

EFFECT OF PROACTIVE PERSONALITY AND DECISION-MAKING SELF-EFFICACY ON CAREER ADAPTABILITY AMONG CHINESE GRADUATES

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We studied the effect of proactive personality and career decision-making self-efficacy on career adaptability under employment pressure among 810 Chinese graduate students. Participants completed the Proactive Personality Scale, the Career Adapt-Abilities Scale–International Form 2.0, the Career Decision-Making Self-Efficacy Scale, and the Employment Pressure Scale. The results showed: (a) proactive personality affected career adaptability, (b) career decision-making self-efficacy played a mediating role in that relationship, (c) employment pressure moderated the mediating effect on the relationship in (a), and (d) students with a highly proactive personality were more inclined to be influenced by the negative effects of employment pressure than were those with a less proactive personality when forming career decision-making self-efficacy.

Keywords: proactive personality, career decision-making self-efficacy, employment pressure, career adaptability.

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Currently, university graduates are experiencing severe employment pressure because of the slow recovery of the global economy and the continuing slump of the labor market (Tolentino et al., 2014). This situation is particularly serious in China. Recent graduates often require an extended period of time to find a suitable job. Given this situation, it is very important for graduates to develop the ability to adapt to career changes. Based on the current employment situation and the need for career flexibility, in this research we examined the effect of proactive personality and career decision-making self-efficacy of Chinese graduate students on their career adaptability under employment pressure.

Career Adaptability

Career adaptability (CA) refers to the ability of an individual to respond to career role transitions. CA is regarded as the key ability through which an individual achieves career success in fast-changing modern society. Individuals with high CA may take measures to improve their career environment and prepare for upcoming changes in that environment (Savickas, 2013).

The concept of CA originates from the revision of career maturity theory proposed by Super and Knasel (1981). Savickas, influenced by the construction theory, further developed the theoretical construction of CA by gradually substituting the concept of CA, with psychological significance, in place of career maturity, with biological significance (Savickas, 1997). In today's dynamic career milieu, CA is already considered indispensable in an individual's career development (Klehe, Zikic, van Vianen, Koen, & Buyken, 2012). CA represents change from static views, and paying more attention to human flexibility and adaptability (van Vianen, Klehe, Koen, & Dries, 2012). Therefore, CA has become a new focal point in the career psychology field, although there has, to date, been little in-depth integrated research into the relationships among the factors influencing CA.

Proactive Personality as a Predictor of CA

Proactive personality (PP), a concept first put forward by Bateman and Crant (1993), is a stable tendency describing the likelihood of individuals taking initiative to influence their surroundings.

Indeed, researchers have noted the important relationship between PP and CA (McArdle, Waters, Briscoe, & Hall, 2007). PP has a significant positive correlation with CA. Proactive individuals are more successful in actively shaping their own work environment and developing their CA resources than are individuals who are not proactive (Tolentino et al., 2014). Proactive individuals are not only more successful in their career but also adapt more readily to their environment (Brown, Cober, Kane, Levy, & Shalhoop, 2006). Bateman and Crant (1993) suggested that proactive individuals are more likely than are

nonproactive individuals to have initiated preparation to cope with career-related changes, to identify promotion opportunities, and to create a work environment that conforms to career needs. Based on the above literature, we proposed:

Hypothesis 1: Proactive personality will positively predict career adaptability.

The Role of Career Decision-Making Self-Efficacy as a Mechanism Intervening Between Proactive Personality and Career Adaptability

Scholars have discussed the direct relationship between PP and CA, but the intervening mechanism has not been elucidated (Hirschi, Lee, Porfeli, & Vondracek, 2013). Researchers have theorized that the effect on career behavior of the basic personality traits is exerted via self-efficacy belief (Parker, Bindl, & Strauss, 2010). According to this viewpoint, self-efficacy is regarded as the main dynamic mechanism of self-regulation (Zikic & Saks, 2009). Thus, self-efficacy is often seen as a proximal, powerful, and important premise in the relationship between personality and career behavior (Stajkovic & Luthans, 1998), highlighting self-efficacy as an important variable worth studying in the context of this relationship.

High self-efficacy correlates with high individual initiative (Frese, Garst, & Fay, 2007) and initiative can also predict self-efficacy (Hirschi et al., 2013). Scholars have demonstrated that career decision-making self-efficacy (CDMSE) positively predicts career maturity – the prototypical concept of CA (Zikic & Saks, 2009). Hence, we proposed:

Hypothesis 2: Career decision-making self-efficacy will have a mediating effect on the relationship between proactive personality and career adaptability.

