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Exploring The Predictors and Mechanism of Protean Career Orientation in Eastern Context: The Effect of Yin-Yang Values, Career Adaptability, and Traditional Gender Role Beliefs

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Abstract

Due to increasing change and uncertainty in the contemporary work environment, a growing body of literature recognizes that it is crucial for individuals to develop protean career management. Despite the many benefits that protean career orientation can offer to individual career development and organizational results, few empirical studies focus on the predictors and the formation mechanism of protean career orientation, especially in the Eastern context. By introducing an Eastern personal value deriving from Chinese Yin-Yang philosophy and drawing on career construction theory, this study examined the relationship between Yin-Yang values, career adaptability, gender role beliefs, and protean career orientation. Based on a sample of 433 full-time employees in mainland China and Japan, the results of this study showed that both Yin-Yang values and career adaptability predict protean career orientation. Meanwhile, Yin-Yang values also influence protean career orientation via career adaptability. Furthermore, the two-way interaction demonstrates the moderating effect of gender role beliefs on the relationship between career adaptability and protean career orientation. The relationship is more potent when individuals embrace less traditional gender role beliefs than those with solid traditional beliefs. Our findings in this study imply that Eastern cultural factors, including traditional cultural values, may impact the formation mechanism of protean career orientation, suggesting a further discussion and examination from an indigenous perspective.

JEL classification: M1, M12, M14

Keywords: Career adaptability, Protean career orientation, Yin-Yang values, Gender role beliefs, Indigenous study

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Introduction

Due to the rapid changes in society, economy, and technology, there is increasing uncertainty and instability in today's labor market and work environment (Yeung & Yang, 2020). Accordingly, many organizations have abstained from traditional employment relationships and human resource practices. In contrast, alternative work arrangement, such as regular employment, has become more prevalent worldwide (Katz & Krueger, 2017). Therefore, instead of the traditional career management form driven by organizations, in the contemporary workplace, employees must take charge of their careers more proactively and independently (Hall, 2004; Li et al., 2021). Protean career orientation is an attitude toward one's career involving a values-driven orientation and self-directed career management (Briscoe et al., 2006). The values-driven orientation emphasizes that individuals' intrinsic and personal meaningful values serve as a guide for career development, while the self-directed career orientation refers to the employees, not the organizations, taking responsibility for their own careers (Hall et al., 2018; Briscoe et al., 2012). Since protean career orientation provides both guidance and motivation for career development, employees with higher protean career orientation are more likely to engage in proactive career behavior, obtain higher self-efficacy, and experience subjective career success (Herrmann et al., 2015; Chui et al., 2022; Drenzo et al., 2015). Moreover, employees' protean career orientation could benefit their organizations by promoting their job performance, self-management behavior, and psychological well-being (Briscoe et al., 2012, Haenggli et al., 2021).

Despite its positive effects on both the employees and organizations, there is little empirical study focus on the antecedents of protean career orientation, which result in our acknowledgment of how to trigger protean career orientation being limited (Hall et al., 2018). Few previous research has suggested that several variables, such as personality traits, educational and managerial experiences, and personal values, may shape employees' protean career orientation (Rastgar et al., 2014; Segers et al., 2008; Sargent & Domberger, 2007). Hence, this study aims to explore the antecedents that can predict protean career orientation. One previous study has proven that several Hofstede cultural dimensions (Hofstede, 1984), such as masculinity/ femininity, power distance, and individualism/ collectivism, may be positively related to protean career orientation (Segers et al., 2008). Nevertheless, in this study, we propose a value deriving from traditional Eastern philosophy, namely Yin-Yang values, may help shape career attitudes toward uncertainty

and paradox in one's career path, as it is with the nature of dynamic and holistic (Fang, 2012; Li, 2016).

Furthermore, drawing on the career construction theory, this study also aims to investigate whether and how career adaptability can trigger employees' attitudes and mediate between Yin-Yang values and protean career orientation. In addition, as gender has a significant connection to career attitudes and individuals' career behavior, we also explore the impact of gender-related factors on protean career orientation. To date, most of these studies have been conducted in a Western context, considering that the cultural environment may influence protean career orientation, scholars also highlighted the importance of testing relationships between protean career orientations and other variables in non-Western cultural context (Gubler et al., 2014; Supeli & Creed, 2016). Therefore, the objective of this study was to investigate the above relationship in an Eastern context.

