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### **THE EFFECTS OF EMPATHY, SOCIAL STRUCTURE AND SOCIAL ENVIRONMENT ON INDIVIDUALS' MORAL BEHAVIOR CHOICES IN CHINA**

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# The Effects of Empathy, Social Structure and Social Environment on Individuals' Moral Behavior Choices in China

Shuqin LONG<sup>1</sup>

## Abstract

Based on the data of the *Survey of Residents' Living and Psychological Conditions* in Jiangsu Province, China in 2016, this article analyzed the influencing mechanism of individuals' moral behavior choices when facing a conflict between righteousness and self-interest. The binary logistic regression models indicated that individuals' choices of moral behaviors do not differ among various social classes. Empathy has a remarkable influence, but its impact mechanism is complex. The social environment has a significant effect, where malignant events have a stronger influence than others. Furthermore, social environment has more significant effect on individual moral behavior choices than empathy, so, creating a benevolent and harmonious social environment will allow the individual's empathy to come into full play.

**Keywords:** moral behavior choices, empathy, social structure, social environment, happiness, moral practices.

## Introduction

Neuroscientists Giacomo Rizzolatti *et al.* discovered mirror neurons in 1996. Since then, scholars have adopted the idea that individual moral practices have both physiological and psychological foundations. An old saying from Chinese philosopher Mencius states that "everyone has a sense of sympathy as well as the senses of shame and dislike." Mencius added, "In terms of human virtue, everyone is born to be good, which is human nature. If one fails to be good, one should not blame human nature" (*The Works of Mencius*, KàoTsze). This saying indicates that all men and women tend to be good, or at least have the instinct to be good. However, numerous incidents that contradict the idea of being good (e.g., doing nothing when witnessing elderly people falling or refusing to help someone in trouble) repeatedly occur in modern Chinese society. The death of

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Yue Wang is a typical and extreme case of such an incident. On October 13, 2011, Yue Wang, a 2-year-old child, was run over by two vehicles in Foshan city, Guangdong, China. Within 7 minutes, 18 people passed by Yue Wang; however, they all turned a blind eye and passed away with indifference. At last, a female waste picker came forward to help Yue Wang. Unfortunately, it was too late, and Yue Wang died at a hospital after all rescue measures had failed. Some scholars have indicated that the rise of these malignant incidents is due to the human instinct for self-protection in a reaction to situations where people were blackmailed for performing good deeds (Yan, 2010; 2012). Therefore, although mirror neurons and empathy form the physiological and psychological bases of individual moral practice, an individual's empathy (i.e., the instinct to be good) can be concealed or hidden during extreme events. Simultaneously, the immoral behaviors of seeking advantages and avoiding disadvantages might dominate behavior under the influence of the social environment or social structures. If that is the case, to what extent is individual moral practice subject to empathy, social structure, and the social environment in daily life? Which plays a more significant role: empathy, social structure, or the social environment? These are the questions explored in this paper.

## Literature review

The explanations of the origin and influencing factors of moral behaviors offered by various disciplines and schools diverge. Represented by Immanuel Kant's *Deontology*, rational ethics asserts that rationality is the foundation of morality. Empirical ethics considers individual sensory experience as significantly influential over personal moral practices; this theory is recorded in *The Theory of Moral Sentiments* by Adam Smith and the works of David Hume and others. From a sociological perspective, human behavior (including moral behavior) is shaped by society and the social environment. Smith's *Theory of Moral Sentiments* and Hume's *Treatise of Human Nature* discuss the micro mechanisms of individual moral practices, whereas sociology views the influence of social structure on moral practices at a macrolevel. This paper establishes research hypotheses based on these two distinct theoretical perspectives and verifies the results with empirical data. We then compare the two perspectives' explanatory power with regard to contemporary Chinese moral practices.

