

# The Effect of Growth Mindset on Work-Family Enrichment in Information Age: Examining a Moderated-Mediation Model

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**Abstract:** With the development of the information age, the research of psychology is deepening day by day, and the understanding of people and their growth is becoming more and more profound. This study examines the effect of growth mindset on employee to their work-family enrichment using learning goal orientation as mediator and also looks at the moderating role of job complexity. Results of 220 samples revealed that learning goal orientation mediated the influence of growth mindset on work-family enrichment. Furthermore, job complexity moderated the relationship between growth mindset and learning goal orientation. Researchers rarely study the relationship between the growth mindset and work-family enrichment. However, in the information age, people with growth mindset could get more work-family enrichment. On the basis of the findings, it can be concluded that learning goal orientation is a mediator in this relationship and the job complexity will enhance the effect of growth mindset on learning goal orientation.

**Key words:** Growth mindset, learning goal orientation, job complexity, work-family enrichment.

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## 1. Introduction

There are two most important things in people's lives, that is, work and life. The relationship between work and life is crucial for both employee and employer. People have to work for maintaining or improving their lives. Rather than earning money, more and more people start to consider the enrichment they get from their jobs. In the information age, people can gather any kind of knowledge and learn many techniques through online. Therefore, people hope to get more enrichment. The percentages of bachelors and even postgraduate degree are increasing in recent years in China. Finding a job becomes easier for people, so people pay more attention on the enrichment from jobs. Moreover, more and more males choose to stay at home for caring their families rather than having jobs which means the gender bias from work and family is decreasing now. It also means the people care about the quality of lives of their families. Researches have shown that work-family enrichment can promote positive emotion and behaviors. It shows the direct influence of enrichment. Besides, work-family enrichment can boost employees' job satisfaction and work performance (Xi Wen Chan, 2015) [1]. Therefore, employers should also notice the importance of work-family enrichment of employees. Work-family enrichment will happen when skills, perceptions, thinking, material, social capital, and material resources generated in one domain improve the performance in the other domain or influence the psychological state or affect (Greenhau and Powell, 2006) [2]. Most of

the researchers try to increase the work-family enrichment by focusing on the environment of social or family rather than on the personal perspective. Therefore, this research tries to figure out the influencing factors of work-family enrichment from personal mindsets because psychologists have supported growth mindset could improve such as motivation and persistence systems which are beneficial for both work and family (O'Rourke *et al.*, 2014) [3]. People with growth mindset are more open to situations beyond control and difficult whether in work or in family because they think the situations can be changed by learning. This attitude gives them more opportunities in work and family. Beside, the development of Internet also promote the growth mindset since people have more learning opportunities.

Base on upon background, this research use learning goal orientation as a mediating variable to explore the relationship between growth mindset and work-family enrichment. Moreover, this research will use job complexity as a regulated variable to see how it moderates the influence of growth mindset.

## **2. Theoretical Background**

The implicit theories can orient people toward different goals. For individuals strong in growth mindset, motivation tends to be organized more around enhancing their malleable traits via learning goals (Paul, Arie & E. Tory, 2012) [14]. Mangels and other researches did an experiment for supporting, and they found out the students who had growth mindset would like to find out what the right answer really was even after they had wrong answers (Mangels *et al.*, 2006) [4]. The reason is that people with growth mindset think the key factor of success is improvement and endeavor contribute to improvement. Therefore, those people would like to try more challenging tasks which would provide them opportunities to learn new things. Besides, Haiyan Mei and other researchers (2018) argued that people with growth mindset had positive attitude for learning because learning would improve their self-define and self-development [5]. At the same time, those people tend to learn from others' success and prefer to ask for help from teachers and parents when necessary. All these above can perfect demonstrate the influence of growth mindset. Thus, we propose the following hypothesis.

