

Research on the Impact Mechanism of the Ambidextrous Innovation of Public Administrators

Jiaojiao Liu^{1*} Xiaobao Peng² Guofang Liu³

School of Public affairs, University of Science and Technology of China, 96 Jinzhai Road, Hefei 230026, China

E-mail of the corresponding author: ljj611315@126.com

Abstract

This study draws on the literature of social cognitive theory to examine the impact of leadership self-efficacy on the ambidextrous innovation of public administrators. Afterwards, this study introduces perspective taking as a moderator and then discusses the different moderating effects of cognitive perspective taking and affective perspective taking. Findings show that leadership self-efficacy has a significant positive effect on ambidextrous innovation; cognitive perspective taking and affective perspective taking play important roles in the relationship between leadership self-efficacy and ambidextrous innovation; the interaction of affective perspective taking and leadership self-efficacy is not conducive to the realization of the ambidextrous innovation of public administrators. This study is a pioneering endeavor in the field of innovation research at the individual level in Chinese public sector, thereby providing important implications for public administrators to stimulate their ambidextrous innovation.

Keywords: public administrators, ambidextrous innovation, leadership self-efficacy, cognitive perspective taking, affective perspective taking

1. Introduction

With the continuous implementation of reform and opening, accelerating innovation-driven development has strategic significance for Chinese public sector to enhance new competitive advantages and long-term development momentum. As an important factor that gives the organization vitality in public sector innovation, the innovation of public administrators is the key driving force for public sector. In the face of dynamic internal and external environments, public administrators not only require future-oriented management skills and forward-thinking capabilities, actively exploring new possibilities to deal with future challenges; but also require a sense of ownership and down-to-earth spirits, fully utilizing existing certainties to meet current demands. The organic combination of exploratory innovation and exploitative innovation is called ambidextrous innovation.

Previous studies suggest that ambidextrous innovation is mainly focused on the analysis at the enterprise level. The academic discussion on the ambidextrous innovation of public administrators has not attracted enough attention. This study tries to make up for this research gap and introduce the research on individuals' ambidextrous innovation from enterprise management field to public management field. At the same time, there are many factors that can influence individuals' ambidextrous innovation, including knowledge flow (Mom *et al.* 2009), leadership type (Keller & Weibler 2014) and so on. However, these studies neglect the intrinsic motivation to enhance individuals' ambidextrous innovation. Therefore, the purpose of this study is to establish the theoretical model about the influence mechanism of the ambidextrous innovation of public administrators by introducing the related concepts of social cognitive theory.

This study first investigates how leadership self-efficacy of public administrators in the same public sector influence their ambidextrous innovation. According to social cognitive theory, self-efficacy is the foundation of human initiative, and it has important links with behaviors and performances (Bandura 1977). As a concept generated by the expansion of self-efficacy in the field of management, leadership self-efficacy also has an intrinsic driving effect on the ambidextrous innovation of public administrators. On the one hand, public administrators with higher leadership self-efficacy believe that they can find organizational development direction in a complex environment, as well as implement exploitation innovation by formulating an ideal strategic plan. On the other hand, these administrators actively perform in actions, such as change, drive and challenge; set challenging goals; develop strong faith to overcome difficulties; strive to achieve leadership tasks; and promote the development of exploratory innovation. Thus, high leadership self-efficacy is conducive to improve ambidextrous innovation of public administrators. In addition, this study investigates the moderating effect of perspective taking on the relations between leadership self-efficacy and ambidextrous innovation. As a psychological process which accepts others' opinions or information, perspective taking has a few positive or negative connections with personal innovative behaviors (Batson *et al.* 1997; Batson 2009; Todd *et al.* 2012). Therefore, the possible influence of two different perspective takings on the ambidextrous innovation of public administrators should be explored.

This study contributes in three aspects. First, the research shifts the perspective from enterprise management field to public management field, thereby contributing to existing studies that lack of discussion on the ambidextrous innovation of public administrators. Second, the research starts from the perspective of social

cognitive theory to elaborate the influence of leadership self-efficacy on the ambidextrous innovation of public administrators, thereby promoting the further improvement of studies of social cognitive theory in the field of ambidextrous innovation and public management. Third, the research discusses the ambidextrous innovation of public administrators in the Chinese context, thereby facilitating the development of measurement scales that are applicable to relevant research in the Chinese public management field. Moreover, the revision and improvement of leadership self-efficacy scale and perspective taking scale also lay a solid foundation for follow-up scholars' research on ambidextrous innovation and social cognitive theory in the public management field.

