

Article

Sustainable Vitality and Learning: The Connotation, Scale, and Heterogeneity of Dualistic Psychological Thriving at Work

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Abstract: Psychological thriving is crucial for the sustainable well-being and continuous growth of employees in the workplace. This study aims to explore the concept, measurement, and heterogeneity of dualistic psychological thriving at work to promote sustainable vitality and learning among employees. In Study 1, we identified psychological thriving at work as a second-order dualistic construct, encompassing the positive psychological state in which individuals experience vitality and learning in their current work and hold high expectations for their future work. This construct consists of two dimensions: psychological thriving of work experience and psychological thriving of work development. In Study 2, we conducted exploratory factor analysis and second-order confirmatory factor analyses using two independent samples, providing empirical evidence for the second-order dualistic structure of psychological thriving at work. Subsequently, we developed a comprehensive scale to measure dualistic psychological thriving at work and assessed its criterion validity by examining its relationship with workplace friendship and work autonomy. In Study 3, we investigated the overall levels and pursuit preferences of dualistic psychological thriving at work among different generations. The findings revealed significant differences in the overall levels and pursuit preferences of dualistic psychological thriving at work across generations. Post-1990s employees exhibited the highest overall level of dualistic psychological thriving at work, while post-1970s employees had the lowest. Moreover, post-1990s employees were more inclined to pursue psychological thriving of work experience, whereas post-1980s employees tended to seek psychological thriving of work development. No significant differences were found among post-1970s employees.

Keywords: dualistic psychological thriving at work; psychological thriving of work experience; psychological thriving of work development; connotation; scale development; heterogeneity



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1. Introduction

Psychological thriving at work is a psychological state composed of the joint experience of vitality and learning [1], which is particularly important in today's work environment, as individuals must learn to navigate protean careers and to sustain their performance, health, and well-being [2]. Psychological thriving not only can enhance a variety of crucial outcomes for individuals, such as employee creativity [3], life satisfaction [4], psychological well-being [5], job well-being [6], and general health [7], but can also benefit the organization through increased performance and lower health care costs [8]. However, through literature review, we found that due to differences in culture, economic level, and social security system between China and the West, the Western thriving at work is not fully applicable to the Chinese [9]. First, the connotation and structure of Western thriving at work does not fully apply to the Chinese [10]. The difference between China and Western culture is mainly reflected in that Chinese have grown in the sense of anxiety [11], so compared with Westerners' concept of living in the moment, the Chinese have a greater sense of anxiety [12]. As the saying goes: born in anxiety, die in peace. Therefore, Chinese employees pay attention not only to the temporary thriving they experience in their current

work, but also to the long-term thriving of their future work development. However, the existing studies on thriving at work ignored employees' need for long-term thriving in their future work [1,7,8], this is not only incomplete in theory, but also has great limitations in practice. Second, the reliability and validity of scale of the Western thriving at work in Chinese employees was low. The test data in the article "Reliability and Validity of Scale of the thriving at work in Chinese Employees" [13] published in the "Chinese Journal of Clinical Psychology" show that the total variance explained rate of scale of the Western thriving at work is only 59.51% in the Chinese employees, did not meet the minimum standard of 60%, and the variance explained rate of factor 2 (vitality) was only 10.90%, and the factor loading of the fifth item in factor 1 (learning) was only 0.45. At the same time, most empirical studies of thriving at work in the Chinese employees do not test the discriminant validity of its two dimensions, but directly combine vitality and learning into a single dimension [14]. All of the above suggests that the connotation, structure, and scale of Western thriving at work are not fully applicable to Chinese employees; therefore, it is necessary to further supplement its concept and structure and develop a more broadly applicable scale of thriving at work on the basis of existing research.

Meanwhile, with the introduction of delayed retirement policies and the large number of post-1990s employees entering the workplace, the characteristics of intergenerational diversity in the workplace are becoming more and more prominent [15]. According to the generational difference theory, there are significant differences in the values, preferences, and behaviors of the generation cohorts who have experienced different historical development stages and different growth backgrounds [16]. Differences in values, preferences, and other aspects among different generations have triggered frequent work conflicts, which have a huge negative impact on the normal operation and performance of the organization [17]. Therefore, studying the heterogeneity of values and preferences of different generation cohorts and constructing management theories suitable for them has become important content that needs to be continuously explored in the future [18]. Are there significant differences in overall levels and pursuit preferences of psychological thriving at work across different generation cohorts? The exploration of this issue not only has important theoretical significance for understanding of the different psychological experiences pursued by different generations, but also contributes to the differentiated management practice of the organization.

