

The Influence of Authentic Leadership on Psychological Safety in China

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Abstract

In an environment that places a priority on morality, authentic leadership is becoming increasingly important. Chinese enterprises are putting a lot of effort into improving their employees' psychological safety and positive psychological capital (PsyCap). This study examines the influence of authentic leadership on positive PsyCap and psychological safety, as well as the influence of positive PsyCap on psychological safety in China. It also examines whether positive PsyCap plays a mediating role. Authentic leadership has a positive effect on both positive PsyCap and psychological safety. Positive PsyCap also has a positive effect on psychological safety. Moreover, positive PsyCap had a mediation effect on the relationship between authentic leadership and psychological safety.

This result means that an authentic leadership style can stimulate employees' psychological capital, make the staff more confident and promote optimistic attitudes, hopeful minds, and plenty of other positive psychological states. At the same time, it promotes the psychological safety of employees in Chinese art enterprises. The significance of this study is that it investigates the effects and processes of authentic leadership on psychological safety and positive PsyCap in Chinese art enterprises.

The implications of this research bridge a theoretical gap in the field, and provide feasible suggestions and guidance for development in the discipline. Enterprises should attach importance to the selection, cultivation, and appointment of authentic leaders. They must also pay attention to trends in employee psychological safety and positive PsyCap.

Keywords: Authentic Leadership, Positive Psychological Capital, Psychological Safety, Mediating Effects

1. INTRODUCTION

Although authentic leadership has attracted the attention of scholars and managers, it has mainly focused on the construction of theoretical models, and not developed or improved research on the variables related to authentic leadership. At present, there are few empirical studies on the influence of authentic leadership on employee psychological safety. Therefore, this study seeks to conceptualize authentic leadership in the art training industry in Hunan Province of China, and to explore its influence on employee psychological safety mechanisms via the mediating effect of positive psychological capital (PsyCap). Then, it will utilize theoretical models, empirical analysis, and examination to determine the internal associations and relationships among the variables in order to build a new theoretical basis for authentic leadership research.

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While prior studies on positive PsyCap focused primarily on the main effect model and rarely considered mediating effects, there is plenty of research on positive PsyCap as a mediating variable. This study takes the positive PsyCap of employees as a mediating variable for studying the influence of authentic leadership on psychological safety, which will provide a new technique for PsyCap research and enrich its theoretical research.

Since there have been few studies on psychological safety in China or elsewhere, there is a huge gap in research on psychological safety that our study addresses. The purpose of this study is to explore the relationship between authentic leadership and employee psychological safety in the art training industry in Hunan China, and to enrich the theoretical research on psychological safety.

2. RESEARCH HYPOTHESES AND MODELS

2.1 Authentic Leadership and Positive Psychological Capital

Luthans and Avolio (2003) put forward authentic leadership which is confidence moral, hopeful, resilient and optimistic that takes the future as a guide as a process in which positive organizational situations and psychological forces interact with each other [1]. In their process, leaders used positive behaviors, such as self-regulation and self-awareness, to motivate and guide their subordinates so that leaders can take more initiative in their subordinate's self-development.

Woolley et al. (2011) employed adult workers as research subjects and utilized the structural equation model to verify that there was a statistically significant and positive correlation between authentic leadership and subordinates' psychological capital [2]. Qiao (2015) demonstrated that authentic leadership had a significant and positive effect on their employees' psychological capital [3]. Guan (2017) verified the positive relationship between authentic leadership and employee voice behavior, and the fact that psychological capital was the mediating variable between the two [4]. As a result, based on the previous research of authentic leadership and positive PsyCap, we proposed the following hypothesis:

H1: Authentic leadership has a positive effect on employees' positive PsyCap.

