

Proactive Personality and Information Processing Influencing Student Volunteer Behavior: The Interlocking Mediating Role of Role Identity and Calling

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Abstract. This paper aims to investigate the effects of role identity and calling on the volunteer behavior of volunteers with proactive personalities and information processing. A total of 860 registered university volunteers were analyzed using a proactive personality questionnaire, role identity questionnaire, volunteer behavior questionnaire, and calling questionnaire. The research results are indicated as follows. First, there was a significant positive correlation among the four variables: proactive personality, role identity, volunteer behavior, and calling. Second, a proactive personality directly influences volunteer behavior and indirectly affects volunteer behavior through the mediating effect of role identity and calling. Third, role identity and calling demonstrate a chain mediation effect on individual volunteer behavior. In addition, Stimulating the proactive personality of volunteers may result in enhanced role recognition and the development of a sense of mission, which further improves college students' willingness to participate in volunteer services.

Keywords: Information processing, volunteer behavior, role identity, organizational commitment, Calling, College Volunteers

1 Introduction

Young volunteers are a particular group of college students. Every college in China has a youth volunteer association or a "youth volunteer center." They are an example of "voluntary social public interest services without any remuneration, fame or gain, and their scale and service effectiveness has become a barometer affecting the health status of civil society" [1]. To guide and promote the effectiveness of college students' volunteer services, it is necessary to strengthen research on the positive psychological traits of volunteers and their volunteer behavior. Currently, most domestic and foreign research on volunteer services focuses on the macroscopic aspects of volunteering and its motivation and functions, incentives and guarantees, management and service, values, and spirit [2]. However, there are few studies on individual volunteers' behavior from the perspective of positive psychology.

Hence, we propose the following questions: does proactive personality, a relatively stable positive personality trait by which individuals act to influence their surrounding environment,

have a prediction on volunteer behavior? What is the mechanism behind this influence? From the perspective of positive psychology, this study explores the influence of proactive personality on college students' volunteer behavior and examines the chain mediation effect of role identity and calling in such a correlation.

2 Theoretical lenses and hypotheses

2.1 Proactive personality has a positive predictive effect on volunteer behavior

Volunteer behavior, referring to individuals' non-obligatory and freely organized behavior to provide services that help others [3], is an essential component of altruistic behavior. Previous studies have found that the factors affecting volunteer behavior mainly include environmental factors (a social situation, social pressure, organizational factors, social security, etc.) and individual factors (gender, years of service, income level, personality characteristics, role identity, etc.). A proactive personality is a personality that is not forced by the environment and can change the surrounding environment by exerting initiative [4]. It is mainly manifested as breaking through constraints to actively change the environment, identifying problems and proposing solutions, identifying and seizing opportunities, and acting until meaningful change is produced [4]. Employees entering an organization with a proactive personality will adopt a series of informal behaviors to fit themselves actively into the organization, promoting their socialization. This behavior is called active social behavior (proactive socialization behaviors) and includes the construction of social networks, building relationships and developing related services, and general social and information search and feedback [5]. As a kind of social behavior, individual characteristics easily affect volunteer behavior [6]. It can be seen that volunteers with a proactive personality often integrate effectively into voluntary organizations by changing the environment and breaking through constraints and carrying out volunteer service behaviors that are beneficial to others [7]. Therefore, Hypothesis 1 is proposed: H1: Proactive personality has a positive predictive effect on college students' volunteer behavior.

2.2 Role identity plays a mediating role in the relationship between proactive personality and volunteer behavior

Role identity describes the degree of recognition of an individual's social role, while volunteer role identity refers to an individual's attitude, view, and degree of recognition of his or her volunteer identity [8][9]. It is closely related to donation behavior and willingness to volunteer [2]. Moreover, Perceived expectations of essential others and existing volunteer-related experiences and behaviors will promote the formation of individual volunteer role identity, directly affecting whether the individual will continue to participate in voluntary activities [8]. According to role identity theory, feedback from self-concept and social relations are two important sources of self-identity [10]. According to social identity theory, social identity is part of an individual's self-concept, which comes from their understanding of the social group to which they belong. Individuals obtain a specific social identity mainly through social classification, social comparison, and the principle of positive differentiation [11]. Based on social identity theory, Turner et al. (1987) [12] proposed the theory of self-classification, arguing that individuals' self-positioning is not unique; people can have multiple different personal or social role positions in specific social situations. Individuals perceive, distinguish,