Therefore, in order to more effectively promote the psychological thriving level of individuals, families, and organizations, we designed three research branches: Study 1, clarifying the connotation and structure of dualistic psychological thriving at work; Study 2, crafting and validating the scale of dualistic psychological thriving at work and examining its construct validity; Study 3, exploring the heterogeneity in the overall level and pursuit preferences of dualistic psychological thriving at work across different generations, providing advice to organizational managers on differentiated management. The construct validation of dualistic psychological thriving at work enriches the theoretical system of psychological thriving at work. We need a scientific understanding and effective interventions to build psychological thriving in individuals, families, and communities [19]. Our construct validation also contributes to the positive psychology literature and growing positive organizational behavior literature [20,21], enabling both individuals and their organizations to thrive. In the next section, we briefly review the literature. We then present three studies, employing three different samples, to address these objectives. We conclude with a discussion of the contributions, limitations, and directions for future research.

2. Study 1: Induction of the Connotation and Structure of Dualistic Psychological Thriving at Work

2.1. Theoretical Basis

Psychological thriving at work is a psychological state in which individuals experience both a sense of vitality and a sense of learning. It is more accurately conceptualized as a continuum, rather than a dichotomous state of either thriving or not [1,22,23]. Vitality

represents a sense of being energized and having a zest for work [24], while the learning dimension signifies the acquisition and application of knowledge and skills to build capability and confidence [23,25]. Together, these two dimensions capture the affective (vitality) and cognitive (learning) essence of psychological thriving at work [26]. Although each dimension can signify some progress toward growth and personal development at work, they enhance one another when they are experienced in concert, leading to the overall experience of psychological thriving [23,26]. A meta-analysis of psychological thriving at work has shown that it has a significant positive impact on individual job well-being, job satisfaction, self-enhancement, and innovation performance, while also having a significant negative impact on job burnout and turnover intention [7]. This suggests that vitality and learning have been widely recognized by scholars as the core connotation and basic framework of psychological thriving at work [27], and they have a strong predictive effect on employees' work attitude and behavior [28]. Based on this understanding, our study aims to investigate dualistic psychological thriving at work using the core connotation and basic framework of "vitality-learning." Drawing on the procedural grounded theory, we conducted a sequential analysis, including open coding, axial coding, and selective coding, on the textual data obtained through interviews [29]. This allowed us to identify and summarize the connotation and structure of dualistic psychological thriving at work.

2.2. Interview

In this study, the theoretical sampling method was employed for sample selection. The primary investigator initiated the project by conducting interviews with 36 employees in China. These participants were recruited through EMBA and MBA programs in a university and were chosen to represent a diverse range of industries, intellectual backgrounds, and age groups. During the interviews, several key questions were asked, including: "What psychological experiences do you prioritize while working?", "Do you experience a sense of learning and vitality in your work?", "Are you confident about the future of your work?", and "Do you focus more on your current work experience or future job prospects?". To analyze and organize the interview data, Nvivo11.0 was utilized, enabling the coding and structuring of the recorded information. The resulting text data formed the basis of this study. Representative quotes, which effectively illustrate the concept of dualistic psychological thriving at work, are included in Table 1. Among the participants, 11 were male, 23 held a college degree or a higher qualification, and the average age was 34.23, with an average work experience of 7.65 years.

Table 1. Coding process.

Typical Evidence Cited	Open Coding	Axial Coding
I have a lot of energy at work.		
Not long after I joined my job, I was curious about everything in my work, even if I worked all day, I didn't feel tired and still had a lot of energy.	Energetic, driven, passionate . . .	Vitality
I am full of enthusiasm and expectation for my work every day, maybe this job gives me a sense of accomplishment.		
I am accustomed to doing my work perfectly, and I will learn a lot of knowledge and skills in the process of completing the task, and I like this state of continuous improvement.		
I am motivated and passionate, when I am exposed to new knowledge and skills in my work.	Progress, growth, new knowledge, new skills, new ideas . . .	Learning
At work, I have a strong thirst for knowledge and like to learn new knowledge and technologies related to my work. I also often share and discuss my work with my colleagues, I feel that I am improving and growing every day.		

Table 1. Cont.

Typical Evidence Cited	Open Coding	Axial Coding
The work I am engaged in is more consistent with my previous career plan, and I feel that I can realize my value, so I am full of fighting spirit in my work.		
I work in nursing. Although I often have to work all night, when I think about the sacred meaning of my work, I will feel that I am valuable, and I will forget the fatigue of work.	Value, ideal, responsibility . . .	Psychological thriving of work development
I am a middle school teacher. Although my work is quite tiring, every time I think that I can cultivate more outstanding talents for the society and the country, I will feel a sense of self-realization, and the fatigue will disappear instantly.		