2.2 Positive Psychological Capital and Psychological Safety

Employees with high positive PsyCap exhibited organizational citizenship behaviors more oriented towards the individual. Positive PsyCap motivates individuals to find methods for attaining their goals (i.e., hope) and achieving success. These paths may include creative or not-in-character behavior such as resilience in sticking to goals, confidence in their abilities, being unafraid to try new approaches, and being positive about their prospects. The integration of various dimensions of PsyCap with extra-role behavior helps achieve both individual and organizational success.

For example, Fredrickson (2003) discovered that employees with high positive emotions exhibited more organizational citizenship behaviors than employees with low positive emotions[5]. He suggested that people with high positive emotions had an increased potential for positive extra-role behaviors through cognitive behaviors, such as sharing creative information and making suggestions for improvement. In turn, this greater organizational citizenship behavior increases psychological safety. In summary, this study proposes the following hypothesis:

H2: Positive PsyCap has a positive effect on psychological safety.

2.3 Authentic Leadership and Psychological Safety

According to Kahn (1990), psychological safety referred to employees’ subjective feelings and psychological states[6]. The higher the psychological safety of employees in their workplaces, the more they believed that attempting risky behaviors would not harm their image, career, and status, and the more willing they were to take risks. Avolio et al (2004) believed that authentic leaders could clearly encourage subordinates’ strengths, values, and have noble moral characteristics. An optimistic and positive leadership style greatly reduced the psychological insecurity of employees[7].

For instance, whether employees feel psychologically safe depends heavily on influences from their superiors. Leadership style directly affects the psychological safety of employees, so this study proposes the following hypothesis:

H3: Authentic leadership has a positive effect on psychological safety.

2.4 The mediating effect of Positive Psychological Capital

Walumbwa et al.(2008) defined authentic leadership as an approach to leadership that utilized and promoted a positive moral atmosphere and psychological ability. In working with subordinates, these leaders promoted the development of positive psychological abilities and a positive moral atmosphere in themselves and their subordinates. At present, there are many studies regarding the role of psychological capital as a mediating variable [8].

Psychological capital played a mediating role between authentic leadership and the outcomes of individual/team work (Jensen & Luthans, 2006; Wooley, Caza, & Levy, 2011) [9-10]. Rego et al. (2016) established that psychological capital acted as a complete mediator between employee creativity and authentic leadership [11]. Han and Yang (2011) discussed the influence mechanism by which authentic leadership affected employees’ innovative behaviors [12]. Utilizing hierarchical regression analysis, their results revealed that authentic leadership had a statistically significant and positive impact on employee innovation behavior, and that psychological capital played a mediation role in the process. This study adds PsyCap to the research model in order to study the relationship between authentic leadership and psychological safety, and provides the following hypothesis:

H4: PsyCap mediates the relationship between authentic leadership and psychological safety.

Based on relevant theories, previous research, and the assumptions above, we established a research model from our hypotheses, as shown in Figure 1.

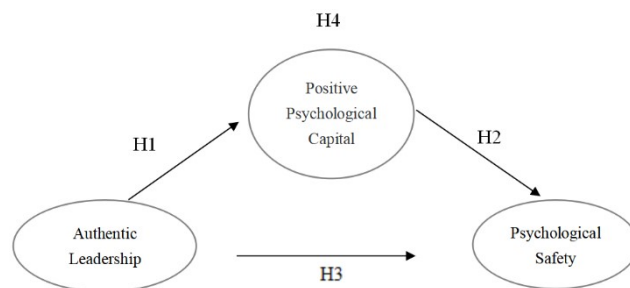


Figure 1. Research Model

3. QUESTIONNAIRE DESIGN AND DATA COLLECTION

3.1 Questionnaire design

This study designed a questionnaire for gathering survey data on authentic leadership, positive PsyCap, and

psychological safety in the art training industry in Hunan China. We divided the questionnaire into four parts. The first part collected basic information on the employees, to help us understand the demographic characteristics of the sample such as gender, age, education level, work experience, and position distribution. The second part measured authentic leadership.