2. Holonic Manufacturing System (HMS)

2.1 Leadership Self-efficacy and Ambidextrous Innovation

The ambidextrous innovation of public administrators refers to balanced implementation behaviors of public administrators related to exploratory innovation and exploitative innovation during a certain period of time (Gibson & Birkinshaw 2004; O' Reilly & Tushman 2004; Mom *et al.* 2009). The essence of exploratory innovation is to create the diversity of experience and expand the existing knowledge base of public administrators, including adopting a long-term thinking, reflecting on existing decisions, searching for new organization system, and attempting to new technologies or new methods. Correspondingly, the essence of exploitative innovation lies in increasing the reliability of experience and deepening the existing knowledge base of public administrators, including adopting a short-term thinking, restating existing decisions, focusing on improving and expanding existing capabilities or technologies (Holmqvist 2004).

Innovation requires a firm sense of efficacy, demands a long period of efforts, and needs to insist on creative progress in the face of uncertain situations. According to social cognitive theory, leadership self-efficacy is individuals' subjective ability judgment on whether they can successfully implement effective leadership. This ability is reflected in setting directions for the work team, establishing good relationships with subordinates to gain their commitment, and overcoming obstacles with subordinates to achieve leadership changes (Paglis & Green 2002; Paglis 2010). Leadership self-efficacy involves individuals' self-confidence in planning, communication, employee management, information processing, control and innovation. Therefore, the perception of work and the confidence of working ability helps public administrators to solve problems better and become fully aware of their creativity. An empirical study by Paglis and Green (2002) found that individuals with high leadership self-efficacy have a higher willingness to actively innovate and promote leadership changes than those with low leadership self-efficacy. When leadership self-efficacy is high, public administrators are confident in their own vision or planning, have high expectations for organizational goals, and maintain sustainable response beliefs in the face of difficulties, thereby helping to enhance their ambition and work passion. At this point, they demonstrate a high level of willingness to exploitative innovation and exploratory innovation, as well as keep the equal level of the two types of innovation (Rogan & Mors 2014). When leadership self-efficacy is low, public administrators have doubts about decisions, show low sensitivity and enthusiasm for identifying innovation opportunities, generating innovative ideas, implementing innovative behaviors, and supporting others' innovation, and then reject too much exploratory innovation. Meanwhile, these administrators focus tapping resources such as existing technologies and public services, to maintain competitive advantage and demonstrate more exploitative innovation behaviors. Thus, the balance of ambidextrous innovation is destroyed. Based on the above analysis, leadership self-efficacy has a significant positive impact on the ambidextrous innovation of public administrators. Therefore, we present the following hypotheses:

- Hypothesis 1a: Direction-setting is positively related to the ambidextrous innovation of public administrators.
- Hypothesis 1b: Gaining commitment is positively related to the ambidextrous innovation of public administrators.
- Hypothesis 1c: Overcoming obstacles is positively related to the ambidextrous innovation of public administrators.

2.2 Moderating Roles of Cognitive Perspective Taking

Perspective taking is a psychological process, in which individuals imagine or speculate others' viewpoints and attitudes by observing their behavior or situation (Galinsky *et al.* 2005). It enables individuals to distinguish themselves from others and make correct judgments about others' views in the past or current context (Herold & Akhtar 2008). The two types of perspective taking are cognitive perspective taking and affective perspective taking. Cognitive perspective taking is the ability to identify and understand others' thoughts, whereas affective perspective taking is the ability to identify and understand others' feelings. These two types will have different impacts on the ambidextrous innovation of public administrators.

Cognitive perspective taking refers to the judgment of individuals on others' thinking and opinion. In the ambidextrous innovation process, public administrators should filter out useless strategies and retain those that are beneficial because many novel ideas are impractical or trivial (Simonton 2003). Moreover, focusing attention

on others' perspectives will provide public administrators with a new standard to determine the innovation ideas that should be rejected as useless and the ideas that should be accepted as beneficial (Grant & Berry 2011). At this level, cognitive perspective taking acts as a "filter" in implementing the innovative process of public administrators to determine the desirability of innovative ideas and direction of innovative behaviors. In short, in the case of cognitive perspective taking, public administrators will enhance their ability to set several explicit targets and respond to environmental changes and emergencies by correctly identifying, receiving, and processing the choice of perspectives and information, as well as inspiring their passion and sense of responsibility on exploratory and exploitative innovation to show more ambidextrous innovation. Simultaneously, studies have shown that cognitive perspective taking can increase the degree of overlap between the self and others. In particular, the alternative experience generated in the process of cognitive perspective taking will enhance leadership self-efficacy of public administrators. When seeing people whose ability and personality characteristics are similar to theirs succeed in the competition, cognitive perspective taking will enable public administrators to think that they can achieve the same success when they are in a similar situation. Accordingly, the efficacy and belief of leadership behaviors can also improve. On this basis, they rethink and reconstruct the existing views or integrate different perspectives; take the initiative to accept competition and challenges; and explore new ideas, methods, and concepts, thereby realizing the balanced development of exploratory and exploitative innovations.

