The Role of Personality and Parental Support in Taiwanese College Students' Career Self-Efficacy

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ABSTRACT

The purpose of the present study was to determine whether personality or parental support is the main predictive indicator of career self-efficacy. A parental support scale, a career self-efficacy scale, and the Holland Personality Scale were employed to study 435 Taiwanese college students. The results show that the Conventional type of personality is the most significant predictive variable of career self-efficacy among Holland's six themes. In addition, among the four subscales of the parental support scale, Esteem and Autonomy Support played a significant role in predicting college students' career self-efficacy. As compared to the parental support variable, which only accounted for 3.9% of the variance, the personality traits variable accounted for 36.5% of the variance.

In recent years, research on the Social Cognitive Career Theory (SCCT；Lent, Brown, & Hackett, 1994) has become a popular subject in the field of career development. The core concept of the theory is based on career self-efficacy, which directly forms individuals' career interests. The theoretical model also claims that person inputs (including gender, personality, race, and physical condition) and background contextual affordances are leading factors that construct different learning experiences and influence the development of career self-efficacy. In the past, studies often focused on the discussion of personal variables and overlooked the impact of contextual determinants on personal career process. Although some research includes contextual determinants in the analysis, scholars do not find sufficient evidence to support the SCCT model or have proposed disaccorded paths.

Lent et al. (2001) divided contextual determinants into contextual supports and contextual barriers. The former includes social support, role model, and financial backup. Among these, social support is an important element in the process of career development. As a result, the emergent "relational approach to career development" focuses on the interconnectedness of career progress and the quality of relationships in one's life (Schultheiss, 2003). The theory suggests that significant others are resources that affect a person's career decision. Schultheiss, Kress, Manzi, and Glasscock (2001), Phillips, Christopher-Sisk, and Gravino (2001), and Schultheiss, Palma, Predragovich, and Glasscock (2002) conducted qualitative research to explore the support network of individuals and presented an analysis of categories and subjects. Their studies elaborated on the dimensions of social support, such as emotional support, esteem support, information provision, and tangible assistance. However, there is still scant quantitative research to support the influence of social support on career development.

Personality and Career Self-Efficacy. Career self-efficacy refers to a person's beliefs concerning his/her ability to successfully resolve future career-related issues. Hackett and Betz (1981) proposed this concept by extending the notion of self-efficacy that is described in Bandura's social learning theory. Lent et al.'s (1994) SCCT emphasizes the predictive role of career self-efficacy in career development and states that career self-efficacy plays a direct role in developing individuals' career interests. The theoretical model also claims that person inputs (including personality) and background contextual affordances are leading factors that help create different learning experiences and influence the development of career self-efficacy. Therefore, SCCT asserts that personality is the leading factor in the development of career self-efficacy in an individual. Some empirical studies have verified the assumption of SCCT. For example, Nauta (2004) found that career self-efficacy is the mediator between personality and career interests.

Some other studies have also focused on the correlation between personality and career self-efficacy (Borgen & Betz, 2008; Hartman & Betz, 2007; Larson & Borgen, 2006). Besides supporting the connection between personality and self-efficacy, research results also find that among the factors of the Big Five model, Conscientiousness and Extraversion are positively related to career self-efficacy, while Neuroticism is negatively related to it.

The inclusion of personality variables in issues of career development is a trend in the field. Current research often adopts personality scales or personality theories and seldom deepens into the subject of career development. In fact, Holland's RIASEC personality types are considered a personality model under the framework

of career development (working environment) (Hogan & Blake, 1999) because Holland believes vocational interests to be an expression of personality. Similar to the development of the Big Five model, Holland's themes also originate from descriptions of traits. Some empirical studies discuss the connectivity between five personality types and Holland's six personality types (Gottfredson, Jones, & Holland, 1993; Larson, Rottinghaus, & Borgen, 2002; Sullivan & Hansen, 2004). Larson, Rottinghaus, and Borgen's (2002) meta-analysis of 24 research reports suggested that the most significant correlations are between Artistic and Openness (.41), Enterprising and Extraversion (.48), Social and Extraversion (.31), Investigative and Openness (.28), and Social and Agreeableness (.19); other moderate correlations include those between Conventional and Conscientiousness, and Enterprising and Conscientiousness.

