well-being, referring to identifying and cultivating one's virtues and using one's skills for the greater good and for a higher purpose (Peterson, Park & Seligman, 2005). It is frequently contrasted to a *hedonic* way to well-being (Lent & Brown, 2008; Waterman, Schwartz & Conti, 2008) which refers to maximizing pleasure and minimizing pain as a way to life satisfaction (Peterson, et al., 2005). In an attempt to clarify different ways how individuals reach subjective well-being and happiness, Peterson et al. (2005) proposed a third orientation to happiness (see Seligman, 2002, for an introduction and overview): *engagement*, which refers to being fully engaged in a challenging yet controllable activity. This concept builds on Csikszentmihalyi's (1990) notion of *Flow* and results in feelings of losing track of time, effortless concentration, and energy. Supporting the relation of engagement and positive youth development, Hunter and Csikszentmihalyi (2003) showed that U.S. adolescents who reported more engagement in their everyday activities possessed more psychological capital in terms of self-esteem, internal locus of control and optimism. However, no study to date investigated the relation of those different ways to well-being to career development.

#### *Present Study and Hypotheses*

The study draws on the model of Orientations to Happiness (OTH) proposed by Peterson et al. (2005) which states that people strive to reach well-being and happiness through three ways or orientations: meaning, pleasure, and engagement. Peterson and colleagues derived a measure to

understand the degree to which a person endorses each of these three orientations to happiness. Empirical studies with their OTH scale with large numbers of adults from different countries (Park, Peterson & Ruch, 2009; Peterson, et al., 2005; Peterson, Ruch, Beermann, Park & Seligman, 2007) show that the three orientations related positively to each other and significantly predicted life satisfaction. Engagement showed the strongest and pleasure the weakest predictive utility.

Based on previous research indicating a relation between subjective well-being and career development, the present study extends the research on OTH to the field of careers. The dependent variable was vocational identity achievement representing one eminent career variable that broadly affects positive career choice and development (see Skorikov & Vondracek, 2007b, for a review). As Vondracek (1992) and more recently Skorikov and Vondracek (2007b) pointed out, one important limitation of existing vocational identity research is that most studies relied on the simple one-dimensional model of Holland (1997) which only assesses identity commitment. Conversely, the present study assessed identity with the two dimensions commitment and exploration according to Marcia's (1980) model of identity development. Measuring identity with these two dimensions is well established in the identity literature (Luyckx, Goossens, Soenens & Beyers, 2006; Waterman, 1999) and accounting for both dimensions is particularly important to distinguish identity achievement from identity foreclosure; that is the premature commitment to an identity (Brisbin & Savickas, 1994).

Research (Holland, Johnston & Asama, 1993; Skorikov & Vondracek, 2007b) indicated that vocational identity development, particularly the commitment dimension, relates positively to a number of favorable cognitive and affective personality dispositions. It is also well-established that subjective well-being is systematically related to personality (Diener, et al., 1999). Hence, it seems important to control for the possibility that a relation of orientations to happiness and vocational identity might simply be an artifact attributable to underlying personality dispositions. In this light, the present study accounted for personality traits in terms of neuroticism, extroversion, and agreeableness. The meta-analysis by DeNeve and Cooper (1998) found that these are the three major components within the Big-Five model of personality (McCrae & Costa, 1999) of a "happy personality" disposition, that is the propensity to experience well-being in life.

The present study also accounted for a number of socio-demographic variables. According to social-cognitive theory (Lent, 2004; Lent, Brown & Hackett, 1994), aspects such as gender, age, or ethnicity influence both career development and well-being through specific learning experiences and might thus confound some of their relationships. The present study controlled for gender, nationality, age, and attended school type which helps estimate the unique relationship between OTH and vocational identity achievement, accounting for the effects of some of the most important socio-demographics for youth in Switzerland (Swiss Federal Statistical Office, 2006).

Two groups of students were examined. Group 1 consisted of Swiss eighth graders, Group 2 of Swiss adolescents in eleventh grade. In Switzerland vocational education and training (VET) is the most important route to train adolescents for their future careers. After ninth grade, about 70% of all students nationwide pursue one of over 200 vocational educations and trainings (Federal Office for Professional Education and Technology, 2008). Within this context, one of the two big vocational/educational transitions in Switzerland was immanently ahead for both groups: from mandatory secondary school to vocational education and training or general high school (for Group 1 after ninth grade), and from post-secondary education to first job, college, or continuing education (for

Group 2 after twelfth grade). Thus, adequate career preparation was an important and immanent task for all students at the time of assessment. As such, it is reasonable to assume that a tentative achievement of a vocational identity is adaptive and possible for the participants (Skorikov & Vondracek, 2007b).