The above analysis shows that cognitive perspective taking is not only one of the positive influencing factors of leadership self-efficacy, but also has a positive impact on ambidextrous innovation. Therefore, this study predicts that cognitive perspective taking will enhance the impact of leadership self-efficacy on ambidextrous innovation of public administrators. We present the following hypotheses:

- Hypothesis 2a: Cognitive perspective taking moderates the positive relationship between direction-setting and ambidextrous innovation of public administrators, such that this relationship is considerably strong for those high in cognitive perspective taking.
- Hypothesis 2b: Cognitive perspective taking moderates the positive relationship between gaining commitment and ambidextrous innovation of public administrators, such that this relationship is considerably strong for those high in cognitive perspective taking.
- Hypothesis 2c: Cognitive perspective taking moderates the positive relationship between overcoming obstacles and ambidextrous innovation of public administrators, such that this relationship is considerably strong for those high in cognitive perspective taking.

2.3 Moderating Roles of Affective Perspective Taking

Affective perspective taking refers to the judgment of individuals on others' feelings and emotions. Guided by the impression control motivation, affective perspective taking may lead public administrators to show considerable egocentricity. Two main reasons explain this phenomenon. On the one hand, public administrators are prone to error inference because of the limited information obtained from people whose perspectives are being taken. For example, public administrators cannot turn positive opinions into effective ones because they have limited familiarity with the chosen subjects or public administrators can restrain the adoption of the perspectives of others because of their differences in personality traits and behavior habits. On the other hand, studies have shown that affective perspective taking can enhance prosocial motivation and weaken the tendency of self-interest in neutral or cooperative situations. However, affective perspective taking in competitive situations is a type of relational amplifier that enhances the egoistic motivation of public administrators and makes behaviors substantially selfish to protect their own interests from being infringed (Epley *et al.* 2006; Pierce *et al.* 2013). Thus, affective perspective taking enables public administrators in an uncertain competition situation with limited interest resources to pay attention to others' self-interest self-interest motivation, thereby pursuing self-centered innovation strategy and avoiding excessive efforts for exploratory innovation.

In addition, public administrators use the limited information and negative emotions they choose to carry out innovative activities. At this time, their leadership self-efficacy is weakened, and innovative behaviors also have a more or less selfish nature. Thus, affective perspective taking will strengthen the positive impact of leadership of self-efficacy on exploitative innovation of public administrators, while weakening the positive impact of leadership of self-efficacy on their exploratory innovation. Consequently, the balance between exploratory innovation and exploitative innovation would not be realized. Therefore, this study predicts that affective perspective taking will reduce the impact of leadership self-efficacy on ambidextrous innovation of public administrators. We present the following hypotheses:

- Hypothesis 3a: Affective perspective taking moderates the positive relationship between direction-setting and ambidextrous innovation of public administrators, such that this relationship is considerably weak for those with high affective perspective taking.
- Hypothesis 3b: Affective perspective taking moderates the positive relationship between gaining commitment and ambidextrous innovation of public administrators, such that this relationship is

considerably weak for those with high affective perspective taking.

- Hypothesis 3c: Affective perspective taking moderates the positive relationship between overcoming obstacles and ambidextrous innovation of public administrators, such that this relationship is considerably weak for those with high affective perspective taking.

3.Methods

3.1 Samples and Data Collection

This study mainly uses questionnaire methods to obtain empirical data. The research objects of this survey are public administrators, including people engaged in management positions in government, universities, research institutes, communities and other public sectors. Under the background of economic new normal, the public sector requires to accelerate the transformation of government functions and the improvement of overall efficiency. There are huge demands and pressures for ambidextrous innovation. As a core power in the ambidextrous innovation of the public sector, public administrators play important leadership roles in achieving short-term goals through exploitative innovation and improving environmental adaptability through exploratory innovation. In this case, studying the ambidextrous innovation of public administrators is significant and fits the research requirements of this study.