### *Psychological and physiological bases of moral behaviors: Empathy and mirror neurons*

The core of the moral philosophy espoused by David Hume and Adam Smith regards empathy as the psychological mechanism of morality. Empathy and sympathy can be used interchangeably for this psychological status, although

subtle differences exist between them; however, this article does not distinguish the empathy and sympathy and thus uses empathy to refer to this psychological status. Adam Smith believed that empathy motivated human morality and he stated. How selfish so ever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it. Of this kind is pity or compassion, the emotion which we feel for the misery of others, when we either see it, or are made to conceive it in a very lively manner. That we often derive sorrow from the sorrow of others, is a matter of fact too obvious to require any instances to prove it; for this sentiment, like all the other original passions of human nature, is by no means confined to the virtuous and humane, though they perhaps may feel it with the most exquisite sensibility. The greatest ruffian, the most hardened violator of the laws of society, is not altogether without it (Smith, 1984: 9).

Furthermore, empathy explains the origin and nature of moral judgment, approval, and negation. Hume noted, "We are certain, that sympathy is a very powerful principle in human nature" (Hume, 2009: 925) and considered this psychological mechanism as the basis of moral behavior. Hoffman (2003: 34) noted that the role of empathy in individuals' moral development is reflected in its significant influence on personal moral judgments and behaviors. Simmons (2014) further testified that empathy is the foundation of morality. Neuroscience strongly supports philosophers' assertions regarding the relationship between empathy and moral behaviors. After discovering mirror neurons in monkey brains, Rizzolatti *et al.* (1996) found that similar neurons also exist in the human brain in 1998. Moreover, humans use mirror neurons to understand the intentions of others' behaviors, thereby enabling communication (Rizzolatti *et al.*, 1996; Rizzolatti & Arbib, 1998). Furthermore, scholars have revealed the relationship between mirror neurons and empathy: For example, Rizzolatti & Craighero (2004; 2005) believes that mirror neurons are the necessary neurological paths of empathy. Through their study of autism, Oberman & Ramachandran (2007) found that the mirroring mechanism based on these neurons lay the foundation of one's empathy for others. If an individual lacks this mirroring system, then he or she might not experience empathy. Kiesling (2012) further explained the three-point correspondence between mirror neurons and sympathy as proposed by Adam Smith. Both philosophers' speculations and modern empirical research indicate that individual moral behaviors have psychological and physiological bases. Empathy is not only the basis of individual moral practices but also a mediating variable of the mechanism of physiological-psychological-moral behaviors. Therefore, we propose our first hypothesis:

*Hypothesis 1: Empathy significantly affects individual moral practices. People who are more empathetic will be more likely to choose moral behaviors.*

*Social attributes of moral behaviors: Environment and social class.*

According to sociologist Durkheim, sociology examines social facts (i.e., the collective behaviors and thinking patterns that exist beyond the individual level and are followed by everyone at every moment). These facts are beyond the scope of individuals and have a compulsory effect on an individual's consciousness and behaviors. These social facts, as defined by Durkheim, include material facts like geography, population, and transportation as well as nonmaterial social facts such as religions, morality, law, and customs (Durkheim, 1995). Non-material social facts constitute the social environment. At the meso-level, according to socialization theories, social environment involves families, schools, peer groups, workplaces, the mass media, communities, and cultures. The social environment significantly and profoundly affects individual behaviors. Therefore, based on the theories developed by Durkheim and others, we conclude that the social environment has a notable influence on individual moral behaviors. A benevolent social environment facilitates individuals' internalization of moral principles and helps them form positive moral cognitions and attitudes, thereby encouraging the occurrence of moral practices. Fan and others conducted a series of empirical surveys on the status of citizens' moral ethics. They not only revealed the status quo of people's moral cognition and moral judgment but also compared the group discrepancies in moral ethics and differences in moral cognition across social classes (Fan, 2010; Li, 2015; Hong, 2016). In terms of individual moral behaviors, Yan analyzed the phenomenon of being blackmailed after doing well from the perspective of anthropology and found that people who provided help had distinct social class characteristics (Yan, 2010). Hence, we infer that the social environment and social structure (social class) have a remarkable and significant effect on individual moral behaviors. Thus, we established the following hypotheses:

*Hypothesis 2: People of different social classes distinguish themselves with different moral behaviors choices.*

*Additionally, we propose more specific hypotheses based on various dimensions and standards of social class:*

*Hypothesis 2a: People with different educational levels will display significant differences in their moral behavior choices.*

*Hypothesis 2b: People with different income levels will display significant differences in their moral behavior choices.*

*Hypothesis 2c: People with different occupations will display significant differences in their moral behavior choices.*

*Hypothesis 3: People in different social environments will make different choices regarding their moral behavior choices.*

## Methodology

### *Data source*

The data in this study come from the 2016 *Survey of Residents' Living and Psychological Conditions* in Jiangsu Province, China. The survey was jointly conducted by the Moral Development Think Tank in Jiangsu Province at Southeast University and the Civilization Office of the Propaganda Department of Jiangsu Province. The survey was conducted in 13 prefecture-level cities in Jiangsu Province. The survey adopted multistage stratification sampling and visited households from 70 districts and counties, 139 blocks, and 248 communities. Overall, 6,355 valid questionnaires were completed. The survey had a wide coverage and is thus representative of the permanent resident population of Jiangsu Province.

### *Variable measurement*

#### *Dependent variable: Individual moral behavior choices*

Fan believed that moral behavior is the external manifestation of an individual's understanding and quality of morality and "Moral behaviors are the expressions of individuals' self-consciousness and choices regarding the interests of others and society" (Fan, 2006). Therefore, in this survey, individual moral practice refers to the individual's behavior choice based on certain moral judgment within a specific situation. The question in the survey states: "Lao Wang's friend, Lao Zhang, has a business competitor wishing to know Lao Zhang's daily contacts. The competitor is willing to pay Lao Wang to spy on Lao Zhang. If you were Lao Wang, what would you do?" The choices are (1). Agree without hesitation-Because personal interest is more important than anyone else's, nothing is wrong as long as the friend does not know; (2) Maybe agree-This request is not directly relevant to morality; (3) Maybe disagree-Although it is not ethical behavior toward the friend, it is beneficial to oneself because of the profit; and (4) Disagree-The request is unethical. One should never disregard moral principles in the pursuit of profit." In this paper, we recoded the choices into two categories to create a binary variable. Specifically, options 1-3 we recoded as 0, and option 4 was coded as 1. Based on the meaning of each option, the dependent variable was recoded as 0 to indicate immoral behavior choices or 1 to represent moral behavior choice.

#### *Independent variables*

Based on the hypotheses listed above, there are two groups of independent variables. One group measures empathy and the other assess social structure and the social environment. We provide details below.

### *Empathy*

This research used the empathy scale to measure this variable. This scale consists of nine statements: "A. I have tender, concerned feelings for people less fortunate than me; B. I try to see things from other people's points of view before making a decision; C. When I see someone being taken advantage of, I feel somewhat protective of him/her; D. I try to understand others by imagining how I would feel in someone else's situation; E. I am scared and afraid when I am in a tense situation; F. I believe every issue is double-sided, so I consider the problem from both sides; G. When I become impatient with someone and want to criticize the person, I usually stand in his/her position temporarily to consider the situation; H. When I'm reading a book or watching a movie, I think about how I would react if I were one of the characters; and I. I would be nervous and might even break down if I saw someone was in an accident and needed urgent help." The choices are 1=Not very like me, 2=somewhat unlike me, 3=somewhat like me, and 4=Very like me. This research conducted factor analysis on the results of these nine statements, and we used the results as independent variables for empathy in the model.

### *Social environment and social structure*

This research primarily used social class to represent social structure. The variables used to measure social class include occupational classification, educational level, and income.