The fourth part consisted of five items that measured psychological safety. Except for the first part, every part of the questionnaire consisted of items that utilized the standard Likert 5-point scale of strongly disagree, disagree, neutral, agree, and strongly agree. Sources of questionnaire items: 1) Authentic Leadership (5 items): Avolio, ALQ (Authentic Leadership Questionnaire), 2) Positive Psychological Capital (13 items): Luthans, Avolio, Avey, & Norman (2007), 3) Psychological Safety (5 items): Edmondson (1999).

3.2 Data collection

We targeted the variables in this study at employees in the art examination training industry, thus the data acquisition was relatively convenient and feasible, and sample selection was not limited. The questionnaires were primarily paper questionnaires that respondents filled out on the spot, a process that took two months. We sent out a total of 320 questionnaires and received 300, a response rate of 93.75%. After eliminating 31 questionnaires with incomplete/missing or obviously incorrect answers, the final number of valid questionnaires was 269, a response rate of 84.06%.

3.3 Demographic Analysis

The demographic information in this study focused principally on employee characteristics such as gender, age, education level, work experience, and position distribution. The following scales illustrate the basic situation of the effective statistical sample. Out of the 269 samples, there were 155 male employees, accounting for 57.6% of the total, with the 114 female employees accounting for 42.4%.

There were 128 people aged 25 or below, accounting for 47.6% of the total respondents. The 26-30 and 31-35 age brackets accounted for 26.8% and 13.4% of respondents, respectively. 10 respondents were 36-40, accounting for 3.7% of the total, compared to 23 people over the age of 41, or 8.5% of total respondents. The overall sample was heavily weighted towards personnel under 40 years of age, indicating that the current personnel structure in the art examination industry tends to be younger. The sample indicated different levels of educational background, including high school and below, junior college, bachelor's degree, and master's degree, PhD or postgraduate degree accounting for 65.4% of the total respondents. College degrees were next, accounting for 15.6% of respondents. There were fewer respondents with higher education, such as master's degree or above. And lower education, such as high school degree or below, which accounted for 10% and 8.6% of the total sample size, respectively. Also, 0.4% of respondents didn't answer survey questions. The above data revealed that bachelor's, master's, and doctoral degrees accounted for 75.4% of the respondents' education levels. In addition, the survey data regarding employees' work experience indicated that the number of employees who had worked for 11-15 years was relatively high, accounting for 74.7% of total respondents. The proportion of employees who had worked for 1-5 years or 16-20 years was relatively equal, accounting for 8.6% and 9.3% of the total employees, respectively. Only 6.3% of respondents had worked for 6-10 years, and only two had worked for over 20 years, just 0.7% of the total number of respondents.

4. ANALYSIS AND RESULTS

4.1 Reliability Analysis

As a test of the authentic leadership scale, that the Cronbach’s α coefficient for the scale as a whole was 0.960, which was greater than the threshold of 0.7, indicating that the credibility of the authentic leadership scale was acceptable. When testing the positive PsyCap, the Cronbach’s α coefficient of the scale as a whole was 0.946, indicating that the positive PsyCap scale had good reliability. The test of the psychological safety scale resulted in a Cronbach’s α coefficient for the scale as a whole of 0.866, indicating that the reliability of the psychological safety scale was very good.

4.2 Factor Analysis

This study performed exploratory factor analysis (EFA) on the three adopted scales. First, we utilized SPSS 23.0 factor analysis indicators (such as the Kaiser-Meyer-Olkin value and Bartlett spherical test) to test whether the scales were suitable for factor analysis. To extract factors with characteristics greater than one, we utilized the principal component analysis method. If the intrinsic value was greater than 1.0, the corresponding factors could be determined as the main components, indicating good reliability.