We test our hypotheses with a sample of 433 working adults from various industries, organizations, and occupations in Mainland China and Japan. By doing that, this study contributes to the literature in the following ways. First, we develop a theoretical model to explore the relationship between Yin-Yang values, career adaptability, and protean career orientation. Since previous mainly focus on the outcomes of protean career orientation rather than the antecedents, this study advances our understanding of predicting individuals' protean career attitudes. Second, as we described above, most of the current studies are conducted in a non-Western perspective and context; by introducing the Yin-Yang values, this study provides new insights into indigenous career studies rooted in the Eastern context. Third, this study also offers practical implications to individuals and organizations for predicting and stimulating career attitudes.

Theoretical background

Yin-Yang values

Yin-Yang is an indigenous Chinese philosophy that embodies the thinking of harmony (Chin & Liu, 2015). In Chinese, *yin* refers to black and darkness, while *yang* represents white and brightness. Compared to the prevalent epistemology systems in the West, like Aristotle's "either/or" and Hegel's "both/or" philosophy systems, Yin-Yang philosophy advances a "either/and" logic. It posits that two opposite elements, *yin*, and *yang*, are partially conflicting

and partially complementary to each other, so it helps people from East Asia understand and manage complexity and uncertainty by embracing and balancing them rather than reducing and substituting them (Li, 2016). More specifically, Yin-Yang philosophy involves three core tenets as **holistic** reflect that phenomenon or entity cannot be complete unless it has two opposite elements. In other words, every element is interrelated and interdependent with its opposite. It suggests that individuals should recognize the opposite elements in their interconnections and co-existence (Li, 1998). **Dynamic** refers to the thinking of transitional balancing, which means the opposite elements may transform into each other under certain conditions. It advocates that everything in the universe is not immutable and static but changing and constantly evolving. **Dialectical** or Paradoxical posits that the opposite sub-elements exist in one unity, partially conflicting and partially complementary (Fang, 2012; Li, 2016). The dialectical content helps individuals focus on the opposite elements equally and avoids simple polarizing (Peng et al., 2016).

Deriving from Yin-Yang philosophy, Yin-Yang values enable individuals to be more dialectical about the contradictions and difficulties they experience in career development by allowing them to simultaneously obtain resources from the opposite elements and behaviors more flexibly (Jiang et al., 2021). Moreover, as Yin-Yang philosophy focuses on changing and developing, Yin-Yang values may stimulate individuals' attitudes and behaviors, preparing for possible uncertainty and problems in the future, such as developing new skills, keeping open to change, learning, and accumulating resources (Lee & Reade, 2018; Smith & Lewis, 2012). Therefore, individuals with a high level of Yin-Yang perspective are likely to adhere to intrinsic values in the changing environment and steer their careers rather than rely on the organizations. Therefore, we propose as following:

Hypothesis 1: Yin-Yang values are positively related to protean career orientation.

Career construction theory and career adaptability

Advancing Super's vocation development theory, career construction theory (CCT), is a theory that views career from social construction and contextual perspective (Savickas, 2005). It proposes that individuals construct their careers accompanying the process of self-construction, in which individuals also make meaning of their careers (Savickas, 2005, 2013). According to CCT, individuals' development and growth are driven by adaptation to the environment,

ultimately leading to integration between person and environment (Savickas & Porfeli, 2012). In contemporary society and the global economy, the social and organizational environment is changing, fluid, and full of uncertainty. Aiming at a person-environment fit, individuals must promote flexibility and adaptability to prepare for possibilities and cope with various challenges and transitions (Savickas, 2013).