Parental Support and Career Self-Efficacy. Upon the influence of social constructionist on contextual determinants, a group of career scholars combined the contextual framework with career issues and created "relational approach to career development" (Schultheiss, 2003). Among the studies on the relationship between individual career and support relationships, parent-child relationships have been the focus and are validated as the most important relationships. For example, Fisher and Griggs (1995) found that, in the career development of college students, parental support is the most influential factor. According to Schultheiss et al. (2001), 36% of the respondents reported that their mother is the most influential person, whereas 21% reported that their father is the most influential one. Studies of Nauta and Kokaly (2001), and Schultheiss et al. (2001) share some similarities. Their study reported that 39% and 24% of their college respondents, respectively, rank their mothers and their fathers as influential figures.

Recently, parental support has been validated as an important predictive indicator of career self-efficacy among the youth (Keller & Whiston, 2008) and has been found to have a positive correlation with career self-efficacy (Nota, Ferrari, Solberg, & Soresi, 2007). SCCT originally suggested that contextual factors (e.g., social support) directly influence career choices, but empirical studies have found that contextual factors have a direct impact only through self-efficacy (Lent et al., 2001). These studies indicate a strong correlation between the power of social support and self-efficacy.

The purpose of this study was to find the answers to the following research questions : (a) Is personality type a significant predictor of career self-efficacy ? (b) Is parental support a significant predictor of career self-efficacy ? (c) Which is the main indicator in predicting career self-efficacy — personality or parental support?

METHOD

Participants
The respondents were 435 students from 8 colleges located in northern and eastern Taiwan; 42.3% were male and 57.7% were female. The average age was 20.48 (SD = 1.532).

Measures
The instruments contain four parts: a) a demographic questionnaire, b) a Parental Support Scale, c) a Career Self-Efficacy Scale, and d) the Holland Personality Scale, which are detailed below.

Demographics. Information regarding gender, age, and parents' occupation was collected. The main personal background variable of this study is gender. The variable is derived from the SCCT, which considers gender as a person input that affects career self-efficacy.

Parental Support Scale. The Parental Support Scale measures the degree of parental support in youth career development. Based on the theoretical frameworks of Cutrona (1996), and the qualitative research findings of Schultheiss et al. (2001), Blustein et al. (2001), Schultheiss et al. (2002), and Phillips et al. (2001), this study designed 15 items under four factors, which are (a) Emotional Support (e.g., care, support, and encouragement), (b) Esteem and Autonomy Support (e.g., parents believe in their offsprings' abilities and respect their choices), (c) Information Provision (e.g., providing information on career choices, and giving directions and suggestions), and (d) Tangible Assistance (e.g., parental involvement and assistance). Based on a sample of 435 students, the internal reliability coefficient for the 15 items was .913. The Cronbach's alpha values were .90, .83, .83, and .74 for Emotional Support, Esteem and Autonomy Support, Information Provision, and Tangible Assistance, respectively. In order to test for consistency between the scales and the theoretical frameworks, the study conducted confirmatory factor analysis and found: χ^2 (84) = 277.63, RMSEA = 0.074, SRMR = 0.05, GFI = 0.92, and CFI = 0.98, suggesting that the model fits well with the theory and that the scale is applicable.

Career Self-Efficacy Scale. The Career Self-Efficacy Scale is based on Betz, Klein, and Taylor's (1996) Career Decision Self-Efficacy Scale, which includes five subscales, namely, Accurate Self-Appraisal, Gathering Occupational Information, Goal Selection, Making Plans for the Future, and Problem Solving. Betz et al. conducted an internal reliability test for the scale and found that the Cronbach's alpha values of the five subscales were between .73 and .83, whereas the Cronbach's alpha of the full scale was .94. In this study, the full scale of the internal reliability coefficient was .94, while the Cronbach's alpha values of the five subscales were .69, .75, .80, .80, and.77, respectively, for Accurate Self-Appraisal, Gathering Occupational Information, Goal Selection, Making Plans for the Future, and Problem Solving.