The Role of Employment Pressure in the Relationships Among Proactive Personality, Career Decision-Making Self-Efficacy, and Career Adaptability

One of the advantages of proposing the concept of CA lies in its opposition to the static state of career maturity and, instead, the focus is on individual self-regulation allowing adaptation to the environment (Savickas et al., 2009). The concepts of CA and PP both emphasize the interaction between humans and their environment.

When Bateman and Crant (1993) proposed the concept of PP, they pointed out that the positive role of PP might be influenced by the environment. However, in subsequent research conducted by Chan (2006) on PP and career success the focus was primarily on people, and the influence of the environmental variable was ignored. Chan suggested that the positive role of PP is contingent on the ability of the individual to judge the environment.

At present, recent Chinese graduates encounter severe employment pressure (EP). This external situational variable may prevent them from experiencing the positive role of PP, may influence the level of their self-efficacy when applying

for jobs or making career decisions, and finally may change the level of their CA. Based on this, we proposed:

Hypothesis 3: Employment pressure will not only moderate the positive effect of proactive personality on career decision-making self-efficacy, but will also moderate the indirect effect of proactive personality on career adaptability through career decision-making self-efficacy.

Method

Participants and Procedure

Using cluster random sampling, we selected 1,014 senior students at four Chinese four-year comprehensive universities. We used a group testing method under uniform test instruction. Our sample completed the four scales described below. Participants were asked to respond truthfully and honestly and we allowed 40 minutes for them to complete the scales. We distributed the survey forms to the participants and they returned the forms to us as soon as they had finished. After we had discarded invalid survey forms, we had 810 effective samples (men = 367, women = 443), $M_{\text{age}} = 22.90$ years, $SD = 0.82$.

Instruments

We used the Chinese version of the Proactive Personality Scale (PPS; Bateman & Crant, 1993; Chinese version, Shang & Gan, 2009) comprising 11 items rated on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. In this study, Cronbach's alpha for the total scale was .80.

To measure CA we used the Career Adapt-Abilities Scale-International Form 2.0 (CAAS-2.0; Savickas & Porfeli, 2012). Before we used the CAAS-2.0 we tested its reliability and validity in a Chinese context. First, the scale was translated into Chinese by two professional English teachers. We then asked an English teacher who had studied psychology in the United States to perform a back-translation. We examined the consistency of the two versions and made relevant adjustments to ensure a high degree of language equivalence. Then, we conducted a pilot study using the Chinese version with 171 people. Results showed that the reliability and validity of the scale were in the acceptable range. In our study participants responded to 24 items of the CAAS-2.0 on a 5-point scale ranging from 1 = *not strong* to 5 = *strongest*. Cronbach's alpha for the total scale was .88 in this study. We performed a confirmatory factor analysis to calculate comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). All the construct validity indices were within the acceptable range ($\chi^2 = 1076.34$, $df = 248$, CFI = .840, RMSEA = .064, SRMR = .053).

We measured CDMSE with the Career Decision-Making Self-Efficacy Scale (CDMSES, Chinese version, Peng & Long, 2001). Participants responded to 39 items on a 5-point scale ranging from 1 = *totally disagree* to 5 = *totally agree*. In this study, Cronbach's alpha for the total scale was .93.

We used the Employment Pressure Scale (EPS; Chen, 2008) to measure EP with 36 items on a 4-point scale ranging from 1 = *no pressure* to 4 = *serious pressure*. In this study, Cronbach's alpha for the total scale was .94.

Results

Hypotheses Validation

We found statistically significant positive correlations of PP with CA, CDMSE with CA, and PP with CDMSE. Descriptive statistics and related matrices of all variables are shown in Table 1.

Table 1. *Descriptive Statistics and Related Matrices of all Variables*

Variable	<i>M</i>	<i>SD</i>	PP	CDMSE	CA	EP
PP	57.78	8.66	—	.62***	.62***	-.17***
CDMSE	143.23	19.85		—	.66***	-.28***
CA	88.62	12.12			—	-.18***
EP	77.57	18.28				—

Note. *N* = 810. PP = proactive personality, CDMSE = career decision-making self-efficacy, EP = employment pressure, CA = career adaptability. *** $p < .001$.

We examined the relationships among PP, CA, and CDMSE. We found the effects of PP on CA ($\beta = .87$, $t = 22.53$, $p < .001$) and on CDMSE ($\beta = 1.41$, $t = 22.17$, $p < .001$) were significant, which is consistent with Hypotheses 1 and 2. We also found that the effect of PP on CA dropped dramatically from .87 to .49 after inserting CDMSE between PP and CA. The results conform to the judgment standards of mediating effects proposed by Baron and Kenny (1986) and indicated that CDMSE was a mediating variable. The results of bootstrapping showed that the mediating effect of CDMSE was significant ($\beta = .38$, $p = .002$), supporting Hypothesis 2.