Because of the large number of dimensions involved in the social environment, this study used geographic divisions and questions reflecting the local social environment as comprehensive indicators of the social environment. Thus, social environment was divided into two categories: One category comprised regional factors, and the other comprised problems that reflect the local social environment as well as influence moral cognition and moral judgment. The regional factors included household registration and geographic division. In particular, household registration was divided into agricultural and non-agricultural households. The geographic division divided Jiangsu Province into southern, central, and northern districts. The northern region included Xuzhou, Lianyungang, Suqian, Huai'an, and Yancheng; the central area included Nantong, Taizhou, and Yangzhou; and the southern region included Nanjing, Suzhou, Wuxi, Changzhou, and Zhenjiang. Another dimension of the social environment included the questions such as "Has there been an incident of child abuse in your area?" "Do you often encounter shoddy products in your purchases?" "Do you often see false advertisements with regard to shopping, medical treatment, or financial management?" These questions were used to assess whether the local social environment is conducive to positive moral cognition and judgment.

### Control variables

As a rule of thumb, we included demographics such as sex, age, and religious beliefs in our model as control variables. Apart from the basic conditions described by the empathy scale, we calculated the descriptive statistics of the other variables below.

Table 1. Descriptive Statistics of the Variables (N=6,355)

Variables	Percentage/Mean (Standard error)	Notes
Dependent Variable		
Moral Behaviors	0.886(0.3185)	Binary Variable:Moral Behaviors=1,Immoral Behaviors=0
Social Structure		
Occupation		Underclass was the reference group.
Clerk	12.40%	
Blue Collar	19.44%	
Manager	4.93%	
Technician	18.40%	
Underclass	44.83%	
Personal Income (RMB)		No income was the reference group.
No income	19.58%	
1-1,999	31.11%	
2,000-3,999	31.82%	
≥4,000	17.48%	
Education Level		Primary school and below was the reference group.
Primary School and Below	23.24%	
Middle School	34.75%	
High School/Vocational High School	22.09%	
Associate Degree and Above	19.92%	
Social Environment		
Geographic Division		Northern was the reference group.
Northern	41.94%	
Central	22.63%	
Southern	35.44%	



Household Registration	0.405(0.491)	Binary variable, reference group: rural population
Has there been an incident of child abuse in your area?	2.86(0.368)	Categorical variable, Often=1,Seldom=2,Never=3
Do you often encounter shoddy products in your purchases?	2.17(0.597)	Categorical variable, Often=1,Seldom=2,Never=3
Do you often see false advertisements with regard to shopping, medical treatment, or financial management?	1.94(0.683)	Categorical variable, Often=1,Seldom=2,Never=3
Control Variable		
Age		35 and under was the reference group.
≤35	21.01%	
36-50	31.87%	
51-60	27.16%	
≥61	19.97%	
Sex	0.475(0.499)	Binary variable,reference group: female
Religion	0.092(0.289)	Binary variable,reference group: no religion

## Results

### *Individual moral practices: Choices in a situation of conflict between righteousness and self-interest*

The measurements of individual moral practices in this study were based on certain behavioral choices under specific conditions (i.e., the conflict between righteousness and self-interest). According to the results shown in *Table 1*, 88.3% of the individuals would not help a competitor spy on their friend because it is unethical; thus, pursuing only personal interest without adhering to moral principles is not desirable. This result reflects that the mainstream moral judgments and behavioral tendencies in this situation of conflict are ethical.

*Empathy: Multi-dimensional psychological measurement*

The scale used to measure empathy included nine statements. The table below displays the results of the empathy measurement.

