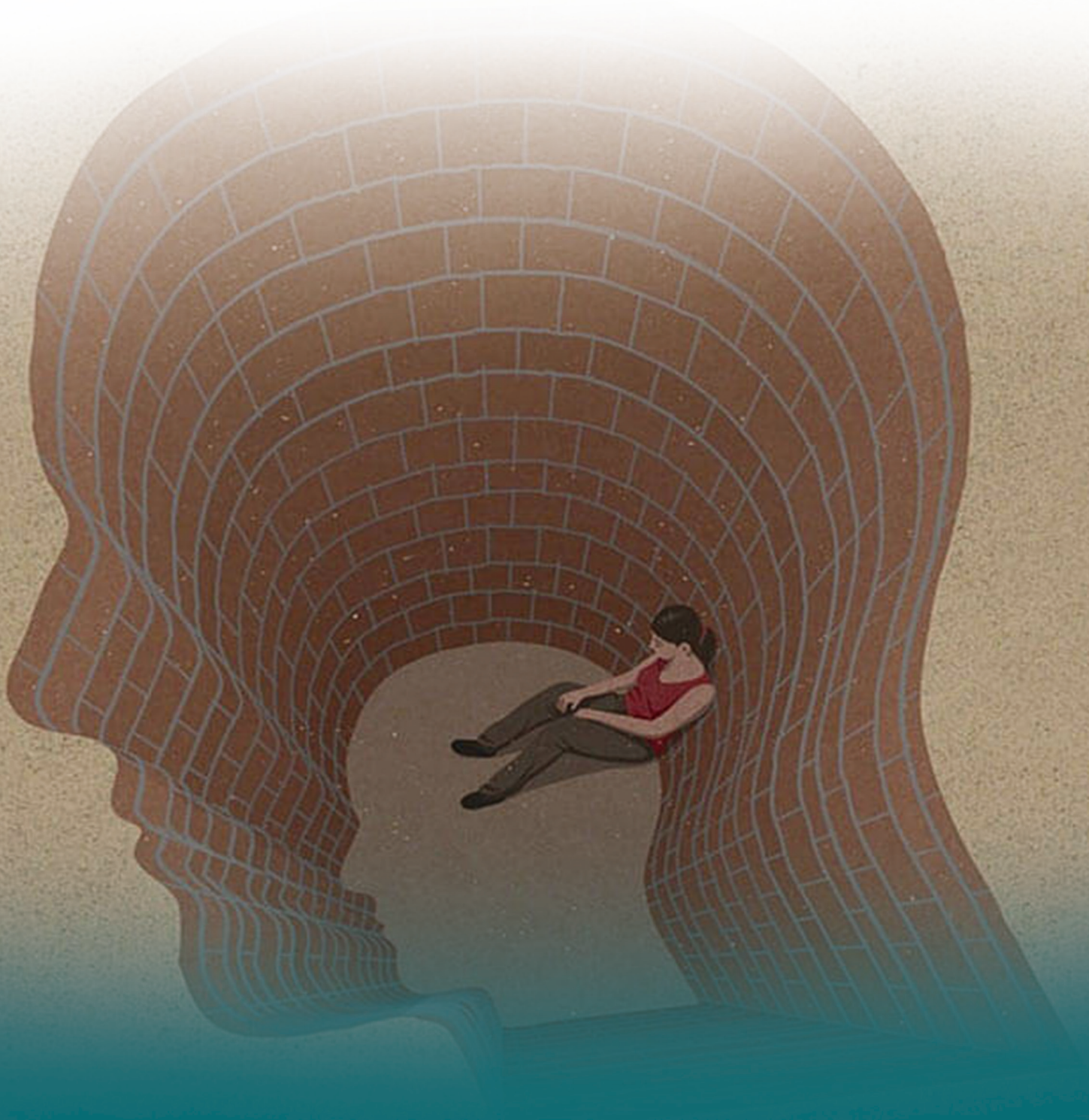


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ARTICLE

## Exploring Careers for a Clearer Future Work-Self: The Influence of Proactive Personality as a Moderator

Xin Yin<sup>1</sup>, Zeren Liang<sup>2</sup>, Shixiang Liu<sup>1\*</sup>

<sup>1</sup> Teachers College of Beijing Union University, Beijing, 100011, China

<sup>2</sup> Beijing First Experimental Primary School, Beijing, 100052, China

### ABSTRACT

Middle school serves as a pivotal juncture in career development, where adolescents grapple with adaptability challenges during transitional phases such as entrance exams and the selection of elective majors. Simultaneously, they embark on integrating their ongoing learning tasks with their ideal aspirations to lay the groundwork for future career development. Against this backdrop, the significance of career exploration and understanding future developmental directions becomes particularly pronounced. To investigate the intricate relationship between career exploration and the clarity of one's future work-self, along with the moderating role of proactive personality, this study employed the career exploration scale, proactive personality scale, and clarity of future work-self scale. Data from 457 high school students were collected, revealing a substantial positive correlation between career exploration and both future work self-clarity and proactive personality. Adjusting for gender and age highlighted proactive personality as a regulatory factor influencing the relationship between career exploration and future work self-clarity. Furthermore, the results underscored the crucial moderating role of proactive personality in shaping the connection between career exploration and the clarity of future work-self. In-depth analysis revealed noteworthy interactions, particularly with the environmental exploration dimension (standard coefficient of 0.849,  $p < 0.001$ ). Similarly, interactions with self-exploration, goal-system exploration, and information quantity dimensions were also significant, featuring standard coefficients of 0.905 ( $p = 0.002$ ), 0.935 ( $p < 0.001$ ), and 0.854 ( $p < 0.001$ ), respectively. In essence, these findings illuminate the nuanced dynamics at play, emphasizing the amplified connection between career exploration and the clarity of future work-self in the presence of higher proactive personality levels. This insight holds implications for educators, counselors, and researchers invested in fostering comprehensive career development strategies for adolescents.

**Keywords:** Career exploration; Clarity of future work self ; Proactive personality; Moderation effect

#### \*CORRESPONDING AUTHOR:

Shixiang Liu, Teachers College of Beijing Union University, Beijing, 100011, China; Email: gorenliu@126.com

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## 1. Introduction

Data issued by the Ministry of Education show that the number of college graduates in 2023 is expected to be 11.58 million, a year-on-year increase of 820,000. A large number of fresh graduates are pouring into the talent market, but the shortage of job positions and graduates' confusion about their future careers have become the main reasons for employment difficulties. With the implementation of the new high school college entrance examination reform, career future planning in middle school has an increasingly critical impact on the subsequent career development of teenagers. This reform further classifies and refines the traditional division of liberal arts and science in high school, which also requires students to consider the majors they may choose, the careers they may be qualified for, and their future planning. It is obvious that both the reform itself and the tendency to develop vocational education contained within it require students to start making preliminary plans for future career development at the middle school stage. Have a clear understanding and exploration of their future development. At the same time, they also need to start to align their current learning tasks with their ideal goals, actively exploring the feasibility of future development directions and preparing for future career development. So career exploration and future work self-cognition are particularly important.

As a motivation resource and adaptive result, clear future work-self can help individuals to set goals and develop strategies to achieve them, so as to engage in active professional behavior<sup>[1]</sup>. Future work self-clarity is an individual's cognitive representation of who they want to be in the future, with future-oriented, positive, and job-specific characteristics<sup>[2]</sup>. According to Seginer, an individual's future orientation or impressions of the future provide a basis for formulating goals and plans, and are therefore considered an important task in adolescent development<sup>[3]</sup>. Gjesme provided the earliest definition of future orientation, stating that it is the degree to which thoughts and actions are involved in the future<sup>[4]</sup>. Although many domestic and foreign scholars have

different interpretations of this concept, they all agree that future orientation is the process of individuals valuing and thinking about their future development. The concept of the future work-self originates from the possible self. Drawing on the research of Markus and Nurius on the "possible self"<sup>[5]</sup>, Strauss et al. put forward the concept of the "future work-self"<sup>[6]</sup>. Future work-self refers to an individual's reflection of future work expectations and images formed in the mind, including two attributes: clarity and detail<sup>[6]</sup>. They define the concept of future work self-clarity as the degree to which an individual's self-image in future work is clear and easy to imagine. It is an anticipated expansion of self-possibilities in the career field, which can stimulate individuals to participate in various proactive career behaviors, and is of great help in the choice and understanding of future careers. The existing research has shown that individuals with higher future work self-clarity can help reduce the difficulty of career decision-making<sup>[7]</sup>. There is also research showing that a clear future work self not only advances one's career, but also further promotes active professional behavior by linking one's self to the desired future.

Career exploration refers to an individual's own activity mainly aimed at achieving career goals. Stumpf based on the three aspects of behavioral, cognitive and emotional response, believes that career exploration includes exploratory belief, exploratory process and exploratory response<sup>[8]</sup>. Flum and Blustein argued that the previous structure did not reflect the "lifelong nature" of career exploration, and only stable attitudes and skills formed in the process of exploration could maintain the continuity of this process<sup>[9]</sup>. Among the existing studies on the career exploration of high school students, Wang Yu conducted a study on the career exploration of high school students and found that there was a significant positive correlation between the career exploration of high school students and all dimensions of self-esteem and social support<sup>[10]</sup>. These studies show that high school students' career exploration is closely related to self-exploration, and career exploration is an important part of their career planning.

Previous studies have shown that career exploration can significantly predict college students' future work self-clarity. Individuals with more career exploration will have a clearer understanding of their future careers<sup>[11]</sup>. There is a significant positive correlation between adolescent career exploration and future work self<sup>[12]</sup>. This study will also discuss whether this correlation exists in the group of middle school students. Existing literature has shown that career exploration plays a mediating role between other variables and future work self-clarity. For example, career exploration plays a mediating role between optimism and future work self-clarity<sup>[11]</sup>. Career exploration plays a mediating role in perceived social support and future self-clarity<sup>[13]</sup>. Therefore, career exploration is an important reason that affects middle school students' future work self-clarity.

In previous studies on career exploration and future work self-clarity, another variable has been discovered: proactive personality. Bateman et al. proposed proactive personality in 1993, believing that individuals with proactive personality are more stable and less susceptible to external forces, thereby enabling them to better adapt to environmental changes and development. When facing new environments, they can accurately seize opportunities, actively embrace opportunities and challenges, and at the same time constantly adjust their mentality and behavior according to environmental and other factors and increase individual initiative. It is a relatively stable individual characteristic endogenous to the individual<sup>[14]</sup>. According to Major, Turner and Fletcher, individuals with proactive personality have stronger learning motivation, can be responsible for their own choices in terms of academic development and career planning, and show greater career initiative than those with low initiative<sup>[15]</sup>. Cai et al. found that after controlling for self-esteem, a proactive personality can indirectly predict future work self-clarity through career exploration because when an individual's proactive personality is high, he or she will maintain a high level of career exploration behavior, resulting in a higher level of future work self-clarity<sup>[16]</sup>. Lu Shan found that work initiative and future work

self-clarity are significantly positively correlated<sup>[17]</sup>. After exploring the relationship between proactive personality and future work self-clarity, many scholars found that there is a certain positive correlation between the two<sup>[18]</sup>.

