

# 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 3 orientations to happiness (meaning, pleasure, and engagement) and vocational identity achievement among 2 groups of Swiss adolescents ( $n = 268$ , 8th grade;  $n = 208$ , 11th grade). The results indicated that more orientation to meaning and engagement but not to pleasure positively related to vocational 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 regarding the way that 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

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Because of 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 persons' evaluation of their life (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 the two constructs are often used synonymously (Diener et al., 1999), as is the case in the present article. Research (see Park, 2004, for a review) has indicated that subjective well-being is a core component for positive youth development. For example, a lower level of life satisfaction was found to be related to depression, loneliness, and a

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variety of psychological disorders. On the other hand, adolescents and youth with a higher level of 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) has also indicated that subjective well-being is related to higher levels of career adaptability and to a more developed vocational identity in adolescence. Longitudinal research indicated that a higher level of 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), which suggests a reciprocal relationship between subjective well-being and positive adolescent career development.

### Different Ways to Achieve Well-Being and Happiness.

One way that can lead to a greater sense of well-being is experiencing meaning in life, an idea that 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 are religiousness and spirituality as one possible, but not necessary, route to meaning and purpose (Steger & Frazier, 2005). The relation of religiousness and spirituality to career development has also gained increased interest (see Duffy, 2006, for a review), and empirical research (Duffy & Blustein, 2005; Duffy & Lent, 2008) also shows positive relations of religiousness and spirituality to career adaptability and career decision-making self-efficacy. Finally, in the larger body of literature on positive youth development, having a sense of purpose in life also received attention as a developmental asset, with research indicating 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 with 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 the different ways in which 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 has investigated the relation between all of these different ways to achieve well-being and career development.

## Present Study and Hypotheses

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This 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 various colleagues derived a measure to understand the degree to which a person endorses each of these three orientations to happiness. Empirical studies using their OTH scale with large numbers of adults from different countries (e.g., Park, Peterson, & Ruch, 2009; Peterson et al., 2005; Peterson, Ruch, Beerbaum, 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 numerous 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 between 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, or positive, personality disposition, that is, the propensity to experience well-being in life.

The present study also accounted for a number of sociodemographic 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 by accounting for the effects of some of the most important sociodemographics 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 11th grade. In Switzerland, vocational education and training is the most important route to train adolescents for their future career. After ninth grade, about 70% of all students nationwide pursue one of over 200 types of vocational education and trainings (Federal Office for Professional Education and Technology, 2008). Within this context, one of the two big vocational/educational transitions in Switzerland was imminent for both study groups: Group 1 (after ninth grade) from mandatory secondary school to vocational education and training or general high school and Group 2 (after 12th grade) from postsecondary education to their first job, to college, or to continuing education. Thus, adequate career preparation was an important and imminent task for all students in this study 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 sociodemographic variables. On the basis of 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, to engagement, and to pleasure would predict vocational identity achievement to different degrees in descending order.

## Method

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### Participants

Group 1 consisted of 268 students from the German-speaking part of Switzerland who were at the end of eighth grade. They consisted of 139 (51.9%) girls whose ages ranged from 13 to 17 years ( $M = 14.6$ ,  $SD = 0.7$ ). Ninety-five (35.4%) of these students, both boys and girls, attended a school type with basic scholastic requirements; the other 173 (64.6%) attended classes with advanced requirements. Two hundred twenty-two (82.8%) participants were Swiss, the others represented nationalities mostly from southeastern Europe (12%), Western Europe (2.5%), or other countries.

Group 2 consisted of 206 students at the end of 11th grade, with 145 (70.4%) young women, ages 16 to 20 years ( $M = 17.5$ ,  $SD = 0.9$ ). Seventy-seven (37.5%) of all of the students (both young women and young men) attended general high school, which prepared them for later college education; the others attended vocational high-school and training in the professions of office clerk, retail sales, or nurse education. One hundred sixty-seven (81.1%) of the Group 2 participants had Swiss nationalities; the others had nationalities from countries in Western Europe (8.8%), southeastern 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 (Peterson et al., 2005; Peterson et al., 2007; Ruch, Harzer, Proyer, Park, & Peterson, 2010). The scale measures orientation to meaning, to pleasure, and to 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* (1) to *very much like me* (5) how much they agreed with each statement. To assess the applicability of the scale for adolescents, the factorial structure was examined with confirmatory factor analysis (AMOS, Version 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 with the results obtained with adults,  $\chi^2(130, N = 474) = 300.92, p < .000$ , confidence fit index = .87, root mean square error of approximation = .05 (.05–.06), standardized root mean residual = .05. The estimated reliabilities (Cronbach's alphas) were lower than in a U.S. adult sample (ranging from .82 to .76; Peterson et al., 2007), but comparable with those of a Swiss adult sample (Ruch et al., 2010): engagement,  $\alpha = .60$ , 95% confidence interval (CI) [.54, .66]; pleasure,  $\alpha = .68$ , 95% CI [.64, .72]; meaning,  $\alpha = .63$ , 95% CI [.57, .68].