and determine social genera of significance or importance to themselves, classify themselves into these genera, construct self-concepts and perform roles and responsibilities according to the characteristics of these genera [28]. Individuals form identities in the self-categorization process. According to self-classification theory, individuals with different personality traits tend to classify themselves into different levels of identity and form self-concepts, which will further affect the generation and development of their behaviors [12]. Therefore, Hypothesis 2 is proposed. H2: The identity of college volunteers mediates the relationship between proactive personality and volunteer behavior.

2.3 Calling plays a mediating role in the relationship between proactive personality and volunteer behavior

In recent years, there have been some studies on the relationship between individual proactive traits and calling. French and Domene (2010) [13] conducted interviews with female Christian college students and found that the personal traits that can enhance calling include positivity, tenacity, and a sense of identity. The research results of Chinese scholars Shen and Gu (2018) [14] indicated that a proactive personality could positively predict calling, and these two traits are closely related. Meanwhile, it also indicates that individuals with more vital initiative have a stronger calling to engage in specific work. Calling is a concept derived from a religious point of view; it is a kind of internal psychological structure used to reflect an individual's attitude toward their current work and perceptions. Calling is an effect of internal and external factors and frequently results in both passion for a career and experiencing a strong sense of feeling and purpose; it also usually includes having career goals in life experience [15]. Meanwhile, calling is characterized by altruistic or prosocial tendencies. Individuals with high calling tend to show more willingness and behavior to help others and serve society [16][17]. Hence, it is plausible that the positive personality characteristics of individuals can promote their behavioral willingness to help others by improving their calling. Therefore, Hypothesis 3 is proposed. H3: The calling of college volunteers plays a mediating role in the relationship between proactive personality and volunteer behavior.

2.4 Role identification and calling play a chain mediation role in the relationship between proactive personality and volunteer behavior

Calling is an individual's internal driving force, emphasizing work's significance and promoting a positive experience of work and life [15]. The role identity of volunteers is closely related to their calling. Hoefland (2014) proposed the persuasion model for attitude change, which claimed that the factors affecting attitude change could be divided into internal (mainly the characteristics of the subject's attitude) and external (the individual's surrounding situation) factors [18]. According to the research, social support from surrounding groups and the working environment is an external factor that affects teachers' calling, while role identity is an important internal factor that affects individuals' calling. This result is consistent with the view of Hofland [19]. This indicates that identity plays an important role in the generation and development of individual calling. Previously, the hypothesis of the mediating effect of role identity and calling on the relationship between proactive personality and volunteer behavior has been proposed, that is, stimulating individual proactive personality can enhance individual role identity or calling in work and then promote the generation and development of volunteer behavior.

Furthermore, individuals with highly proactive personalities will actively integrate into the organization by changing the environment and breaking through constraints, thus generating a sense of belonging and dependence on the organization and strengthening their sense of role identity. Classified according to self-theory, different personality traits of individuals tend to think of themselves as different identity levels formed by the self-concept will be an emotional link with the organization, to generate the values and significance of feeling and calling, which will further produce positive behavior and promote the healthy development of the organization [12]. Therefore, Hypothesis 4 is proposed. H4: Role identity and calling play a chain mediation role in the relationship between proactive personality and volunteer behavior.

3 Research methodology

This study proposes constructing a chain mediation model based on previous theory and practice to study the positive predictive function of proactive personality on volunteer behavior and the respective functions of role identity and call. Furthermore, the intermediary effect of role identity and calling between proactive personality and volunteer behavior is to be verified. The chain mediation model is illustrated in Figure 1. Chain Mediating Diagram of Role Identity and Calling in the Relationship Between Proactive Personality and Volunteer Behavior.