2.3. Three-Level Coding

In order to ensure the standardization and accuracy of the text data coding process, a coding team was established for this study. The team was comprised of one professor, one associate professor, and two doctoral students. Their primary task was to determine the initial concepts, main categories, and the logical relationships between these categories through extensive discussions. To address any disagreements within the team, a systematic approach was taken. Whenever a disagreement arose, the coding team would carefully re-examine the interview data and engage in further discussions and analysis to reach a consensus. This iterative process aimed to refine the coding and ensure that the interpretations were reliable and consistent among team members. In cases where no agreement could be reached through discussions, the coding team implemented a strategy to collect new interview data. This approach was pursued until theoretical saturation was achieved. The notion of theoretical saturation indicates that the data collected sufficiently covers the research questions and provides comprehensive insights into the phenomenon under investigation. By employing this rigorous coding process, the study aimed to enhance the standardization and accuracy of data analysis while maintaining a systematic approach to guarantee the validity and reliability of the findings.

The specific process of coding is as follows: Open coding. We analyzed the text data sentence by sentence, line by line, and paragraph by paragraph through open coding, used conceptual sentences and vocabulary to systematically summarize and extract key information, and conceptualized and categorized scattered data. In order to truly reflect employees' feelings, cognition, and evaluation of their own work status, we coded their expressions from the perspective of the first subject of employees. Finally, a total of 46 initial concepts were extracted by systematically summarizing the text data. Axial coding. Through axial coding, we conducted more comprehensive screening, generalization, clustering, and differentiation of 46 initial concepts, and identified 12 subcategories that are more representative and recognizable, and the 12 subcategories were further combined into 3 main categories (shown in Table 1). Selective coding. We conducted an analysis of the connotation and relationship of the main categories through selective coding, and obtained the connotation, structure, and logical relationship of dualistic psychological thriving at work (shown in Figure 1).

Based on the combination of psychological thriving at work theory, we believe that psychological thriving at work is a second-order construct, referring to the positive psychological state in which individuals experience both a sense of vitality and a sense of learning at work and are full of expectations for their future work, including psychological thriving of work experience and psychological thriving of work development. This not only includes temporary psychological thriving that employees experience vitality and learning in their work, but also includes long-term psychological thriving that employees are full of expectations for their work (see Figure 1). We define the positive psychological state that employees experience vitality and learning as "psychological thriving of work experience",

including two sub-dimensions of vitality and learning; we define the positive psychological state that employees are full of expectations for their work as “psychological thriving of work development”. At the same time, psychological thriving of work experience and psychological thriving of work development complement each other and are indispensable. If there is only psychological thriving of work experience without psychological thriving of work development, employees will lose their expectation and yearning for their future work, and may have work anxiety, which will make them gradually lose their work motivation and enthusiasm, and ultimately reduce their psychological thriving of work experience. If there is only psychological thriving of work development without psychological thriving of work experience, employees will lack vitality and enthusiasm in their current work; especially in the background of the coronavirus disease 2019 (COVID-19) and VUCA era, employees are more likely to experience job burnout, which will further reduce employees’ expectations and aspirations for their work.

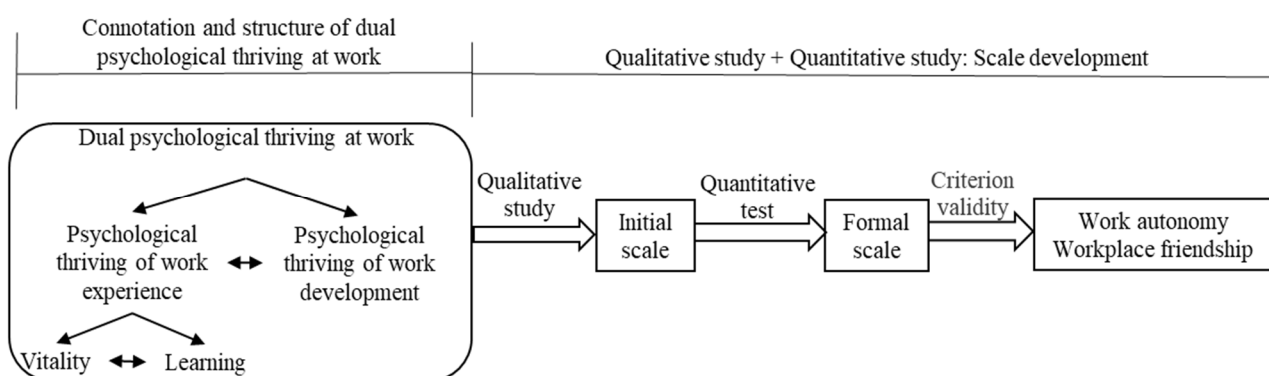


Figure 1. Connotation and structure of the dualistic psychological thriving at work.