The research strictly checks in the stages of design, distribution, recovery of the questionnaire to obtain rigorous and accurate data. First, determine the contents of the questionnaire. The questionnaire mainly includes four parts: basic personal information, ambidextrous innovation, leadership self-efficacy and perspective taking. Respondents are required to evaluate following the order of "1=completely non-consistent, 2=not consistent, 3=uncertain, 4=consistent, 5=fully consistent". The higher the score, the higher the degree of recognition. Second, review the accuracy of the scale translation. In order to adapt to the language and reading habits of Chinese scholars, we translate English scales into Chinese according to a two-way translation method, and invite international students of our study group who speak English as mother tongue or official language to back translate the translated Chinese language scales. Obvious differences or controversial items are adjusted. Third, conduct a pre-survey through online channels. Questionnaires are issued to respondents, and the reliability and validity of the scales are checked on the basis of 48 valid questionnaires collected. At the same time, visit professional teachers and some public administrators to further refine the details and expressions of the questionnaire, thereby ensuring the accuracy and effectiveness of the scale design in Chinese context and forming the final questionnaire. Fourth, formally launch the questionnaire distribution work through helps of teachers and friends. We use SPSS 21.0 statistical data analysis software to process the collected questionnaire data to verify the theoretical hypothesis proposed by this study.

From December 2017 to February 2018, 350 questionnaires are sent through e-mail and onsite interview methods, and 303 questionnaires are returned. After eliminating incomplete and erroneous data, we obtain 290 effective questionnaires, which correspond to a 82.86% response rate. In the valid samples, the respondents comprise 190 males (65.52%).The majority are aged between 31-40 years old (50.34%). In terms of education, 240 respondents hold bachelor's degrees or above and 139 have undergraduate degrees. The working years are relatively average, with 82 respondents having 1 to 5 years work experience (28.28%), 97 with 6 to 10 years (33.45%), and 83 with 11 to 15 years (28.62%). The managers (28.62%) have relatively extensive experiences.

3.2 Measures

Ambidextrous Innovation. This study's measure of ambidextrous innovation is based on existing scales. Our study on the individual-level ambidextrous innovation follow the approach of the aforementioned researchers, in which we assess the ambidextrous innovation of public administrators by computing the multiplicative interaction between exploration innovation and exploitation innovation. Simultaneously, in view of the matching effect of the two innovations in the current study, that is, the degree of balance between the concepts, we opt for the method of calculating the difference of exploration innovation and exploitation innovation to measure the ambidextrous innovation of public administrators. We use the five-point scale developed by Mom *et al.* (2007) to measure the extent by which a public administrator has been engaged in innovative activities related to work in 2017. Cronbach's alpha for the ambidextrous innovation is 0.923.

Leadership Self-efficacy. The measure of leadership self-efficacy in this research is mainly based on existing scales. There are four authoritative categories of leadership self-efficacy. Anderson *et al.* (2008) classify leadership self-efficacy into 18 categories. Although the measurement is relatively accurate, it is not general and universal because it contains too many factors which are difficult to actually operate. Hannah (2008) and Platt (2010) have similarities in the classification methods of leadership self-efficacy, but their framework is mainly derived from past theories and has not been fully validated by empirical data. Paglis and Green (2002) divide leadership self-efficacy into three dimensions, basically covering all the contents of other categories and having been widely used. Thus, this study adopt the leadership self-efficacy scale developed by Paglis and Green (2002) and measure leadership self-efficacy ($\alpha=0.839$) from the three aspects of direction-setting, gaining commitment

and overcoming obstacles.

Perspective Taking. The measure of perspective taking in this study is based on the revision of the scale developed by Grant and Berry (2011). After reviewing the literature, we determine that the measurement of perspective taking in the field of management is only used maturely and extensively by Grant and Berry (2011). We use the scale as basis to invite several experts and scholars in the field of social cognition to guide the translation of the scale. Moreover, we invite 20 public administrators to revise the questionnaire to ensure the accuracy of the scale design and the effectiveness in the Chinese context. Lastly, we obtain the final scale of perspective taking through a pre-test. Four items are allocated for cognitive perspective taking and another four items for affective perspective taking. Cronbach's alpha for perspective taking is 0.640.