In conclusion, this study uses a questionnaire survey to investigate the career exploration, future self-clarity and proactive personality of middle school students, exploring the role of proactive personality in career exploration and future work self-clarity.

## 2. Materials and methods

### 2.1 Interviewees

This study involved 472 middle school students in Beijing. The questionnaire is anonymous and informed consent is read to students in advance by the class teacher. After communicating with the classroom teacher, we entered the classroom to distribute the questionnaires, and a total of 465 questionnaires were collected. After screening the questionnaires, 8 incomplete questionnaires were excluded, leaving 457 valid questionnaires, with a questionnaire effectiveness rate of 98.28%. Among them, 208 are boys, accounting for 45.5%; 249 are girls, accounting for 54.5%. There are 395 only children, accounting for 86.4%, and 62 are non-only children, accounting for 13.6%.

### 2.2 Method

This study adopted the questionnaire survey method to distribute the Career Exploration Scale, Proactive Personality Scale and Future Work Self-Clarity Scale to two high schools in Beijing. The selection of the scale is based on the good validity of the field, and the scale is widely used. Students filled out the questionnaire on their own and collected them after completion.

### 2.3 Survey tools

#### *Career Exploration Scale*

This study used the Career Exploration Scale

modified by Xu Cun based on Stumpf's scale <sup>[19]</sup>. The scale consists of 18 items in total, including four dimensions: environmental exploration (1–5), self-exploration (6–10), purpose-system exploration (11–14) and information quantity (15–18). A 5-point Likert scale is used, with 1 indicating “very little” and 5 indicating “very much”. The higher the score, the higher the corresponding exploration enthusiasm. The internal consistency reliability of the scale is 0.93.

### **Proactive Personality Scale**

This study used the Proactive Personality Scale that Wenfang simplified and revised in 2011 for middle school students. After testing and analysis, a shortened scale consisting of 9 items was finally formed <sup>[18]</sup>. The internal consistency coefficient of this scale in this study was 0.897, which meets statistical standards.

### **Future Work Self-clarity Scale**

This study used the back-translated version of the English version of the scale by Guan et al. based on Strauss <sup>[20]</sup>. There are a total of 4 items in this scale, of which one item in the English version has been removed, “In my mind, the type of work-related future I want is very clear.” The internal consistency coefficient of the scale is 0.903.

## **2.4 Statistical method**

SPSS 19.0 and Amos 16.0 are the most commonly used data analysis software with complete functions and easy operation. Firstly, the collected questionnaires were preprocessed, and then SPSS 19.0 was used to input and analyze the data. The main analysis methods used included independent sample t-test and correlation analysis. A structural equation model was established using Amos16.0 to explore the moderating effect of proactive personality.

## **3. Results**

### **3.1 Statistical analysis of demographic variables**

We conducted a gender difference test in career exploration and each sub-dimension, future work self-clarity, and proactive personality. As shown in

**Table 1**, on the purpose-system exploration of the career exploration questionnaire, boys' scores were significantly higher than girls' ( $t = 2.256, p = 0.025$ ). In terms of proactive personality scores, boys scored significantly higher than girls ( $t = 2.737, p = 0.006$ ). Besides, gender differences in other dimensions are not significant.

**Table 1.** Gender-Based comparative analysis: Exploring differences across various dimensions.

Dimension	Male		Female		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Environment	14.413	4.7845	14.341	4.5658	0.164
Self	14.077	3.1152	13.988	2.7127	0.322
Purpose	15.197	4.7482	14.237	4.3399	2.256*
Information	12.639	3.5125	12.426	3.3953	0.66
Exploration	56.327	14.27	54.992	12.9984	1.046
Personality	32.486	6.3959	30.976	5.1767	2.737*
Future	12.923	3.8327	12.731	3.5395	0.557

Note: \* $p < 0.05$ , \*\* $p < 0.01$ .

We conducted a difference test of the number of children in the family in career exploration and each sub-dimension, future work self-clarity, and proactive personality. After testing, there is no significant difference in each variable whether one is an only child or not.

## **3.2 Correlation analysis of key variables**

Correlation analysis was performed on each variable. The results in **Table 2** show that there is a significant correlation between all indicators ( $p < 0.01$ ), which suggests that there is a significant positive correlation between the three.

## **3.3 Test of the moderating effect of proactive personality**

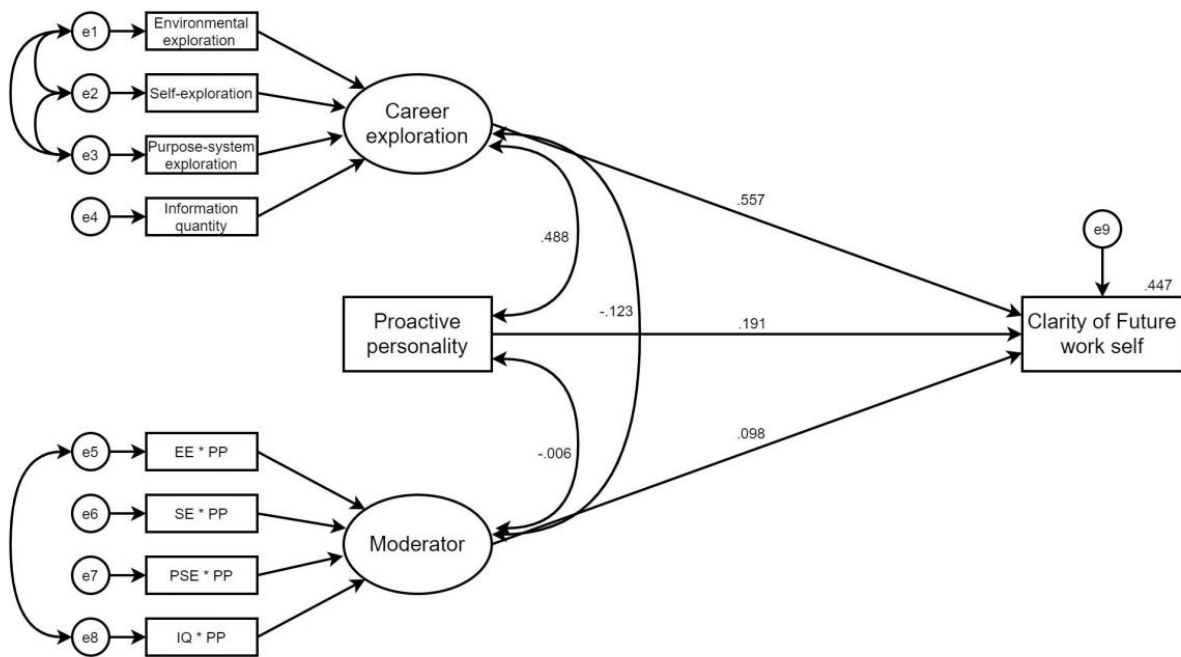
Taking proactive personality as the moderating variable, we studied the impact of career exploration on future work self-clarity, and thus constructed a structural model, as shown in **Figure 1**. In this model, CMIN/DF = 3.828, RMSEA = 0.079 < 0.08. GFI (0.958), NFI (0.968), TLI (0.96), and CFI (0.976) are all greater than 0.9, indicating that the model fits well and can be used to analyze.



**Table 2.** Correlation of three variables and their dimensions.

	1	2	3	4	5	6	7
1.Environmental exploration	1						
2.Self-exploration	0.663**	1					
3.Purpose-system exploration	0.704**	0.757**	1				
4.Information quantity	0.692**	0.632**	0.619**	1			
5.Total score of career exploration	0.896**	0.854**	0.895**	0.833**	1		
6.Proactive personality	0.333**	0.435**	0.430**	0.456**	0.467**	1	
7.Future work self-clarity	0.443**	0.408**	0.383**	0.612**	0.523**	0.462**	1

Note: \* $p < 0.05$ , \*\* $p < 0.01$ .

**Figure 1.** Structural equation model.

As shown in **Table 3**, after constructing a moderating effect model of active personality using AMOS software, the above data were obtained (all interaction data have been decentralized). It can be concluded that the interaction term between proactive personality and environmental exploration is significant, with a standard coefficient of 0.849 and a 95% confidence interval of [0.789, 0.897]; the interaction term between proactive personality and self-exploration is significant, with a standard

coefficient of 0.905 and a 95% confidence interval of [0.854, 0.935]; the interaction term between proactive personality and purpose-system exploration is significant, with a standard coefficient of 0.935 and a 95% confidence interval of [0.901, 0.96]; and the interaction term between proactive personality and the information quantity is significant, with a standard coefficient is 0.854 and a 95% confidence interval of [0.795, 0.901], indicating a significant moderating effect.

**Table 3.** The moderating effect of proactive personality on the relationship between career exploration and future work self-clarity.

Route			Standard coefficient	Lower	Upper	P
Environmental exploration	→	Future work-self	0.724	0.661	0.779	0.001
Self-exploration	→	Future work-self	0.667	0.586	0.734	0.002
Purpose-system exploration	→	Future work-self	0.651	0.58	0.713	0.001
Information quantity	→	Future work-self	0.953	0.905	1.004	0.001
Proactive personality	→	Future work-self	0.191	0.06	0.306	0.005
Environmental exploration × Proactive personality	→	Future work-self	0.849	0.789	0.897	0.001
Self-exploration × Proactive personality	→	Future work-self	0.905	0.854	0.935	0.002
Purpose-system exploration × Proactive personality	→	Future work-self	0.935	0.901	0.96	0.001
Information quantity × Proactive personality	→	Future work-self	0.854	0.795	0.901	0.001

## 4. Discussion

### 4.1 Differences in various indicators of demographic variables

The survey found that among the four dimensions of career exploration, only the score of the purpose-system exploration was significantly higher in boys than girls, with little difference in other dimensions. The purpose-system exploration is operationally defined as the degree to which an individual collects self information and environmental information purposefully and systematically. Boys in middle schools may be more macro-minded about their future career choices, while girls may pay more attention to details.

In terms of proactive personality scores, boys' scores are significantly higher than girls', indicating that boys have higher initiative. The average score of students' proactive personality in this study is 31.73, which is above the average level. In other words, most middle school students have good initiative, which is consistent with previous research.

### 4.2 The correlation between career exploration, proactive personality, and future work self-clarity

There is a significant positive correlation between career exploration and each dimension of career exploration, and future work self-clarity. That is, the higher the career exploration score, the higher the clarity of future work self.

There is a significant positive correlation between proactive personality and future work self-clarity, indicating that proactive personality can positively predict future work self-clarity.

There is a significant positive correlation between career exploration and each dimension of career exploration, and proactive personality. That is, the higher the career exploration score, the higher the proactive personality score; and vice versa.