3. Study 2: The Scale Development of Dualistic Psychological Thriving at Work

3.1. Build the Initial Scale

We constructed an initial scale of dualistic psychological thriving at work based on the above coding results. First, a total of 24 measurement items were obtained based on the coding; second, in order to ensure the content validity of the initial scale, we evaluated the accuracy and clarity of each item, and finally removed 5 ambiguous items. Finally, we invited 2 professors and 12 staff to evaluate the readability, accuracy, and representativeness of the initial scale that contains 19 items. After modification and adjustment, an initial scale with 16 items was finally determined. In addition, considering the operability and external validity of the scale, we expressed the items of the scale in the first-person way, and replaced professional vocabulary with easy-to-understand vocabulary.

3.2. Research Methods

In this study, we used Spss23.0 for homogeneity test, exploratory factor analysis, reliability test, convergent validity test, common method bias test, and hierarchical regression analysis, and Mplus7.4 for confirmatory factor analysis.

3.3. The First Exploratory Factor Analysis

In this study, the theoretical sampling method was used for sample selection. We got in touch with some alumni working in companies, and gave a detailed explanation of the reason, content, purpose, and possible value to the company for this questionnaire. Through repeated communication for half a month, a total of 7 companies pledged to provide assistance for our study. However, due to the impact of the COVID-19, we only carried out investigations on 2 large-scale enterprises in Liaoning Province. A total of 152 employees participated in this survey, and 97 valid questionnaires were obtained after deleting 56 unqualified questionnaires. In the final sample (59.79% male), the mean age

was 36.5 years (SD = 11.3); mean work tenure was 6.3 years (SD = 9.4); mean working time was 44.3 h per week (SD = 10.2); and 65.98% had an undergraduate or above degree.

In this study, we used Spss23.0 for the homogeneity test, which requires the correlation coefficient of each question item to be greater than 0.5. The results showed that the correlation coefficient between each item and the overall scale exceeds 0.50, so there is no need to delete any item. Second, we used Spss23.0 for the KMO and Bartlett's test. The results (KOM = 0.932, $\chi^2 = 1697.651$, $df = 120$, $p < 0.001$) showed that the sample is suitable for exploratory factor analysis. Finally, we used Spss23.0 for exploratory factor analysis. The results (shown in Table 2) showed that 16 items are aggregated into two factors whose eigenvalues are greater than 1, and the total variance explained rate is 61.273% (greater than 60%). Subsequently, we deleted B4, B5, B6, X1, S2, S4, and S6 items that the loading value of both factors greater than 0.40 at the same time.

Table 2. Exploratory factor analysis results (first time).

Numbering	Items	Factor 1	Factor 2	Handle
X3	I am constantly growing and improving at work	0.811		Reserve
X4	Learning is very important to me at work	0.810		Reserve
X2	I can learn a lot of new knowledge or skills at work	0.781		Reserve
B1	I feel energized at work	0.762		Reserve
B4	I feel happy at work	0.754	0.500	Delete
B6	I am confident at work	0.749	0.417	Delete
X1	I like challenging work	0.737	0.492	Delete
B5	I can complete my work ahead of schedule with high quality	0.731	0.431	Delete
B3	I can stay alert and awake at work	0.724		Reserve
B2	I can meet my daily work with full spirit	0.716		Reserve
S2	I am looking forward to the new work I am about to do	0.695	0.504	Delete
S1	The work I am engaged in will have good prospects in the future		0.888	Reserve
S3	The work I am engaged in can realize my dream in the future		0.865	Reserve
S5	The work I am engaged in will be more valuable in the future		0.852	Reserve
S4	The work I am engaged in will make a greater contribution to society in the future	0.439	0.712	Delete
S6	I am full of expectations for the development of my unit	0.454	0.700	Delete
Variance contribution rate (%)		43.802	31.480	
Cumulative variance contribution rate (%)			75.282	

3.4. The Second Exploratory Factor Analysis

To further test the remaining 9 items, we conducted a second exploratory factor analysis. First, we conducted the KMO and Bartlett's test, the results (KOM = 0.894, $\chi^2 = 797.647$, $df = 36$, $p < 0.001$) show that the sample was suitable for exploratory factor analysis. Second, we conducted the second exploratory factor analysis, and the results (shown in Table 3) showed that the 9 items are aggregated into two factors with eigenvalues greater than 1, and the total variance explained rate is 78.703% (greater than 61.273%), indicating that the reduced scale is better. At the same time, the factor loading of each item is between 0.732 and 0.908, and there is no cross-loading situation, indicating that it is not necessary to delete any item.