Holland Personality Scale. The Holland Personality Scale is based on Holland's RIASEC themes, which include Realistic, Investigative, Artistic, Social, Enterprising, and Conventional personalities. The original scale was proposed by Michelozzi (1988), and a Taiwanese version was later proposed by Chu (2006). This study modified the scale into 25 items. The Cronbach's alpha of the full scale was .90, and the Cronbach's alpha values for Realistic, Investigative, Artistic, Social, Enterprising, and Conventional were .76, .83, .83, .85, .67, and .78, respectively. Furthermore, in order to test the fitness between the scale and the theoretical framework, the study conducted confirmatory factor analysis and found that χ^2 (260)＝750.67, RMSEA＝0.073, SRMR＝0.064, GFI＝0.86, and CFI＝0.92, indicating the applicability of the scale.

RESULTS

Table 1 presents the means, standard deviations, and zero-order correlations for the measured variables. As seen, besides the gender variable, six personality types and four parental support subscales are positively and significantly correlated with career self-efficacy.

Personality and Career Self-Efficacy

As shown in Table 2, six hierarchical regressions were computed to predict college students' career self-efficacy and the five subscales based on their personality type scores. From Regression A to Regression F, the predictors that reach significance in self-efficacy and the five subscales largely cluster in Conventional, Investigative, Social, and Artistic types. The Conventional and Investigative personality types especially have predictive effects. It is important to note that, according to Table 2, the Conventional type is the most significant predictor of career self-efficacy among Holland's six themes.

Table 2 *Results from the Hierarchical Regression Analysis that Predicts Career Self-Efficacy from Personality Types*								
Dependent variables	Regression A: Self-Efficacy (Total)			Regression B：Self-Appraisal			Regression C：Occupational Information		
	B	β	$\triangle R^2$	B	β	$\triangle R^2$	B	β	$\triangle R^2$
Block 1: Control variable			.01			.01			.01*
Gender	.11	.09		.09	.07		.13	.11*	
Block 2: Predictors			.36***			.33***			.31***
Realistic	.03	.05		.00	.00		.05	.08	
Investigative	.13	.17**		.17	.21***		.11	.14*	
Artistic	.10	.11*		.16	.16**		.15	.15**	
Social	.14	.15**		.09	.10		.09	.10	
Enterprising	.06	.08		.03	.04		.08	.10	
Conventional	.25	.28***		.26	.28***		.23	.25***	
F	35.25***			29.21***			28.13***		
R^2_{Total}	.37			.33			.32		
R^2_{Adjust}	.36			.32			.31		

Note. * p<.05 **p<.01 ***p<.001

Table 1 *Means, Standard Deviations, and Zero-Order Correlations for all Variables (N=435)*