### **Hypothesis 1: Growth mindset has positive influence on learning goal orientation.**

Work-family enrichment occurs when resources in one domain help the other domain to be better. Resources can be a skill or a perception, psychological or material, and social capital. There have been three mature theoretical models of work-family enrichment. The first one is resources- enrichment- development model which is brought up by Wayne who discussed that resources were the basic of work-family enrichment and the goals for improving work and family were necessary as well (2007) [6]. The second model is brought up by Grzywacz (2007) who thought participating the role activities of family and work would not only bring enrichment of work/ family but also benefit the social system of the person [7]. The last model was created by Greenhaus and Powell in 2006 which claimed that both the tools approach and the affective would lead to work-family enrichment. From the report written by Grzywacz, it can be seen that the autonomy of work would promote employees to automatically learn more knowledge and gather more resources which were gotten by participating the roles in family and work. For example, Greenhaus and Powell (2006) discussed that the family-related independent variables such as marriage was greatly related to some work-related dependent variables such as income and work satisfaction [2]. An employee with encourage for learning would increase the income level and improve the work satisfaction which both improve the marriage. Moreover, the autonomy of work is strongly related to automatically learning, which is the essential factor of learning goal orientation. All these models help people better understand the producing process of work-family enrichment. Therefore, we propose the following hypothesis:

### **Hypothesis 2: Learning goal orientation has positive influence on work-family enrichment.**

Since people found out the positive relationship between growth mindset and learning goal orientation, researchers try to figure out when the effect of growth mindset is the strongest. In the experiment did by Blackwell and other researchers, it can be seen that people with incremental mindset exerted their advantages best in the more challenging environment (2007) [8]. It was because the people with growth mindset tend to challenge themselves and their learning goal orientation makes them more excited for figuring out the true answers of the hard questions. Therefore, they still strive to pursue growth and progress in difficult situations. Therefore, we propose the following hypothesis:

**Hypothesis 3: Job complexity will enhance the positive relationship between growth mindset and learning goal orientation.**

People with growth mindset tend to have learning goal orientation for learning knowledge from every aspect and developing themselves. At the same time, learning goal orientation would benefit people not only for their families but also for their works since it can help people gather more resources and experiences. More resources and experiences mean that people would pass the difficulties they faced more easily which would greatly improve their sense of happiness. Positive emotion makes either family-development or work-development go on wheels. Therefore, learning goal orientation plays the role of moderated mediation. Moreover, the challenged environment will enlarge the influence of growth mindset. Hence, it is obvious that:

**Hypothesis 4: There is a first-stage moderated mediation effect of growth mindset on work-family enrichment via learning goal orientation and moderated by job complexity.**

### **3. Methods**

#### **3.1. Sample and Procedure**

We collected data through a two-stage questionnaire, which was three days apart. In the first stage, the questionnaire collects interviewees' personal background information, growth mindset, learning goal orientation and job complexity. In the second stage, the questionnaire focuses on the work-family enrichment of interviewees. Except coding the questionnaire for matching, we informed the interviewees that the research data will only be used for scientific research and their personal information will be kept confidential as well. After deleting the invalid data, we finally got 220 samples for the test analysis of subsequent research hypotheses.

In these 220 samples, 124 are women, accounting for 56.4%; the average age is 27.7 (SD=5.6), and the average tenure is 4.3years (SD=4.4); in terms of the educational level, 97 people (44.1%) have not even got a bachelor's degree, 114 people (51.8%) are with a bachelor's degree, 8 (3.6%) are with a master's degree, and only 1 (0.5%) has a doctor's degree. The samples come from everywhere of China which can represent the condition of employment in China in some certain. Besides, the similar percentage of female and male makes the research more objective without the imbalance of gender.

#### **3.2. Measures**

All variables in this study used a Likert 5-point scale to measure the respondents' agreement to the items, where 1 means 'strongly disagree' and 5 means 'strongly agree'.