Table 3. Exploratory factor analysis results (second time).

Numbering	Items	Factor 1	Factor 2
X3	I am constantly growing and improving at work	0.856	
X2	I can learn a lot of new knowledge or skills at work	0.806	
X4	Learning is very important to me at work	0.791	
B3	I can stay alert and awake at work	0.764	
B1	I feel energized at work	0.737	
B2	I can meet my daily work with full spirit	0.732	
S1	The work I am engaged in will have good prospects in the future		0.908
S3	The work I am engaged in can realize my dream in the future		0.884
S5	The work I am engaged in will be more valuable in the future		0.867
Variance contribution rate (%)		45.155	38.699
Cumulative variance contribution rate (%)			78.703

3.5. Second-Order Confirmatory Factor Analysis

To ensure the scale has wider applicability and practicality, the exploratory factor analysis and confirmatory factor analysis should be performed using different samples [30]. Therefore, we re-collected the sample data. The data collection process was the same as before. This time, we conducted field visits to two other large enterprises in Liaoning Province. A total of 204 employees participated in this survey, and 152 valid questionnaires were obtained after deleting 52 unqualified questionnaires. In the final sample (54.61% male), the mean age was 37.4 years ($SD = 11.3$); mean job tenure was 8.2 years ($SD = 9.1$); mean working time was 46.7 h per week ($SD = 9.4$); and 61.18% had an undergraduate or above degree.

First, we used Spss23.0 for the reliability test, which requires the Cronbach's alpha values to be greater than 0.5. The results showed that the Cronbach's alpha values of vitality ($\alpha = 0.752$), learning ($\alpha = 0.733$), psychological thriving of work experience ($\alpha = 0.861$), psychological thriving of work development ($\alpha = 0.918$), overall scale ($\alpha = 0.904$), are all greater than 0.70, indicating that the scales with good reliability. Second, we used Mplus23.0 for the confirmatory factor analysis (CFA), we designed four models for confirmatory factor analysis. Among them, M0 is an independent nothingness model; M1 is a first-order single-factor model; M2 is a first-order two-factor model including psychological thriving of work experience and psychological thriving of work development; M3 is a second-order two-factor model including vitality, learning, psychological thriving of work experience, and psychological thriving of work development. The results showed that the indicators of the M3 model ($\chi^2 = 25.274$, $DF = 24$, $RMSEA = 0.019$, $CFI = 0.998$, $TLI = 0.998$) fit better than other models and meet the standard requirements. This indicates that the second-order two-factor model of psychological thriving at work has a reasonable structure, and the scale has good discriminant validity across dimensions. Finally, we examined the discriminant validity of the first-order and second-order factors of dualistic psychological thriving at work. The test results showed that the first-order factor loadings of the two first-order dimensions of vitality and learning are both above 0.50, indicating that the first-order factor has good discriminant validity; at the same time, the second-order factor loadings of the two second-order dimensions of psychological thriving of work experience and psychological thriving of work development are both above 0.70, indicating that the second-order factor also has good discriminant validity.

3.6. Convergent Validity Analysis

We used Spss23.0 for the convergent validity test; we calculated the combined reliability (CR) and average variance extracted (AVE) of the scale and its dimensions. The results show that the CR value is greater than 0.80, and the AVE value is greater than 0.60, indicating that the scale of dualistic psychological thriving at work has good convergent validity.

3.7. Criterion Validity Analysis

We used Spss23.0 for the criterion validity test. To determine whether a scale can effectively reflect the target concept, it is necessary to examine whether the operational variables measured by the measurement scale really have a significant effect on the variables that should have an impact in theory [29]. The socially embedded model of psychological thriving at work shows that relational resources and job autonomy in the workplace are important factors that promote employees' psychological thriving at work [1,27]. At the same time, related studies have also shown that workplace friendship [7] and work autonomy [31–33] both have significant positive effects on employees' psychological thriving at work. Therefore, we chose workplace friendship and work autonomy as the criteria scales to test the criterion validity of the scale of dualistic psychological thriving at work.

3.7.1. Participants Bulleted Lists Look like This

In this study, the theoretical sampling method was used for sample selection. We collected survey data from 400 employees across four companies in Liaoning Province and

Hebei Province in China. In order to minimize the common method bias, we conducted data collection in 2 stages, with a one-month interval between each survey. The first survey (T1) collected personal information of employees as well as two criteria data; the second survey (T2) collected the data of dualistic psychological thriving at work. In order to solve the follow-up matching problem of data, before the distribution of the questionnaire, we carried out a coding design for all employees participating in the survey (the same number was used for both surveys); that is, the employees participating in the survey in each company were required to identify themselves by drawing lots. The number was composed of the full spelling of the first word in the company name + numbers. For example, the questionnaire numbers for employees of BMW Brilliance Automotive Co., Ltd. are HUA001, HUA002, . . . , HUA100. In the end, 302 valid questionnaires were obtained; in the final sample (53.31% female), the mean age was 34.2 years ($SD = 9.8$); mean job tenure was 8.3 years ($SD = 8.2$); mean working time was 45.8 h per week ($SD = 10.3$); and 57.61% had an undergraduate or above degree.