*Personality.* Personality disposition was assessed with the three traits neuroticism, extraversion, and agreeableness with the official German language adaptation of the NEO Five-Factor Inventory (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 alphas 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  $r = .32$ . 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 person's overall positive personality disposition as a control variable, the three measures were combined into a single composite score representing their linear combination. Higher scores indicated a more positive personality disposition (i.e., less neuroticism, more extroversion, more agreeableness).

*Vocational identity achievement.* Vocational identity achievement was measured with two dimensions. The first dimension, vocational identity commitment, was assessed in Group 1 with the German language adaptation of the Career Maturity Inventory (CMI; 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* (1) to *true* (4). 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 vocational 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* (1) to *completely* (5). Alpha was .78. Different scales were applied for the two groups because of item wording and face validity that seemed inappropriate in case of the CMI Career Decidedness 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). The second dimension, exploration, was assessed for both groups with a behaviorally oriented measure of self-exploration (four items) and environment (six items) exploration (Hirschi, 2010). Students indicated on a 5-point Likert scale to what degree they had been engaged in these behaviors (e.g., “reflecting about personal interests and skills”) over the last 3 months ranging from *seldom/few* (1) to *very much/a lot* (5). Alphas were .90 for Group 1 and .87 for Group 2. As recommended in the identity literature (Schwartz & Dunham, 2000), vocational identity commitment and exploration were combined to represent degree of vocational identity achievement by taking the linear combination (sum score) of the transformed vocational identity commitment and exploration scales. Higher scores indicated more vocational 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 or guardians 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 was conducted to investigate whether students endorsed different OTH to a different degree. The result indicated that significant differences emerged,  $F(3, 471) = 8,077.18, p < .001, \eta^2 = .98$ . The item mean scores indicated that students endorsed all three OTH with pleasure ( $M = 4.20$ ), engagement ( $M = 3.73$ ), and meaning ( $M = 3.44$ ) in descending order.

*Group differences.* To estimate whether the two cohorts of students showed significant differences in the OTH measures, I conducted a multivariate analysis of covariance controlling for gender, nationality, and personality disposition, with the three OTH measures as dependent variables. The result indicated significant differences between the two groups,  $F(3, 467) = 6.34, p < .001, \eta^2 = .04$ . Univariate analysis of covariance post hoc tests indicated significant differences in engagement, Cohort 1,  $M = 19.00, SD = 3.47$ ; Cohort 2,  $M = 18.21, SD = 2.85$ ;  $F(1, 469) = 7.32, p = .007, \eta^2 = .02$ , and pleasure, Cohort 1,  $M = 20.62, SD = 3.76$ ; Cohort 2,  $M = 21.45, SD = 3.52$ ,  $F(1, 469) = 3.89, p = .049, \eta^2 = .01$ , but not meaning, Cohort 1,  $M = 17.4, SD = 3.6$ ; Cohort 2,  $M = 17.36, SD = 3.60$ ;  $F(1, 469) = 1.22, p = .268, \eta^2 = .00$ .

*Correlations among the variables.* Table 1 presents the bivariate correlations among the sociodemographic control variables gender, age,

TABLE 1

**Bivariate Correlations Among the Assessed Variables  
for the Two Study Groups**

Variable	1	2	3	4	5	6	7	8	9
1. Gender	—	.04	.13	-.07	.04	.03	.12	-.01	.06
2. Nationality	-.00	—	-.28***	.11	-.13	.04	-.01	.03	-.02
3. School type	-.07	-.24***	—	.06	-.10	-.19**	.03	-.13	-.02
4. Age	-.03	.18**	-.26***	—	.24**	.08	.17*	-.13	.14
5. Meaning	.01	-.03	-.12*	.00	—	.06	.24**	.07	.27***
6. Pleasure	-.04	.02	-.03	-.01	.40***	—	.33***	.13*	.05
7. Engagement	.04	-.01	.00	.03	.57***	.51***	—	.19**	.27***
8. Personality	-.12*	-.04	.07	-.06	.01	.22***	.14*	—	.22**
9. Identity	.01	-.19**	-.15*	.13*	.22***	.09	.23***	.14*	—

Note. Below diagonal: Group 1 (eighth grade,  $n = 268$ ); above diagonal, in italics: Group 2 (11th 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. Personality = positive personality disposition; Identity = vocational identity achievement. Reported are partial correlations controlled for gender, age, nationality, and school type.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

nationality, and attended school type; the partial relation of each control variable to the assessed constructs vocational identity achievement, personality disposition, and the three OTH controlled for the other sociodemographic variables; and the partial correlations among the assessed constructs controlled for all sociodemographic variables.