**Growth mindset:** The measurement of growth mindset adopts the scale of Levy, S. R., Stroessner, S. J., & Dweck, C. S. (1998) which contains 4 questions in total. Representative measurement titles such as 'People can change even their most basic qualities' [9]. The Cronbach's value was 0.82.

**Job complexity:** As for the measures of job complexity, this study integrates 4 questions of the scale of Morgeson, F. P., & Humphrey, S. E. (2006) [10]. The questions are backward such as 'The job requires that I

only do one task or activity at a time'. The Cronbach's value was 0.88.

Learning goal orientation: the learning goal orientation was measured using the scale of Janssen, O., & Van Yperen, N. W. (2004) [11], which contains 11 questions in total. For example, 'I acquire new knowledge or learn a new skill by trying hard'. The Cronbach's a value was 0.93.

Work-family enrichment: Scale form Wayne *et al.* (2004) was used to measure this variable [12]. The scale contains four questions in total. For example, 'The things you do at work help you deal with personal and practical issues at home'. The Cronbach's a value was 0.87.

## 4. Results

### 4.1. Confirmatory Factor Analyses

Firstly, a series of confirmatory factor analyses (CFA) are conducted to ensure the measures had satisfactory discriminant validity. Hu and Bentler (1999) suggested the value of both CFI and TLI should be greater than 0.90 and the value of RMSEA should not be greater than 0.08, so the measurement model is acceptable [13]. As can be seen in Table 1, the hypothesized 4-factor measurement model fit the requirements.

Table 1. Results of Confirmatory Factor Analyses

| Model            | $\chi^2$ | df  | RMSEA | CFI | TLI |
|------------------|----------|-----|-------|-----|-----|
| 4-factor model   | 415.11   | 224 | .06   | .93 | .93 |
| 3-factor model   | 682.39   | 227 | .10   | .84 | .82 |
| one-factor model | 1342.47  | 230 | .15   | .62 | .58 |

Note.  $N=220$ . 3-factor model: mediating variable and dependent variables were combined to one factor.

### 4.2. Descriptive Analyses

Descriptive statistics of all variables in this study are presented in Table 2. Besides, as it shown in the table, the core variables, growth mindset, learning goal orientation and work-family enrichment, were significantly correlated as expected.

Table 2. Means, Standard Deviations, and Correlations of the Variables

| Variable                     | Mean  | SD   | 1      | 2     | 3    | 4    | 5      | 6      | 7      |
|------------------------------|-------|------|--------|-------|------|------|--------|--------|--------|
| 1. Gender <sup>a</sup>       | .56   | .50  |        |       |      |      |        |        |        |
| 2. Age                       | 27.69 | 5.62 | -.09   |       |      |      |        |        |        |
| 3. Tenure                    | 4.28  | 4.37 | -.23** | .80** |      |      |        |        |        |
| 4. Education <sup>b</sup>    | 1.60  | .58  | .00    | -.01  | .07  |      |        |        |        |
| 5. Growth mindset            | 3.24  | .56  | .11    | .10   | .06  | -.05 |        |        |        |
| 6. Learning goal orientation | 3.81  | .51  | .08    | .09   | .09  | .15* | .24**  |        |        |
| 7. Work-family facilitation  | 3.54  | .59  | .08    | .06   | -.03 | .17* | .22**  | .52**  |        |
| 8. Job complexity            | 2.90  | .61  | -.10   | .06   | -.01 | -.10 | -.20** | -.34** | -.30** |

Note.  $N = 220$ . a Dummy variable (0 = male, 1 = female). b Education was coded as 1 = high school education or below, 2 = bachelor's degree, 3 = master's degree, 4=PhD. \* $p < 0.05$ ; \*\* $p < 0.01$  (two-tailed).

### 4.3. Hypothesis Tests

The hypotheses were tested by using PROCESS tool, a statistical software package software package developed by Hayes [15]. The analyses of the results are shown in Table 3 and Table 4.

As shown in Table 3, the growth mindset has a positive effect on learning goal orientation ( $\beta = .21, p < .01$ ,

see Model 1). Therefore, hypothesis 1 was supported.