Career adaptability is a psychosocial resource for coping with current and anticipated vocational development, occupational transitions, and work traumas, both predictable and unpredictable (Savickas, 1997, 2013). As a self-regulation resource, career adaptability describes an individual's ability and readiness to adapt to the environment, which requires autonomy, self-direction, and proactive behavior (Gubler et al., 2014). Career construction theory presents career adaptability as a multi-dimensional and hierarchical construct with four dimensions: concern, control, curiosity, and confidence (Savickas & Porfeli, 2012). In line with CCT (Savickas, 2013), concern refers to the concern about the future of one's own career. In other words, it represents a future orientation that concentrates on continuity and change. Control means individuals feel and believe they are responsible for their career development. Curiosity describes the individuals' desires to explore possible selves and roles, which may promote learning behaviors. Confidence means the individuals' feelings of self-efficacy and beliefs in achieving their career goals. Previous studies have demonstrated that a broad range of variables can induce career adaptability, including personal traits (i.e., a future work self, Guan et al., 2014) and contextual factors (i.e., learning environment and social support, Tian & Fan, 2014). Ye (2015) demonstrated that work values might positively predict career adaptability because extrinsic work values may motivate individuals to achieve their material career goals by adapting to the work environment. In comparison, intrinsic work values may promote confidence, skill, and acknowledgment. As noted above, given that the Yin-Yang values are associated with an individual's attitude and ability to cope with the changes and the future, individuals with a high level of Yin-Yang values are likely to be concerned about changing environment and open to development. Accordingly, they may also have a more robust readiness to develop resources, be ready for anticipated difficulties, build their career development confidence, and make challenges more manageable. Therefore, in this study, we propose as following:

Hypothesis 2: Yin-Yang values are positively related to career adaptability.

On the other hand, previous studies supposed that adaptability, as one of the meta-competencies, may equip employees with more protean career orientation by enhancing learning behaviors (Hall, 2004, 2018; Lo Presti, 2009). Although Cortellazzo and colleagues (2020) provided empirical evidence for the predicting effect of these two meta-competencies in their recent study, they also called for research based on a sample of working individuals from different countries instead of students from a single society. Likewise, the current studies have shown that the cultural environment may influence the results of protean career orientation studies. For instance, the predicted effects of protean career orientation on job satisfaction are contrary between Western and non-Western cultures (Supeli & Creed, 2016; Redundo et al., 2021). Therefore, this study will provide empirical evidence for meta-competencies' effect on protean attitudes orientation in the Eastern context.

Hypothesis 3: Career adaptability are positively related to protean career orientation.

The mediating effect of career adaptability

In addition, Yin-Yang values present individuals' awareness and beliefs of paradox, change, and difficulties. Individuals with a high level of Yin-Yang values are more likely to realize the nature of change and development, which drives them to prepare for the future. As a result, they may develop career adaptability more proactively than others. Further, career adaptability facilitates a person's continuous learning and embracing more flexibility in an uncertain and complex environment. It ultimately enhances their positive attitudes toward being in charge of their own careers (Water et al., 2015). Therefore, we also propose:

Hypothesis 4: Career adaptability mediate the relationship between Yin-Yang values and protean career orientation.

The moderating effect of gender-role beliefs

Eagly's (1987) social role theory suggests that males and females have been assigned distinct social roles due to the social division of labor. People's perceptions of social roles in a society induce sex differences in attitudes and behaviors between males and females, in turn leading to differences in individuals' career choices and progress in managerial positions (Olsson & Martiny, 2018; Kossek et al., 2017). More specifically, females are expected to be friendly, unselfish, and place the needs of others above their own, while males are expected to be

masterful, assertive, competitive, and play a dominant role (Eagly & Crowley, 1986; Eagly & Wood, 2012). Consequently, females are considered suitable for so-called female-typed jobs, such as child-care workers and nurses. On the other hand, males are considered to have a better fit for male-typed jobs like engineering and management (Eagly & Karau, 2002; Clarke & Arnold, 2018).

In other words, in a specific context, individuals with strong traditional gender role beliefs are more likely to accept the gender role assigned to them by society, culture, and other people. They tend to plan their career development according to these roles. On the contrary, individuals with less traditional gender role beliefs may tend to show more openness to career choices. According to the Conservation of Resources Theory, individuals strive to retain, protect, and build resources that they consider helpful and valuable (Hobfoll, 1989). Hence, individuals with less traditional gender role beliefs are more inclined to preserve psychological resources and apply them to their career development.