Control Variables. The background of the subjects may have an impact on the ambidextrous innovation of public administrators. Thus, this study use gender, age, educational level, working years, and leadership experience as control variables to improve the effectiveness of the conclusion. The leadership experience of public administrators may affect their ambidextrous innovation because increased levels of leadership experience are associated with increased abilities to deal with considerably ambiguous or uncertain situations (Daft & Lengel 1986). Age and working yeas are associated with improving specialization level and are expected to positively relate to their ambidextrous innovation (Tushman & O' Reilly 1996; Birkinshaw & Gibson 2004). The influence of gender difference on ambidextrous innovation may be manifested in the fact that men are more likely to become practitioners of innovative reforms than women (Kabasheva *et al.* 2015). Educational levels are associated with the cognitive abilities of public administrators to process information and learning, which may positively relate to their ambidextrous innovation (Adler *et al.* 1999).

4. Analysis and Results

Prior to hypothesis testing, this study uses the Harmen single factor test to judge common method biases, thereby ensuring the rationality and validity of the data source. We conduct exploratory factor analysis (EFA) and find that the five variables are appropriately constructed. The variance contribution rate of the first factor is 27.518% (below 40%) and the number of extracted factors is more than one. Thus, no single factor could explain most of the variations. The common method bias may not be a problem. In addition, we mean-center the predictor variables before creating interaction terms. A variance inflation factors (VIF) test for each of the regression equations determines that the max VIF value is 2.039, which is substantially below the suggested threshold of 10. Thus, the problem of multicollinearity is not serious. Table 1 presents a summary of the descriptive statistics and correlations for all variables used in this study. Table 2 displays the model results of the hierarchical regression analyses for the ambidextrous innovation of public administrators.

Model 1 in Table 2 only presents the baseline model with the control variables. Public administrators with extensive working years ($\beta=0.264$, $p<0.01$) and leadership experience ($\beta=0.337$, $p<0.01$) would show considerable ambidextrous innovation. While educational level ($\beta=-0.217$, $p<0.01$) has negative impact on ambidextrous innovation. In Model 2, we enter the independent variables of leadership self-efficacy and determined that direction-setting ($\beta=0.102$, $p<0.05$), gaining commitment ($\beta=0.308$, $p<0.01$) and overcoming obstacles ($\beta=0.440$, $p<0.01$) are positively related to the ambidextrous innovation of public administrators at a significant level. Thus, Hypothesis 1a, 1b and 1c are supported.

In model 3, cognitive perspective taking ($\beta=0.318$, $p<0.01$) has a significant positive effect on ambidextrous innovation. Model 4 adds the interaction between leadership self-efficacy and cognitive perspective taking. The results show that the interaction coefficient ($\beta=0.082$, $p<0.05$) between direction-setting and cognitive perspective taking is significant, and there is a positive moderating effect of cognitive perspective taking on relations between direction-setting and ambidextrous innovation. Thus, hypothesis H2a is supported. The interaction coefficient ($\beta=0.197$, $p<0.01$) between gaining commitment and cognitive perspective taking is significant, and there is a positive moderating effect of cognitive perspective taking on relations between gaining commitment and ambidextrous innovation. Thus, hypothesis H2b is true. The interaction coefficient ($\beta=0.065$, $p>0.1$) between overcoming obstacles and cognitive perspective taking is not significant, then the positive moderating effect of cognitive perspective taking on relations between overcoming obstacles and ambidextrous innovation is not supported. Thus, hypothesis H2c isn't supported.

In model 5, affective perspective taking ($\beta=-0.174$, $p<0.01$) has a significant negative effect on ambidextrous innovation. Model 6 adds the interaction between leadership self-efficacy and affective perspective taking. The results show that the interaction coefficient ($\beta=-0.058$, $p<0.1$) between direction-setting and affective perspective taking is significant, and there is a negative moderating effect of affective perspective taking on relations between direction-setting and ambidextrous innovation. Thus, hypothesis H3a is supposed. The interaction coefficient ($\beta=-0.150$, $p<0.01$) between overcoming obstacles and affective perspective taking is significant, and there is a negative moderating effect of affective perspective taking on relations between overcoming obstacles and ambidextrous innovation. Thus, hypothesis H3c was supposed to be true. The

interaction coefficient ($\beta=-0.103$, $p<0.05$) between gaining commitment and affective perspective taking is significant in model 6, but the interaction coefficient in model 7 is not significant ($\beta=-0.042$, $p>0.1$). Thus, hypothesis H3b can not be supposed.