4.3 Correlation Analysis

Table 1. Correlation Analysis

| | Gender | Age | E/G | W/E | A/L | PPC | P/S |
|--------|--------|---------|---------|-------|--------|--------|-----|
| Gender | 1 | | | | | | |
| Age | -.058 | 1 | | | | | |
| E/B | -.007 | -.505** | 1 | | | | |
| W/E | .034 | .700** | -.223** | 1 | | | |
| A/L | .127* | -.010 | .119 | -.008 | 1 | | |
| PPC | .006 | -.070 | .143* | -.066 | .510** | 1 | |
| P/S | .069 | .039 | .054 | .016 | .558** | .485** | 1 |

N=269, *p<.05, **p<0.01

There was a statistically significant and positive correlation between authentic leadership and psychological safety. The relationship between positive PsyCap and psychological safety also had a significant and positive correlation.

4.4 Regression Analysis

Model 1-1 included the control variable only, while Model 1-2 included both the control variable and the independent variable, and the dependent variable was positive PsyCap. In Model (1-2), and the significance level of indicated that the linear regression relationship of the model was statistically significant. All variance inflation factor (VIF) values for determining multi-collinearity were significantly less than two; therefore, it we can conclude that there was no multi-collinearity in this model.

As indicated in Table 2, authentic leadership had a statistically significant and positive influence on positive PsyCap. That is, authentic leadership positively affected the degree of employees’ positive psychological capital. This supported Hypothesis 1.

Table 2. Regression Analysis of Authentic Leadership on Positive Psychological Capital

| | | B | SE | β | t | P | VIF |
|--|------------|-------|------|---------|--------|------|-------|
| Model 2-1 | (Constant) | 3.559 | .246 | | 14.477 | .000 | |
| Control Variables | Gender | .012 | .075 | .010 | .159 | .874 | 1.019 |
| | Age | .029 | .044 | .067 | .669 | .504 | 2.671 |
| | E/B | .135 | .061 | .160 | 2.203 | .028 | 1.412 |
| | W/E | -.051 | .057 | -.079 | -.896 | .371 | 2.085 |
| Model 2-2 | (Constant) | 1.677 | .248 | | 6.165 | .000 | |
| Control Variables | Gender | -.089 | .061 | -.073 | -1.475 | .142 | 1.037 |
| | Age | -.006 | .035 | -.013 | -.163 | .870 | 2.688 |
| | E/B | .047 | .049 | .055 | .946 | .345 | 1.442 |
| | W/E | -.025 | .045 | -.038 | -.546 | .586 | 2.090 |
| Independent Variable | PPC | .556 | .045 | .611 | 12.379 | .000 | 1.038 |
| R ² =.384 F=153.232 P <.000 | | | | | | | |

We only entered the control variable into Model 2-1, Model 2-2 included the control variable and independent variable, and the dependent variable was psychological safety. In Model 2-2, F=28.507 and the significance level Sig=0.00, indicated that the linear regression relationship of the model was statistically significant. All VIF values for determining multi-collinearity were significantly less than two; therefore, we can conclude that there was no multi-collinearity in this model.

As indicated in Table 3, positive PsyCap had a statistically significant and positive influence ($\beta=0.587$, $p<0.001$) on psychological safety. That is, positive PsyCap positively affected the degree of employees' psychological safety. This supported Hypothesis 2.

Table 3. Regression Analysis of Positive Psychological Capital on Psychological Safety

| | | B | SE | β | t | P | VIF |
|---------------------------------------|------------|-------|------|---------|--------|------|-------|
| Model 2-1 | (Constant) | 3.275 | .305 | | 10.744 | .000 | |
| Control Variables | Gender | .114 | .094 | .075 | 1.216 | .225 | 1.019 |
| | Age | .082 | .054 | .151 | 1.506 | .133 | 2.671 |
| | E/B | .121 | .076 | .115 | 1.588 | .113 | 1.412 |
| | W/E | -.055 | .070 | -.069 | -.784 | .434 | 2.085 |
| Model 2-2 | (Constant) | .695 | .332 | | 2.093 | .037 | |
| Control Variables | Gender | .105 | .076 | .069 | 1.382 | .168 | 1.019 |
| | Age | .061 | .044 | .111 | 1.371 | .172 | 2.675 |
| | E/B | .023 | .062 | .022 | .366 | .715 | 1.438 |
| | W/E | -.018 | .057 | -.023 | -.320 | .749 | 2.091 |
| Independent Variable | PPC | .725 | .062 | .587 | 11.664 | .000 | 1.024 |
| R ² =.352 F=28.507 P <.000 | | | | | | | |