Hypothesis 5: Gender role belief will moderate the relationship between career adaptability and protean career orientation such that the relationship is stronger when traditional gender role belief is low rather than high.

Insert Figure 1 About Here

Methods

Sample and Procedures

The data used in this study were collected as part of a survey of individuals' careers in China and Japan. All the participants were full-time employees at the time of the survey. Our participants from China were mainly drawn from the eastern part of the mainland, and all the participants from Japan were based in Kanto and Kansai areas, which are major metropolitan areas in both countries. We collected the data at two points in time over two weeks. The data from China were collected by using a free online survey website, while the online survey company collected the data from Japan.

Demography variables, Yin-Yang values, and gender role beliefs were measured at Time 1, and 632 returned usable responses. In the second survey, career adaptability and protean career orientation were measured, and 433 returned usable responses, for a response rate of 68.5%.

Most of our participants were married (58.20%). There was almost no difference in the gender ratio of respondents (male, 48.27; female, 51.73%). Moreover, 42.56% of the participants were in their 30s, 40.18% were in their 40s, 15.94% were in their 20s, and 0.92% were in their 50s. Most of them have a bachelor's degree (81.76%). The majority (91.45%) have worked for four years and above.

Measures

The original scales were constructed and validated in English. As Breslin et al. (1973) suggested, the first author first translated the scales into Chinese and Japanese; then, two volunteers with an educational background in English and Business back-translated them into English. Finally, to confirm that the translated scales are readily understood, we also invited two native speakers of Chinese and Japanese to check the revised questionnaires. Some wording was adjusted to ensure clarity. All the items were rated on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree).

Yin-Yang Values

We adopted the 16-item scale from Jiang et al. (2021) to measure participants' Yin-Yang values. As the original scale were constructed for texting the effect of managers' cognition on organizational strategies, we have adjusted the presentation of the questionnaire to make them more appropriate for exploring personal career development. Sample items included "people should always be ready for change," "people should give more consideration to interactions between family needs and career development," and "About my career path, I think I should simultaneously focus on both the current situation and future trends in the organization and the industry.". The Cronbach's alpha coefficient was .87.

Career Adaptability

Career adaptability was measured by the 24-item scale developed by Savickas and Porfeli (2012). The validation of this scale has been examined in Chinese context (Hou et al., 2012). A sample item is "thinking about what my future will be like." The Cronbach's alpha coefficient was .92.

Protean Career Orientation

We assessed participants' protean career orientation using the 14-item scale adapted from Briscoe et al. (2006). A sample item from the scale is "I am in charge of my own career." The Cronbach's alpha coefficient was .81 for the self-directed sub-scale, and .79 for the values-driven sub-scale.

Gender Role Beliefs

We measured participants' beliefs of gender role using a gender related sub-scale from Park et al. (2005). The origin scale was developed to assess individuals' Confucian ethics, so that it is more appropriate and efficient to estimate individuals' gender role beliefs in Eastern context. A sample is "It is desirable if men should work outside the home, women inside." The Cronbach's alpha coefficient was .80.

Control Variables

Following the previous studies, we controlled several variables in regression analysis. The control variables mainly concern participants' demographics, including age, gender, occupation, and organizational tenure.

Results

Correlation Analysis and Descriptive Statistics

Table 1 shows the descriptive statistics and correlation analysis in this study. In support of our hypotheses, Yin-Yang values is positively associated with career adaptability ($r = .74$; $p < .01$) and protean career orientation ($r = .74$; $p < .01$). In addition, career adaptability are positively associated with protean career orientation ($r = .83$; $p < .01$). All these results lend initial support for Hypotheses 1-3.

Insert Table 1 About Here

Measurement Model

To test the discriminate validity of variables in this study, before examining our hypotheses, we performed a confirmatory factor analysis (CFA) using the package "lavaan" (Rosseel, 2022). The proposed four-factor baseline model offers a good fit to the data, $\chi^2(1494) = 4001.28$, $p < .001$; CFI= .91, IFI= .91, RMSEA= .06. Therefore, the variables in this study displayed as expected and showed discriminant validity.