Based on the above analysis, the final hypothesis test results show that all hypotheses are supported with the exception of Hypothesis 2c and 3b. For the fact that hypothesis 2c is not established, this study considers that cognitive perspective taking doesn't have a positive moderating impact on the relationship between overcoming obstacles and ambidextrous innovation related to the self-interest motivation of public administrators in uncertain dilemmas. In this case, public administrators focus on the maintenance of public sector interests and reduction of negative effects of unfavorable information, thereby producing less ambidextrous innovation willing and behaviors. For the fact that hypothesis 3b is not established, this study considers that affective perspective taking doesn't have a negative moderating impact on the relationship between gaining commitment and ambidextrous innovation related to the increase in interpersonal interaction. In this case, public administrators can considering others' views and understanding their feelings, easy to reduce conflicts and obtain internal or external support, thereby ensuring the implementation of ambidextrous innovation.

5. Discussion and Conclusion

This study probes into the antecedents of the ambidextrous innovation of public administrators from the perspective of social cognitive theory, which further enriches the theoretical research on ambidextrous innovation, as well as expands the research content of human resource management in public sector. The main conclusions include: (1) Leadership self-efficacy is positively correlated with ambidextrous innovation, that is the three dimensions, direction-setting, gaining commitment and overcoming obstacles are all have positive effects on ambidextrous innovation. (2) Cognitive perspective taking plays a positive moderating role between the two dimensions of leadership self-efficacy and ambidextrous innovation. That is, cognitive perspective taking not only strengthens the positive correlation between direction-setting dimension and ambidextrous innovation, but also enhances the positive influence of gaining commitment dimension on ambidextrous innovation. However, cognitive perspective taking cannot play a significant positive moderating role in the relationship between overcoming obstacles and ambidextrous innovation. (3) Affective perspective taking plays a negative moderation role between the two dimensions of leadership self-efficacy and ambidextrous innovation. That is, affective perspective taking weakens the impacts of direction-setting and overcoming obstacles on ambidextrous innovation. From these findings, it can be found that:

Public administrators should focus on improving both internal cognitive ability level and external environment perception level. The results of this study show that leadership self-efficacy is an important internal driving factor to promote the ambidextrous innovation of public administrators. Public administrators can set reasonable goals, establish good interpersonal relationships, and work hard to overcome difficulties by enhancing their leadership self-efficacy, thereby carrying out ambidextrous innovation smoothly. That is to say, both direction-setting or gaining commitment reflecting internal cognitive ability and overcoming obstacles reflecting external perception ability have positive impacts on the ambidextrous innovation of public administrators to some extent. This study believes that enhancing direction-setting, gaining commitment and overcoming obstacles is a complementary approach rather than opposing each other in the process of realizing the ambidextrous innovation of public administrators. In particular, compared to direction-setting and gaining commitment, overcoming obstacles has a greater positive impact on the ambidextrous innovation. Therefore, in the process of ambidextrous innovation practice, public administrators need to reasonably regulate the perception of uncertainty in the external environment and maintain appropriate progress in overcoming difficulties while improving their own efficiency beliefs.

Public administrators should also scientifically use perspective taking to help promote personal cognitive level and ambidextrous innovation. The empirical results of this study support the hypothesis that cognitive perspective taking positively moderates the influence of two dimensions of leadership self-efficacy on ambidextrous innovation. It indicates that there are obvious complementary effects between cognitive perspective taking and direction-setting, gaining commitment. Driven by leadership self-efficacy, public administrators will continue to increase efficacy beliefs of their leadership behaviors, and cognitive perspective taking can further strengthen the public administrators' cognition of innovation success and innovation results, and then make correct decisions, actively carrying out exploratory innovation and exploitative innovation. Conversely, in the process of affective perspective taking, public administrators are more sensitive to others' negative emotions, which in turn creates more pressure on themselves, and then the expectations of leadership behaviors and innovation results are greatly reduced. When faced with a complex and uncertain competitive environment, the negative impact of affective perspective taking is even more pronounced. Therefore, public administrators must avoid "excessive interference" with others' emotional attitudes when adopting their opinions, and often use rational thinking to judge others' viewpoints, thereby making scientific cognitive decisions and innovative behaviors.

Through the elaboration of hypothesis test results, this study believes that future research can start from the following four aspects. First, the future research will pay attention to explore whether environmental factors have impacts on public administrators' perspective taking and ambidextrous innovation, so as to tap the deep interaction between environment, behaviors and characteristics of public administrators. Second, the future research will use panel data as a theoretical verification support to enhance the persuasiveness of research results; divide different time periods to conduct surveys and explore the ambidextrous innovation of public administrators by analyzing the data obtained in each time period. Third, based on the common needs of the public sector for exploratory innovation and exploitative innovation, future research will consider the use of multiplicative method to calculate and measure the ambidextrous innovation of public administrators, and explore the coordination and match effect between exploratory innovation and exploitative innovation.