### 4.3 The moderating effect of proactive personality on the relationship between career exploration and future work self-clarity

The results found that proactive personality has a significant moderating effect between career exploration and future work self-clarity. A highly proactive personality can enhance the connection between career exploration and future work self-clarity for middle school students. Students with a high proactive personality may be more willing to actively obtain the future career information they want through various channels, and are also more willing to actively do some future planning and exploration. For students with low proactive personality, it can increase their interest in future careers and guide them to seek and explore.

### 4.4 Research limitations and prospects

On the basis of previous exploration and social background, this study recognizes the importance of vocational education for middle school students,

and verifies the relationship between future work self-clarity, career exploration and proactive personality. The empirical research on the career development of middle school students in China is enriched, so that middle school students have a clearer understanding and plan for their future career planning. Of course, there are some shortcomings in this study. For example, the subjects were all from schools in urban areas of Beijing, and the family environment was relatively favorable, and there was a lack of subjects from other regions, so the universality of the research conclusions was unknown.

## 5. Conclusions

This article draws the following conclusions through the study of the relationship between career exploration, proactive personality, and future work self-clarity among middle school students:

(1) Middle school students' career exploration has a significant positive predictive effect on future work self-clarity.

(2) Middle school students' proactive personality has a significant positive predictive effect on future work self-clarity.

(3) The proactive personality plays a moderating role between career exploration and future work self-clarity.

## Author Contributions

Xin Yin: Responsible for literature review, data collection, data analysis and thesis writing.

Zeren Liang: Responsible for data collection and data analysis.

Shixiang Liu: Responsible for overall design and thesis writing.

## Conflict of Interest

There is no conflict of interest.

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## ARTICLE

# The Impact of Perceived Parental Expectations on Career Adaptability: The Moderating Role of Parental Career Support

Changfeng Chen<sup>1</sup>, Zeren Liang<sup>2</sup>, Shixiang Liu<sup>1\*</sup>

<sup>1</sup> Teachers College of Beijing Union University, Beijing, 100011, China

<sup>2</sup> Guangwai Campus of Beijing First Experiment Primary School, Beijing, 100052, China

## ABSTRACT

**Background:** Career adaptability is regarded as the core index to measure the adequacy of youth's "career readiness", which refers to the psychological resources of individuals to cope with current or expected career tasks, career changes or career difficulties. **Methods:** In this study, 529 students (246 male students, 46.5%, 283 female students, 53.5%) in the first grade of a senior high school in Beijing were assessed by the perceived Parental Expectation Scale, the Parental Career Support Scale and the Career Adaptability Scale. **Results:** (1) Parents' expectations, parents' career support and career adaptability were significantly positively correlated, and the scores were all higher than the average. (2) Parents' expectations and parents' careers are significantly positive predictors of career adaptability; (3) The variable of parental career support plays a moderating role in the path of perceived parental expectations on career adaptability. **Conclusions:** In the middle school stage, parents' provision of career resources has a good promotion effect on students' career preparation and coping with career difficulties.

**Keywords:** Middle school career; Perceived Parental Expectation; Parents' career support; Career adaptability

## 1. Introduction

The career counseling movement launched in the United States in the early 20th century led to the emergence of the career development theory, which

was first proposed by Parsons to answer how to achieve the best match between individuals and careers at that time. Super, Holland, Savickas and other scholars continued to enrich career theories in the future and deepen the understanding of career devel-

### \*CORRESPONDING AUTHOR:

Shixiang Liu, Teachers College of Beijing Union University, Beijing, 100011, China; Email: gorenliu@126.com

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opment<sup>[1]</sup>.

Under the background of the “double reduction” policy, it is necessary to realize the necessity of youth career development. Career education in primary and secondary schools emphasizes students’ physical and mental health, the connection between the present and the future, the cultivation of career consciousness, etc., in order to enable students to have better initiative and adaptability in future career decision-making<sup>[2]</sup>. In the period of adolescent development, the family is an important environment for children’s growth and a key variable in the transition from school to society during individual career development<sup>[3]</sup>.

Perception of parental expectations (PPE) is a concept based on parental expectations, which refers to the child’s perceived support from parents. Jin Lu, through her research on perceived parental expectations, believes that only perceived expectations can have an impact on individuals<sup>[4]</sup>. Liu Yuan believes that parents’ different attitudes towards careers will affect children’s career decisions<sup>[5]</sup>, and especially the existence of career stereotypes will easily lead to difficulties in children’s career decisions<sup>[6]</sup>. A review of previous studies shows that the research on perception of parents’ expectations mainly involves learning education, social adjustment and mental health in middle school groups, while the research on career development education is less.

Parental career support (PCS) extends from career support and mainly includes material support, emotional support, information support and suggestion support<sup>[7]</sup>. The main sources of career support for teenagers are parents and teachers. Leung et al.’s research shows that family positively promotes children’s career decision-making in terms of tools and relationship support<sup>[8]</sup>. According to Dietrich, parents’ career support is mainly embodied in actively guiding children to find their own interests and advantages, assisting them in reflection and summary, and indirectly improving their career cognition<sup>[9]</sup>. Deng Linyuan found that family support has a positive predictive effect on high school student’s career adaptability<sup>[10]</sup>. At present, most of the scales on

parental career support in China are based on the parental career support scale written by Dietrich et al., covering college students<sup>[9]</sup>.

The concept of career adaptability (CA) comes from the career development theory proposed by American career planning expert Super, which is based on the career construction theory<sup>[11]</sup>. Career construction theory believes that a career is constructed, and different career stages have different tasks, but adaptation is its core element. At present, the 4C model of career adaptability is the main model. It includes four aspects: career concern, career control, career curiosity and career confidence. Germeijs et al. found that there is a positive correlation between young people’s career adaptability and their planning, exploration, self-confidence and decision-making quality in the process of career transition<sup>[12]</sup>. On the other hand, career adaptability is also influenced by family factors. For example, Wu Shuwan, a scholar from Taiwan, found in a sample of Taiwan college students that students with high socioeconomic status had higher career adaptability than those with low socioeconomic status<sup>[11]</sup>. Hirschi’s study confirmed that family support positively predicted adolescents’ career adaptability<sup>[13]</sup>. Therefore, career adaptability is related to individual and family levels. Based on this, this study proposes hypothesis 1: Middle school students’ perception of parents’ expectations, parents’ career support and career adaptability are significantly correlated.

According to the literature review, the coverage of Chinese career research is still limited, especially in primary and secondary schools. In China, parents’ expectations often have an important impact on children’s studies and physical and mental health. Previous studies usually focus on the construction of a career system, and rarely discuss the relationship between family resources and middle school students’ career development. Liu Junping found that parents’ expectations and parents’ career support effectively promoted adolescents’ career adaptability<sup>[14]</sup>. Based on this, this study proposed hypothesis 2: Middle school students’ perception of parents’ expectations and parents’ career support significantly predicted

career adaptability. However, it is still controversial whether the higher the parental career support, the better<sup>[9]</sup>, which may be due to the adverse impact of excessive or too little involvement on the career development of adolescents. Therefore, it is also necessary to explore the role of parents' career support in the development of teenagers' careers. Based on this, this study proposes hypothesis 3: Middle school students' parents' career support plays a moderating role in the perceived parents' expectations on the path of career adaptation.

Additionally, situated in the vibrant educational landscape of Beijing, this study employs a questionnaire method to meticulously analyze the career development of first-year high school students. The strategic timing of the study, conducted before students make critical subject choices, aligns with this pivotal decision-making phase in their academic journey. By focusing on the impact of perceived parental expectations and parental career support, the findings aim not only to contribute to the theoretical framework but also to provide practical insights and data support for frontline career educators. These insights will assist in navigating career courses and enhancing the adaptability of students in this critical phase of their academic and career journey.

## **2. Materials and methods**

### **2.1 Research object**

A total of 550 students in Grade One of two middle schools in Beijing were selected by issuing paper questionnaires offline. According to the failure to answer the lie detector questions correctly (2 questions in total, and 1 question if not answered correctly), too many choices of the same option (such as "1") and incomplete situations, 21 questionnaires that did not meet the requirements were eliminated, and 529 valid questionnaires were finally recovered, with a recovery rate of 96.18%. Among them, 246 (46.5%) were male and 283 (53.5%) were female. There were 429 (81.1%) only children (OC) and 100 (18.9%) non-only children (NOC).

### **2.2 Informed consent**

Before issuing questionnaires, the research had contacted psychology teachers and parents of students in two middle schools in Beijing, and was allowed to issue paper versions of questionnaires to students in grade one. During the test, each class will have an instructor to read the notes for filling in the questionnaire. This study gives each class a certain amount of support expenses for the purchase of stationery, small gifts, etc. All participants agreed to participate in the test and were normal students receiving compulsory education.

### **2.3 Test Tool**

In this study, two middle schools in Beijing have distributed the Perceived Parental Expectation Scale (middle school version), the Parents' Career Support Scale (middle school version) and the Career Adaptability Scale. Students answered the questions by themselves, and after the answers were completed, the teachers collected them and mailed them to the researchers for data analysis.

#### ***Perceived Parental Expectations Scale (PPE, Middle School Version)***

Perceiving Parents' Expectations (middle school version) was compiled by Cheng Lin and revised by Jin Lu. The questionnaire consists of 24 questions, including academic performance (e.g., "My parents are very concerned about my academic performance"), future achievements (e.g., "My parents expect me to be very successful in the future"), moral performance (e.g., "My parents expect me to be an upright person"), interpersonal relationships (e.g., "My parents don't expect me to have many good friends"), and physical and mental qualities (e.g., "My parents don't expect me to have many good friends"). "Parents expect me to develop a good habit of loving sports") five dimensions, using five points, with the total score indicating the degree of perception of parents' expectations, the higher the total score, the higher the degree of perception of parents' expectations. In this study, the internal con-

sistency coefficient of the scale is 0.816.

### **Parental Career Support Scale (PCS, Middle School Version)**

The Parental Career-Related Behavior Scale compiled by Dietrich and Kracke and the Parental Career Support Subscale in the Chinese version of the scale revised by Guan et al. was used as a measurement tool for parental career support for high school students, with a total of 5 questions (e.g., “My parents will advise me on my career choices”), using a five-point scale, from 1 to 5, corresponding to the frequency of my parents’ career support level (very inconsistent with choice 1; very consistent with choice 5), calculated by the total score, the higher the total score indicates the higher the degree of parental career support. In this test, Cronbach’s  $\alpha$  coefficient is 0.908.

### **Career Adaptability Scale (CA)**

The Chinese version of the Career Adapting-Ability Scale (CAAS) revised by Hou Zhijin et al. was adopted<sup>[15]</sup>. The questionnaire structure and dimension were consistent with the Career Adapting-Ability Scale, which consisted of 24 questions. There are career concerns (e.g., “Caring about my life plan”), career curiosity (e.g., “Thinking about my future”), career control (e.g., “Making decisions on my own”), and career confidence (e.g., “Making decisions on my own”). “Overcome difficulties” has four dimensions, and each dimension corresponds to 6 questions. The scale uses five points, 1–5 respectively means “very inconsistent” to “very consistent”, calculated by the total score, the higher the total score, indicating the stronger the career adaptability. In this

test, Cronbach’s  $\alpha$  coefficient is 0.972.