Hypotheses Testing

To test our Hypotheses, we conducted hierarchical regression analyses. First, we centered the predictors to reduce multicollinearity, and include the control variables. The results are shown in Table 2.

Insert Table 2 About Here

Model 1 and step 1 in Model 2 in Table 2 indicate that after controlling the age, gender, occupation, and organizational tenure, Yin-Yang values is positively related to career adaptability ($\beta = .63$; $p < .001$) and protean career orientation ($\beta = .57$; $p < .001$), supporting Hypotheses 1 and 2. In addition, step 2 in Model 2 presents that career adaptability is positively related to protean career orientation ($\beta = .70$; $p < .001$), supporting Hypothesis 3.

Moreover, this study predicts the mediating effect of career adaptability between Yin-Yang values and protean career orientation. The results of step 3 in Model 2 indicate a significant and positive mediating effect of career adaptability. Although when we put the predictor and mediator in the model simultaneously, both of them are remain significant, the predicting effect of Yin-Yang become weaker. Hence, a partial mediation was found, and Hypotheses 4 was supported. Hypothesis 5 predicated the individuals' gender role beliefs would moderate the relationship between career adaptability and protean career orientation. The results in Table 3 show a significant moderating effect of gender role beliefs ($\Delta R = .003$; $\Delta F = 4.79$; $p < .05$). A graphical illustration of the interaction is shown in Figure 2, that the relationship is stronger when the individuals are less traditional in gender role. Therefore, Hypothesis 5 was also supported.

Insert Table 3 About Here

Insert Figure 2 About Here

Discussion

The present study aimed to explore how Yin-Yang values influence individuals' protean career orientation and career adaptability. Our finding established that individuals' belief toward changes and the opposite is a critical predictor of protean career attitudes, which is vital in the contemporary work environment. We also found that the relationship between Yin-Yang values and protean career orientation is partially mediated by career adaptability. Moreover, the relationship between career adaptability and protean career orientation is more substantial when individuals do not adhere to traditional gender beliefs.

Theoretical Contributions

Findings from this study contribute to the literature in the following ways. First, few previous studies have focused on predictors of protean career orientation, which leads to an insufficient understanding of how protean career orientation is developed (Steiner et al., 2019). In response to Hall's (2018) call, we investigate the predicting effect of individuals' Yin-Yang values and career adaptability in East Asia. More specifically, in this study, we examined the direct and indirect paths that Yin-Yang may affect protean careers. It is in line with the findings of Sargent and Domberger (2007), which revealed that personal values play an essential role in protean career orientation development. Meanwhile, although numerous previous studies proposed the connection between career adaptability and protean career orientation, only a few examined it in a Western context (Cortellazzo et al., 2020). Our study provides empirical evidence that career adaptability act as a predictor of protean career orientation in the Eastern context. In sum, this study extends our understanding of protean career orientation's antecedents and the formation mechanism.

Second, prior studies focused predominantly on how Yin-Yang values and perspective influence leadership or management behavior (Lin et al., 2018; Liu & An, 2021). In this study, we extend it to the career literature by demonstrating the predicting effect of Yin-Yang values on career adaptability and protean career orientation. Hence, this study also enriches our acknowledgment of Yin-Yang values' effect on career management. In addition, to our knowledge, there is no previous study exploring the relationship between Eastern values and protean career orientation, especially in empirical studies. Therefore, this study is among the first to bridge this theoretical gap and suggests that studies focusing on Asian societies should pay more attention to the personal psychology of Asian people from an indigenous perspective and attempt to explore its philosophical origins.

Third, we also demonstrate the two-way interaction between career adaptability and traditional gender role beliefs. This finding suggests that individuals who are less traditional in gender role beliefs may develop protean career orientation more easily because they are less likely to be constrained by gender roles in their career decision-making (Steeh et al., 2019). Therefore, this study also highlights the effect of gender role beliefs on individuals' career progress rather than gender itself.

Practical implications

This study's findings also have several practical implications for individuals, organizations, and educators. First, individuals should be aware that their beliefs about gender and the paradox perspective may affect their career attitudes and, in turn, influence their career outcomes.

