

# Comparative Study of Prosocial Behavior of College Students with the Only Child and Firstborn Child in Two-Child Families

Shi Cheng<sup>1, †</sup> Xuan Wang<sup>2, †</sup> Xing Zhou<sup>3, \*, †</sup>

<sup>1</sup> Ningbo Tech University, School of International Studies, Ningbo 315000, China

<sup>2</sup> School of Education, Xi'an International Studies University, Xi'an 710128, China

<sup>3</sup> Shangqiu University applied science and technology College, Kaifeng 475000, China

\*Corresponding author. Email: zhouxing@axtf4.wecom.work

†These authors contributed equally.

## ABSTRACT

With the implementation of the universal two-child policy in China, more and more children are taking on the role of elder brother and elder sister. Furthermore, college is the main stage of prosocial behavior performance. To explore whether there is a difference between the prosocial behavior of the only children and the first-born children in second-child families, 164 college students were investigated. The Prosocial Tendencies Measure was used to survey the prosocial behavior of college students. The result shows that the prosocial behavior difference between the first-born child in two children's families and the only child is not significant. It means that among college students, the tendency for prosocial behavior has nothing to do with whether they are the only child or not. Therefore, parents should give equal care and guidance to the two children, which is conducive to the children's mental health development.

**Keywords:** Prosocial behavior, Only child, Firstborn child, College student.

## 1. INTRODUCTION

Prosocial behavior refers to positive behaviors, including helping others and other social activities which are useful to society [1,2]. Some studies have pointed out that family factors take an important role in children's prosocial behavior [3]. Since the implementation of the universal two-child policy in China in 2016, the proportion of two-child families has been increasing. Therefore, as an important family factor, the presence of younger siblings in the family also has an important impact on first-born children's prosocial behavior. In second-child families, when another sibling is born, the parents have to devote more time and energy to taking care of the second child. Therefore, the attention to the first-born child will naturally decrease, which will lead to psychological changes in the first-born child, including the attitude toward parents and compatriots. In addition, attitudes towards friends and strangers will change accordingly [4].

Some studies have shown that the birth of the second child has more negative effects than positive effects on the first-born child, such as negative emotions and

“regressive” behaviors [5,6]. In contrast, only children will produce more positive psychology and behaviors than negative ones, because they could receive more or even all of the care and attention from their parents [7]. Therefore, many parents will give up delivering a second child considering the emotions and behaviors of their children. Other relevant studies show that first-born children in second-child families also have better performance in some social behaviors, such as being more willing to establish a good social relationships with others [7]. What's more, the birth of the second child provides the first-born child with opportunities for growing rapidly, and they have stronger empathy and more responsibilities in social interaction [8].

Although scholars at home and abroad have done relevant research about the first-born child's emotional and behavioral changes before and after the second child was born. For example, the arrival of the second child increases parents' education costs which leads to greater psychological pressure. In addition, in some cases, the first-born children are given higher expectations which brings more severe punishment and blame to their first-born children which makes them sensitive and under

mental pressure [5]. However, there is still a lack of research on the change in first-born prosocial behavior due to the arrival of the second child. In addition, from the perspective of research objects, most previous studies focused on preschool or young children, namely the embryonic stage of prosocial behavior development. While few studies focused on adolescents, especially the college stage, namely the main stage of prosocial behavior. According to the UN's world population fund, the teenage range is defined as 14-25 years old, which is an important stage in the process of human health organization (WHO), the United Nations children's fund (UNICEF), and the United Nations Development. It is a social transition stage and a critical period of individual growth when college students get out of school to society [3]. Therefore, this research aims to make a comparative study of prosocial behavior of first-born children in second-child families and only children among college students. Furthermore, the present study provides suggestions for the positive and healthy development of first-born children and only children in second-child families. The hypothesis is that among college students, there is no significant difference in the comparison of prosocial behavior tendency between first-born children in second-child families and only children.