Within this context, the present study investigated the hypothesis that different orientations to happiness predict the degree of vocational identity achievement above and beyond basic personality dispositions and socio-demographic variables. Based on research linking OTH to life satisfaction (Park et al., 2009; Peterson, et al., 2005; Peterson, et al., 2007) it was more specifically hypothesized that orientation to meaning, engagement, and pleasure would predict identity achievement to different degrees in descending order.

## Method

### *Participants*

*Group 1* consisted of 268 students at the end of eighth grade from the German speaking part of Switzerland. They consisted of 139 (51.9%) girls, their age ranged from 13 to 17 years ( $M = 14.6$ ,  $SD = 0.7$ ). Ninety five (35.4%) attended a school type with basic scholastic requirements the other classes with advanced requirements. Two hundred twenty two (82.8%) were Swiss, the others had nationalities mostly from South-Eastern Europe (12%), Western Europe (2.5%) or other countries.

*Group 2* consisted of 206 students end of eleventh grade with 145 (70.4%) young women, ages 16 to 20 years ( $M = 17.5$ ,  $SD = 0.9$ ). Seventy seven (37.5%) attended general high-school which prepared for latter college education, the others attended vocational high-school and training in the professions office clerk, retail sales, or nursery. One hundred sixty seven (81.1%) had Swiss nationalities, the other had nationalities from countries in Western Europe (8.8%), South Eastern Europe (6.3%), or other countries.

### *Measures*

*Demographic questionnaire.* All students indicated gender, age, attended school-type, and nationality. Nationalities were coded as Swiss or other. Students with both Swiss and one or several other nationalities were coded as Swiss.

*Orientations to happiness.* OTH were assessed with the German language adaptation of the OTH scale which was developed in a process of translation, back translation, and adjustment according to preliminary research (Harzer, Ruch, Proyer & Peterson, 2007; Peterson, et al., 2005; Peterson, et al., 2007). The scale measures orientation to meaning, pleasure, and engagement with six items each (e.g., "For me, the good life is the pleasurable life") and students were asked to indicate on a 5-point Likert scale ranging from *very much unlike me* to *very much like me* how much they agree with each statement. To assess the applicability of the scale for adolescents, the factorial structure was examined with confirmatory factor analysis (AMOS 16.0, maximum likelihood estimation) within the two groups of the present study. The result indicated an acceptable fit for the three-factor model comparable to the results obtained with adults,  $\chi^2(130, N = 474) = 300.9$ ,  $p < .000$ ,  $CFI = .866$ ,  $RMSEA = .053$  (.045-.060),  $SRMR = .053$ . The estimated reliabilities (Cronbach's Alpha) were lower than in an U.S. adult sample (ranging from .82 to .76; Peterson, et al., 2007), but comparable to a Swiss adult sample (Harzer, et al., 2007): engagement  $\alpha = .60$  (95% CFI .54-.66); pleasure  $\alpha = .68$  (95% CFI .64-.72); meaning  $\alpha = .63$  (95% CFI .57-.68).

*Personality.* Personality disposition was assessed with the three traits neuroticism, extraversion, and agreeableness with the official German language adaptation of the NEO-FFI (Borkenau & Ostendorf, 1993; Costa & McCrae, 1992). The authors of the scale provide compelling support for its factor structure, reliability and construct validity (i.e., correlations to other established personality inventories). Cronbach's Alpha were: .78 for neuroticism, .73 for extroversion, and .69 for agreeableness for the study participants. All three measures correlated significantly ( $p < .001$ ) with a mean  $r = .322$ . A principal component analysis confirmed a clear one-factor structure explaining 55% of the variance among the measures. To provide a parsimonious estimate of a persons' overall positive personality disposition as a control variable, the three measures were combined into a single composite score representing their linear combination. Higher scores indicted a more positive personality disposition (i.e., less neuroticism, more extroversion, more agreeableness).