Individuals with low Yin-Yang values are less likely to develop career-related psychological resources and benefit from flexible career attitudes. This finding suggests that disadvantaged employees should try to foster their paradoxical mindset during socialization. Also, they can develop career adaptability through other ways to compensate for this weakness. For instance, individuals can attempt to inspire career calling or seek more social support from others (Johnston, 2018). In like manner, individuals who embrace strong gender beliefs should pay attention to its negative effect on their careers.

Moreover, organizations must understand the factors that impact employees' protean careers. Supported human resource practices should be provided, especially for those disadvantaged employees. For example, organizations and managers can provide mentoring and training to promote employees' protean career attitudes (Hall et al., 2018). Also, organizations can include this value in their recruitment assessment items to select the candidates they want.

In addition, since individuals' gender role beliefs are shaped by their experiences in childhood and adolescence in both family, and school contexts (McHale, 2003), educators, including teachers and parents, should help children build a gender equality consciousness. Also, previous studies show that the educator's implicit gender beliefs may influence the educational practices and the children's gender role beliefs (Warin & Adriany, 2017); educators should also pay attention to their implicit influences on children's gender beliefs.

Limitations and Future Research

As with all such studies, there are some limitations in this study that offer opportunities for further research. First, although our data were collected at multiple time points, this study was conducted as a cross-sectional study, which may cause a limitation in making the causal inference. Therefore, longitudinal studies are recommended to determine the causal relationship between our variables.

Another potential limitation of this study is the measurement. Some of the scales used in this study are well-used, except for measuring Yin-Yang values and gender role beliefs. Further work is required to examine these scales' reliability and validity further. Finally, our sample involves

data from two East Asian countries; given the cultural similarities between these two countries, we did not compare the results across the nation. However, several prior studies have revealed the differences in mindset and management styles within East Asian countries (Tao et al., 2016; Kim et al., 2007). Hence, We encourage additional studies to explore the differences or nuances whiten Eastern culture.

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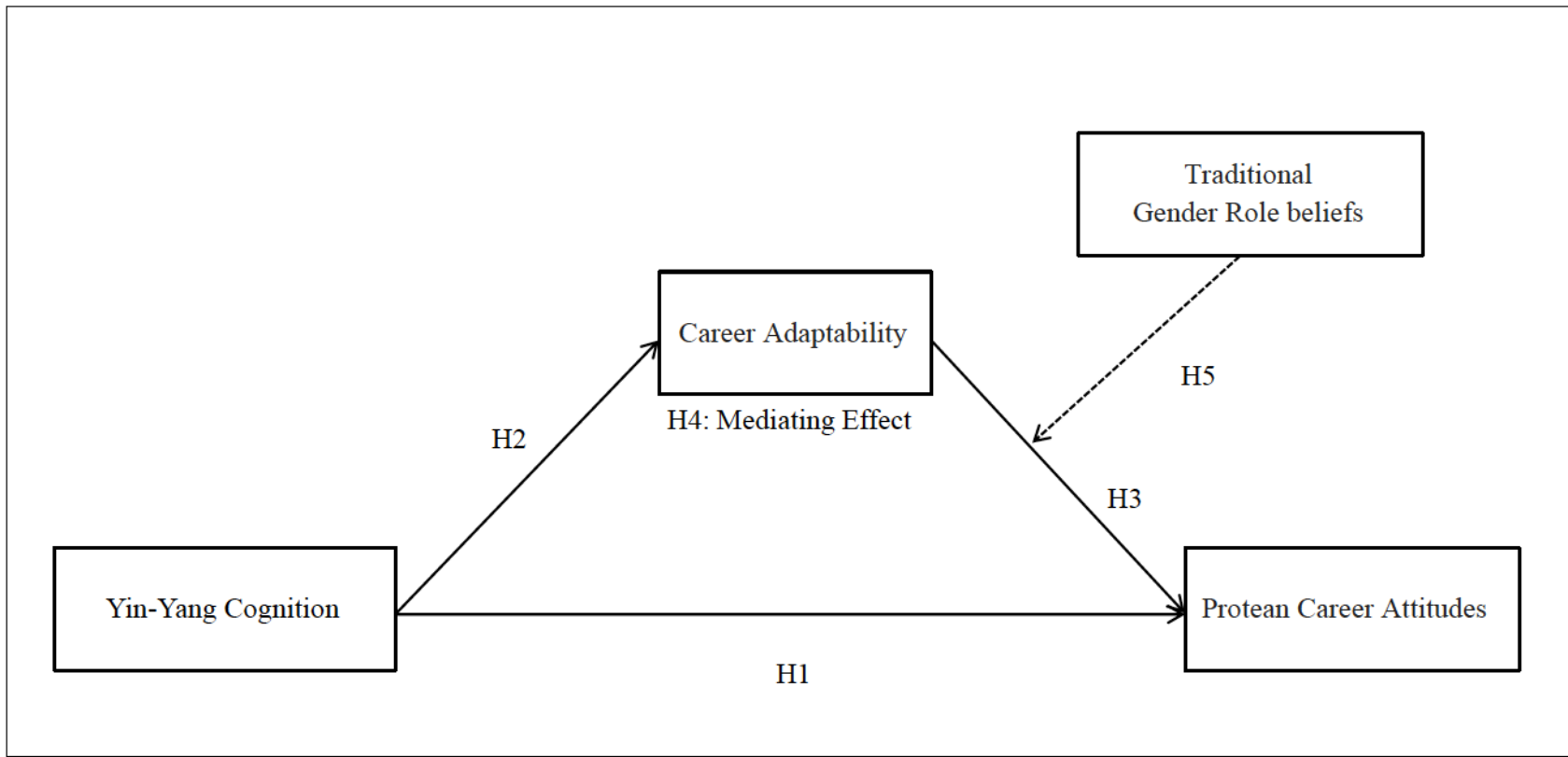