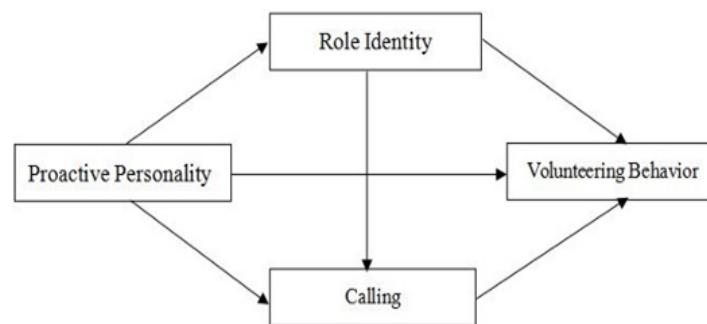


Fig.1. The chain mediation model

3.1 Methods sampling

This study adopted a quantitative research methodology based on convenience sampling and informed consent principles. Participants at the Volunteer Center at Guangdong Institution of Science and Technology Vocational College filled in 860 valid response questionnaires. Participants completed the survey individually onsite after providing their informed consent; all were volunteers without any compensation, and the data they supplied were completely anonymous. However, due to incomplete, random, or identical answers, 107 invalid questionnaires were excluded; 753 valid questionnaires remained (87.6% valid response rate).

The sampling criteria of this study included having been registered in the National Voluntary Service Information System with a volunteer service length between one and four years. This study included 286 men and 467 women, and the mean age was 19.17 years (SD = 1.082).

3.2 Proactive personality scale (proactive personality)

This study adopted the 2009 Proactive Personality Scale (PPS), which was translated into Chinese based on the PPS developed by Batemall (1993). The scale has a one-dimensional structure of 11 items and uses a seven-point Likert scale, from 1, "strongly disagree," to 7, "strongly agree." The higher the score, the higher the level of proactive personality. The internal consistency and reliability of the original scale were 0.89.

3.3 Volunteering behavior Questionnaire by Carlo (2005)

This questionnaire includes four items that ask about past or current volunteering history and involvement in the previous year, be it voluntary or requested, which are scored from 0 to 7 points on a Likert scale. Higher scores indicate a greater willingness to volunteer. The internal consistency and reliability of the questionnaire were 0.72.

3.4 Role identity questionnaire

Our role identity questionnaire was based on the Job Role Identity Questionnaire compiled by Saleh (1976) and modified to suit the volunteering context of our study. For example, "the work I have done" is modified to "the volunteer work I have done." The questionnaire consisted of four items, and a Likert scoring method was adopted. The higher the score, the higher the degree of volunteers' self-recognition of their own volunteering service. The internal consistency and reliability of the questionnaire was 0.77.

3.5 Calling scale

The calling scale compiled by Zhang (2015) was adopted. It contains 11 items, including altruistic contribution, guiding force, and three dimensions of meaning and value [29]. Scores were recorded on a 5-point Likert scale from 1 ("completely disagree") to 5 ("completely agree"). The higher the score, the stronger the subject is calling. The internal consistency and reliability of the original scale were 0.91.

4 Research result

We used SPSS24.0 to conduct descriptive statistics and correlation analysis of the 753 questionnaires. Meanwhile, bootstrapping in the Process macro program (Hayes, 2014) in SPSS24.0 was used to investigate the chain mediation effect of role identification and calling between volunteers' proactive personality and volunteer behavior.

4.1 Common method deviation test

Harman single-factor analysis was used to perform standard method deviation analysis (CMDA) on the data related to the above four factors. It was found that there were seven components with an initial feature root value (FRV) greater than 1, and the amount of variation explained by the first component was 25.007%, less than the critical value of 40%. This indicates there are no issues with common method bias in this study.

4.2 Descriptive statistics and correlation analysis

The results of the descriptive statistics and correlation analyses are shown in Table 1. The proactive personality of college student volunteers was positively correlated with identification, calling, and volunteering; the correlation coefficients ranged between 0.365 and 0.646 ($p < .01$).

Table 1. Descriptive Statistics and Correlation Analysis of Various Factors of College Student Volunteers

	M	SD	1	2	3
1. Proactive personality	4.729	0.59	—		
2. Role identity	3.964	0.61	0.468**	—	
3. Calling	3.986	0.54	0.521**	0.646**	—
4. Volunteering	1.293	0.37	0.569**	0.365**	0.426**

Note. * Indicates $p < .05$; ** indicates $p < .01$.