*Vocational identity achievement.* Identity achievement was measured with two dimensions: (1) *Commitment* was assessed in Group 1 with the German language adaptation of the Career Maturity Inventory (Crites, 1973; Seifert & Stangl, 1986) Career Decidedness Scale. Twelve items (e.g. "I don't know exactly what to do in order to choose the right occupation") were answered on a 4-point Likert scale ranging from *not true* to *true*. Alpha was .88. In Group 2, the German language adaptation of the *Vocational Identity Scale* (Holland, Daiger & Power, 1980; Jörin, Stoll, Bergmann & Eder, 2004) was applied as a measure of identity commitment. The scale consists of 10 items (e.g., "I'm not sure yet which occupations I could perform successfully") and students indicated on a 5-point Likert scale how much the statements resemble their personal situation ranging from *not at all* to *completely*. Alpha was .78. Different scales were applied for the two groups because of item wording and face validity which seemed inappropriate in case of the CMI scale for the older cohort. However, previous studies applying both scales within the same group of students found correlations of  $r > .8$ , indicating that the two scales basically measure the same construct (Hirschi & Läge, 2007). (2) *Exploration* was assessed for both groups with a behaviorally oriented measure for self (4 items) and environment (6 items) exploration (Hirschi, in press). Students indicated on a 5-point Likert scale to what degree they have been engaged in these behaviors (e.g., "reflecting about personal interests and skills") over the last three months ranging from *seldom/few* to *very much/a lot*. Alpha was .90 for Group 1 and .87 for Group 2. As recommended in the identity literature (Schwartz & Dunham, 2000) commitment and exploration were combined to represent degree of identity achievement by taking the linear combination (sum score) of the z-transformed commitment and exploration scales. Higher scores indicated more identity achievement.

#### *Procedure*

Classes were recruited by contacting school teachers and principals in the study area who all agreed to participate in the study with their students. Participation was with passive consent from parents/guardian who were informed about the general nature of the study taking place in the schools. The participants completed all questionnaires during an ordinary school lesson under the supervision of their classroom teachers. Participation was voluntary and with active consent and no further incentives were provided for participation. All students present at the time of data collection completed the questionnaires.

#### *Results*

##### *Preliminary Analyses*

*Differences in OTH.* A Multivariate Analysis of Variance (MANOVA) was conducted to investigate whether students endorsed different OTH to a different degree. The result indicated that significant differences emerged,  $F(3,471) = 8.1, p < .001, \eta^2 = .981$ . The item mean scores indicated that students endorsed all three OTH with pleasure ( $M = 4.2$ ), engagement ( $M = 3.7$ ) and meaning ( $M = 3.4$ ) in descending order.

*Group differences.* In order to estimate whether the two cohorts of students showed significant differences in the OTH measures, I conducted a MANCOVA controlling for gender, nationality, and personality with the three OTH measures as dependent variables. The result indicated significant differences between the two groups,  $F(3, 467) = 6.4, p < .001, \eta^2 = .039$ . Univariate ANCOVA post-hoc tests indicated significant differences in engagement (Cohort 1  $M = 19.0, SD = 3.4$ , Cohort 2  $M = 18.2, SD = 2.9, F(1, 469) = 7.3, p = .007, \eta^2 = .015$ ) and pleasure (Cohort 1  $M = 20.6, SD = 3.8$ , Cohort 2  $M = 21.5, SD = 3.5, F(1, 469) = 3.9, p = .049, \eta^2 = .008$ ) but not meaning (Cohort 1  $M = 17.4, SD = 3.6$ , Cohort 2  $M = 17.0, SD = 3.5, F(1, 469) = 1.2, p = .268, \eta^2 = .003$ ).

*Correlations among the variables.* Table 1 presents the bivariate correlations among the socio-demographic control variables gender, age, nationality and attended school type; the partial relation of each control variable to the assessed constructs identity, personality, and the three OTH controlled for the other socio-demographic variables; and the partial correlations among the assessed constructs controlled for all socio-demographic variables.

The results indicated that among *Group 1*, orientation to meaning correlated positively with pleasure, engagement, and identity, but was unrelated to personality. Pleasure correlated positively with engagement and a positive personality disposition but not with identity. Engagement correlated positively with personality and identity. Personality also correlated positively with identity achievement. Among *Group 2*, meaning correlated positively with engagement and identity but was unrelated to pleasure and personality. Pleasure correlated positively with engagement and personality but was unrelated to identity. Engagement correlated positively with personality and identity. Identity also correlated positively with personality.

#### *Effects of OTH on Vocational Identity Achievement*

To investigate the main hypothesis that the three orientations to happiness would predict vocational identity achievement above and beyond socio-demographic variables and happy personality disposition, I conducted two multiple hierarchical regression analyses. Vocational identity achievement was the dependent variable. The first step entered the socio-demographic variables into the model. The next step controlled for personality disposition. Finally, the last step assessed the additional effects of the three OTH measures.