Model 3-1 included only the control variable, Model 3-2 included both the control variable and the independent variable, and the dependent variable was psychological safety. In Model 3-2, F=193.993 and the significance level Sig=0.00 indicated that the linear regression relationship of the model was significant. All

VIF values for determining multi-collinearity were significantly less than two; therefore, we can conclude that there was no multi-collinearity in this model.

As indicated in Table 4, authentic leadership had a statistically significant and positive influence ($\beta=0.659$, $p<0.001$) on psychological safety. That is, authentic leadership positively affected the degree of employees' psychological safety. This supported Hypothesis 3.

Table 4. Regression Analysis of Authentic Leadership on Psychological Safety

| | | B | SE | β | t | P | VIF |
|----------------------|------------|-------|------|---------|--------|------|-------|
| Model 3-1 | (Constant) | 3.275 | .305 | | 10.744 | .000 | |
| Control Variables | Gender | .114 | .094 | .075 | 1.216 | .225 | 1.019 |
| | Age | .082 | .054 | .151 | 1.506 | .133 | 2.671 |
| | E/B | .121 | .076 | .115 | 1.588 | .113 | 1.412 |
| | W/E | -.055 | .070 | -.069 | -.784 | .434 | 2.085 |
| Model 3-2 | (Constant) | .769 | .293 | | 1.872 | .062 | |
| Control Variables | Gender | -.021 | .072 | -.014 | -.295 | .768 | 1.037 |
| | Age | .035 | .041 | .065 | .851 | .396 | 2.688 |
| | E/B | -.003 | .058 | -.003 | -.051 | .959 | 1.442 |
| | W/E | -.020 | .053 | -.026 | -.380 | .704 | 2.090 |
| Independent Variable | A/L | .740 | .053 | .659 | 13.928 | .000 | 1.038 |

R²=.435 F=193.993 P <.000

Table 5. The Mediating Effect of Positive Psychological Capital

| | | B | SE | β | t | P | VIF |
|---------|------------|-------|------|---------|--------|------|-------|
| Model 1 | (Constant) | 3.275 | .305 | | 10.744 | .000 | |
| | Gender | .114 | .094 | .075 | 1.216 | .225 | 1.019 |
| | Age | .082 | .054 | .151 | 1.506 | .133 | 2.671 |
| | E/B | .121 | .076 | .115 | 1.588 | .113 | 1.412 |
| | W/E | -.055 | .070 | -.069 | -.784 | .434 | 2.085 |
| Model 2 | (Constant) | .769 | .293 | | 2.623 | .009 | |
| | Gender | -.021 | .072 | -.014 | -.295 | .768 | 1.037 |
| | Age | .035 | .041 | .065 | .851 | .396 | 2.688 |
| | E/B | .003 | .058 | .003 | .051 | .959 | 1.442 |
| | W/E | -.020 | .053 | -.026 | -.380 | .704 | 2.090 |
| | A/L | .740 | .053 | .659 | 13.928 | .000 | 1.038 |
| Model 3 | (Constant) | .346 | .393 | | 1.141 | .255 | |
| | Gender | -.008 | .070 | -.005 | -.115 | .909 | 1.040 |
| | Age | .043 | .040 | .079 | 1.068 | .287 | 2.694 |
| | E/B | -.012 | .057 | -.012 | -.218 | .827 | 1.449 |
| | W/E | -.021 | .052 | -.026 | -.403 | .687 | 2.090 |
| | A/L | .600 | .062 | .534 | 9.688 | .000 | 1.400 |
| | PPC | .247 | .061 | .224 | 4.069 | .000 | 1.448 |