References

- Adler, P.S., Goldoftas, B. & Levine, D.I. (1999), "Flexibility versus efficiency? A case study of model changeovers in the Toyota production system", *Organization Science* **10**(1), 43-68.
- Anderson, D.W., Krajewski, H.T., Goffin, R.D. & Jackson, D.N. (2008), "A leadership self-efficacy taxonomy and its relation to effective leadership", *The Leadership Quarterly* **19**(5), 595-608.
- Bandura, A. (1977), "Self-efficacy: Toward a unifying theory of behavioral change", *Psychological Review* **84**(2), 191-215.
- Batson, C.D., Early, S. & Salvarani, G. (1997), "Perspective taking: Imagining how another feels versus imagining how you would feel", *Personality and Social Psychology Bulletin* **23**(7), 751-758.
- Batson, C.D. (2009), "Two forms of perspective taking: Imagining how another feels and imagining how you would feel", *Handbook of imagination and mental simulation*, 266-279.
- Birkinshaw, J. & Gibson, C. (2004), "Building ambidexterity into an organization", *Mit Sloan Management Review* **45**(4), 47-55.
- Daft, R.L. & Lengel, R.H. (1986), "Organizational information requirements, media richness and structural design", *Management Science* **32**(5), 554-571.
- Epley, N., Caruso, E. & Bazerman, M.H. (2006), "When perspective taking increases taking: Reactive egoism in social interaction", *Journal of Personality and Social Psychology* **91**(5), 872-889.
- Galinsky, A.D., Ku, G. & Wang, C.S. (2005), "Perspective-taking and self-other overlap: Fostering social bonds and facilitating social coordination", *Group Processes & Intergroup Relations* **8**(2), 109-124.
- Gibson, C.B. & Birkinshaw, J. (2004), "The antecedents, consequences, and mediating Role of organizational ambidexterity", *Academy of Management Journal* **47**(2), 209-260.
- Grant, A.M. & Berry, J. (2011), "The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective-taking, and creativity", *Academy of Management Journal* **54**(1), 73-96.
- Hannah, S.T., Woolfolk, R.L. & Lord, R.G. (2009), "Leader self-structure: A framework for positive leadership", *Journal of Organizational Behavior* **30**(2), 269-290.
- Herold, K.H. & Akhtar, N. (2008), "Imitative learning from a third-party interaction: Relations with self-recognition and perspective taking", *Journal of Experimental Child Psychology* **101**(2), 114-123.
- Holmqvist, M. (2004), "Experiential learning processes of exploitation and exploration within and between organizations: An empirical study of product development", *Organization Science* **15**(1), 70-81.
- Kabasheva, I.A., Rudaleva, I.A., Bulnina, I.S. & Askhatova, L.I. (2015), "Organizational factors affecting employee innovative behavior", *Mediterranean Journal of Social Sciences* **6**(1).
- Keller, T. & Weibler, J. (2014), "Behind managers' ambidexterity - studying personality traits, leadership, and environmental conditions associated with exploration and exploitation", *Schmalenbach Business Review* **15**(3), 309-333.
- Mom, T.J.M., Bosch, F.A.J.V.D. & Volberda, H.W. (2007), "Investigating managers' exploration and exploitation activities: The influence of top-down, bottom-up, and horizontal knowledge inflows", *Journal of Management Studies* **44**(6), 910-931.
- Mom, T.J.M., Bosch, F.A.J.V.D. & Volberda, H.W. (2009), "Understanding variation in managers' ambidexterity: Investigating direct and interaction effects of formal structural and personal coordination mechanisms", *Organization Science* **20**(4), 812-828.
- O' Reilly, C.A. & Tushman, M.L. (2004), "The ambidextrous organization", *Harvard Business Review* **82**(4), 74-81.
- Paglis, L.L. & Green, S.G. (2002), "Leadership self-efficacy and managers' motivation for leading change", *Journal of Organizational Behavior* **23**(2), 215-235.
- Paglis, L.L. (2010), "Leadership self-efficacy, research findings and practical applications", *Journal of Management Development* **29**(9), 771-782.
- Pierce, J.R., Kilduff, G.J., Galinsky, A.D. & Sivanathan, N. (2013), From glue to gasoline: How competition turns perspective takers unethical, *Psychological Science* **24**(10), 1986-1994.