4.3 Chain mediating effect of college student volunteers' proactive personality on volunteer behavior

Controlling for gender and length of service, we used Model 6 of the Process macro in SPSS24.0. This model assumes that the relationship between the dependent and independent variables and the intermediary chain effect conforms to the theoretical model of this study. To obtain the 95% confidence interval, 5000 bootstrap samples were performed. The results showed that the overall effect of proactive volunteer personality on volunteer behavior was significant ($S = 0.359$, $P < 0.01$). The proactive personality of volunteers positively predicted role identity ($S = 0.487$, $P < 0.01$) and Calling ($S = 0.262$, $P < 0.01$). Calling was a significant positive predictor of volunteer behavior ($SS = 0.098$, $P < 0.01$). See Table 2 for further details.

Table2. Chain Mediation Model Analysis

The regression equation		Overall fitting index			The significance of regression coefficient			
The results of variable	Predictor variable	<i>R</i>	<i>R</i> ²	<i>F</i>	β	LLCI	ULCI	<i>t</i>
Volunteering		0.57	0.33	123.109				
	Gender				0.063	0.018	0.108	2.73*
	Length of service				0.001	-0.030	0.029	-0.045
	Proactive personality				0.359	0.322	0.396	19.11**
		0.56	0.32	106.74**				
Role identity								
	Gender				0.089	0.018	0.134	2.56**
	Length of service				-0.011	-0.063	0.040	-0.43
	Proactive personality				0.487	0.421	0.552	14.59**
		0.47	0.22	72.20**				
	Gender				0.076	0.018	0.134	2.56**

Calling	Length of service				-0.016	-0.054	0.021	-0.84
	Role identity				0.450	0.398	0.502	17.01**
	Proactive personality				0.262	0.208	0.315	9.56**
		0.59	0.35	81.16**				
Volunteering	Gender				0.049	-0.038	0.051	0.39
	Length of service				0.002	-0.044	-0.011	-1.12*
	Role identity				0.029	0.018	0.076	1.22
	Calling				0.098	0.043	0.153	3.48**
	Proactive personality				0.298	0.255	0.342	9.46**

Note. * indicates $p < .05$; ** indicates $p < .01$.

Intermediary effect analysis shows (see Table 3 and Figure 2): role identity and calling of the mediation effect of bootstrap95% bootstrap confidence interval for the [0.166, 0.243], not including 0, show that role identity and calling is an intermediary variable of volunteer proactive personality influence behavior, a mediation effect value of 0.061, accounting for 17.0% of the total effect (0.359), while the direct effect of volunteers' proactive personality of volunteer action accounted for 83.0% of the total effect. Role identity and calling are a mediation of the effect of volunteers' proactive personality on volunteer behavior occurred mainly through the following two paths, namely indirect effect 2 (0.021; the proactive personality-mission-volunteer behavior mediation, Hypothesis 3), and indirect effect 3 (0.033; the proactive personality-role identity and calling-volunteer behavior intermediary chain effect. Therefore, (Hypothesis 4) established indirect effect three and indirect effect 2 of the percentage of the total effect at 6.1% and 13.1%, respectively. Indirect effect 1 (0.014): The mediating effect path of proactive personality \rightarrow role identity \rightarrow volunteer behavior was insignificant (therefore, Hypothesis 2 was invalid).

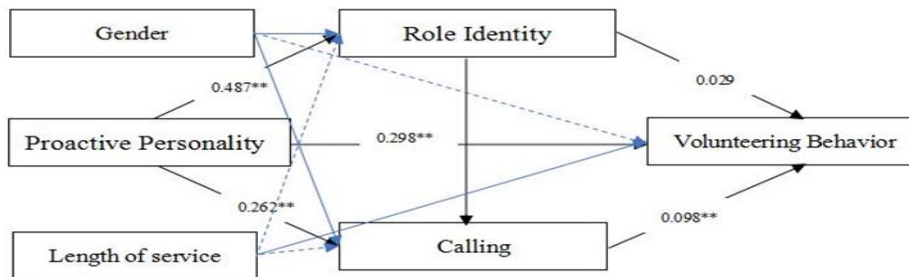


Fig. 2. Schematic Diagram of Chain Mediation

Note. The solid line in the influence of demographic variables on each factor indicates $p < .05$, and the dotted line indicates $p > .05$. The number in the figure represents the path coefficients.