*Table 2. Descriptive Statistics of Empathy .*

	Not very like me(%)	Somewhat unlike me(%)	Somewhat like me(%)	Very like me(%)	Mean (Standard error)
1. I have tender, concerned feelings for people less fortunate than me.	4.2	18.2	52.1	25.5	2.99(0.777)
2.I try to see things from other people's points of view before making a decision.	2.8	14.0	58.3	24.9	3.05(0.705)
3.When I see someone being taken advantage of, I feel somewhat protective of him/her.	3.4	17.8	55.6	23.1	2.98(0.740)
4.I try to understand others by imagining how I would feel in someone else's situation.	2.7	12.1	58.9	26.3	3.09(0.695)
5.I am scared and afraid when I am in a tense situation.	10.8	30.4	41.2	17.6	2.66(0.891)
6.I believe every issue is double-sided, so I consider the problem from both sides.	2.4	13.5	55.2	28.9	3.14(0.712)
7.When I become impatient with someone and want to criticize the person, I usually stand in his/her position temporarily to consider the situation.	4.4	23.3	53.9	18.4	2.86(0.758)
8.When I'm reading a book or watching a movie, I think about how I would react if I were one of the characters.	8.8	26.8	46.4	18.0	2.74(0.855)
9.I would be nervous and might even break down if I saw someone was in an accident and needed urgent help.	19.9	40.2	28.9	11.0	2.31(0.912)

To obtain a clear description, we performed a factor analysis on the nine dimensions mentioned above (Kaiser-Meyer-Olson [KMO]=0.863, Bartlett's test of sphericity sig<0.000, suitable for factor analysis). We extracted two factors that explained 54.88% of the variance of the nine statements. We used a varimax rotation on the factor loading matrix and obtained the matrix displayed below.

*Table 3. Factor Loading Matrix after Rotation*

	Factor 1	Factor 2
1.I have tender, concerned feelings for people less fortunate than me	.729	
2.I try to see things from other people's points of view before making a decision	.792	
3.When I see someone being taken advantage of, I feel somewhat protective of him/her	.717	
4.I try to understand others by imagining how I would feel in someone else's situation	.785	
5.I am scared and afraid when I am in a tense situation		.778
6.I believe every issue is double-sided, so I consider the problem from both sides	.709	
7.When I become impatient with someone and want to criticize the person, I usually stand in his/her position temporarily to consider the situation	.653	
8.When I'm reading a book or watching a movie, I think about how I would react if I were one of the characters		.480
9.I would be nervous and might even break down if I saw someone was in an accident and needed urgent help		.810

Combining the results of the descriptive statistics in *Table 2* and the factor-loading matrix in *Table 3*, we found that six statements loaded onto Factor 1. The three statements with the highest means were "I believe every issue is double-sided, so I consider the problem from both sides", "I try to understand others by imagining how I would feel in someone else's situation" and "I try to see things from other people's points of view before making a decision." The means of these statements were 3.14, 3.09, and 3.05, respectively. The mean of "When I become impatient with someone and want to criticize the person, I usually stand in his/her position temporarily to consider the situation" was 2.86. All four statements indicate that people are able to perceive problems and experience emotions from others' standpoints. The three statements also have the highest means among all of the statements. Two other statements were involved in Factor 1 regarding sympathy and care. The mean of "I have tender, concerned feelings for people less fortunate than me" was 2.99, and that of "When I see someone being taken advantage of, I feel somewhat protective of him/her" was 2.98.

Factor 2 contained three statements. The statement “I am scared and afraid when I am in a tense situation,” which mirrors a person’s instinctive reaction, had a mean of 2.66. The mean of “I would be nervous and might even break down if I saw someone was in an accident and needed urgent help,” which requires imagination and the experience of others’ pain, was 2.31. The mean of “When I’m reading a book or watching a movie, I think about how I would react if I were one of the characters,” which indicates the ability to imagine a specific scene, was 2.74.

Therefore, based on loadings of the two factors and the meanings of each statement, we created names for each factor. Factor 1 was named “perspective-taking and compassionate concern,” where perspective-taking is a psychological term that implies that individuals are able to understand others’ thoughts, wishes, and emotions as well as put themselves in others’ shoes when perceiving problems. We called Factor 2 “imagination and personal suffering.” A comparison of all statements’ means showed that the respondents’ scores on Factor 1 were significantly higher than those on Factor 2.

### *Social environment and social structure*

Because the descriptive statistics of the social environment and social structure are displayed in *Table 1*, it is not necessary to repeat that information here.