Validation of Hypothesis 3

As predicted, the interaction between PP and EP significantly affected CDMSE indicating that the direct effect of PP on CDMSE was significantly moderated by EP ($\beta = -.02$, $t = -6.04$, $p < .001$).

We found that the results ($\beta_{CA} = -.02$, $t = -7.78$, $p < .001$; $\beta'_{CA} = -.01$, $t = -4.38$, $p < .001$ and $|\Delta\beta| = .01 > 0$) conformed to the judgment standards of moderated mediation proposed by Muller, Judd, and Yzerbyt (2005). The results

of bootstrapping showed that the moderated mediating effect of EP reached a significant level ($\lambda = -.01, p = .005$), supporting Hypothesis 3.

We also found that the effect of the interaction between PP and EP on CDMSE was significantly negative. We drew interaction plots following the procedures by Dawson (2014) that depict the impact of the moderating effect (see Figure 1). We performed a simple slope test and found that the CDMSE of the participants with high PP was influenced more by the negative effect of EP – as depicted by the statistically significant negative slope ($t = -8.91, p < .001$) – than was the CDMSE of the participants with low PP – as depicted in a slope that is not significant ($t = .25, p > .05$; see Table 2).

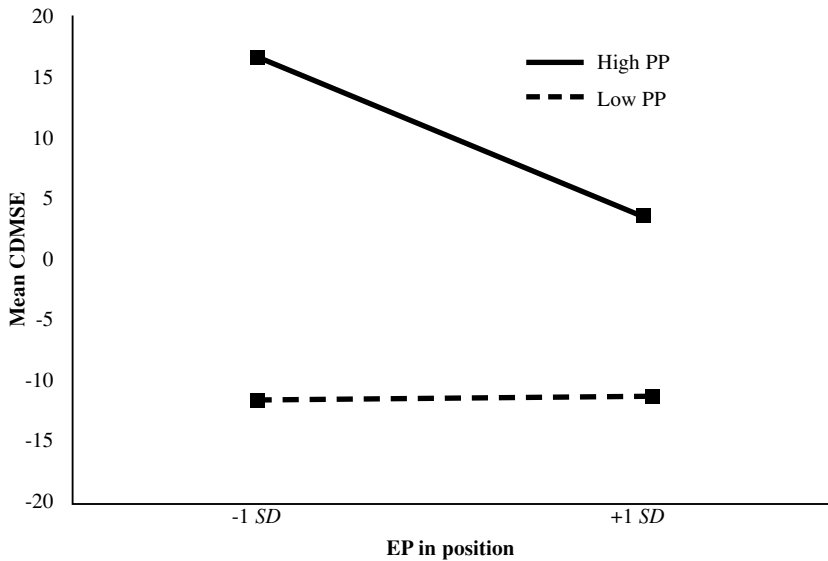


Figure 1. Interaction plot between EP and PP.

Table 2. Regression of Centered CDMSE (\hat{Y}) on Centered EP (z) at Two Values of Centered PP (x)

Value of x	Simple regression equation	SE of simple slope	t test	95% CI
At $x_{\text{high}} = 8.66$	$\hat{Y} \text{ 1SD} = -.35z + 10.11$.04	-8.91***	[-.43, -.28]
At $x_{\text{low}} = -8.66$	$\hat{Y} \text{ -1SD} = .01z - 11.24$.05	0.25	[-.08, .10]
	$\hat{Y} = -.57 + 1.23^{***} x - 0.17^{***} z - 0.02^{***} xz$			
	$R^2 = .43, \text{ Adjust } R^2 = .43$			

Note. $N = 810$. PP = proactive personality, CDMSE = career decision-making self-efficacy, EP = employment pressure. *** $p < .001$.

Discussion

The Relationship Between Proactive Personality and Career Adaptability

Our findings show that the positive correlation between PP and CA was significant and predictive among our participants, thus verifying Hypothesis 1, and this is consistent with previous findings (Tolentino et al., 2014). This result indicates the importance of individuals being proactive when coping with an unstable career environment. When faced with a career transition, individuals with PP are not always the passive recipients of environmental constraints, but on the contrary, they may make changes to improve their current environment, look actively for opportunities, and take action. When confronted with CA needs, proactive individuals are more apt than others are to make preparation for changes, and make career-related changes (Bateman & Crant, 1993). In our study, the positive predictive effect of PP on CA suggests that the graduates with PP among our participants adapted more easily to the transition period when taking the first step towards establishing a career.