## **2.4 Statistical methods**

SPSS 19.0 is used to conduct descriptive statistics, independent sample *t*-test, correlation analysis matrix, regression analysis and moderating effect analysis on the valid questionnaires.

## **3. Results**

### **3.1 Common method bias test**

To eliminate common method bias caused by common method variation, this article will use Harman’s single factor test method to conduct exploratory factor analysis on a total of 53 items of three variables, namely perceived parental expectations, parental career support and career adaptability based on Podsakoff’s research results. The results show that there are 17 factors with eigenvalues greater than 1 without rotation, and the first factor explained 33.151% of the variation (less than 40%), indicating that there is no common method bias in this study.

### **3.2 Descriptive statistics, *t*-test and correlation analysis**

The mean value, standard deviation and independent sample *t*-test of perceived parental expectations, parental career support and career adaptability are shown in **Table 1** below, and the correlation analysis of variables in each dimension is shown in **Table 2**.

**Table 1.** Descriptive statistics, *t*-test and correlation analysis *M* (*SD*).

	Male ( <i>N</i> = 246)	Female ( <i>N</i> = 283)	<i>t</i>	OC ( <i>N</i> = 429)	NOC ( <i>N</i> = 100)	<i>t</i>	Total ( <i>N</i> = 529)	1	2	3
1 PPE	100.48 (12.70)	98.69 (10.76)	1.64	99.91 (11.69)	97.84 (11.76)	1.59	99.48 (11.69)	1		
2 PCS	20.70 (3.932)	20.94 (3.927)	−0.68	20.70 (3.93)	20.67 (4.31)	0.46	20.83 (3.92)	0.58**	1	
3 CA	95.48 (16.34)	93.73 (14.79)	1.29	95.48 (16.34)	95.05 (15.91)	−0.35	94.52 (15.54)	0.41**	0.39**	1

Note: \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001.

**Table 2.** Correlation analysis of variables in each dimension ( $N = 529$ ).

	1	2	3	4	5	6	7	8	9	10
1 Concern	1									
2 Curiosity	0.78**	1								
3 Control	0.66**	0.68**	1							
4 Confidence	0.73**	0.73**	0.79**	1						
5 Academic	0.18**	0.18**	0.26**	0.25**	1					
6 Moral	0.29**	0.26**	0.31**	0.29**	0.36**	1				
7 Relationship	0.12**	0.15**	0.17**	0.14**	0.06	0.32**	1			
8 Physical	0.33**	0.32**	0.39**	0.37**	0.33**	0.52**	0.30**	1		
9 Achievement	0.15**	0.22**	0.22**	0.29**	0.59**	0.19**	-0.09**	0.17**	1	
10 Support	0.37**	0.34**	0.33**	0.37**	0.28**	0.43**	0.23**	0.68**	0.26**	1

The results in **Table 1** show that there is a significant positive correlation between perceived parental expectations and parental career support ( $r = 0.58$ ), between perceived parental expectations and career adaptability ( $r = 0.41$ ), and between parental career support and career adaptability ( $r = 0.39$ ). The scores were all good and above the average level, which supports hypothesis 1. Independent sample  $t$ -test results showed that gender had no significant differences in perceived parental expectations ( $t = 1.64$ ,  $p = 0.10$ ), parental career support ( $t = -0.68$ ,  $p = 0.49$ ) and career adaptability scores ( $t = 1.29$ ,  $p = 0.19$ ). There were no significant differences in perceived parental expectation ( $t = 1.59$ ,  $p = 0.11$ ), parental career support ( $t = 0.46$ ,  $p = 0.64$ ) and career adaptability ( $t = -0.35$ ,  $p = 0.72$ ).

The results of **Table 2** show that, except for the

significant negative correlation between the dimension of “future achievement” and the dimension of “interpersonal relationship” ( $r = -0.09$ ,  $p < 0.01$ ), and no significant correlation between “interpersonal relationship” and “academic performance” ( $r = 0.06$ ,  $p > 0.05$ ), the other dimensions are significantly positively correlated ( $p < 0.01$ ).

### 3.3 Regression analysis

Using stepwise regression analysis, gender and only child as control variables, model 1 is established. Adding perceived parental expectation (PPE) and parental career support (PCS) as predictive variables, model 2 is established. The interaction item between PPE and PCS is added as a predictor, model 3 is established, and the regression analysis model is constructed, as shown in **Table 3**.

**Table 3.** The regression model.

	Model 1			Model 2			Model 3		
	$\beta$	$t$	$p$	$\beta$	$t$	$p$	$\beta$	$t$	$p$
Gender	-1.74	-1.28	0.19	-1.35	-1.11	0.26	-1.10	-0.91	0.35
One-child situation	0.58	0.33	0.73	1.51	0.97	0.32	1.37	0.89	0.37
PEE				0.35	5.59***	0.00	0.37	5.82***	0.00
PCS				0.95	5.03***	0.00	1.09	5.65***	0.00
PEE×PCS							0.04	3.23***	0.00
$R^2$	0.00			0.21			0.22		
$F$	0.89			35.12			30.70		
$p$	0.41			0.00			0.00		
$\Delta R^2$	0.00			0.20			0.22		
$\Delta F$	0.89			35.12			10.48		
$\Delta p$	0.41			0.00			0.00		

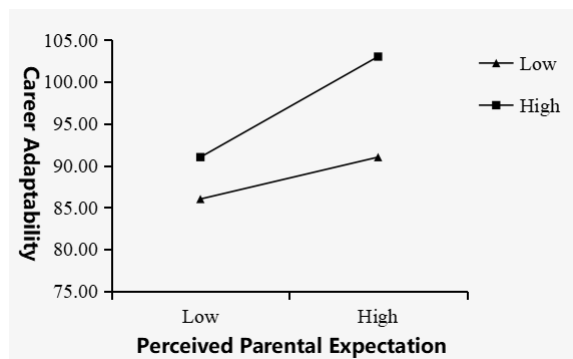
The results of regression analysis showed that perceived parental expectation, parental career support and interaction terms were significant predictors of career adaptability ( $p < 0.001$ ). Hypothesis 2 is supported. Gender is significant in predicting career confidence ( $\beta = -0.86$ ,  $t = -2.20$ ,  $p < 0.05$ ), but not significant in predicting other dimensions of career adaptability ( $p > 0.05$ ).

### 3.4 Analysis of the moderating effect

Model 1 in PROCESS 3.0 plug-in of SPSS 19.0 compiled by Hayes was used to test the adjustment effect<sup>[16]</sup>. First, gender (C1) and only child (C2) were taken as control variables, then career adaptability was taken as the dependent variable (Y), and each dimension of perceived parental expectation was taken as the independent variable (X), to investigate the moderating effect of parental career support (M) on perceived parental expectation (X) and career adaptability (Y). The adjustment model is shown in **Table 4** and **Figure 1**.

**Table 4.** The moderating model ( $N = 529$ ).

	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	Lower 95%	Upper 95%
Constant	93.45	0.68	135.70***	0.00	92.09	94.80
X	0.37	0.63	5.90***	0.00	0.24	0.49
M	1.08	0.19	5.60***	0.00	0.70	1.45
X × M	0.04	0.01	3.20***	0.00	0.15	0.65



**Figure 1.** The moderating effect.

The moderating effect results showed that parental career support and perceived parental expectation interaction terms were significant ( $\beta = 0.04$ ,  $p < 0.001$ , CI [0.15, 0.65]), and parental career support

is established as a moderating variable, supporting hypothesis 3.

## 4. Discussion

This study is based on the career development of senior students in two middle schools in Beijing, and it is found that the overall career development level of middle school students is relatively good, but there is still room for development. By exploring the relationship between middle school students' perception of parents' expectations, parents' career support and career adaptability, it is found that the former two have a positive predictive effect on career adaptability, and support the moderating effect of parents' career support in the path. The results are consistent with Deng Linyuan<sup>[10]</sup>, but the results on the impact of gender on career adaptability are still inconsistent with previous studies.

In China, "looking forward to the son, looking forward to the woman" has always been the wish of parents for their children. Generally speaking, Chinese families play the role of "supporters" for their children's academic growth, especially in high school<sup>[17]</sup>. This is because high school academic performance is closely related to China's college entrance examination, and the score of the college entrance examination largely determines the choice of college major and the level of future career achievement. According to Maccoby and Martin's parenting style theory, parenting can be divided into authority, dictatorship, neglect and tolerance<sup>[9]</sup>. The parents' high level of career expectations and corresponding career support behaviors are similar to authoritative parenting, which is characterized by high control and acceptance. The results of this study showed that authoritative parenting, which refers to high perceived parental expectations and career support behaviors, can positively promote children's career development, especially in terms of career adjustment. High perceived parental expectation indicates that parental supervision of children promotes self-restraint, while high parental career support can obtain positive feedback from parents on career exploration, career decision-making and other events, which in turn pro-



motes career adaptation.

This study did not find a difference between gender and only child in the total score of the variable, but found a significant gender difference in the dimension of career confidence. The relationship between gender and career adaptability has always been concerned<sup>[18]</sup>, but no consistent research conclusion has been reached. Because of the physiological structure, cognitive concept and role expectation, career decision often has gender differences<sup>[19]</sup>. In China, men are more likely to be expected to be scientists or politicians, while women are more likely to be expected to be teachers or doctors. Some studies believe that gender has no significant impact on career development<sup>[13]</sup>. In Taiwan, scholar Wu Shuwan found in a career study of Taiwan college students that male college students in Taiwan scored significantly higher on career adaptability than female students, indicating that career studies often have differences between Chinese and Western and cross-cultural backgrounds<sup>[11]</sup>. In this study, although no gender difference in career adaptability was found, it was found that men scored significantly higher than women in the dimension of career confidence, and the research results were consistent with Lin Yuyi, who believed that men were more optimistic about the future<sup>[20]</sup>. In short, this study did not find the effect of gender on middle school students' career adaptability, but found that boys had a significant advantage in career confidence.

Through the correlation analysis of each dimension of the variables, it is found that except for the significant negative correlation between "interpersonal relationship" and "future achievement", and no significant correlation between "academic performance", the other variables show a significant positive correlation, reflecting the correlation between family and career. Lin Yuyi believes that in high school, individuals are more guided by their parents, and teenagers tend to respect their parents' opinions<sup>[20]</sup>. Due to the particularity of the sampling area in this study, the academic pressure in high school is great, and students' pursuit of "achievement" or "study" and "interpersonal" often "can not have both fish and

bear's paw". In other words, if individuals pay more attention to academic achievement, interpersonal relationships are correspondingly neglected. This is a new finding in this study, but it also conforms to the law of middle school students' psychology and behavior under the background of Chinese education.

