



RETRACTED: A Study on the Participation of Peasants in Rural Environmental Improvement From the Perspective of Sustainable Development

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Peasants are producers and the direct stakeholders of rural environmental problems, and also the core subject of the comprehensive rural ecological improvement. However, in the current mode of rural environmental governance, the government takes the dominant role, with low participation of peasants. Based on the representative micro-survey data of China, and from the perspective of the psychosocial effects of the peasants' self-identification, this research made use of instrumental variables and generalized structural equation mode (GSEM) to explore the reason behind this phenomenon. The research shows that, first, at present Chinese peasants have a low degree of self-identification, and self-identification has a remarkable and positive stimulating effect on the participation of peasants in rural ecological improvement; second, heterogeneity analysis shows that self-identification is a stronger incentive for peasant groups with female offspring and rural families with relatively higher incomes in the participation of rural environmental improvement, and is a less remarkable incentive for rural families with relatively low incomes; and third, the mediation model results indicate that social fairness and social capital are important mediating paths with which self-identification influences the participation of peasants in rural environmental improvement, and the exertion of the stimulating effect of self-identification on the participation in rural environmental improvement is inseparable from the coordination and integration of the perception effect of peasants as the behavioral subject in terms of social fairness, and is still more inseparable from the support of corresponding social capital. What we've discovered means that the enhancement of self-identification of peasants by strengthening the construction of public cultural services and cultural guidance in rural area is the crucial element to motivate the peasants to participate in rural environmental improvement so as to realize sustainable rural development.

Keywords: environmental improvement, self-identification, rural sustainable development, participation motivation, sustainable development project

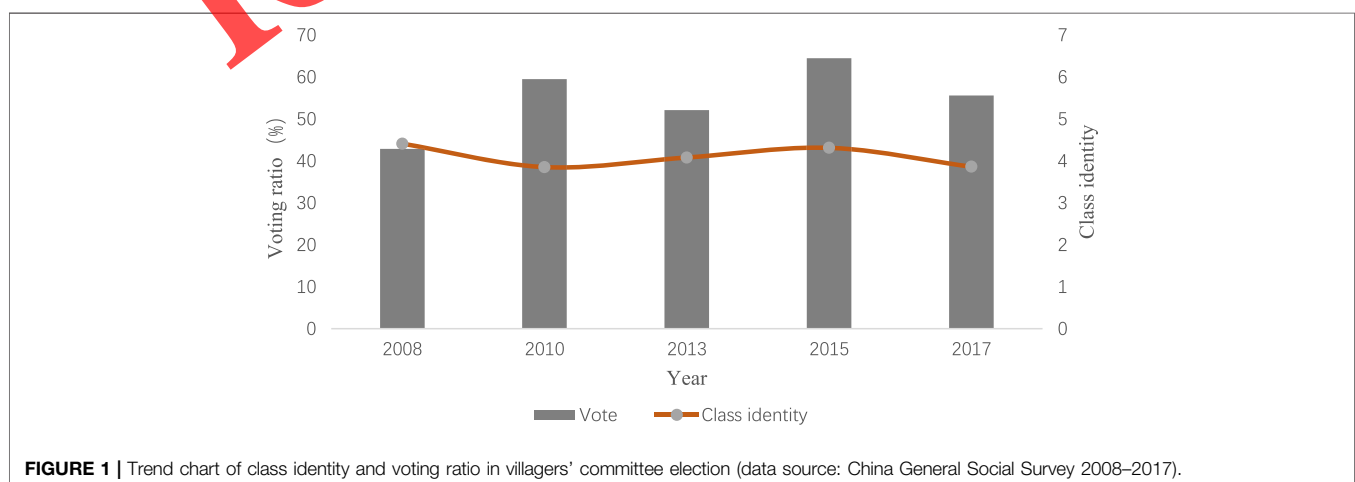
INTRODUCTION

Strengthening rural grassroots governance is an integral part of rural revitalization. As reiterated in Document No. 1 of the Central Government issued in 2021, it is necessary for us to strengthen rural grassroots governance and improve the rural governance work system; villagers are the main body of the countryside and rural governance is inseparable from villagers' participation; clarifying the motivation mechanism of farmers' participation in rural governance from different perspectives is of great significance to improve the villagers' self-governance system in the context of rural revitalization strategy and facilitate a standardized rural governance.