Measures	M	SD	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.Gender	.42	.49	.13**	.09	-.11*	-.02	.09	-.03	-.11*	-.02	-.02	.09	.07	.11*	.10*	.06	.07	.10
2.Realistic	3.17	.85		.36**	.22**	.24**	.15**	.22**	.16**	.19**	.11*	.10*	.23**	.26**	.22**	.21**	.24**	.26**
3.Investigative	3.77	.72			.58**	.45**	.32**	.28**	.15**	.21**	.04	.05	.44**	.41**	.39**	.37**	.37**	.44**
4. Artistic	3.97	.64				.48**	.28**	.27**	.17**	.20**	.02	-.02	.40**	.38**	.34**	.30**	.32**	.39**
5.Social	3.64	.63					.53**	.41**	.32**	.32**	.25**	.17**	.40**	.40**	.40**	.43**	.42**	.46**
6.Enterprising	3.54	.71						.46**	.22**	.22**	.19**	.12*	.33**	.36**	.31**	.42**	.33**	.39**
7.Conventional	3.56	.65							.27**	.26**	.16**	.13**	.44**	.42**	.40**	.46**	.36**	.47**
8.Emotional Support	3.52	.79								.76**	.58**	.47**	.24**	.24**	.25**	.28**	.27**	.29**
9.Esteem & Autonomy	3.69	.75									.42**	.30**	.34**	.32**	.33**	.34**	.37**	.38**
10.Information Provision	3.28	.84										.53**	.07	.16**	.08	.16**	.11*	.13**
11.Tangible Assistance	2.91	.85											.05	.16**	.13**	.11*	.10*	.12*
12.Self-Appraisal	3.67	.61												.70**	.80**	.79**	.73**	.90**
13.Occupational Information	3.42	.61													.66**	.75**	.70**	.85**
14.Goal Selection	3.53	.64														.76**	.74**	.89**
15.Making Plans	3.39	.67															.76**	.91**
16.Problem Solving	3.37	.66																.89**
17.Self-Efficacy(Total)	3.47	.57																

Note. * p<.05 **p<.01 ***p<.001

Table 2 *(Continued)*

Dependent variables	Regression D: Goal Selection			Regression E：Making Plans			Regression C：Occupational Information		
	B	β	$\triangle R^2$	B	β	$\triangle R^2$	B	β	$\triangle R^2$
Block 1: Control variable			.01			.00			.01
Gender	.12	.10		.08	.06		.10	.07	
Block 2: Predictors			.27***			.32***			.26***
Realistic	.02	.03		.01	.02		.05	.07	
Investigative	.14	.16**		.15	.16**		.13	.14*	
Artistic	.10	.10		.01	.01		.07	.07	
Social	.17	.17**		.15	.14**		.19	.19**	
Enterprising	.02	.02		.15	.16**		.06	.06	
Conventional	.24	.24***		.29	.28***		.19	.19***	
F	22.70***			28.43***			21.35***		
R^2_{Total}	.28			.33			.27		
R^2_{Adjust}	.27			.31			.25		

Note. * p<.05 **p<.01 ***p<.001

Parental Support and Career Self-Efficacy

As shown in Table 3, six hierarchical regressions were computed to predict college students' career self-efficacy and the five subscales based on their parental support scores. From Regression A to Regression F, Esteem and Autonomy Support could best predict college students' career self-efficacy. Thus, when parents have faith in their offsprings and respect their career choices, they could improve the latter's confidence and self-efficacy.

Table 3 *Results from the Hierarchical Regression Analysis that Predicts Career Self-Efficacy from Parental Support*

Dependent variables	Regression A: Self-Efficacy (Total)			Regression B：Self-Appraisal			Regression C：Occupational Information		
	B	β	$\triangle R^2$	B	β	$\triangle R^2$	B	β	$\triangle R^2$
Block 1: Control variable			.01*			.01			.02*
Gender	.12	.11*		.11	.09		.15	.12*	
Block 2: Predictors			.16***			.13***			.12***
Emotional Support	.01	.02		.05	.06		-.02	-.02	
Esteem & Autonomy	.31	.40***		.30	.36***		.27	.32***	
Information Provision	-.03	-.05		-.06	-.08		.01	.01	
Tangible Assistance	.01	.01		-.04	-.05		.04	.06	
F	17.20***			13.64***			11.93***		
R^2_{Total}	.17			.14			.13		
R^2_{Adjust}	.16			.13			.12		