### *The influencing factors of moral behavior choices*

Because the dependent variable of this study is binary, a binary logistic regression model was adopted for analysis. The aforementioned independent variables were included in the model to form the following series of nested models and these models were analyzed using SPSS19.0.

*Table 4. Models of Moral Behavioral Choices (Binary Logistic Regression Model)*

	Model 1	Model 2	Model 3	Model 4
Control Variable				
Sex (female=0)	-.268(.087)**	-.297(.091)***	-.240(.093)***	-.311(.095)***
Religion(none=0)	.164(.159)	.179(.160)	.159(.161)	.124(.163)
Age (reference group: ≤35 years)				
36-50	.381(.117)***	.505(.128)***	.461(.130)***	.387(.132)***
51-60	.079(.115)	.245(.132)*	.135(.136)	.052(.138)
≥61	.623(.141)***	.825(.161)***	.690(.167)***	.595(.169)***

Social Structure				
Occupation (reference group: underclass)				
Clerk		.383(.177)**	.281(.181)	.252(.183)
Blue Collar		.023(.129)	.020(.132)	.021(.133)
Manager		.312(.247)	.270(.250)	.226(.253)
Technician		-.011(.135)	-.041(.139)	-.070(.141)
Average Salary (reference group:no income;in RMB)				
1-1,999		-.100(.135)	-.110(.136)	-.138(.137)
2,000-3,999		.011(.148)	-.053(.150)	-.072(.151)
≥4,000		-.011(.171)	-.082(.173)	-.129(.175)
Educational Level (reference group:primary school and below)				
Middle School		.126(.120)	.102(.122)	.063(.123)
High School		.259(.141)*	.249(.148)*	.171(.150)
Associate Degree and above		.294(.168)*	.223(.179)	.155(.181)
Social Environment				
Household Registration (rural population=0)			-.002(.103)	.015(.103)
Geographic Division (reference group: Northern Jiangsu)				
Central Jiangsu			.299(.114)***	.262(.115)**
Southern Jiangsu			.411(.108)***	.377(.109)***
Incidence of Child Abuse			.616(.097)***	.587(.099)***
Frequency of encountering shoddy products in purchases			.014(.082)	-.001(.083)
Frequency of seeing false advertisements			.110(.072)	.092(.073)
Empathy				
Perspective-taking and Compassionate Concern				.322(.044)***
Imagination and Personal Suffering				-.205(.046)***

Constant	1.933(.095)***	1.637(.159)***	-.429(.338)	-.025(.345)
Pseudo R <sup>2</sup>	0.013	0.021	0.044	0.069
Likelihood ratio X <sup>2</sup>	36.93	57.77	123.05	193.86

*The numbers in parentheses represent standard errors, \*P<0.1; \*\*P<0.05; \*\*\*P<0.01*

Model 1 contained only control variables. This model shows that religion did not significantly influence choices of individual moral practices. However, sex had a significant effect such that men were less likely to choose moral behaviors than women. We defined individuals 35 years old or younger as young adults. The model demonstrated that these participants were the least likely to behave ethically. People from other age groups were more likely to behave morally. However, only those aged 36 to 50 or 61 years and older showed significantly higher rates of moral behavior choices than those aged 35 and under. In addition, these control variables were significant in all of the models.

The effects of the independent variables on the dependent variable are displayed below.

#### *The effect of social class on whether to choose moral behaviors*

Model 2 demonstrates the influence of social class with the control variables included in the model. We used the underclass as the reference group for occupation. We found that only clerks were significantly more likely to choose moral behaviors than the reference group. The differences between the other occupational groups and the reference group were not significant. However, the coefficients of the clerk group in Model 3 and Model 4 were not significant when more variables were included in the models. Therefore, we conclude that people with various occupations do not significantly differ with regard to choosing moral behaviors.

We used people with no income as the reference group for income. None of the model results exhibited significance with regard to choosing moral behaviors when comparing other income groups with the reference group. Hence, we believe that people with different incomes show no considerable distinction with regard to choosing ethical behaviors.