3.7.2. Measures

Dualistic psychological thriving at work was measured using the scale of dualistic psychological thriving at work developed by this study. This scale has 9 items, example items were: “I feel energized at work” and “I can learn a lot of new knowledge or skills at work”. The participants responded on a 5-point Likert scale from 1 = not at all disagree to 5 = exactly disagree. The Cronbach’s α for the scale was 0.815 in this study (See Appendix A for title items).

Workplace friendship was measured using the scale of workplace friendship developed by Nielsen et al. [30]. This scale has 9 items, example items were: “I can work with my colleagues together” and “I trust other employees in the company”. The participants responded on a 5-point Likert scale from 1 = not at all disagree to 5 = exactly disagree. The Cronbach’s α for the scale was 0.864 in this study (See Appendix A for title items).

Work autonomy was measured using the scale of work autonomy developed by Kirmeyer and Shirom [34]. This scale has 7 items, example items were: “I can decide how to do my work” and “I have great decision-making power over my work”. The participants responded on a 5-point Likert scale from 1 = not at all disagree to 5 = exactly disagree. The Cronbach’s α for the scale was 0.876 in this study (See Appendix A for title items).

3.7.3. Control Variables

Several studies have argued that gender, age, working tenure, working time, and level of education influence psychological thriving at work. Therefore, these factors were adopted as control variables in this study.

3.7.4. Common Method Bias Test

We used Spss23.0 for the common method bias test. First, we performed a common method bias test using Harman’s single-factor test. The results showed that the maximum factor variance explained rate is 28.920% (less than 40%), indicating that there is no common method bias in the data; secondly, in order to improve the rigor of the test, we used single-factor confirmatory factor analysis to test for common method bias. The results showed that the model fit was poor ($\chi^2/DF = 5.454$, CFI = 0.578, TLI = 0.557, RMSEA = 0.122). Taken together, it shows that there is no common method bias.

3.7.5. Hierarchical Regression Analysis

We used Spss23.0 for the hierarchical regression analysis, results showed that after controlling for demographic variables such as gender and age, work autonomy ($\beta = 0.199$, $p < 0.001$) and workplace friendship ($\beta = 0.400$, $p < 0.001$) have a significant positive effect on dualistic psychological thriving at work. It can be seen that the scale of dualistic psychological thriving at work has a good criterion validity.

4. Study 3: Overall Levels and Pursuit Preference of Dualistic Psychological Thriving at Work in Difference Generations

We used 10 years as an interval to divide employees into 5 stages: post-1960s (1960–1969) and post-1970s (1970–1979), post-1980s (1980–1989), post-1990s (1990–1999), and post-2000s (2000–2010) [17]. At the same time, considering the age distribution in the actual workplace and the availability of samples, we only selected the post-1970s employees, post-1980s employees and post-1990s employees who are the main force in the workplace as the research object. From a practical point of view, the study of these three groups is also more beneficial to guide employee management practices.

4.1. Relevant Theories and Research Hypotheses

According to generational difference theory, there are significant differences in values, preferences, and behaviors among generations who have experienced different historical development stages and different growth backgrounds. The diversity of values brought about by differences between generations often lead to conflicts among different generations [18,35,36], which bring many challenges to the organization and social management [37–39]. At the same time, the differences in values, thoughts, and behaviors among different generation cohorts are mainly affected by age effect, generation effect, and era effect [40,41]. The post-1970s employees are relatively deficient in education, economy, material conditions, and other aspects, so they pay more attention to external values such as work remuneration and work stability, while the post-1980s employees and post-1990s employees were born in the era that had a better education, economy, material conditions, and other aspects. Compared with external materials such as money and welfare, they advocate for freedom and pay attention to work experience and pursue the realization of their inner value [42]. Combining the generational difference theory and previous related research, we believe that, as a positive psychological state at work, different generations have significant differences in the overall level and pursuit preferences of dualistic psychological thriving at work. Thus, the following hypothesis was proposed in this study:

Hypothesis 1. *There are significant differences in the overall level and pursuit preferences of dualistic psychological thriving at work among different generations.*