- Platt, S.D. (2010), "The development of a leadership self-Efficacy measure", Unpublished Master thesis, Air Force Institute of Technology, Air University.
- Rogan, M. & Mors, M.L. (2014), "A network perspective on individual-level ambidexterity in organizations", *Organization Science* 25(6), 1860-1877.
- Simonton, D.K. (2003), "Scientific creativity as constrained stochastic behavior: The integration of product, person, and process perspectives", *Psychological Bulletin* 129, 475-494.
- Tushman, M.L. & O'Reilly, C.A. (1996), "Ambidextrous organizations: Managing evolutionary and revolutionary change". *California Management Review* 38(4), 8-30.
- Todd, A.R., Bodenhausen, G.V. & Galinsky, A.D. (2012), "Perspective taking combats the denial of intergroup discrimination", *Journal of Experimental Social Psychology* 48(3), 738-745.

Table 1
Means ,Standard Deviations,Cronbach's Alphas,and Correlations Between Study Variables

	Mean	标准差	1	2	3	4	5	6	7	8	9	10	11
1.Gender	0.66	0.476	(-)										
2.Age	2.12	0.825	0.168***	(-)									
3.Educational Level	2.25	0.824	0.193***	0.185***	(-)								
4.Working Years	2.20	0.959	0.172***	0.219***	0.306***	(-)							
5.Leadership Experience	3.12	1.142	0.166***	0.058	0.439***	0.563***	(-)						
6.Direction-setting	3.7440	0.70140	-0.094	0.057	-0.044	0.181***	0.062	(-)					
7.Gaining Commitment	4.0828	0.69262	-0.039	0.076	-0.042	0.306***	0.272***	0.162***	(-)				
8.Overcoming Obstacles	3.5466	0.72552	0.029	0.122**	0.070	0.367**	0.345***	0.232***	0.459***	(-)			
9.Cognitive Perspective Taking	3.3879	0.68941	-0.031	0.044	-0.045	0.261***	0.275***	0.183***	0.462***	0.627***	(-)		
10.Affective Perspective Taking	3.5397	0.68736	-0.045	-0.050	-0.037	-	-	-	-	-	-	(-)	
11.Ambidextrous Innovat	1.9801	0.88446	0.043	0.078	0.015	0.243***	0.256***	0.187***	0.321***	0.397***	0.246***	-	(-)
						0.393***	0.389***	0.273***	0.585***	0.670***	0.671***	-	0.466***

N=290
 *p<0.10, **p<0.05, ***p<0.01

Table 2
Results of Random-Effects GLS Models for Ambidextrous Innovation

Variable	Model1	Model2	Model3	Model4	Model5	Model6	Model7
Gender	-0.024	0.037	0.046	0.018	0.031	0.025	0.016
Age	0.045	-0.017	-0.013	-0.002	-0.015	-0.002	0.010
Educational Level	-0.217***	-0.084*	-0.050	-0.055	-0.079*	-0.073*	-0.049
Working Years	0.264***	0.060	0.062	0.066	0.056	0.012	0.029
Leadership Experience	0.337***	0.145***	0.112**	0.080*	0.127**	0.128***	0.069*
Direction-setting		0.102**	0.095**	0.091***	0.088**	0.089**	0.082**
Gaining Commitment		0.308***	0.246***	0.291***	0.284***	0.302***	0.264***
Overcoming Obstacles		0.440***	0.277***	0.263***	0.400***	0.376***	0.210***
Cognitive Perspective Taking			0.318***	0.268***			0.280***
Affective Perspective Taking					-0.156***	-0.174***	-0.176***
Direction-setting				0.082**			0.067**
×Cognitive Perspective Taking							
Gaining Commitment				0.197***			0.171***
×Cognitive Perspective Taking							
Overcoming Obstacles				0.065			0.035
×Cognitive Perspective Taking							
Direction-setting						-0.058*	-0.060*
×Affective Perspective Taking							
Gaining Commitment						-0.103**	-0.042
×Affective Perspective Taking							
Overcoming Obstacles						-0.150***	-0.118***
×Affective Perspective Taking							
R ²	0.234	0.582	0.638	0.704	0.601	0.659	0.751
F	17.324***	48.851***	54.815***	54.780***	46.885***	44.577***	51.430***
Adj. R ²	0.220	0.570	0.626	0.691	0.588	0.644	0.736
Max . VIF	1.688	1.808	1.909	1.934	1.825	1.839	2.039

N=290
 *p<0.10, **p<0.05, ***p<0.01