To test the rest hypothesizes, the PROCESS tool was used by a bias-corrected bootstrapping procedure (5000 resamples). Similarly, it could be seen that learning goal orientation has a positive effect on work-family enrichment ( $\beta=.56, p<.01$ , see Model 3). Growth mindset was positively related to work-family enrichment ( $\beta=.12$ , see Model 3). Hypothesis 2 was supported.

When add the job complexity into the model, it can be seen that job complexity has negative effect on learning goal orientation ( $\beta=-.23, p<.01$ , see model 2). Hypothesis 3 predicted job complexity to enhance the positive relationship between growth mindset and learning goal orientation. In the model 2 of table 3, the interaction between growth mindset and job complexity was significantly related to learning goal orientation ( $\beta=.37, p<.01$ , see model 2). Therefore, hypothesis 3 was supported.

Besides, the bootstrapping analyses (5000 resamples) revealed a significant mediated effect of growth mindset on work-family enrichment through learning goal orientation. The bias-corrected 95% confidence interval (CI) of the mediated effects did not include zero, indicating support of hypothesis 3. Moreover, research predicted a first-stage moderated mediation effect of growth mindset on work-family enrichment via learning goal orientation and moderated by job complexity. To test hypothesis 3, research inspected the index of moderated mediation following Hayes [15]. As can be seen from Table 4, the index of moderated mediation as a direct significant test was significant. The results suggest that employees with high level of job complexity are more likely to be affected by growth mindset and that this in turn is positively associated with work-family enrichment, supporting hypothesis 4.

Table 3. Results of Hypothesis Tests

| Variable                              | Learning goal orientation |         | WF      |
|---------------------------------------|---------------------------|---------|---------|
|                                       | Model 1                   | Model 2 | Model 3 |
| Gender                                | .08                       | .06     | .03     |
| Age                                   | -.00                      | -.01    | .01     |
| Tenure                                | .01*                      | .03*    | -.01    |
| Education                             | .14*                      | .11*    | .100    |
| Growth mindset (GM)                   | .21**                     | .13*    | .12     |
| Learning goal orientation             |                           |         | .56**   |
| Job complexity (JC)                   |                           | -.23**  |         |
| GM × JC                               |                           | .37**   |         |
| F                                     | 4.02                      | 10.55   | 14.82   |
| R <sup>2</sup>                        | .09**                     | .26**   | .29**   |
| Bootstrap results for mediated effect |                           |         |         |
| Mastery orientation                   | Effect                    | Boot SE | LL95%CI |
|                                       | .56                       | .07     | .42     |
|                                       |                           |         | UL95%CI |
|                                       |                           |         | .70     |

Note. N = 220. Unstandardized regression coefficients are reported. Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit. \*p < 0.05; \*\*p < 0.01.

Table 4. Index of Moderated Mediation

|                              | Effect | Boot SE | LL 95% CI | UL 95% CI |
|------------------------------|--------|---------|-----------|-----------|
| Index of moderated mediation | .21    | .05     | .11       | .34       |

Note. N = 220. Bootstrap sample size = 5,000. LL = lower limit; CI= confidence interval; UL = upper limit

## 5. Discussion and Conclusion

This study shows that growth mindset can positively impact the work-family enrichment which expands previous research results to some extent since previous researchers mainly discussed how social or family environment affect work-family enrichment and how work-family enrichment benefit people from varied aspects. This study focuses on how the personal perspective of growth mindset influence work-family enrichment. Focusing on the personal perspective means people have the chance to change the condition,

their attitude or the behaviors by themselves. Especially in this information age, it increases the applicable opportunity. Since it provides ideas for improving the enrichment for both work and family and the ideas are all applicable. Therefore, to study the relationship between work-family enrichment and growth mindset is significant in this information age. The main goal of this research is telling people the methods to let people get help from themselves.