5 Discussion

The above analysis shows that volunteers' proactive personality, role identity, calling, and volunteer behavior are significantly positively correlated, which is consistent with previous

studies focusing on proactive personality and role identity [20], work [21], sense of mission in work behavior [22], and initiative behavior [23]. The results of our study showed that positive psychological traits not only stimulate individual commitment to the organization in volunteer work but also enhance individuals' recognition of their role, which further encourages positive repetitive behavior [8][24] further pointed out that individuals with highly proactive personalities can actively respond to the environmental impacts of their behavior, identify potential opportunities, form a sense of identity, take timely actions, and persevere until meaningful changes occur.

This study also found that college volunteers' proactive personality not only directly and positively predicted their volunteer behavior but also indirectly influenced their volunteer behavior through the mediating effect of calling. Bateman and Crant (1993) pointed out that a proactive personality is a relatively stable tendency of individuals to take action to change the environment [4]. From the behaviorist perspective, a proactive personality can manifest as individuals engaged in various proactive work behaviors. Furthermore, according to the theory of planned behavior, all factors that may influence behavior (such as volunteer service behavior) are affected by behavioral intention (sense of mission). The volunteer service behavior of college students may be affected by their sense of career mission [25]. Self-determination theory also posits that an individual's external behavior is driven by internal motivation and that calling may promote college students' volunteer service behavior [26]. Based on the above theories and viewpoints, it is not difficult to find that volunteers with a high level of proactive personality will not only continue to have a high level of role identity and call for the volunteer organization but also produce more volunteer behaviors conducive to the healthy development of the organization under the guidance of their particular cognitive context and behavioral intentions. The results of this study show that the indirect effect of role identity on volunteers' psychological capital in individual volunteer behavior is not significant, but volunteers' proactive personality is a direct predictor of role identity. In other words, the role identity of volunteers may influence volunteer behavior through one or more variables.

Meanwhile, the proactive personality of volunteers can positively predict role identity since proactive personality, as a positive psychological trait, can improve individuals' ability to perceive the need to provide support and help to others in the external environment [27]. This study also found that the chain mediation of role identity → calling is a vital way in which the proactive personality of a volunteer affects their volunteer behavior. As a relatively stable positive trait, a proactive personality makes it easy for volunteers to produce higher self-recognition and role play, which yields a sense of meaning and value in voluntary work. This results in an internal motivation to experience work and life and promotes better-quality voluntary service.

By developing a chain mediation model, this study reveals part of the mechanism by which proactive personality may influence volunteer behavior. This is interpreted as follows: the proactive personality of a volunteer predicts their volunteer behavior through the independent mediation of calling, together with the chain mediation of role identity and calling. This working mechanism demonstrates that stimulating proactive personalities may enhance calling and produce voluntary service. In the meantime, enhancing the volunteers' proactive personality level will stimulate their cognition, understanding, and identification of voluntary organizations with their careers and enhance their calling. The mediating effect analysis in this study shows

that the direct effect of proactive personality on volunteer behavior is much greater than the indirect effect.

6 Conclusion

This paper investigated the effects of role identity and calling on the volunteer behavior of volunteers with proactive personalities. The results suggest that to promote the formation and sustainable development of volunteer behavior and should pay attention to the status of positive psychological traits, such as volunteers' proactive personality, and stimulate them by taking specific intervention method. Further qualitative research should be conducted to explore other core elements of volunteers' proactive personalities in promoting the development of volunteer behavior. In addition, this study only discusses how volunteers' proactive personality predicts their volunteer behavior. Future studies need to introduce moderating variables to explore further how volunteers' psychological capital affects their volunteer behaviors. In terms of research design, this study only adopted a cross-sectional study, and it is necessary to use a longitudinal experimental study for in-depth analysis in the future to reveal the causal relationship between the variables further.

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