4.2. Analysis of Variance and Least Significant Difference

We explored whether there are significant differences in the overall level and pursuit preferences of dualistic psychological thriving at work among different generations by analysis of variance and least significant difference. This difference test still uses the data collected above for the criterion validity analysis. The results of variance analysis (shown in Table 4) showed that there were significant differences in the overall level and pursuit preferences of dualistic psychological thriving at work of the post-1970s employees, post-1980s employees, and post-1990s employees ($F = 24.497, p < 0.001$; $F = 16.755, p < 0.001$; $F = 24.497, p < 0.001$; $F = 16.755, p < 0.001$; $F = 14.024, p < 0.001$). We further analyzed and compared the differences between groups through the least significant difference. The results showed that the overall level of dualistic psychological thriving at work of the post-1990s employees were the highest, followed by the post-1980s employees, and the lowest in the post-1970s employees. At the same time, from the perspective of the longitudinal average, the average value of psychological thriving of work experience is higher than the psychological thriving of work development of the post-1990s employees, indicating that the post-1990s employees are more inclined to pursue psychological thriving of work experience; the average value of psychological thriving of work development is higher than psychological thriving of work experience of the post-1980s employees, indicating that the post-1980s employees are more inclined to pursue psychological thriving of work development; while the average values of psychological thriving of work experience and psychological thriving of work development of the post-1970s employees are equal,

indicating that there is no obvious difference between the two types of psychological thriving. Thus, Hypothesis 1 is supported.

Table 4. Analysis of variance and least significant differ.

Variable	Generations	Quantity	Mean	Median	F	p	Least Significant Difference
Dualistic psychological thriving at work	post-70s	78	2.77	2.89	24.497	0.001	post-1970s < post-1980s < post-1990s
	post-80s	95	3.44	3.44			
	post-90s	112	3.60	3.60			
Psychological thriving of work experience	post-70s	78	2.77	2.80	16.755	0.001	post-1970s < post-1980s < post-1990s
	post-80s	95	3.35	3.35			
	post-90s	112	3.64	3.64			
Psychological thriving of work development	post-70s	78	2.77	2.75	14.024	0.000	post-1970s < post-1980s < post-1990s
	post-80s	95	3.55	3.55			
	post-90s	112	3.56	3.56			

5. Discussion

5.1. Conclusions

In order to maintain the employees' sustainable vitality and learning, we explored the connotation, scale, and heterogeneity of dualistic psychological thriving at work. Finally, we came to the following conclusion: First, dualistic psychological thriving at work is a second-order construct, referring to the positive psychological state in which individuals experience both a sense of vitality and learning and are full of expectations for their work. It includes two forms of psychological thriving at work: psychological thriving of work experience and psychological thriving of work development. Among them, psychological thriving of work experience includes two sub-dimensions of vitality and learning. Second, the scale of dualistic psychological thriving at work contains nine items and has good reliability and validity. Third, there are significant differences in the overall level and pursuit preferences of dualistic psychological thriving at work among different generations. In terms of the overall level of dualistic psychological thriving at work, the post-1990s employees are the highest, the post-1980s employees are the second, and the post-1970s employees are the lowest; in terms of the pursuit preferences of dualistic psychological thriving at work, the post-1990s employees tend to pursue psychological thriving of work experience, and the post-1980s employees are more inclined to pursue psychological thriving of work development, while the post-1970s employees have no obvious pursuit preferences between psychological thriving of work experience and psychological thriving of work development. The conclusion coincides with the research conclusion in the white paper "Joining Hands with Generation Y—Insight and Building the Best Workplace Environment for Post-80s Generation", jointly released by IBM and N-Dynamic. That is, compared with other factors, the post-1980s employees pay more attention to the development prospects of their work, while the post-1970s employees are the middle-of-the-road moderates, they pay more attention to occupational stability, security, and balance between work and family, which may be the main reason why the post-1970s employees have no pursuit preferences between psychological thriving of work experience and psychological thriving of work development.

5.2. Theoretical Implication

First, this study clarified the connotation and structure of dualistic psychological thriving at work, enriching the theoretical system of psychological thriving at work. Psychological thriving at work only focuses on the temporary psychological thriving of employees experiencing vitality and learning in their work, ignoring employees' need for long-term psychological thriving in their work. That is not only incomplete in theory, but also has great limitations in practice [43]. Given this, this study pays attention to the two above psychological thriving needs of employees at the same time, and summarizes them into psychological thriving of work experience and psychological thriving of work development.

development. Therefore, this study not only responded to the calls of scholars on the diversification of psychological thriving at work [44,45], but also enriched the theoretical system of psychological thriving at work.