This study also found the moderating effect of parental career support. The biggest difference between parents' career support and perceived parents' expectations is that parents' career support is a more practical action, while perceived parents' expectations pay more attention to their own awareness, the former is more explicit and the latter is more implicit. According to the study of Lin Yuyi, middle school students have a relatively good sense of self-mastery in career development, but there is still much room for improvement in career planning and execution<sup>[20]</sup>. Parental career support symbolizes the degree of parent-child career interaction<sup>[21,22]</sup>. Active and effective career support is conducive to the construction of family career action work mode, the promotion of youth's career exploration and sense of security, and the further enhancement of the prediction of career adaptability.

## 5. Insufficient and prospect

Some limitations of this study are as follows: First, sampling restrictions. This study only took samples from two middle schools in one district and only involved one grade. In terms of validity, the ecological validity and external validity of this study need to be improved. Second, limitations of research methods. This study adopted a self-evaluation method and lacked data feedback from parents.

Future research prospects: The first is to enrich sampling. The sample group can be enriched from cross-regional, cross-cultural backgrounds, and cross-grade perspectives to improve ecological validity. The second is the diversification of research methods. Longitudinal research can be combined to dynamically examine the impact of grades on middle school students' career adaptability, and qualitative research can be used to conduct in-depth interviews on family situations to obtain objective and factual

career interaction data and improve research reliability. The third is to deepen the theoretical discussion. Further explore the positive effects of middle school students' career resources such as teacher support, peer encouragement, and Internet use on their career development. The fourth is practical research. With the help of theoretical research, promote the development and design of middle school career courses, systematically assist middle school students in cultivating a good career awareness, and improve their ability to actively adapt to the career environment to plan major selection and employment direction as early as possible.

## 6. Conclusions

This study explores the relationship between perceived parental expectations, parental career support, and career adaptability among middle school students, and draws the following conclusions:

(1) Perceived parental expectations and parental career support have a significant positive predictive effect on career adaptability;

(2) Parental career support plays a moderating role in the relationship between perceived parental expectations and career adaptability.

## Author Contributions

Changfeng Chen: Responsible for literature review, data collection, data analysis and thesis writing.

Zeren Liang: Responsible for data collection, data analysis.

Shixiang Liu: Responsible for overall design and thesis writing.

## Conflict of Interest

There is no conflict of interest.

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## Appendix

### Questionnaire

Dear students,

Hello! You are invited to participate in a small survey of junior high school students. This survey is anonymous, and all options are not good or wrong, please answer according to the actual situation, the

survey results are for research purposes only, and all answers will be strictly confidential, please do not have any concerns, carefully answer the following questions. If you have any questions during the answering process, please ask the interviewer in time, thank you for your cooperation!

First please fill in the personal information: (tick “√” in the corresponding option)

Gender: ① male ② female

Only child: ① Yes ② No

### Questionnaire 1: Perceived parental Expectation questionnaire

Please mark “√” in the corresponding position according to the degree of conformity between the described content and your actual situation, thank you!

	Totally Disagree	Partially Disagree	General Agree	Partially Agree	Totally Agree
A1.My parents are concerned about my academic performance.	1	2	3	4	5
A2.My parents expect me to be near the top of my class in the exam.	1	2	3	4	5
A3.My parents expect me to get better grades.	1	2	3	4	5
A4.My parents expect me to have at least a college degree in the future.	1	2	3	4	5
A5.My parents expect me to be very successful in the future.	1	2	3	4	5
A6.My parents expect me to have a high social status in the future.	1	2	3	4	5
A7.My parents expect me to earn a lot of money in the future.	1	2	3	4	5
A8.My parents expect me to be an expert in some field in the future.	1	2	3	4	5
A9.My parents expect me to respect the old and love the young in my life.	1	2	3	4	5
A10.My parents expect me to be an upright person.	1	2	3	4	5
A11.My parents think it's important that I have a passion for helping others.	1	2	3	4	5
A12.My parents don't expect me to have many good friends.	1	2	3	4	5
A13.My parents didn't care if I was popular at school.	1	2	3	4	5
A14.My parents didn't care if I was willing to make friends with others.	1	2	3	4	5
A15.My parents did not encourage me to care for and help my classmates.	1	2	3	4	5
A16.My parents didn't care whether I could get along well with my classmates at school.	1	2	3	4	5
A17.My parents didn't care if I had positive interactions with my teachers.	1	2	3	4	5
A18.My parents are concerned about my health problems such as colds and illnesses.	1	2	3	4	5
A19.My parents encourage me to form the good habit of loving sports.	1	2	3	4	5
A20.My parents want me to have a regular life.	1	2	3	4	5
A21.My parents think it is very important for me to form good eating habits.	1	2	3	4	5
A22.My parents think it important that I have regular health check-ups.	1	2	3	4	5
A23.My parents want me to have a proper way to relieve stress.	1	2	3	4	5
A24.My parents want me to develop morally, intellectually and physically.	1	2	3	4	5

## Questionnaire 2: Parental Career Support questionnaire

Please mark “√” in the corresponding position according to the degree of conformity between the described content and your actual situation, thank you!

	Totally Disagree	Partially Disagree	General Agree	Partially Agree	Totally Agree
B1.My parents will discuss my career interests and abilities with me.	1	2	3	4	5
B2.My parents encouraged me to find information about careers I was interested in.	1	2	3	4	5
B3.My parents encouraged me to take part in social practice.	1	2	3	4	5
B4.My parents will give me advice on my career choice.	1	2	3	4	5
B5.My parents would discuss different career opportunities with me.	1	2	3	4	5

## Questionnaire 3: Career Adaptability questionnaire

Please mark “√” in the corresponding position according to the degree of conformity between the described content and your actual situation, thank you!

	Totally Disagree	Partially Disagree	General Agree	Partially Agree	Totally Agree
C1.Thinking about what my future holds.	1	2	3	4	5
C2.Recognizing that the choices I make today are tied to my future.	1	2	3	4	5
C3.Plan for the future.	1	2	3	4	5
C4.Increasingly concerned about my education and career choices.	1	2	3	4	5
C5.Plan how to achieve my goal.	1	2	3	4	5
C6.Care about my life plan.	1	2	3	4	5
C7.Explore my surroundings.	1	2	3	4	5
C8.Look for opportunities to grow on your own.	1	2	3	4	5
C9.Investigate the possible options before choosing.	1	2	3	4	5
C10.Explore different ways of doing something.	1	2	3	4	5
C11.Explore the issues I care about.	1	2	3	4	5
C12.Be curious about new opportunities.	1	2	3	4	5
C13.Stay happy.	1	2	3	4	5
C14.Make your own decisions.	1	2	3	4	5
C15.Take responsibility for your actions.	1	2	3	4	5
C16.Stick to your beliefs.	1	2	3	4	5
C17.Believe in yourself.	1	2	3	4	5
C18.Do what I think is right.	1	2	3	4	5
C19.Accomplish tasks efficiently.	1	2	3	4	5
C20.Do what needs to be done.	1	2	3	4	5
C21.Learn new skills.	1	2	3	4	5
C22.Enhance my abilities.	1	2	3	4	5
C23.Overcome difficulties.	1	2	3	4	5
C24.Solve the problem.	1	2	3	4	5



## ARTICLE

# Does Work Mean Something Different to Men and Women? An Empirical Examination of the Psychological Contract in the Workplace across Two Countries

Ron Boddy<sup>1\*</sup>, Dorota Bourne<sup>2</sup>, Mustafa Ozbilgin<sup>3</sup>, Devi Jankowicz<sup>1</sup>

<sup>1</sup>Edinburgh Business School, Heriot-Watt University, Edinburgh, EH14 4AS, UK

<sup>2</sup>Henley Business School, University of Reading, Reading, RG6 6UR, UK

<sup>3</sup>Brunel Business School, Brunel University, London, UB8 3PH, UK

## ABSTRACT

A substantial literature has emerged in recent years advocating the view that women and men have different definitions, approaches and emanating perspectives of work. However, many of these assumptions regarding gender differences in construal of work are not empirically supported. Within the framework of the psychological contract, this study contributes to the literature by analysing the constructs of work obtained from both sexes, proportionately distributed across comparable cohorts of workers in the Czech Republic and the UK. The findings show a high degree of congruence in the construct distributions for both sexes, supporting the argument that gender inequality is socio-cultural in origin and not a product of gender-based differences in the construal processes. Suggestions are made concerning implications for practice.

**Keywords:** Gender equality; Work; Psychological contract; Leadership development

## 1. Introduction

Much of the recent literature assumes that women and men hold different conceptions of work and

that this may require fixing for women's effective inclusion in the workforce. One of the most remarkable popular texts has been Sheryl Sandberg's 'Lean In', which encourages women to join in workplace

### \*CORRESPONDING AUTHOR:

Ron Boddy, Edinburgh Business School, Herriot Watt University, Edinburgh, EH14 4AS, UK; Email: [ron\\_boddy1@hotmail.co.uk](mailto:ron_boddy1@hotmail.co.uk)

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decisions, discussions and processes. The fundamental assumption is that women and men have different constructs of work and corresponding working styles and behaviours. This and other postfeminist pieces are criticized for failing to recognize the gendered treatment of women and men that condition their behavioural responses. However, in this paper, we question the assumption of fundamental gender differences in how women and men define and frame work.

Recent studies, grounded epistemologically in constructivism and social constructionism, respectively posit that work predispositions can emerge from personal experience and social interaction before individuals enter the workplace <sup>[1,2]</sup>. In particular, cultural influences appear to materially influence individuals' pre/dispositions to work, manifest in their psychological contracts with their employers <sup>[3,4]</sup>. This study focused on differences in the construal of work between age-defined cohorts of differing nationalities; we offer an analysis that examines sex differences in the construal of work among this cohort in two different national settings.

Grounded in the phenomenology of Hegel <sup>[5]</sup> and Husserl <sup>[6]</sup>, constructivism posits that people develop their interpretations of a shared reality from the flow of lived experience. Kelly introduced constructivist thinking into the domain of psychology with his theory of personal constructs <sup>[7,8]</sup>, recognising that the range of available interpretations of phenomena, and thereby the range of individuality, is infinite (constructive alternativism). Kelly proposes that each person develops a hierarchical mental structure that is experientially derived, unique and effective to the degree it can anticipate future events. Central to this perspective is the concept of a bipolar 'construct'; as an expression of one thing as similar to something else (emergent pole) but unlike another (implicit pole), the construct is the basic unit of meaning within personal construct psychology, whilst the idea of interrelated constructs contributes to its explanation of cognition and rational thought. Kelly provides 11 corollaries that explain the organisation and functioning of the construct system, presenting it as a flexible and adaptive mental structure that is constantly under revision as new

phenomena are encountered. Personal construct theory is distinguished from other psychologies by its epistemological completeness. This work follows Kellian principles to examine sex-based differences in the construal of work.