With the establishment of the household responsibility system (a basic rural management system) in the 1980s, villagers' committees gradually became the main body of grassroots governance, and with the promulgation of the Organic Law of the Villagers' Committees of the People's Republic of China in 1998, the status of villagers' committees as the main body of grassroots organizations was validated, and a relevant legal framework came into being to support the election and management of villagers' committees. Thanks to these efforts, villagers' committees have continued to be the main body of rural governance until now. Statistics show that 99.53% of China's incorporated villages have set up villagers' committees through elections, and villagers participate in rural governance by voting in villagers' committees, and villagers' committees set up through elections play an important role in the decision-making process of rural development. At the same time, as China's urban-rural relations enter a new phase, urban-rural social mobility has intensified, the Chinese peasant class is gradually differentiating, and the differentiation of peasants even goes beyond the confines of the village. However, **Figure 1** shows that, despite China's community-level self-governance system is ever improving itself, the proportion of farmers eligible to vote in grassroots self-governance has been stagnating in practice, and the proportion of farmers who participated in the villagers' committee election only accounts

for 40–65% of the number of eligible voters. Farmers are little interested in participation in village governance through villagers' committee election, and peasant's class identity has been oscillating around the middle class, and even tends to decline as time goes by. Closely related to the above context, but not yet fully examined, are such questions as: what is the relationship between peasant class identity and the act of village governance represented by voting in villagers' committee? does lower class identity become a shackle for rural governance? Or does it become a driving force for rural governance? More importantly, what are the mechanisms by which class identity affects farmers' political participation in village governance? The study of farmers' political participation in rural governance, especially the systematic exploration of the relationship between peasant class identity tendency and political participation and rural governance behavior, has important policy implications for stimulating farmers' sense of "ownership" and building a well-established rural governance system.

Villagers' committee election plays an important role in villagers' self-governance and rural governance. Villagers' committee election is an important vehicle and approach to realize village autonomy, and it is an important guarantee for the development of rural grassroots organizations and the realization of effective rural governance (SuRan et al., 2011). There have been more empirical studies showing that villagers' committee elections make villagers' committees more responsible and more helpful to increase rural public expenditure and villagers' welfare (Yang, 2006; Wang and Yao, 2007; Shen and Yao, 2008). At the current stage of development, in addition to the management of basic rural affairs, villagers' committees also play an important role in the development and decision-making of important matters such as rural land transfer, attraction of investments into PPP projects, new urbanization construction, and targeted poverty alleviation (Wang et al., 2017; Cai and Sun, 2018; Chen et al., 2021). The Party Central Committee in the new era further puts forward new instructions to improve grassroots organizations to lead rural governance and build governance



networks through village Party organizations and other means, among which villagers' committee election is an important part of rural governance.

Factors influencing voting in villagers' committee elections. Voting is a subjective human behavior; therefore, personal characteristics such as gender, age, political affiliation, and literacy level were among the first factors proven to have an important influence on election voting behavior, while individual subjective feelings (the higher the sense of well-being in life and the higher the social trust, the higher the motivation to participate in elections, self-efficacy is related to election participation attitudes, while political efficacy has a negative role with neighborhood committee election behavior, and political efficacy plays a mediating role) and other direct or mediating effects have an impact on villagers' behavior in elections (Wang, 2009; Tao et al., 2011; Song, 2016); in addition to personal subjective feelings, villagers' behavior in voting is also influenced by objective conditions such as household economic level and social capital as well as the neighborhood behavior (Xu et al., 2010), and in addition scholars have explored the influence of factors such as new media use and rural clan power on farmers' voting behavior. In terms of social class and rural governance and villagers' voting behavior, China is currently facing social changes with significant class differentiation, which is an important influencing factor of rural governance (Donaldson and Zhang, 2010; ZhangForrest, 2015), but there are divergent views on the relationship between social class and political participation, and there is also heterogeneity in the willingness to participate in politics among different social classes, different groups and different household registration status. Some studies have shown that people from higher social classes have higher political efficacy, they instead have a negative effect on voting in neighborhood committee elections, while people with higher political efficacy are keen to participate in community management, and other studies have shown that individuals from higher social classes in rural society are more motivated to participate politically in order to maintain their social capital and maintain an advantage to play a role in grassroots decision-making.