Figure 1. Hypothesized model.

Note. Solid lines represent the direct effect of independent variables and dotted lines represent the interacting effect.

Table 1 Means, standard deviations, and correlations with confidence intervals

Variables	Mean	SD	1	2	3	4	5	6	7	8
1. Yin-Yang cognition	3.35	0.90	—							
2. Career adaptability	3.34	0.90	.74**	—						
3. Gender-role beliefs	3.10	1.33	-.29**	-.34**	—					
4. Protean career attitudes	3.21	0.89	.74**	.83**	-.44**	—				
5. Age	5.02	1.49	-.35**	-.35**	.38**	-.41**	—			
6. Gender	1.52	0.50	.27**	.22**	-.20**	.30**	-.33**	—		
7. Occupation	5.36	5.32	.56**	.55**	-.50**	.59**	-.39**	.34**	—	
8. Organizational tenure	4.80	1.81	-.23**	-.24**	.26**	-.29**	.58**	-.33**	-.24**	—

Note. $N=433$.

Gender: 1=male, 2=female. Age: 1= under 18 years old, 2= 18~25 years old, 3= 26~30 years old, 4= 31~35 years old, 5=36~40 years old, 6= 41~45 years old, 7=46~50 years old, 8=51~55 years old, 9= 56~60 years old, 10= above 60 years old.

* $p < .05$. ** $p < .01$.

Table 2 Regression Analyses Results for testing Mediation

Variables	Career adaptability	Protean career attitudes Model 2		
	Model 1	Step 1	Step 2	Step 3
Age	-.09**	-.05	-.03	.01
Gender	-.06	.05	.11**	.08
Occupation	.03***	.04***	.03***	.02***
Organizational tenure	-.06	-.03	-.07*	-.06*
Yin-Yang cognition	.63***	.57***	—	.21***
Career adaptability	—	—	.70***	.57***
Model R ² (R ²)	.58 (.57) ***	.61 (.61) ***	.73 (.73) ***	.75 (.75) ***

Note. $N=433$.

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

Table 3 Results of the Moderated Regression Analyses

Variables	Protean Career Orientation	
	Model 3	Model 4
Control variables	—	—
Independent variables		
Career adaptability	.69***	.07***
Gender Role Beliefs	-.07***	-.07**
Two-way interactions		
Career adaptability × Gender Role Beliefs		-.04*
Total R ²	.74	.74
ΔR ²		.003*

Note. *N*=433.