The results for *Group 1*, presented in Table 2, indicate that the socio-demographic variables explained a significant 6.5% variance in identity,  $F(4, 263) = 3.7, p = .001$ . Personality disposition explained additional variance,  $\Delta R^2 = .019, \Delta F(1,262) = 5.5, p = .020$ . The three OTH together explained a significant 6% variance above and beyond the already included variables,  $\Delta F(3,259) = 6.1, p = .001$ . Swiss nationality, attending a school-type with basic requirements, older age, and a more positive personality disposition were significant predictors of more identity achievement. In addition, higher meaning but not pleasure significantly predicted more identity achievement. Engagement was not found to be significantly related to vocational identity ( $p = .052$ ).

Within *Group 2* the results (Table 2) indicated that the socio-demographic variables did not explain a significant amount of variance in degree of vocational identity achievement,  $R^2 = .023$ ,  $F(4, 201) = 1.2$ ,  $p = .201$ . However, personality disposition explained additional variance,  $\Delta R^2 = .047$ ,  $\Delta F(1,200) = 10.0$ ,  $p = .002$ . The three OTH together explained a significant 10% variance above and beyond the already included variables,  $\Delta F(3,197) = 7.7$ ,  $p < .001$ . A more positive personality disposition was a significant predictor of more identity achievement. In addition, higher meaning and engagement but not pleasure were significant predictors.

#### Discussion

The different orientations to happiness possessed incremental validity in explaining significant variance in vocational identity achievement among both participant groups above and beyond a happy personality disposition and several socio-demographic variables. The results indicate that these specific ways to happiness are meaningful constructs in relation to career development which go beyond more basic personal variables. The results indicated that students endorsed different orientations to happiness to different degrees and that the older cohort endorsed more pleasure but less engagement than the younger cohort. This might indicate a developmental trend which warrants further investigation. However, the groups did not differ in endorsement of meaning which was a significant positive predictor of identity achievement within both cohorts. Conversely, orientation to pleasure did not significantly relate to identity for either group. The fact that an orientation to meaning showed consistently significant relations to identity is in line with previous findings indicating that intrinsic religiousness predicted career adaptability among college students (Duffy & Blustein, 2005) or that meaning and purpose in life relates positively to more deliberate individualization in emerging adulthood (Schwartz, Côté & Arnett, 2005).

Adding to the existing literature, the study indicates that not only meaning but also engagement relates positively to career development in adolescence. More orientation to engagement was positively related to more identity achievement in both groups, although the effect was stronger in the older cohort. This supports other research suggesting that engagement fosters psychological capital (Hunter & Csikszentmihalyi, 2003). It is also noteworthy that meaning and engagement showed consistently high relations among both study groups which could imply a common personality aspect or reciprocal relationships among the two orientations which would warrant further investigation. This shared variance might also be the reason why the variable did not emerge as a significant predictor in *Group 1*. On the other hand, pleasure was unrelated to identity in both groups which might also reflect its lower relation to well-being compared to the other two orientations (Peterson, et al., 2007).

From a developmental perspective, the results imply that regardless of age and school level, meaning and engagement are significantly related to vocational identity achievement. Particularly experiencing meaning might represent a form of identity capital (Côté, 2002) which allows a more self-directed and successful coping with developmental tasks, including vocational identity development throughout adolescence. The obtained effect sizes of 6% and 10% explained variance of the three orientations to happiness for identity achievement above and beyond socio-demographic and personality variables suggest a moderate effect with practical significance for career development. Contrary to socio-demographics and personality traits, meaning and engagement are more malleable and could therefore be increased with appropriate counseling interventions as outlined below. Thus, despite some recent critique on the scientific quality of distinguishing different ways to happiness



(Kashdan, Biswas-Diener & King, 2008), the finding that students endorse different OTH to different degrees and that the different happiness orientations relate differently to a happy personality disposition and vocational identity provides support for the usefulness of their distinction.

*Limitations and Implications*

Limitations of the study are that the OTH measure does not assess actual behaviors. That is, one does not know if students actually engage more in certain activities if they reach a higher score on one orientation in a measure (Peterson, et al., 2005). Closely related to this concern is the limitation that all measures were based on cross-sectional self-report data which generates shared method variance that might disturb the true relation among the constructs. In addition, this research design does not allow investigating developmental or causal processes as of how OTH are related to career development. Future longitudinal studies could tap into the possibly dynamic development of OTH and vocational identity. Finally, the reliabilities of the OTH scales were rather low which weakens the stability of the obtained results and there are limitations to the generalizability due to the use of a convenience sample. Also, more international research with students in other cultures would be important because different orientations might have somewhat different effects depending on cultural and social circumstances (Park, et al., 2009).