The above-mentioned studies have been conducted on the impact of objective social class on farmers' participation in election behavior. In recent years, some scholars have proposed that despite objective class status and class identity have a weak consistency, there are differences in their internal structure, and the proportion of class "low identity" is higher (Yunsong and Xiaoguang, 2019). Different class statuses affect their political behaviors (Wald, 2013), and those in the reference groups who regard themselves as the people in the lowest class are easily discontented (Yi, 2006). Specifically, class identity has significant moderating effect on their own socioeconomic status, social well-being perceptions, risk decision-making, and social behavior (Chen and Zhu, 2021). Theoretically, although some inherent factors determine people's objective class status, people will be affected by their social experience factors and have different social and political attitudes. Therefore, compared with objective class position, subjective

class identity based on social experience factors is more directly related to social and political attitudes. Through influencing political attitudes, class identity promotes citizens to actively realize effective political participation from the "private sphere" that focuses on individuals to the "public sphere" of public attributes. From this perspective, class identity has a greater influence on behaviors. Despite the fact that class identity plays such an important role, the existing literature rarely examines the relationship between peasant class identity and their participation in villagers' committee elections and rural governance behavior. Existing studies have made a more adequate exploration of class differentiation, class identity, and peasants' political participation. Among the studies on class identity, a large number of studies have focused on the social effects of class master identification, most of which are based on psychological aspects and Chinese residents especially urban residents, while the logical relationship between class identity and peasants' behavior remains to be explored.

The construction and improvement of rural governance system is an important institutional design and institutional embeddedness to promote rural revitalization strategy. On a comprehensive level, the most important function of villagers' committee elections is to realize village autonomy, and such election has irreplaceable importance to rural governance. At the micro level, there are deviations and divisions between peasant class identity and economic class. From the perspective of psychosocial effects, does peasant class identity affect their behavior of participating in rural governance? Does it have a facilitating or inhibiting effect? What is the mechanism of action? The answers to these questions require the support of empirical data. However, studies on this issue are limited and systematic studies are lacking. Based on this, this paper empirically investigates the impact of peasant class identity on peasant participation in rural governance behavior using the Chinese General Social Survey (2017), the micro-data, and further examines the moderating role of perceived social justice within a unified analytical framework, and further complements the research literature on the relationship between class identity and peasant political participation. In the context of social transformation, the findings of this paper can not only provide a new explanation for farmers' micro behavior of participation in rural governance, but also provide a theoretical reference for enhancing the effect of village autonomy and constructing a corresponding rural governance system.

The empirical findings of this paper consist of three main parts: firstly, the marginal effects of peasant class identity on rural governance participation behavior were given by instrumental variable models, and the heterogeneity of groups with or without male offspring and groups with different family income levels was estimated, and finally, the mediating influence paths of perceived social equity, political networks was assessed using Generalized Structural Equation Modelling (GSEM), and the corresponding effect sizes are given.

STUDY DESIGN

Data Source and Processing

The data used in this paper come from the 2017 Chinese General Social Survey (CGSS), which is a continuous cross-sectional survey of more than 10,000 households in all provinces, cities and autonomous regions of mainland China conducted by National Survey Research Center at Renmin University of China (NSRC) and is the earliest national, comprehensive, and continuous academic survey project in China. CGSS systematically and comprehensively collects data at multiple levels of society, communities, households, and individuals, summarizes trends in social change, and provides a reliable source of data for academic research and policy reference. CGSS2017 is the latest published annual survey database, covering 478 villages and dwellings in 28 provinces/municipalities/autonomous regions nationwide, with a final valid sample of 10,968, including a rural sample size of 6,194. According to the research needs, the original data are processed as follows: first, the samples of urban residents are deleted and only the samples of rural household registration are retained; second, the samples of farmers who are not eligible to vote are deleted to ensure that all the research objects in this paper have corresponding voting qualifications and reduce the estimation bias; third, the relevant samples with missing data will not be retained, and finally 5,741 valid research samples are obtained.

Variable's Definition

Explained Variable

The explained variable in this paper is whether farmers participate in village governance behavior. Referring to the relevant literature in the Introduction part, whether farmers participate in voting in villagers' committee elections is taken as a proxy variable for village governance behavior, and is assigned a value of 1 if farmers participated in the last villagers' committee election and 0 if they did not participate in voting.

Core Explanatory Variable

The core explanatory variable in this paper is peasant class identity, which is categorized into 10 levels from 1 to 10, with higher values indicating higher class identity. The China General Social Survey (CGSS 2017) asks which social class farmers themselves are in at the present time and the specific values of class identity. In essence, class identity is a reflection of the people in their perception on the location in the class structure, specifically refers to the social members according to a standard (wealth, power, social environment, etc.) for their own class belongs to subjective cognizance, making myself belonging to one layer of the system of social class, the class identification, Class identity is also affected by personal psychological quality, values, attitudes, sense of belonging, political environment and other aspects. Class identity is based on objective class, but it is not completely consistent with objective class.