Note. * p<.05 **p<.01 ***p<.001

Table 3 *(Continued)*

Dependent variables	Regression D: Goal Selection			Regression E: Making Plans			Regression F: Problem Solving		
	B	β	$\triangle R^2$	B	β	$\triangle R^2$	B	β	$\triangle R^2$
Block 1: Control variable			.01*			.01			.01
Gender	.14	.11*		.10	.07		.11	.08	
Block 2: Predictors			.13***			.13***			.16***
Emotional Support	.02	.02		.04	.05		-.02	-.02	
Esteem & Autonomy	.31	.36***		.29	.32***		.38	.42***	
Information Provision	-.09	-.11		.01	.01		-.03	-.04	
Tangible Assistance	.05	.07		-.01	-.01		.00	.00	
F	13.50***			12.94***			16.00***		
R^2_{Total}	.14			.14			.16		
R^2_{Adjust}	.13			.13			.15		

Note. * p<.05 **p<.01 ***p<.001

Comprehensive Analysis of Career Self-Efficacy

According to the SCCT, the sources of career self-efficacy can be categorized as person input variables and background contextual affordances. Therefore, this study includes gender, personality (both belong to person input variables), and parental support (contextual affordance variable) into the regression model in order to clarify which factors can better predict self-efficacy. As shown in Table 4, the Conventional type of personality can best predict self-efficacy, followed by the Investigative personality, and Esteem and Autonomy Support. Among six predictive variables that reach significance, four are personality traits. Compared to the parental support variable, which accounts for 3.9% of the variance, the gender variable can only explain 1.1% of the variance. However, the personality traits variable can explain 36.5% of the variance.

Table 4
Summary of the Multiple Regression Analysis that Assesses Personality and Parental Support Predictors of Career Self-Efficacy in College Students

Dependent Variable	Predictor Variable	R^2	$\triangle R^2$	β	t	P
Self-Efficacy	Conventional	.227	.227	.290***	6.775	.000
	Investigative	.324	.097	.172**	3.452	.001
	Esteem & Autonomy	.379	.055	.217***	5.257	.000
	Social	.394	.015	.136**	2.818	.005
	Gender	.401	.007	.105**	2.670	.008
	Artistic	.406	.005	.107*	2.135	.033
Note. * p < .05 **p < .01 ***p < .001						

DISCUSSION

This study confirmed that the Conventional, Investigative, Social, and Artistic personalities are significant predictors of career self-efficacy. Larson and Borgen (2006) found that of the Big Five model factors, Conscientiousness and Extraversion are positively correlated with career self-efficacy. Related studies on the Big Five model and Holland's six personality types confirmed the correlation between the Conscientiousness and Conventional personality types, as well as between the Extraversion and Social personality types. As a result, these studies could validate whether the Conventional and Social personality types can predict career self-efficacy. However, further investigation is required to determine whether the Investigative and Artistic personality types can predict career self-efficacy.

This research also found that personality variables could better predict career self-efficacy than parental support variables. The reason is probably that the respondents are college students who are already independent and

mature. Some of them have even left home for school, so the influence of parental support is not as strong as personal traits. Future studies can include high school students as respondents and test if background contextual affordances outweigh personal variables. Moreover, the Conventional type is the most significant predictive variable for career self-efficacy among Holland's six themes. Organization and planning are two main characteristics to describe the Conventional type (Sharf, 2010). Therefore, individuals who make plans and move steadily towards the future could generate better career self-efficacy. This finding suggests that career counselors should encourage students to make plans for their future. Furthermore, according to Table 2, the Social personality type could significantly predict self-efficacy in Goal Selection, Making Plans for the Future, and Problem Solving. The reason may be that Goal Selection and Problem-Solving rely on good interpersonal interactions. Since individuals of the Social personality type are especially good at communicating with others, their personality has positive effects on career self-efficacy.

Finally, this study found that the Esteem and Autonomy Support factors of parental support scale could best predict college students' career self-efficacy. This confirms the assumption of Schultheiss et al. (2002) that esteem support could increase individuals' self-confidence and self-efficacy. In particular, Schultheiss et al. (2002) stated that self-efficacy is a mediator between esteem support and career development. After confirming whether esteem support can predict self-efficacy, future studies could further investigate the mediating role of self-efficacy in order to clarify the influence of supportive relationships on career development.

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