Whilst the subject of gender inequality has increasingly permeated the Western popular and academic narratives in recent years, the definition of the term 'gender' has itself been subject to revision in the light of recent socio-cultural changes in self-definition and its associated lexicon. On one hand, it is increasingly rare to encounter academic accounts that view 'gender' as synonymous with 'sex' as a simple biological demarcation between male and female, which is often referred to as the 'gender binary' <sup>[9]</sup>. Indeed, the term 'gender' can encapsulate a wider raft of preferred designations such as nonbinary and transgender identities <sup>[10]</sup>. Moreover, the latter suggests that a clear binary distinction expressed in terms of differences assumed to be profoundly biological (those expressed in neurological and neuro-hormonal terms) is unhelpful. Hare-Mustin and Maracek <sup>[11]</sup> suggest that "... from a constructivist standpoint, the 'real' nature of male and female cannot be determined. Constructivism focuses our attention on representations of gender, rather than on gender itself". Kinsella <sup>[12]</sup> suggests that "... the determination of sex is a process of construction within a social reality that is already gendered", supporting the view that it "...is something that one practices (in nearly every sense of the word), rather than only what one inflexibly is" <sup>[13]</sup>.

It is clear that the binary distinction, expressed in relatively unobvious terms based on biological sex difference, is profoundly important in the way in which work is organised, structured and rewarded <sup>[14-16]</sup>. Here, perceptions matter, and three bodies of research can provide insight into how this impacts behavior in organizations. Psychological Essentialism and Entity Theory provide insight to help understand the popular beliefs that personal attributes are largely biological, unchanging and immutable <sup>[17]</sup>, Social Role Theory focuses on the ways in which gender roles are culturally determined and socially created <sup>[18]</sup>, and, system Justification Theory proposes that

people are influenced by a fundamental motive to see the current system—that is, laws, social structures, and societal norms—as good, fair, and right<sup>[19]</sup>, indicating the normative power of such perceptions.

### 1.1 Some contemporary explanations of workplace sex bias

The female leadership talent pool is both socially and commercially attractive, perhaps even more so than its male counterpart<sup>[20]</sup>. Nevertheless, the gender disparity in leadership representation, which inversely correlates with seniority<sup>[21]</sup>, and pay<sup>[22,23]</sup> are both clearly evident in the literature and beyond. Consequently, it is imperative to explore additional factors that may serve as plausible explanations for this imbalance.

The themes below touch upon some contemporary considerations, although the literature is vast, complex and evolving. These themes do not purport in any way to represent a robust taxonomy of current thinking; rather, they are presented collectively as a broad contextual framework that is used later in the paper to aid the interpretation of the results from this study.

#### *Systemic workplace bias*

Some commentators have observed that systemic cultural bias percolates organizations<sup>[24]</sup>, whose leadership stereotypes tend to be masculine<sup>[25]</sup>, and that women can be subject to prejudicial performance evaluation<sup>[26]</sup> where companies fail to provide them with legitimate credibility<sup>[27]</sup>. If leader-subordinate relationships within a masculine environment are both (masculine) social and (masculine) values-laden, it would be unsurprising to see leaders favour and promote (male) subordinates who share their own (masculine) values, such that the (masculine) culture will persist in the absence of any pressure for change. As Foucault<sup>[28]</sup> argues, those who control the power also control the knowledge (or received wisdom) and thereby the cultural narrative.

Aspiring female leaders must navigate these masculine norms to break the ‘glass ceiling’. Trompenaars<sup>[29]</sup> suggests that “...the way to the top in any organization is to adopt its most salient

values and eschew its least salient”, arguing that, for women, this means adapting to the dominant (masculine) culture and measuring their success according to its yardsticks, perhaps compromising their identities in the process<sup>[30]</sup>. The challenge for women leaders, who are stereotypically expected to be communal but as leaders are expected to be agentic, is a ‘double bind’, where too much agency can result in dislike and too much communion can create the perception of ineffectiveness. Thus, “successful female leaders often engender hostility, are not liked, and are personally derogated for violating gender stereotypic expectations”<sup>[31]</sup>. In some cases, they may even shun junior female colleagues<sup>[32]</sup>. Where women leaders simply adopt and perpetuate the masculine cultural paradigm, the potential for desirable gender influence is neutralised, somewhat ironically (and almost certainly unconsciously) fuelling the inequity.

#### *Cultural pressures*

Hofstede<sup>[33]</sup> argues that groups are winning over individuals in the ‘battle’ for cultural replication, posits that the “...wish to be a good, upstanding member of the community is ubiquitous, and human emotions associated with that tendency such as pride, awe, shame and guilt can be violent. These emotions cause people to devote their lives to their group...”. The pressure for women to conform to the cultural gender stereotype is prevalent, suggesting that any change will need widespread social acceptance to be effective. Such change can happen slowly and, in less liberal cultures, may be fiercely opposed.

#### *Personal dispositions*

Some commentators have drawn attention to psychological considerations that may contribute to gender imbalance within the workplace. Two are of specific relevance to this study:

The first relates to the process by which women come to take up the mantle and define themselves as leaders. The process of integrating the leader identity within the ‘core self’ is argued to be easier for men because “people see men as a better fit for leadership roles partly because the paths to such roles were

designed with men in mind; the belief that men are a better fit propels more men into leadership roles, which in turn reinforces the perception that men are a better fit”<sup>[34]</sup>. The fact that men and women respectively associate status and relationship quality with success at work<sup>[35,36]</sup> reinforces the argument concerning “fit”; if men occupy the majority (if not all) of the senior roles in largely masculine cultures, then masculinity can effectively become synonymous with seniority and, de facto, a leadership prerequisite to those (men) who make promotion decisions. Indeed, and for the same reasons, those women who do achieve seniority may encounter difficulties in legitimising their roles<sup>[37]</sup>.

McKenzie<sup>[38]</sup> posits a progressive journey for women would-be leaders that involves four discrete phases: (1) views of leadership as external to the self, (2) positional leaders, (3) incorporation of self-as-leader, whether in a position or not, and (4) leading for social change. Ibarra, Ely and Kolb<sup>[39]</sup> describe this transition as a fragile process that is often compromised by the more subtle institutional discriminations that characterise ‘second generation’ gender bias<sup>[40]</sup> and argue for specific strategies to help women navigate the self-identification challenge.

The second consideration concerns women’s apparent willingness to accept lower levels of remuneration than men. Whilst the gap is narrowing, particularly among younger age groups<sup>[41]</sup>, an imbalance may persist because many older women are prepared to compromise in response to normative pressures originating from the received wisdom, moderating their expectations accordingly. Auspurg, Hinz and Sauer<sup>[42]</sup> suggest that, instead of benchmarking against male holders of the same role, women tend to compare themselves to other underpaid women when considering equity in remuneration. Once again, the norms of the culture, along with its embedded stereotypes, appear to be resisting the impetus for change.

## 1.2 Constructivism, gender, sex and work

Piaget’s<sup>[43]</sup> seminal model of child development is a keystone of constructivist thought. Some limited

constructivist literature that demarcates sex types in human development augments this thinking. Adams-Webber and Neff<sup>[44]</sup> show how children increasingly differentiate themselves from their parents and their parents from each other, noting that girls distinguish themselves from their fathers far more than boys do. Research among children<sup>[45]</sup> shows that females tend:

*“...to produce longer self-characterizations that are more detailed, more coherent, and more focused on the self...they made more frequent mention of friends and were generally more inclined to refer to others in positive terms... find it easier to focus on their own emotions and those of others, particularly on positive emotions such as joy... perceiving themselves as competent in managing and controlling events”.*

The notion of innate sex-based differences in self-confidence sometimes surfaces in the gender-related narrative and beyond. Rucker and Gendrin’s<sup>[46]</sup> investigation of self-construal (among Westerners) found no difference in self-esteem ratings derived from direct feedback but did observe a tendency for females to derive greater satisfaction than males from indirect social endorsement. Liben et al.<sup>[47]</sup> draw on several constructivist theories that pertain to gender during development, defining children as agentic, actively assimilating experiences to develop sex-role values and gender cognitions (schemata). To varying degrees, these theories speak to the influence of socialised culture alongside personal experience in the development of gender dispositions. Significantly, their findings demonstrate that both males and females strongly demarcate activities and occupations by sex but are less discriminating in defining personal traits as either masculine or feminine, suggesting a possible softening in Western social attitudes that contribute to individual construction of the latter.

The notion that, with ongoing socialisation, females exhibit a significantly higher degree of cognitive complexity than males in the construal of role relationships was established over half a century ago<sup>[48]</sup>. More recent research<sup>[49]</sup> substantially demonstrates how women differ from men in several cognitive functions including verbal ability, reading comprehension, writing, fine-motor coordination and

perceptual speed. Drawing on Kelly's explanation of sociality as a psychological process requiring one party to understand the construing process of another in order to enter into a social relationship, Adams-Webber<sup>[50]</sup> highlights the possibility of communication problems between genders. Having established higher levels of complexity (as identified by differentiation scores) in females than in their male partners, he notes that while a more cognitively complex partner can encourage the development of complexity in a less cognitively complex partner, he also suggests (as a possibility for further study) that differences in cognitive complexity between partners may lead them to experience 'considerable difficulty in establishing and maintaining a mutually satisfactory level of sociality'. This seems consistent with other findings<sup>[51]</sup> that women define themselves as higher in relational interdependence than men, and men define themselves as higher in independence/agency than women. The implication is that women consider themselves in terms of a social role more than men do, while men define themselves in terms of independence/agency.

Some contributors<sup>[52]</sup> draw directly on personal construct theory to show how gendered processes influence career choice, leading to different outcomes for males and females. They propose three types of intervention to help individuals reconstrue their dispositions and, in doing so, extend the range of choices available to them.

Despite prior research showing differences by sex in perceptions of supervisor-subordinate relationships, satisfaction with communication and decision-making processes<sup>[53]</sup>, along with significant differences in the descriptions of a disliked co-worker given by women and men<sup>[54]</sup>, more recent research found little sex-based differences in the construction of expected co-worker behavior when measured against the culture of the organization. In summary, "...women and men in the organization may be using the same 'shoulds' and 'ought tos' as bases for evaluating, for example, their supervisors. However, their perceptions of the degree to which their supervisors 'measure up' are quite different"<sup>[55]</sup>.

Some research<sup>[56]</sup> has used the grounded constructivist technique to ascertain that women resort to the enactment of their femininity, adopt male characteristics, seek mentorship and draw on intrinsic motivational factors in response to organisational practices that uphold gender discrimination and bias.

Following the constructivist paradigm, this paper re-examines data from an earlier study on the construal of work<sup>[3]</sup>, this time from the perspective of sex. Research design and methodology are summarised in the forthcoming sub-sections, full details of which are provided in the associated research<sup>[4]</sup>.