Intervening Variable

Perception of social equity environment: The question of perceived social justice environment was "In general, do you think that the society today is fair or unfair?" There are

5 options: "not fair at all," "relatively unfair," "not fair but not unfair either," "relatively fair," and "completely fair," which are assigned a value of 1–5 respectively. The higher the value, the stronger the perception of social fairness and the fairer the society.

Political capital: According to the definition of political capital, it refers to the individual power of political action through various participation in the process of interaction between civil society and the political system, so the frequency of farmers' participation in the activities of the corresponding political groups can be used as a proxy variable to measure political capital. In view of this, the question can be asked like "In the past 12 months, how often did you participate in the activities of political parties, political groups or political associations," and there are five options: "never participated," "participated once last year," "participated several times last year," "once to three times a month," "once a week or more," etc., which are assigned a value of 1–5 respectively. The higher the value, the more political capital they have gained.

Controlled Variable

Reference literature (18–21), the personal characteristics (gender, age, age/100 square, nationality, self-evaluation of health, marriage experience, education level, political affiliation and religion), family size, social capital (frequency of Internet use, social trust), and personal income related variables under control, the specific variable description and specification are shown in **Table 1**.

Data Characteristics

According to the analysis of the descriptive statistical results in **Table 1**, the proportion of the full range participating in the villagers' committee voting is only 49.7%, a relatively low participation proportion, which reflects the reality that the level of farmers' political participation is low at the current stage in China. In the low class identity group, the mean value of class identity is only 3.478, and even in the high class identity group, the mean value only reaches 6.670, and the difference between the class identity of the two groups reaches 47.85%. From the overall sample, the mean value of class identity of the full range is only 3.860, which has not yet reached the median, indicating that peasant class identity is generally low at this stage in China. In terms of personal characteristics, in rural areas, the proportion of males is 47.8%, with little difference between the low and high class identity groups, and the sample is basically balanced between males and females; the mean age is 49.608 years, indicating that the middle-aged group is the backbone of rural areas at this stage, mainly Han Chinese, and most of them have married, and their literacy level is relatively low at high school and below; the mean value of fitness level reaches 3.351, and rural residents are generally in good health, and the political affiliation is mainly masses, but the proportion of the high class identity group with Party status is higher, and these data features are consistent with reality. In terms of social capital, the average value of Internet use frequency is only 2.387, indicating that

TABLE 1 | Key characteristics of our sample.

Variable name	Definition	Low class identity (1–5) group		High class identity (6–10) group		Full range	
		Mean	SD	Mean	SD	Mean	SD
Rural governance	1 = participation in villagers' committee voting, 0 = non-participation in villagers' committee voting	0.557	0.497	0.550	0.498	0.556	0.497
Class identity	1 (bottom)-10 (top)	3.478	1.378	6.670	1.053	3.860	1.696
Gender	1 = male, 0 = female	0.479	0.500	0.477	0.500	0.478	0.522
Age	Age	49.914	15.967	47.357	17.057	49.608	16.121
Age ²	Age ² /100	27.463	15.995	25.332	16.815	27.208	16.108
Nationality	1 = minority, 0 = Han	0.905	0.293	0.922	0.268	0.907	0.290
Marital status	1 = married, 0 = unmarried	0.901	0.299	0.879	0.327	0.898	0.303
Fitness level	Very unhealthy = 1, relatively unhealthy = 2, average = 3, relatively healthy = 4, very healthy = 4	3.295	1.166	3.763	1.024	3.351	1.16
Literacy level	Never attended school = 0, elementary school = 6, high school = 9, high school/technical secondary school = 12, junior college = 15, university = 16, graduate school = 20	7.026	4.228	8.395	4.354	7.19	4.266
Political affiliation	1 = CPC member/Democratic Party member, 0 = Other	0.042	0.2	0.089	0.285	0.047	0.212
Religious belief	1 = believer, 0 = atheist	0.101	0.302	0.116	0.320	0.103	0.304
Family size	family size	3.076	3.622	3.285	3.918	3.101	3.659
Frequency of internet use	1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = very often	2.334	2.106	2.78	1.699	2.387	2.066
Social credit	1 = very distrustful, 2 = relatively distrustful, 3 = average, 4 = relatively trustful, 5 = very trustful	3.476	1.031	3.532	1.009	3.483	1.028
Income level	annual income amount (yuan)	35,184.911	84,449.621	48,607.992	91,065.285	36,790.065	85,370.892
Perception of social/environmental equity	1 = not fair at all, 2 = relatively unfair, 3 = not fair but not unfair either, 4 = relatively fair, 5 = completely fair	3.081	1.092	3.334	1.001	3.111	1.091
Political capital	1 = never participated in a political group, 2 = participated in a political group event last year, 3 = participated in several political group activities last year, 4 = 1 to 3 political group activities per month, 5 = participate in political group activities once a week or more	2.202	1.661	3.346	1.810	3.121	1.680
Observed value	Quantity	5,032		709		5,741	