The study also found that growth mindset can further improve employee's work-family enrichment by influencing the learning goal orientation. This study expands the new mediating variable from the perspective of employee's goal orientation. People with growth mindset are motivated by learning which helps them have more richness of knowledge and skills and then cheers up people when they meet difficulties. No matter for family or work, this kind of orientation can promote them positively. It can also give the employers some ideas about training their employees. Employees will meet a huge number of difficulties when they are working because of the intense competition in the market. If the employees do not have the correct attitude such as the learning attitude mentioned above, it's easier for them to give up their job or their tasks. Besides, it's harmful for their mental health when they were under huge pressure without learning attitude. In order for training the growth mindset of employees and improving the mental health of them, emphasizing the learning attitude through the training process or in the daily works is necessary and significant.

Moreover, this study further examined the moderating effect of job complexity between growth mindset and learning goal orientation as well. The results inflect that job complexity enhances the influence of growth mindset on learning goal orientation which is because increasingly challenging work would provide the opportunities for people with growth mindset to gather more experiences and enrich their skills. That means relatively complicated work situation would emphasis the positive influence of growth mindset. It noticed the employers that they should not using the easy tasks to train the growth mindset of employees. The appropriate training should keep the tasks complicated. For example, the employers should participate and lead the tasks during the training for those employees without learning attitude, so those employees can learn from the employers and format the positive learning habits during the process. The easy jobs in the training stage would not provoke the growth mindset.

In conclusion, this study deeply reveals the internal mechanism of growth mindset influencing people's work-family enrichment: learning goal orientation plays an intermediary role and the intermediary path is also positively influenced by the job complexity. According to the results, employers can emphasis the training of growth mindset and encourage employees to set learning goals which would promote the work-family enrichment. If, for example, employees were told that achievements and success were all brought by their endeavor rather than the specific limited talent, employees would more likely to work hard. Employers should emphasize what can be learned from the mistakes rather than keep blaming employees. Employers should keep the principles in mind when they are in the company. These principles should also be applied in the families. When the employers and the employees have children, they can using these principles when they educated their children for helping their children have growth mindset. It would help them better go through the difficulties they meet in the schools. Employers and the employees can also applied these principles in their lives. People always meet difficulties in their lives such as in their relationships or in the communications. Besides, increase the complexity of tasks in some certain for the employees who have growth mindset will encourage them to learn more and be positive for the challenges. Although not every employee has the growth mindset, employers can send the employees into varied groups which have different mindset for more efficiency by using the specific test content during the initial interviews. The employees who have growth mindset could help other employees as well. Treat employees according to their mindsets is beneficial for both employees and employers.



The present study still has a number of limitations. First, most of the interviewees are young people so that the results cannot be appropriately used for the older employees. After 5 years or 10 years, the new generations would have different characteristics so the conclusion above might not be helpful. The changing education systems, believe, market, and organizations would all impact the relationship between growth mindset and work-family enrichment. Second, this study did not track the interviewees, which means the results might be occasional. It is hard to assure if the interviewees finished the questionnaire seriously. Besides, although this study proves the positive moderating of job complexity for the relationship between the growth mindset and learning goal orientation, it lacks the study of role of job complexity between the growth mindset and the work-family enrichment which benefits both the company and the employee. It lacks the opportunity of figuring out the deeper relationships.

In the future study, it is necessary to increasing the number of samples to make the conclusion more precise and applicable. To avoid the influence of the changes of generation and social environment, the study should also focus on the mindsets which are basic for all human beings. For assuring the positive effect of job complexity, the influence of it should be test on each relationship between the factors.

### Conflict of Interest

The authors declare no conflict of interest

### Author Contributions

Xuebing Wu conducted the research after reading and summarizing many papers. She analyzed the data from varied kinds of participator through these months. After analyzing the database, she wrote the paper according to the results and the hypothesis. She applied the theory of growth mindset in the organizational fields with her own thought.

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