## 2. METHODS

### 2.1 Participants

This survey took college students as the participants, and the age range was 17 to 25 years old. The questionnaires were distributed with the help of the survey tool Questionnaire Star. A total of 209 questionnaires were collected, of which 164 are valid, with an effective rate of 78.5%. Among them, 96 are from first-born children (8 males and 88 females), and 68 are from only children (11 males and 57 females).

### 2.2 Measure

This study used the Prosocial Tendencies Measure (PTM) for adolescents compiled by Carlo and revised by Kou et al. [9]. The PTM is a 23-item measure that assesses six dimensions of prosocial behavior, including emotionality, compliance, altruism, anonymity, openness, and urgency. The prosocial tendency of emotionality

refers to the prosocial tendency of individual emotion when it is aroused in a particular situation. The prosocial tendency of compliance refers to an individual's prosocial behavior tendency at the request of others. The prosocial tendency of altruism refers to the prosocial tendency of individuals to alleviate the pain of others. The prosocial tendency of anonymity refers to the prosocial tendency of individuals who help others without talking to the helpers about their identity. The prosocial tendency of openness refers to the prosocial tendency of individuals in public places or with other people around. And the prosocial tendency of urgency refers to the prosocial behavior tendency of individuals in emergent situations [9]. The response items ranged from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicate higher prosocial behavior tendencies. In this study, the Cronbach's alpha coefficients of the elder children group of the two-child family and the one-child group were 0.752 and 0.746 respectively. The Cronbach's alpha coefficient for the total scale was 0.750.

### 2.3 Data Analysis

Questionnaires were distributed and collected by using the Wenjuanxing Platform. Questionnaires that were answered indiscriminately, such as answering regularly, answering in a very short time, and so on, were excluded as invalid questionnaires. Then SPSS26.0 was used to conduct descriptive statistics, reliability tests, and the independent-sample t-test.

## 3. RESULTS

As indicated in Table 1, in the group of college students, the prosocial behavior of the elder-child in two-child families scores was slightly higher than the only-child on the five dimensions of emotionality, compliance, altruism, openness, and urgency. On the dimension of anonymity, the prosocial behavior of the elder-child in two-child families scores was slightly lower than the only-child prosocial behavior. The significance of prosocial behavior between the two groups was 0.016. This survey's results show that the prosocial behavior of the elder-child in two-child families and the only-child is not significant.

**Table 1.** The Descriptive statistics and t-tests

Scales	First-born(M±SD)	Only-child(M±SD)	t	P
Emotionality	14.09±3.09	14.07±2.62	0.04	0.13
Compliance	6.86±1.59	6.76±1.65	0.39	0.81

Altruism	17.26±3.41	17.22±2.92	0.08	0.07
Anonymity	17.74±4.02	17.82±3.19	-0.14	0.11
Openness	13.71±2.97	13.46±2.86	0.54	0.46
Urgency	11.43±2.17	11.38±1.91	0.14	0.18

## 4. DISCUSSION

### 4.1 Main findings

Prosocial behavior is regardless of the motivation of the sender, but everything he does is a social behavior that benefits himself and others [10]. The main targets of this study are college students, prosocial behavior is very significant for college students, especially for students with high psychological quality is more obvious. Most of the social behavior of college students can be expressed through various actions and emotions [11]. Prosocial behavior is of great significance to the personal development of college students, which can enhance their sense of social responsibility and their sense of self-value [3].