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

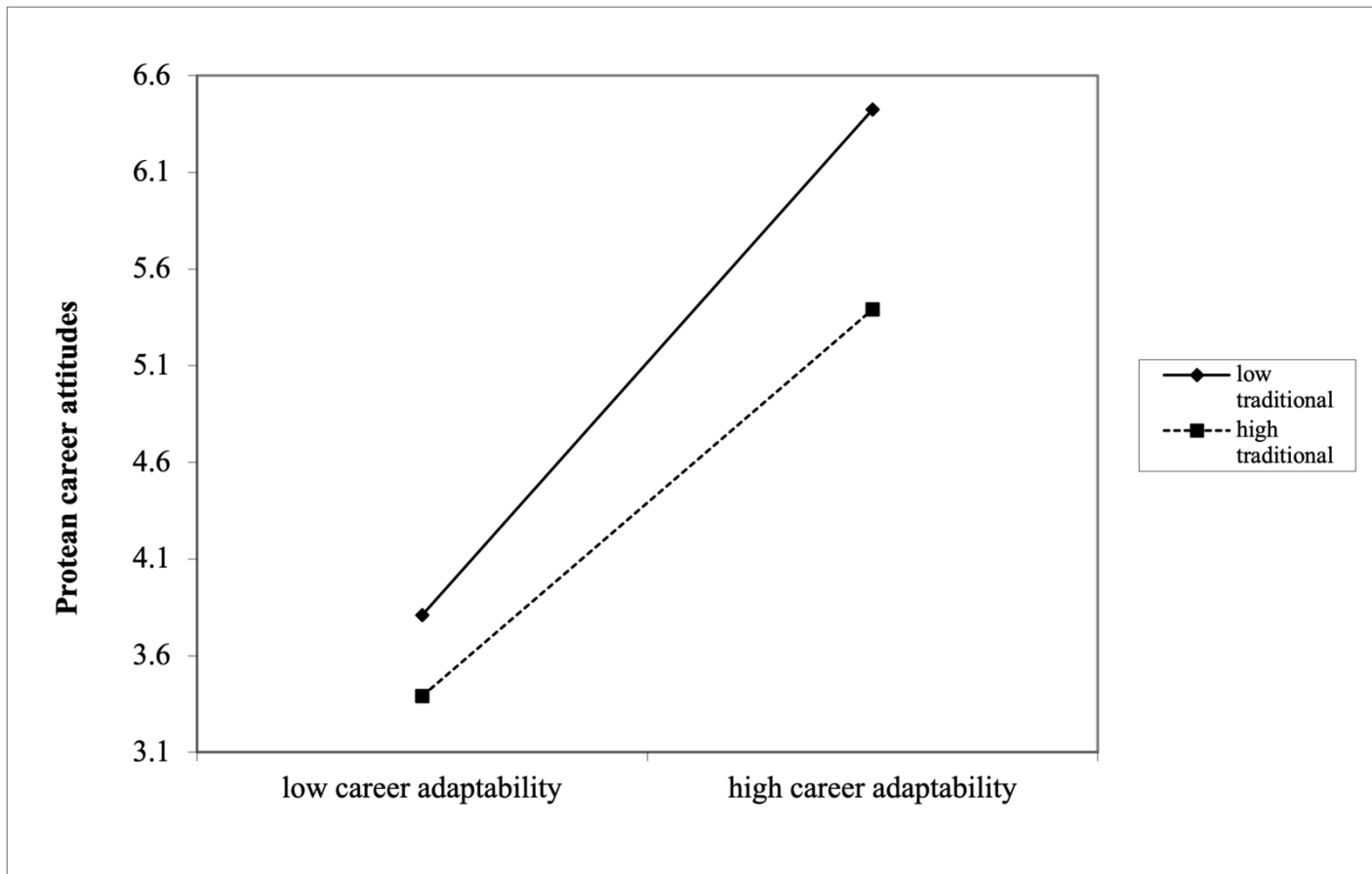


Figure 2. Interaction of career adaptability and traditional gender role beliefs on protean career orientation.