## 2. Materials and methods

The research objective is to identify differences between sexes in the construal of work, with the following specific research question in mind:

"How does the construal of work differ between males and females of two different nationalities working for the same financial services organisation, with particular reference to a) the relative importance placed on interpersonal relationships at work, b) the influence of male/female stereotyping in its construal, and the importance of c) ethics and d) remuneration to each sex?"

### 2.1 Empirical work

The research drew on the principles outlined in Kelly's personal construct theory<sup>[7,8]</sup> to explore the work dispositions of two nationalities, respectively with and without experience of working within a command economy, under the theme of the psychological contract<sup>[57]</sup>.

The psychological contract is recognised in the literature as an individual mental construction that (a) spans all of the beliefs of an employee<sup>[58-60]</sup>, (b) concerning the obligations of both worker and employer<sup>[61,62]</sup>, (c) held consciously and otherwise<sup>[63-65]</sup> that is (d) continually reshaped by experience<sup>[66]</sup> to provide (e) a representation of those beliefs at a particular point in time<sup>[67-69]</sup>.

The psychological contract differs from a legal contract in two key respects because it is largely



tacit, residing in the mind of the individual employee, and continually revised in the flow of experience. In this sense, it has all the qualities of a Kellian construction. Furthermore, it is not an agreement. Because its ‘terms’ are held solely and tacitly by the employee in the form of an expectation of reciprocity without those terms necessarily being expressed by the employer, there can be no agreement with the employer in the accepted legal sense. In this respect, the term ‘contract’ can be considered a misnomer.

## 2.2 Research design

Because much of the personal meaning involved in a psychological contract tends to involve unspoken elements<sup>[70]</sup>, the repertory grid was chosen as a technique well-suited for surfacing the various meanings involved<sup>[71]</sup> during the initial data collection phase. Given that the psychological contract is shaped by and reflects personal values that are already established when individuals enter the workplace<sup>[72–74]</sup>, data on the participants’ personal values were collected in a second round, using laddering technique.

Constructs were obtained through standard triadic elicitation. Here, respondents are asked to identify which two of three elements (or examples of the topic under examination) share a similarity, the third being contrasted; the reason underlying the contrast is used to specify the construct<sup>[75]</sup>. Once elicited, the constructs present in the whole research sample of respondents were aggregated through content analysis to identify the kinds of constructs and values that characterize the male and female cohorts within the sample.

## 2.3 Participants

Four separate groups comprising staff working within the Czech and UK operations of the financial services case organization at the time of the research were selected for the study on a purposive sampling basis. The sample comprised equal cohorts with and without command economy experience (for the Czech component only, the comparable UK

group featured staff of similar age). All had work experience with the case organization and at least one other company. Details of the sample can be seen in **Table 1**.

## 2.4 Procedure

During enlistment, participants were given an overview of the psychological contract concept and a short, written description of the research objectives. Each committed to two separate 1-hour interviews aimed at “*To identify situations in your working life where you felt you had a good or poor psychological contract*”. The first interview aimed to elicit the constructs relating to significant psychological contracts in the interviewee’s working life by inviting a comparison between three of the elements shown in **Table 2** and asking how two were similar yet different from the third. The constructs identified in the first interview were then explored further in the second and “laddered”<sup>[76]</sup> to arrive at individual personal values. **Table 2** shows the supplied elements the interviewees were asked to think about when remembering their own particular past and current experience of contracts.

## 2.5 Analysis

411 constructs were elicited from all 40 interviewees. They were pooled into one dataset and categorized according to meaning, to provide information about the different meanings present in the sample as a whole. The categories were derived from the data, following the ‘bootstrapping’ procedure described in Jankowicz<sup>[77]</sup>. To ensure reliability, the same categorization process was undertaken independently by a qualified post-doctoral collaborator and the two outcomes were compared and negotiated to achieve an acceptable level of congruence (93% agreement, Cohen’s Kappa 0.92, Perrault-Leigh Index 0.96).

A content analysis of the constructs offered by a group of participants does not capture the data present in the rating of elements on their constructs, but it is possible to draw on the information

Table 1. Sample composition.

Business unit	Subsidiary		UK head office	
Location	Czech Republic		England	
Qualification	English-speaking Czech nationals working in departments outside of the author's direct control in the Prague Head Office		US or UK nationals working in the London Regional Head Office	
Selection process	Selective identification according to given criteria from company staff register		Selective identification according to given criteria from staff registers for departments deemed accessible for the research by HO	
Groups	Group 1	Group 2	Group 3	Group 4
Selection	10 staff with command economy work experience	10 staff without command economy work experience	10 staff of similar age to staff from Group 1	10 staff of similar age to staff from Group 2
Gender (M,F)	5,5	5,5	7,3	3,7
Age				
Minimum	50	30	51	27
Maximum	61	46	67	44
Average	55	36	55	35
Years Working				
Minimum	27	5	23	6
Maximum	42	23	47	23
Average	33	14	35	14
Years With Case Org.				
Minimum	2	2	2	2
Maximum	25	20	28	15
Average	13	7	10	7
No. of Employers				
Minimum	2.0	2.0	3.0	2.0
Maximum	9.0	5.0	8.0	7.0
Average	4.3	3.1	4.6	3.8
No. of Departments Spanned	5	6	5	7

Table 2. Supplied repertory grid elements.

Element	Elicit constructs concerning...
The contract I imagined before starting work	Cultural influences
My first contract	Work socialization
My best contract	Individual perception
My most typical contract	Perpetuation through reciprocity
My worst contract	Sensitivity to breach
The contract immediately before I last changed employer	Sensitivity to breach
My current contract	Work engagement
My ideal contract	Work as identity and meaning

present in each individual respondent's ratings to establish the personal salience of their constructs, thereby preserving individual meanings within a

group as a whole. This was done by *supplying* a construct, "Good psychological contract—poor psychological contract" to each respondent's grid.

This involved computing a similarity score for each interviewee by comparing their ratings on the elicited constructs to the ratings they provided for the supplied construct<sup>[78]</sup>. This involved computing a similarity score for each interviewee by comparing their ratings on the elicited constructs to the ratings they provided for the supplied construct, with those coded “High” signifying particular salience to the individual’s construing of the psychological contract. Distinguishing between ‘All’ and ‘High Salience’ constructs elicited during the research in this way provides insight into the intensity of meaning manifest within each of the construct categories identified during the research.

During the laddering procedure mentioned above, a total of 284 values were elicited from the same 40 participants. These values were also subjected to the same ‘bootstrapping’ exercise to arrive at a robust categorisation, with the same tests showing reliability within acceptable tolerances (92% agreement, Cohen’s Kappa 0.90, Perrault-Leigh Index 0.95).

### 3. Results

#### 3.1 Constructs

The constructs elicited during the first wave of research interviews are summarised in **Table 3**, and distributed according to the sex of the respondent. Separate distributions are included for ‘All’ and ‘High Salience’ constructs.

The total number of constructs (216) elicited from females within the sample is somewhat higher than the male total (195). Despite this difference, the heuristic in this respect is that both sexes in the sample find a broadly equal degree of meaning in work.

#### *Interpersonal relationships*

The importance of the social qualities of work to both sexes is clear from the rankings of ‘Organizational Culture’ and ‘Team Dynamics’; these categories rank 1 or 2 at the ‘All’ and ‘High Salience’ levels, with broadly similar concentrations for each sex. Above all else, **work meaning seems to reside most deeply in**

**its social qualities for both males and females.**

#### *Male/female stereotyping*

There is relatively little in the findings that speaks to or supports any assertion that women and men construe work in materially different ways. Given the extensive literature surrounding (the lack of) workplace equality, the distributions show a perhaps surprising degree of construal similarity. Both male and female cohorts share the same top five construct categories, which respectively account for 111 (57%, M) and 121 (56%, F) of ‘All’ constructs, and 59 (68%, M) and 52 (59%, F) of ‘High Salience’ constructs. Echoing and developing the previous point, this shows that, at a high level of construing, both sexes find not only the same degree of meaning in work but also that they find it in relation to the same qualities. **There is a high degree of congruence in the way males and females within the sample construe work—appreciably more than sets them apart.**

The single exception here, which may indicate a sex-based difference, is only observed at the ‘High Salience’ level, where Autonomy (3rd for both males and 5th for females in the ‘all’ distribution), falls out of the top 5 categories, whilst Relationship With Boss and Role Purpose become more important for males and females respectively. This is discussed in more detail later in the paper.

#### *Ethics and remuneration*

The data suggest that both categories are relatively unimportant to participants, ranking between 8th and 12th at both levels of analysis. Clearly, **neither sex within the sample places a particularly high value on Work-life balance or Ethics in their individual constructions of work.**

#### 3.2 Values

Values are superordinate constructs that are highly influential in both self-definition and the moderation of individual thought and action<sup>[79,80]</sup>.

Values were elicited during the second wave of interviews, with categorisation and rank-ordering shown in **Table 4**.

**Table 3.** Distribution of all and high salience construct categories by sex.

		All constructs	%	Rank	High salience constructs	%	Rank
Organizational culture	Male	37	55	1	18	58	1
	Female	30	45	2	13	42	1
	<b>Total</b>	<b>67</b>			<b>31</b>		
Team dynamics	Male	22	40	2	12	55	2
	Female	33	60	1	10	45	2
	<b>Total</b>	<b>55</b>			<b>22</b>		
Job satisfaction	Male	16	43	5	10	50	3
	Female	21	57	3	10	50	2
	<b>Total</b>	<b>37</b>			<b>20</b>		
Autonomy	Male	19	51	3	8	50	6
	Female	18	49	5	8	50	6
	<b>Total</b>	<b>37</b>			<b>16</b>		
Recognition	Male	17	47	4	10	50	3
	Female	19	53	4	10	50	2
	<b>Total</b>	<b>36</b>			<b>20</b>		
Relationship with boss	Male	15	45	7	9	69	5
	Female	18	55	6	4	31	9
	<b>Total</b>	<b>33</b>			<b>13</b>		
Role purpose	Male	16	55	5	7	44	7
	Female	13	45	8	9	56	5
	<b>Total</b>	<b>29</b>			<b>16</b>		
Career enhancement	Male	10	45	9	4	33	8
	Female	12	55	10	8	67	6
	<b>Total</b>	<b>22</b>			<b>12</b>		
Challenge of assignment	Male	9	41	10	4	50	8
	Female	13	59	8	4	50	9
	<b>Total</b>	<b>22</b>			<b>8</b>		
Work life balance	Male	5	23	12	1	25	12
	Female	17	77	7	3	75	11
	<b>Total</b>	<b>22</b>			<b>4</b>		
Remuneration	Male	9	47	10	1	13	11
	Female	10	53	11	7	88	8
	<b>Total</b>	<b>19</b>			<b>8</b>		
Ethics	Male	13	68	8	2	50	10
	Female	6	32	12	2	50	12
	<b>Total</b>	<b>19</b>			<b>4</b>		
Personal expertise/competence	Male	5	50	12	1	100	13
	Female	5	50	13		0	-
	<b>Total</b>	<b>10</b>			<b>1</b>		
Miscellaneous	Male	2	67		-	-	
	Female	1	33		-	-	
	<b>Total</b>	<b>3</b>					
Total	Male	195	47		87	50	
	Female	216	53		88	50	
	<b>Total</b>	<b>411</b>			<b>175</b>		
Total % by gender	Male	47			50		
	Female	53			50		

Table 4. Distribution of values categories by sex.