The Mediating Effect of Career Decision-Making Self-Efficacy

We verified Hypothesis 2, that is, our results showed that CDMSE played a mediating role between PP and CA. The verification of this indirect effect appears not to have been reported previously and may explain the relationship between Chinese college students' PP and CA from the social cognitive perspective. In social cognitive career theory, self-efficacy is regarded as the principal mechanism of self-regulation in the social cognitive context (Zikic & Saks, 2009). The mediating effect of CDMSE between personality and career behavior has been under discussion ever since social cognitive career theory was proposed (Jin, Watkins, & Yuen, 2009). Research is ongoing to verify the mediating effect of CDMSE on personality and adaptive career behavior (Rogers, Creed, & Glendon, 2008).

Our results in this study conform to the current research direction, in finding significant relationships among CDMSE, PP, and CA. We found that CA was not only influenced by PP, but also may be indirectly transmitted through CDMSE. This suggests that individuals with high PP will acquire higher self-efficacy during job hunting (Zikic & Saks, 2009) than will those with low PP. When individuals have this high level of self-efficacy, it may form an important prediction regarding CA (Hirschi et al., 2013). Thus, Chinese college students with high PP would be more likely to undertake career exploration and career planning than would those with low PP, therefore developing a higher level of self-efficacy in terms of job hunting and career decision-making. For those graduates in this high self-efficacy group it will become much easier to achieve CA in the face of career transition when graduating from college.

The Moderating Effect of Employment Pressure

Based on Hypothesis 2, we further investigated the associations among PP, CDMSE, and CA against a background of increasingly severe EP in China. The results showed that, for our participants, EP not only moderated the direct effect of PP on CDMSE, but also moderated the mediating effect of CDMSE on PP and CA. This finding enriches PP theoretical research, in which the mediation model is favored. The moderating effect of EP verifies the career-related process by integrating personality factors, background factors, and career decision-making (Rogers et al., 2008). Our finding demonstrates that the formation of CDMSE beliefs is influenced by the external environment as well as by static personality factors.

We analyzed the interaction between PP and the environmental factor of EP, finding that students with different degrees of PP responded differently to EP in the course of forming CDMSE. In other words, among individuals with higher PP there were more significant negative effects of EP on CDMSE than among individuals with low PP. We concluded that this group of college students may set higher standards than others do for themselves and be more confident during times when there is little EP, than when EP is severe, and their confidence is more vulnerable, hence lowering the level of their CDMSE. As a result, it is more difficult for them to prepare for upcoming changes related to work, leading to career maladjustment. This is consistent with the viewpoint expressed by Bateman and Crant (1993) that individual differences in PP may influence a person to take action to change the environment.

Because of the different susceptibilities of Chinese college students to EP, individuals with high PP may encounter career maladjustment because of the distinctive effects of CDMSE. This result helps enrich our findings in support of our first two hypotheses and provides further elaboration on the effect of PP on CA, elucidating the importance of the interaction between people and environment in dealing with the factor of an individual's CA.

Practical Implications and Limitations

The practical implication of this study lies in the identification of the mediating effect of self-efficacy and the moderating effect of the external environment. Therefore, career-counseling work aimed at enhancing Chinese college students' CA should include both cultivation of their PP and emphasis on the viability of flexible employment opportunities.

First, graduate students' CA may be improved by cultivating their PP and establishing their career confidence. Career counselors need reminding to let students study their future career, maintain curiosity about the world of business they are entering, and be confident of the measures in place to control their future career development (Tien, Wang, Chun, & Huang, 2012).

Second, career counselors should encourage students to choose flexible employment and cope with EP positively in order to raise the level of their CA. Based on our finding that graduates with higher PP were more inclined than others were to be influenced by EP, we suggest that career counselors should concentrate on helping these students to overcome this susceptibility, and offer them psychological counseling.

However, the following limitations may exist in this study: (a) as we used a self-report survey method, common method bias may be a potential issue; (b) we primarily used step-by-step regression analysis in this study, hence the inference of causality is subject to revision pending the results from additional analysis methodologies; (c) as our participants in this study were Chinese senior graduates, whether or not the research findings can be applied to students of other grades or other educational systems requires further research; (d) in our study we paid little attention to the potential effect of cultural variables, so that future researchers may address Chinese cultural and cross-cultural implications. In addition, there are many factors influencing CA and other factors that we did not include in our study.

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