This study shows that the prosocial behavior of the elder-child in two-child families is not significantly higher than or lower than that of the only-child. This is not consistent with Dunn et al.'s findings that the elder-child in two-child families have a stronger sense of society and Wagner's findings that the elder-child in two-child families have more negative behaviors. The prosocial behavior in early childhood is more submissive, and children's external social behavior is often affected by family factors [12,13]. However, with the growth of age, the consistency of prosocial behavior and concept gradually improves. Different from childhood, adults' development in all aspects has become mature and stable, and college students are going to an adult or adult stage. Physical maturity and increased autonomy may enable them to participate in a wider range of prosocial activities [14]. For example, advances in perspective selection may promote higher levels of moral reasoning, and thus promotes prosocial behavior [15,16]. Moreover, college students' prosocial behavior largely depends on the awareness of their ability, and they will judge the meaning and value of their behaviors according to their knowledge and concepts, and then decide whether to take corresponding behaviors [17]. The establishment of college students' belief in the world and the improvement of psychological quality have positive effects on the prosocial behavior of college students [11,18]. As a compulsory course for college students, ideological and political education plays an important role in this process. In the college stage, the influence of family factors on

them will gradually fade. Because of the increase in community activities and social practice opportunities, whether the elder-child in two-child families or the only-child, their social behaviors are more affected by the campus environment and social environment at this stage. This also explains why the prosocial behavior of the elder-child in two-child families is not significantly higher than that of only-child among college students. In addition, the birth of the second child is not enough to play a decisive role in prosocial behavior as only a time point for an event. In contrast, factors such as parenting styles, mothers' expression of positive emotions, and parental marriage quality are long-term factors related to children's prosocial behavior.

Consistent with previous studies, there are no significant differences in prosocial behavior whether are only children [19]. However, there are also inconsistencies with the existing research results, and there are obvious differences in prosocial behaviors between the two-child or multiple children families and the only child [20]. This situation is due to the differences in the age or environment of the study subjects. Although the research results of this paper are not significant, it shows that the prosocial behavior of college students is not affected by the only-child condition. The possibility that the prosocial behavior of college students will be influenced by other variables is enhanced. The influences of the variables produced in this study are not large enough, but the effects of other factors will be different. The influence of parenting styles on the prosocial behavior of college students is involved in changes in many aspects, leading to prosocial behavior is significant discrepancies at different levels, such as gender and professional category [3].

### 4.2 Limitations and Future Directions

In this study, the ratio of male and female participants was severe disharmony, with female students almost dominating. The development of prosocial behavior between boys and girls is different. Girls are socialized to show nurturing and caring, while boys are socialized to restrain this prosocial behavior [21]. Especially, during adolescence, gender-specific social pressures can strengthen, and boys and girls may increasingly adhere to stereotyped images, which may lead to gender-specific

developmental trends in prosocial behavior [22,23]. Previous studies show that the level of prosocial behavior of female students is generally higher than male students [24,25]. In the present experiment, girls were the main participants, leading to the overall high results value of several prosocial behaviors. Therefore, the results of this study are more applicable to female students. Narrowing the numerical difference between the prosocial behavior performance of the only-child and the elder-child in two-child families is necessary for further studies.

In addition, the sample size of the participants is too small and the proportion of the research participants is not balanced, which may lead to less accurate data analysis results. Although this study has investigated the group of college students, it is limited to the comparison of prosocial behavior between the only-child and the elder-child in two-child families. There are still many unconsidered factors that need to be further explored in future studies. For instance, there are no specific studies on prosocial behavior during adolescence. Researchers could expand the sample size as much as possible to investigate more prosocial behaviors in different regions. Future research should fill the current related topic gaps, and this study can be further deepened. For instance, the change of prosocial behavior in the elder-child in two-child families before and after the birth of his or her young brother or sister is studied to determine whether the difference in prosocial behavior is significant under the influence of this variable.

## 5. CONCLUSION

The result shows that whether the only child or the first-born child in two children's families has no significant difference in the dimensions of prosocial behavior. The study indicates the prosocial behavior of college students is less affected by whether they have a little sibling. This result is different from previous studies. Due to some limitations in adopting subjects in this study, our study will be more applicable to a female. Moreover, this study on the family factor aspect shows that the family factor has little influence on the prosocial behavior of college students. Therefore, it also demonstrates that the prosocial behavior of teenagers has a certain plasticity, which can be used for reference for relevant training in schools.

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