		Total	%	Rank
Pro-social orientation	Male	44	42	1
	Female	62	58	1
	<b>Total</b>	<b>106</b>		
Pro-work orientation	Male	20	54	2
	Female	17	46	3
	<b>Total</b>	<b>37</b>		
Knowledge, experience & competence	Male	13	42	4
	Female	18	58	2
	<b>Total</b>	<b>31</b>		
Structure & security	Male	14	56	3
	Female	11	44	5
	<b>Total</b>	<b>25</b>		
Self-affirmation	Male	6	27	6
	Female	16	73	4
	<b>Total</b>	<b>22</b>		
Personal & family life	Male	4	27	9
	Female	11	73	5
	<b>Total</b>	<b>15</b>		
Achievement	Male	9	69	5
	Female	4	31	9
	<b>Total</b>	<b>13</b>		
Personal empowerment	Male	5	45	8
	Female	6	55	8
	<b>Total</b>	<b>11</b>		
Personal progress & development	Male	4	36	9
	Female	7	64	7
	<b>Total</b>	<b>11</b>		
Personal challenge	Male	6	86	6
	Female	1	14	10
	<b>Total</b>	<b>7</b>		
Miscellaneous	Male	3	50	
	Female	3	50	
	<b>Total</b>	<b>6</b>		
Total	Male	<b>128</b>	<b>45</b>	
	Female	<b>156</b>	<b>55</b>	
	<b>Total</b>	<b>284</b>		

Both sexes share 4 categories within their top 5, which collectively account for 69% of all female and 71% of all male values. As with constructs, this suggests that **women and men within the sample both derive a relatively high degree of work meaning from broadly the same qualities, in this case by**

**finding congruence with their personal values.**

### *Interpersonal relationships*

Consistent with findings from the analysis of constructs, Pro-social Orientation ranks highest for both sexes, whilst Pro-work Orientation (which speaks to behaving according to workplace norms) is second for males and third for females. Clearly, **both sexes place a high value on the quality of social interaction at work.**

### *Male/female stereotyping*

Despite a high degree of construction commonality, some sex-based differences are still evident. The analysis shows a higher number of values for women (156, 55% of all values) than for men (128, 45%). The difference of 10% is wider than the 6% seen for 'All' constructs and is even more pronounced than the identical totals for both sexes for 'High Salience' constructs. This difference is also apparent in the respective distributions for the top 5 values categories by sex; the 5 male categories account for 100 (78% of 128 male values) Whereas the 6 female categories (both 5th-ranked categories are of equal value) account for 135 (86% of 156 female values). Whilst these comparisons might suggest that the construal of work may be a more cognitively complex process for females, involving a greater range and number of considerations than for men, analysis of the two principal components of the construal of work for each of the two cohorts shown in **Table 5** confirms only slightly higher results (90.5%) for female (88.2% male). Principal Component Analysis "... is a technique for accounting for the variance of the ratings of all the constructs in a grid in terms of a smaller number of underlying variables, each one representing a different 'pattern' of variance (a 'Principal Component'). As a measure of cognitive complexity, PCA gives insight into the simplicity or complexity involved in the construal of work" [3,81]. As such, high levels of concentration in the % of variance accounted for by the top two principal components as seen in **Table 5** point to **an equally low degree of cognitive complexity on the part of both sexes in the construal of work.**



**Table 5.** Principal components analysis.

	Female	Male
Principal Component 1	75.7	74.1
Principal Component 2	14.8	14.1
Total	90.5	88.2

Two variances in the top 5 value categories between the sexes are also noticeable. Achievement is unique to the male cohort, whilst Self-affirmation and Personal & Family Life feature only in the female distribution. In fact, the rankings for Personal and Family Life and Achievement are inverse, with the former being 9th for males and 5th for females, and the latter being 5th for males and 9th for females. This is particularly important given that values tend to be socialised preferences whose origins lie in cultural predispositions.

A number of other relationships may also point to predispositions with social origins. In addition to Achievement, males place higher value on Personal Challenge (ranked 6th, female 10th) and Structure and Security (ranked 3rd, female 5th). Although these variances are relatively small, they are notable.

The possibility that **these relative rankings may speak to socially-defined construction** is considered later in the paper.

## 4. Discussion

*There is a high degree of similarity between the sexes in the construction of work.*

The most notable, and arguably the most surprising finding from the research concerns the high degree of similarity in the way that both sexes in the sample construe work. This congruence exists at all levels of construing but deepens with construct salience and is strongest in relation to the (superordinate) values of the sample. The implication, that men and women broadly find similar meaning in similar facets of work and to a similar degree, appears to challenge the popular narrative that the sexes have fundamentally different predispositions to work.

*The construal of work is only marginally more complex for women than men.*

The finding that a greater number of constructs and values were elicited from women than from men in relation to work speaks to a higher level of female cognitive complexity in its construal. This is consistent with broader research showing that, in general, female cognition is more complex than that of males<sup>[45,48,49]</sup> but may also be influenced by the fact that women have a higher tendency than men to define themselves socially, value social endorsement and consider themselves in terms of a social role<sup>[46,50,51]</sup>. Principal components analysis revealed, however, a small degree of difference in the extent of construing between females and males, suggesting that the complexity of work considerations for females is no more than marginally greater than for males.

*There is some evidence that cultural stereotypes manifest in work (pre) dispositions...*

Some data suggests that there is a sex-based cultural demarcation among the sample involved in the research. Although both sexes share a concern for Work-Life Balance at the 'High Salience' construct level, it is a greater concern for women than for men across all constructs. Additional evidence of culturally-defined social roles is also evident in the comparison of values. Here the two categories of Achievement and Work & Family Life rank inversely by sex (5th and 9th respectively for men, and 9th and 5th for women). These data are consistent with the stereotypical view of male and female social roles<sup>[18]</sup>. However, their presence and relevance within the findings suggest that they play a part in the construction of work meaning. Nevertheless, it is important to recognise, these roles are eclipsed in significance by other social factors, such as organizational culture, team dynamics, and pro-social orientation, which are shared by the sexes both in type and proportion.

In short, culturally-defined gender roles exist and are psychologically acknowledged, but for this sample, they are not predominant considerations in the construction of work meaning.

*...but only limited support for the notion that females are more empathic and collaborative at work.*

Both men and women seem to have a similarly low level of cognitive complexity in their mental constructions of work. Broader female considerations appear to include role-relationships <sup>[46,50,51]</sup> and (from the categories found in the research) Personal & Family Life, suggesting that women might be more empathic and collaborative than men in the workplace.

*Ethics and Remuneration are minor considerations.*

Contrary to conventional wisdom, these categories have a limited impact on the construal of work for both men and women.

## 5. Conclusions

The findings from this research point to a high degree of congruence in the way both genders construe work. In summary, they share much more than sets them apart. The fact that, to a high degree, both sexes within the sample appear to share the same meaning found in work implies that disparity in representation at senior levels is probably a product of other factors.

The values data hints that (social and organizational) cultural pressures may play a role to some extent in the construction processes involved in the self-legitimization of women as workers. The socially-defined roles espoused in Social Role Theory necessitate a greater mental investment in interpersonal relationships for women than men. This may plausibly explain, to some extent at least, the perception that women are generally more collaborative and empathic than for men in relation to work. Ethics and remuneration are considered lower-order considerations for both sexes.

Our findings have implications for organizational development, particularly for the development of leaders within organizations. The past trend supporting the development of female leaders has been driven by the underlying assumption that women lack personal qualities and competencies necessary in leadership such as negotiation skills or decision-making. The calls for women to emulate autocratic, stereotypically male behaviours were at the core of these assumptions. What the

findings of this study direct our attention to, is that the development of female leaders should move away from this logic and support the creation of environments and mechanisms which will enable women to successfully navigate them towards higher echelons of power. This approach differentiates between leader and leadership development <sup>[82]</sup>, with the former being directed at the development of personal skills and qualities to enable the person to better engage with the leadership role and responsibilities while the latter develops leader's ability to navigate relationships and the social environment rather than solely perform functional tasks and responsibilities. While leader development interventions undoubtedly offer value for leaders, they omit the dimension of leadership that occurs in the social capital and political sphere and its navigation requires a different type of knowledge. Therefore, leadership development targets broader capabilities supporting effective engagement with and influencing the social network and relational aspects of work.

This paper supports the view that leadership development is a more suitable route for the training and development female leaders. The demonstrated lack of differences between male and female construals of work provides evidence for abandoning interventions aimed at developing women's basic skills and competencies as a Band-Aid for the larger problem embedded in power structures and gender-biased organizational cultures. The recent emergence and data supporting the effectiveness of compassionate leadership based on traditionally female behaviours as demonstrated by Jacinda Ardern during the COVID-19 pandemic, further points in the direction of the shift away from the promotion of traditionally male and autocratic behaviours in leadership.

### *Limitations*

It is important to remember that the sample comprises a group of professionals in the American company with progressive HR policies and relatively high rates of pay, so it is conceivable that the proportion of employees who are satisfied with

their terms and conditions is much higher than the average. It seems plausible that sensitivity is likely to be heightened by both persistent and material imbalances, particularly in low-paid occupations.

More generally, the relatively narrow geography and industry specificity of the research limits generalisability, such that further research will be necessary to establish validity beyond these domains.

## Author Contributions

Dr. Ron Boddy has processed and analysed data elicited during his doctoral work to show variances and similarities in the construal of work by biological sex. Synthesised findings from relevant literature to frame the research question detailed in the text. Summarised findings and conclusions in a draft. Managed redrafting on receipt of comments from co-authors.

Prof. Emeritus Devi Jankowicz's guidance to research design and methodology, along with his help in the interpretation of results, was highly influential in shaping the paper given its constructivist nature.

Prof. Dorota Bourne's academic work has spanned both constructivist psychology and gender, which made her insights and contribution to the reconciliation of both disciplines, alongside her broad understanding of work as a construct, a valuable contribution to the structure and conclusions of the work.

Prof. Mustafa Ozbilgin's contribution was fundamental to aligning the study, particularly its direction, chain of reasoning and conclusions, to contemporary perspectives concerning biological sex and gender equality.

## Conflict of Interest

There is no conflict of interest.

## Data Availability

Statement Anonymised data is available upon request at the authors' discretion.

## Ethics Statement

The primary research was undertaken as part of a study for a doctoral degree. Ethical clearance for the research was given by Edinburgh Business School during the course of the work. Each participant was briefed and signed a consent form prior to being interviewed.

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