We selected people with a primary school education or less as the reference group for educational level. In Model 2, the coefficients of those who completed high school and those who had an associate degree or higher were significantly different from the reference group at a significance level of 0.1. These results indicate that those with a high school education, associate degree, or above were more likely to choose moral behaviors than those with a primary school education or less. However, the coefficients of the two groups lost their significance when more variables were incorporated into Model 3 and Model 4. Therefore; we

conclude that people do not significantly differ in choosing moral behaviors across educational level. In summary, individuals' choices of moral behaviors are not significantly different at disparate levels of social class. Therefore, hypotheses 2a, 2b, and 2c were not supported.

### *The effect of social environment on choosing moral behaviors*

Model 3 demonstrates the effect of the social environment on individual moral practices; this model also included the control variables and the variables of social class. The details are presented below.

The model showed no significant effect of household registration. That is, urban and rural residents did not significantly differ with regard to individual choices between righteousness and self-interest.

We used Northern Jiangsu as the reference group for the geographic division. We found that residents from the central and southern regions of Jiangsu were more likely to choose moral behaviors than residents of Northern Jiangsu. Moreover, these differences remained significant in the final model (Model 4). In the final model, the odds ratio of choosing moral behaviors was 1.3 times higher among residents from Central Jiangsu than the reference group ( $e^{0.262}=1.30$ ). The odds ratio of choosing moral behaviors among residents from Southern Jiangsu was 1.46 times higher than that of residents from Northern Jiangsu ( $e^{0.377}=1.45$ ).

Regarding the issues that reflect the social environment, the frequencies of encountering shoddy products or false advertisements did not notably influence individual choices of moral behaviors. Importantly, however, the occurrence of child abuse significantly affected individual choices of moral behaviors according to Models 3 and 4. In particular, fewer incidents of child abuse increased the likelihood of individuals choosing moral behaviors. The final model (Model 4) indicated that when the incidence of child abuse is reduced by a magnitude of 1, the odds ratio of individuals choosing moral behaviors increased by 1.80 ( $e^{0.587}=1.80$ ). Hence, child abuse is a malignant social occurrence that contributes to an inferior social environment and dramatically affects the public's moral behaviors. Thus, hypothesis 3 is supported.

### *The influence of empathy on whether to choose moral behaviors*

The results of Model 4, which included the control variables, social class, and social environment variables, show that empathy has a significant effect on individual moral practices. The factor of perspective-taking and compassionate concern (Factor 1) positively affected individual choices on moral behaviors. Higher Factor 1 scores predicted greater likelihoods of moral behavior. Conversely, the factor of imagination and personal suffering (Factor 2) was negatively correlated, indicating that higher factor score predict lower likelihoods of moral behavior. Therefore, hypothesis 1 was partially supported. This research suggests that

empathy significantly affects individual moral behaviors but that the direction of influence is not always positive.

## Discussion

*Empathy significantly influences individual choices of moral practices, but the mechanism of the specific influence is complex*

The results of the final model (Model 4) imply that empathy significantly affects individual choices of moral behaviors. The old saying of “Man was born to be good” was supported to some extent. However, the factors generated by the empathy scale demonstrated opposite effects with regard to individual choices of moral behaviors. The factor of perspective-taking and compassionate concern had a positive effect, whereas the factor of imagination and personal suffering showed a negative influence. It is easy to understand the mechanism of the positive effect, whereas the mechanism of the latter is worthy of future research.

*The social environment significantly affects choices of moral practices, but the influence of social class is trivial*

The social environment does significantly affect individuals’ choices of moral practices. However, these discrepancies appeared among regional divisions (northern, central, and southern Jiangsu) and not between urban and rural areas. Concerning other dimensions that reflect the social environment, the frequencies of encountering shoddy products or false advertisements did not significantly influence the results. By contrast, social and environmental factors such as the incidence of malignant social events (child abuse) exert strong effects, and the occurrence of such events increases the possibility of unethical behaviors.