For research, the results of the present study indicate that investigating the link between subjective well-being and career development can benefit from exploring the specific ways in which people reach subjective well-being. Specifically, it would be worthwhile to further examine how an orientation to engagement in addition to, or instead of, meaning and religiousness or spirituality is related to career development over time.

For counseling practice, the results particularly support the importance of an orientation to meaning for vocational identity development. This also provides indirect support for a constructivist approach to careers (Savickas, 2005) and the emerging social-cognitive model of work and life satisfaction (Lent & Brown, 2008). Counseling approaches based on Savickas' approach would let clients construct their own life story and their life theme as a useful way for creating meaning in life. Towards this goal, Savickas advocates that clients reflect on their early life experiences, name childhood heroes, and identify current areas of interest and passion. Lent and Brown suggest setting realistic but challenging goals and assisting clients in goal progress as a way to increase eudaimonic well-being. They suggest that this can be achieved by increasing client's self-efficacy and outcome expectations and building environmental supports and resources.

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Table 1

Correlations among the Assessed Variables for the two Study Groups

	Gender	Nationality	School	Age	Meaning	Pleasure	Engagement	Personality	Identity
Gender	-	.04	.13	-.07	.04	.03	.12	-.01	.06
Nationality	-.00	-	-.28 <sup>***</sup>	.11	-.13	.04	-.01	.03	-.02
School-type	-.07	-.24 <sup>***</sup>	-	.06	-.10	-.19 <sup>**</sup>	.03	-.13	-.02
Age	-.03	.18 <sup>**</sup>	-.26 <sup>***</sup>	-	.24 <sup>**</sup>	.08	.17 <sup>*</sup>	-.13	.14
Meaning	.01	-.03	-.12 <sup>*</sup>	.00	-	.06	.24 <sup>**</sup>	.07	.27 <sup>***</sup>
Pleasure	-.04	.02	-.03	-.01	.40 <sup>***</sup>	-	.33 <sup>***</sup>	.13 <sup>*</sup>	.05
Engagement	.04	-.01	.00	.03	.57 <sup>***</sup>	.51 <sup>***</sup>	-	.19 <sup>**</sup>	.27 <sup>***</sup>
Personality	-.12 <sup>*</sup>	-.04	.07	-.06	.01	.22 <sup>***</sup>	.14 <sup>*</sup>	-	.22 <sup>**</sup>
Identity	.01	-.19 <sup>**</sup>	-.15 <sup>*</sup>	.13 <sup>*</sup>	.22 <sup>***</sup>	.09	.23 <sup>***</sup>	.14 <sup>*</sup>	-

Note. Below diagonal: Group 1 (eighth grade,  $N = 268$ ); above diagonal Group 2 (eleventh grade,  $N = 206$ )

Coding: Gender 0 = female, 1 = male; Nationality 0 = Swiss, 1 = other; School-type (Group 1) 0 = basic requirements, 1 = advanced requirements; (Group 2) 0 = vocational education and training, 1 = general high school

Reported are partial correlations controlled for gender, age, nationality, and school-type

\*  $p < .05$ ,

\*\*  $p < .01$ ,

\*\*\*  $p < .001$

Table 2

Multiple Hierarchical Regression Analyses for Variables Predicting Vocational Identity Achievement

	Group 1 (N = 268)				Group 2 (N = 206)			
	B	SD(B)	Beta	R <sup>2</sup> (Adjusted)	B	SD(B)	Beta	R <sup>2</sup> (Adjusted)
<i>Step 1</i>								
Gender	.058	.197	.017		.106	.211	.033	
Nationality	-.752	.251	-.178**		-.169	.257	-.046	
Age	-.493	.217	-.139*		.031	.214	.010	
School	.333	.139	.143*	.065** (.051)	.121	.108	.078	.023 (.004)
<i>Step 2</i>								
Personality	.233	.103	.137*	.085*** (.067)	.253	.099	.174*	.070* (.047)
<i>Step 3</i>								
Engagement	.250	.128	.147		.292	.106	.202**	
Meaning	.282	.121	.166*		.321	.101	.222**	
Pleasure	-.138	.117	-.081	.145*** (.119)	-.077	.103	-.053	.167*** (.113)

Note. Gender 0 = female, 1 = male; Nationality 0 = Swiss, 1 = other; School (for career adaptability) 0 = basic requirements, 1 = advanced requirements; School (for vocational identity) 0 = vocational education and training, 1 = general (college-bound) high school

All values are reported for the final model

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .000$