Second, the provides a more reliable measurement tool for research on dualistic psychological thriving at work. Psychological thriving at work only focuses on the temporary psychological thriving of employees experiencing vitality and learning in their work, ignoring employees' need for long-term psychological thriving in their work. Therefore, it cannot measure the level of dualistic psychological thriving at work accurately. The scale of dualistic psychological thriving at work developed can more comprehensively measure the level of dualistic psychological thriving at work, providing a more reliable measurement tool for the study of dualistic psychological thriving at work.

Third, we lay a theoretical foundation for the heterogeneity research of dualistic psychological thriving at work, expanding the research perspective of psychological thriving at work. Studying the value characteristics and preferences of different generations and constructing a management theory suitable for them is important content that needs continuous discussion [46,47]. However, few scholars have conducted research on the heterogeneity in psychological thriving at work among different generations. The conclusions of this study show that there are significant differences in the overall level and pursuit preferences of dualistic psychological thriving at work among different generations. Therefore, this study not only lays a theoretical foundation for the heterogeneity study of dualistic psychological thriving at work, but also expands the research perspective of psychological thriving at work.

5.3. Practical Implication

First, provide guidance for the organization to improve the level of psychological thriving at work of employees. This study shows that employees focus not only on psychological thriving of work experience in their work, but also on psychological thriving of work development in their work. Therefore, in order to improve the level of psychological thriving at work of employees, organizational managers must not only meet the needs of employees for temporary psychological thriving, but also for long-term psychological thriving.

Second, provide tool support for organizations managers to measure the level of dualistic psychological thriving at work of employees accurately, and provide a basis for their targeted management and training. This study developed the scale of dualistic psychological thriving at work is more suitable for measuring the level of dualistic psychological thriving at work of employees, by accurately measuring the level of employees' dualistic psychological thriving at work, it can help organizational managers understand the overall level of employees' dualistic psychological thriving at work, and help them carry out targeted management and training.

Third, provide guidance and suggestions for organizational managers to carry out differentiated management [48]. This study shows that there are significant differences in the overall level and pursuit preferences of dualistic psychological thriving at work among different generations. Therefore, organizational managers should carry out differentiated management of different generations to meet the individual needs of employees and improve their level of dualistic psychological thriving at work. For example, managers should pay more attention to the psychological thriving of work experience of the post-1990s employees and pay more attention to the psychological thriving of work development of the post-1980s employees.

5.4. Limitations and Directions for Future Research

First, dualistic psychological thriving at work may be a continuous state or may be exhibit cyclical characteristics [26]; therefore, it is of great significance to use dynamic research methods to explore the dynamic characteristics and dynamic cross-layer influence mechanism of dualistic psychological thriving at work. In addition, studying the arguing points of proximity and distance between the concepts of dualistic psychological thriving and psychological well-being at work in future research would be useful.

Second, there are significant differences in the influencing factors of dualistic psychological thriving at work among different generations. In the future, it will be of great significance, not only to the differential management of the organization but also to the development of the generational difference theory, to study the heterogeneity of the influencing factors and construct the corresponding theoretical system of dualistic psychological thriving at work among different generations.

Third, the participants of Studies 1, 2, and 3 are from China, which could affect the generalizability of our findings [49]. In the future, we can use participants in a Western context from a broad spectrum of jobs and industries to increase the generalizability of our findings.

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Appendix A

Items measuring Dualistic psychological thriving at work (Source: developed in this study).

1. I am constantly growing and improving at work.
2. I can learn a lot of new knowledge or skills at work.
3. Learning is very important to me at work.
4. I can stay alert and awake at work.
5. I feel energized at work.
6. I can meet my daily work with full spirit.
7. The work I am engaged in will have good prospects in the future.
8. The work I am engaged in can realize my dream in the future.
9. The work I am engaged in will be more valuable in the future.

Items measuring workplace friendship (Source: Nielsen et al [30]).

1. I have the opportunity to get to know my coworkers.
2. I am able to work with my coworkers collectively.
3. In my organization, I have the chance to talk informally and visit with others.
4. Communication among employees is encouraged by my organization.
5. I have the opportunity to develop close friendships at my workplace.
6. I have formed strong friendships at work.
7. I socialize with coworkers outside of the workplace.
8. I feel I can trust many coworkers a great deal.
9. Being able to see my coworkers is one reason why I look forward to my job.

Items measuring work autonomy (Source: Kirmeyer and Shirom [34]).

1. I have freedom to decide what to do.
2. I have freedom to decide how to do my own work.
3. I have responsibility for deciding how the job got done.
4. I have a lot to say about what happened on the job.
5. I have latitude to decide when to take breaks.
6. I have freedom to decide who I work with.
7. I have freedom to decide the speed of my work.

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