Concerning social class, educational level and income do not significantly influence the choice of moral behaviors. A slight difference was found among people of different occupations. Clerks were significant more likely to choose moral behaviors than the underclass (i.e., farmers, unemployed, laid-off workers, and others). No significant difference was found with regard to other occupational groups compared with the underclass. In addition, after adding the variables of social environment and empathy, the effect of occupation was not significant.

*The influence of the social environment on individuals’ moral behavior choices is greater than that of empathy*

Based on the regression coefficients and standard error of Model 4, we calculated the absolute values of the standardized regression coefficients of the social environment and empathy variables separately. We found that the incidence



of child abuse (standardized regression coefficient, 0.032) had the most significant effect, followed by geographic division (standardized regression coefficients of Southern and Northern Jiangsu, 0.023 and 0.017, respectively), and the factor of perspective-taking and compassionate (standardized regression coefficient, 0.0078). The factor of imagination and personal suffering had the smallest effect (standardized regression coefficient, 0.0052).

Therefore, the influence of the social environment on individuals' moral behavior choices is greater than that of empathy. As a manifestation of human nature, empathy has a notable effect on the choices of individuals' moral practices; however, the social environment, especially malignant social events such as child abuse, has a more prominent effect.

*The odds ratio associated with the moral behaviors of young adults was the lowest*

Age was one control variable in this paper. Although this variable was not the focus of this study, the results of the models showed that young adults were significantly less likely to choose moral behaviors than other age groups, a trend that requires attention and vigilance.

## **Conclusion**

This paper used quantitative methods to explore individuals' choices of moral behaviors and their influencing factors when facing a conflict between righteousness and self-interest. Most people choose to behave morally in the face of this conflict. The results of nested models showed that the choices of individual moral practices are based on both physiological and psychological mechanisms (empathy) and are restricted by the specific social environment. Therefore, our data supports research hypotheses 1 and 3. However, hypothesis 2 was not supported by the data. Specifically, when individuals face the conflict of righteousness and self-interest, their choice of moral behavior is affected by both social environment and empathy, and the social environment has a greater impact. In terms of social environment, the impact of child abuse on people's moral behavior choice is greater than that of regions. In this paper, the region is a comprehensive indicator of the level of social and economic development, and southern Jiangsu, Central Jiangsu and Northern Jiangsu successively represent from high to low. Therefore, it can be considered that the higher level of economic development in the whole region can significantly improve people's choice of moral behavior. Therefore, the key way of improving and promoting citizens' moral behaviors is to "reward good and suppress evil". In other words, creating a benevolent and harmonious social environment will allow the individual's empathy to come into full play, and both of which can significantly improve the moral behavior choice of citizens.

### *Recommendations*

As an exploratory empirical study of ethics, this paper suffers from specific limitations and deficiencies. The most significant limitation is its measurement of variables. For example, the empathy factors displayed opposite directional influences, which suggests that we must further revise and improve the measurement of empathy. Similar problems existed with regard to the assessment of the social environment. How can a few indicators be used to measure this complex variable? How can the reliability and validity of the indicators be ensured? These questions are worth further exploration. Furthermore, discrepancies exist between self-reported moral behavior choices and real-life behaviors. Although the former can reflect the latter to a certain extent, the degree of correlation between the two is unclear. Other forms of empirical research on ethics are required to investigate the strength of the association between the two. For example, we might use experiments on ethics to study the relationship between the two, where respondents must first answer a series of questions on moral behavioral choices under specific conditions. Then, using a well-designed experiment about ethical situations, we would be able to observe the participants' realistic reactions and behavioral decisions to study the relationship between self-reported moral behavior choices and real-life moral practices.

In addition, in terms of social structure, although some studies have found that there are significant differences in people's ethical and moral cognition, the results of this paper show that there is no significant difference in the choice of moral behavior among people with different education levels, income and even different occupations when facing the conflict of righteousness and self-interest. Therefore, the mechanism from ethical cognition to moral behavior choice is worthy of further exploration.

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