R²=.468 F=16.559 p <.001

Table 5 divides the analysis results into Models 1, 2, and 3. Model 1 included the input control variables. Model 2 tested the significance of positive PsyCap's (independent variable) effect on psychological safety (dependent variable). Model 3 tested the effect of authentic leadership (independent variable) on positive PsyCap (mediating variable) and psychological safety (dependent variable). The results of Models 2 and 3 were highly significant, as p values for both results were 0.000 ($p < .001$).

By comparing the values of positive PsyCap in the two models, we established that the β value of authentic leadership in Model 2 was 0.659, while the β value of authentic leadership in Model 3 was 0.534, meaning that the β value of authentic leadership was greater in Model 2. Thus, we judged that positive PsyCap had a mediating effect between authentic leadership and psychological safety. In this study, the statistical value of the Sobel test was higher than 1.96, so we concluded that positive PsyCap had a mediating effect. This verified Hypothesis 4.

5. CONCLUSION AND FUTURE RESEARCH

Authentic leadership is a new perspective within leadership theory. Despite the practical need for authentic leadership in China, academic research on the subject has only now begun. Unlike other theories that value leadership skills, authentic leadership values leadership ethics. The authors believe that, in the context of Chinese culture, the leaders' ethics are more important, and China's authentic leadership has abundant content and requires further research. The purpose of this study was to understand the impact of authentic leadership on psychological safety, to examine the role of positive PsyCap in that process, and to verify that impact through theoretical and empirical research. In order to achieve this goal, we performed an empirical analysis, utilizing a survey questionnaire, to verify several hypotheses constructed after reviewing the literature and prior studies related to the variables.

The results of the study are as follows: first, this study analyzed demographic variables as control variables. Age had no correlation with employees' authentic leadership, psychological safety, or positive PsyCap. However, employees' educational backgrounds did have a positive correlation with positive PsyCap. In China, employees with more education were more confident and optimistic than less educated employees. Second, authentic leadership had a positive impact on positive PsyCap and psychological safety. This means that, the more honest and moral the leader was, the greater their employees' confidence, optimism, and psychological safety. In the arts, the morality of the leader turned out to be important. Third, positive PsyCap had a positive impact on psychological safety. This means that, as employees' confidence and optimism increased, their psychological safety increased as well.

Lastly, this study took the positive PsyCap of employees as the mediating variable and conducted three three-step regression analyses of the relationship between authentic leadership and employee psychological safety. According to the results of the regression analyses and the Sobel test, positive PsyCap had a mediating effect. This means that authentic leadership had a positive effect on psychological safety through positive PsyCap. Therefore, companies need to increase their employees' psychological safety by expanding their employees' positive psychological capital.

Enterprises should attach importance to the positive PsyCap of their employees. First, leaders should affirm their employees, in order to build their self-confidence. Employees should always be encouraged to improve optimism. Next, when employees encounter setbacks and difficulties, they should receive timely guidance and help to train their resilience. When every employee is confident, optimistic, hopeful, tenacious, and actively participates in the planning and development of the future of the enterprise, then the whole enterprise will be full of energy and new ideas will send out lots of vitality into the world.

This study enriches the research results in the field of authentic leadership and psychological safety,

especially in the empirical research area. Besides, taking the positive PsyCap of employees as a mediating variable provides a new technique of PsyCap research. These findings provide new ideas to help enterprises and managers better understand how to increase their employees' psychological safety.

The deficiency of this paper lies in the limitations of the research samples. This study only selected the art training industry in Hunan Province of China as the sample source, and whether the statistical results are applicable to other industries remains to be tested. Future studies can expand sample sources and verify the validity of the conclusions in this paper by obtaining data from other industries. In addition, we plan to explore the possible moderating variables of the impact of authentic leadership on psychological safety.

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