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

### Effects of OTH on Vocational Identity Achievement

To investigate the main hypothesis that the three OTH would predict vocational identity achievement above and beyond sociodemographic variables and positive personality disposition, I conducted two multiple hierarchical regression analyses. Vocational identity achievement was the dependent variable. The first step entered the sociodemographic variables into the model. The next step controlled for positive 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 sociodemographic variables explained a significant 6.5% variance in vocational

TABLE 2

**Multiple Hierarchical Regression Analyses for Variables Predicting Vocational Identity Achievement**

Step and Variable	Group 1 (n = 268)					Group 2 (n = 206)				
	B	SE B	$\beta$	R <sup>2</sup>	Adj. R <sup>2</sup>	B	SE B	$\beta$	R <sup>2</sup>	Adj. R <sup>2</sup>
Step 1				.07**	.05				.02	.00
Gender	.06	.20	.02			.11	.21	.03		
Nationality	-.75	.25	-.18**			-.17	.26	-.05		
Age	-.49	.22	-.14*			.03	.21	.01		
School type	.33	.14	.14*			.12	.11	.08		
Step 2				.09***	.07				.07*	.05
Personality	.23	.10	.14*			.25	.10	.17*		
Step 3				.15***	.12				.17***	.11
Engagement	.25	.13	.15			.29	.11	.20**		
Meaning	.28	.12	.17*			.32	.10	.22**		
Pleasure	-.14	.12	-.08			-.08	.10	-.05		

*Note.* Gender 0 = female, 1 = male; Nationality 0 = Swiss, 1 = other; School (for career adaptability) 0 = basic requirements, 1 = advanced requirements; School type (for vocational identity) 0 = vocational education and training, 1 = general (college bound) high school; Personality = positive personality disposition. All values are reported for the final model. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

identity achievement,  $F(4, 263) = 3.73$ ,  $p = .001$ . Positive personality disposition explained additional variance,  $\Delta R^2 = .02$ ,  $\Delta F(1, 262) = 5.46$ ,  $p = .020$ . The three OTH together explained a significant 6% variance above and beyond the already included variables,  $\Delta F(3, 259) = 6.14$ ,  $p = .001$ . Swiss nationality, attending a school type with basic requirements, older age, and a more positive personality disposition were significant predictors of more vocational identity achievement. In addition, higher meaning but not higher pleasure significantly predicted more vocational identity achievement. Engagement was not found to be significantly related to vocational identity achievement ( $p = .052$ ).

Within Group 2, the results (see Table 2) indicated that the sociodemographic variables did not explain a significant amount of variance in degree of vocational identity achievement,  $R^2 = .02$ ,  $F(4, 201) = 1.19$ ,  $p = .201$ . However, positive personality disposition explained additional variance,  $\Delta R^2 = .05$ ,  $\Delta F(1, 200) = 10.00$ ,  $p = .002$ . The three OTH together explained a significant 10% variance above and beyond the already included variables,  $\Delta F(3, 197) = 7.72$ ,  $p < .001$ . A more positive personality disposition was a significant predictor of more vocational identity achievement. In addition, higher meaning and engagement, but not pleasure, were significant predictors.

## Discussion

The different OTH possessed incremental validity in explaining significant variance in vocational identity achievement among both participant groups above and beyond a positive personality disposition and several sociodemographic variables. The results indicate that these specific ways to happiness are meaningful constructs in relation to career development that go beyond the effects of more basic personal variables. The results indicate that students endorsed different OTH to different degrees and that the older cohort endorsed more pleasure but less engagement than

the younger cohort did. This might indicate a developmental trend that warrants further investigation. However, the groups did not differ in endorsement of meaning, which was a significant positive predictor of vocational identity achievement within both cohorts. Conversely, orientation to pleasure did not significantly relate to vocational identity achievement for either group. The fact that an orientation to meaning showed consistently significant relations to vocational identity achievement 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 related positively to more deliberate individualization in emerging adulthood (Schwartz, Coté, & Arnett, 2005).

Adding to the existing literature, the present 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 vocational 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 that 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 vocational identity achievement in both groups, which might also reflect its lower relation to well-being compared with 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. In particular, experiencing meaning might represent a form of vocational identity capital (Côté, 2002) that 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 OTH for vocational identity achievement above and beyond sociodemographic and personality variables suggest a moderate effect with practical significance for career development. Contrary to sociodemographics and personality traits, meaning and engagement are more malleable and could therefore be increased with appropriate counseling interventions as outlined in the following section. 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 positive personality disposition and vocational identity achievement provides support for the usefulness of their distinction.

## Limitations and Implications

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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 an investigation of developmental or causal processes as to how OTH are related to career development. Future longitudinal studies could tap into the possibly dynamic development of OTH and vocational identity achievement. 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 of the study because of the use of a convenience sample. Also, more international research with students in other cultures would be important because different OTH 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, either 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's (2005) approach would let clients construct their own life story and their life theme as a useful way for creating meaning in life. Toward this goal, Savickas (2005) advocated that clients reflect on their early life experiences, name childhood heroes, and identify current areas of interest and passion. Lent and Brown (2008) suggested setting realistic but challenging goals and assisting clients in goal progress as a way to increase eudaimonic well-being. They suggested that this can be achieved by increasing clients' self-efficacy and outcome expectations and building environmental supports and resources.

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