the vast majority of farmers seldom use the Internet, and the frequency of Internet use is low in the farmers' group; the average value of perceived evaluation of social credit reaches 3.483, which is at a medium level, and the level of social credit needs to be improved. In terms of family size, the average family size is 3.659, indicating that each family has 1–2 children on average. In terms of income level, in the low class identity group, the average annual income level of farmers is RMB35,184.911, while that of the high class identity group reaches RMB48,607.992, with an income gap ratio of 27.61%. It seems initially that the higher the annual income level of individuals, the higher their class identity level. In terms of mediating variables, the perception of social justice and political capital of farmers with low class identity are lower than those with high class identity.

The above analysis reflects that farmers in the low class identity group and those in the high class identity group have very similar characteristics, and the main difference lies in that the gap of class identity is far greater than the gap of income level, which shows that the relationship between class identity and economic income is not completely linear, and the class differentiation is obvious. In addition, a higher proportion of the high class identity peasant groups have party affiliation and

a higher level of education than the low class identity peasant groups.

Model Specification

Since the value of the explained variable is only 0 and 1, and there is no quantitative relationship between 0 and 1, its main connotation is whether to participate in the logical behavior of rural governance. Therefore, the Probit binary selection model is used as the basic model, and the instrumental variable method is used for regression analysis, and the model is set as follows:

$$\begin{aligned}
 Prob(RG_i) = \Phi & \left(a_0 + \beta_0 Sss p_i + \beta_1 Personal\ characteristics_{i,j} \right. \\
 & + \beta_2 Family\ size_i + \beta_3 Social\ capital_{i,j} + \beta_4 Income_i \\
 & \left. + \varepsilon_{ij} \right)
 \end{aligned}
 \tag{1}$$

Further, the Mediating Effect Model proposed by Baron and Kenny in 1986 (Elisia, 2010) is used to empirically test whether the two key variables of perceived social equity and political capital play a mediating role between class identity and rural governance, and the mediating path model for the perceived social equity variable is set as follows:

$$Fair_i = a_1 + \gamma_0 Sssp_i + \gamma_1 Personal\ characteristics_{ij} + \gamma_2 Family\ size_i + \gamma_3 Social\ capital_{ij} + \gamma_4 Income_i + \epsilon_{ij} \tag{2}$$

$$Prob(RG_i) = \Phi(a_2 + \delta_0 Sssp_i + \alpha_1 Fair_i + \delta_1 Personal\ characteristics_{ij} + \delta_2 Family\ size_i + \delta_3 Social\ capital_{ij} + \delta_4 Income_i + \epsilon_{ij}) \tag{3}$$

The mediating path model for the political capital variable is set as follows:

$$PC_i = a_3 + \rho_0 Sssp_i + \rho_1 Personal\ characteristics_{ij} + \rho_2 Family\ size_i + \rho_3 Social\ capital_{ij} + \rho_4 Income_i + \epsilon_{ij} \tag{4}$$

$$Prob(RG_i) = \Phi(a_4 + \theta_0 Sssp_i + \alpha PC_i + \theta_1 Personal\ characteristics_{ij} + \theta_2 Family\ size_i + \theta_3 Social\ capital_{ij} + \theta_4 Income_i + \epsilon_{ij}) \tag{5}$$

In the above regression model, $\beta, \gamma, \delta, \theta$ are the parameters to be estimated in the model, a is a constant, subscript i denotes the i th individual farmer, j denotes the j th feature vector of the i th individual migrant worker. RG denotes rural governance behavior, $sssp$ denotes class identity of individual farmers, $Personal\ characteristics_{ij}$ denotes a series of individual feature vectors including gender, age, age²/100, nationality, marital status, religious belief, literacy level, political affiliation, fitness level, etc.; $Family\ size$ denotes the size of a family; $Social\ capital_{ij}$ denotes social capital characteristics vectors including Internet usage frequency and social credit variables; $Income_i$ denotes annual income variable of individual migrant workers; $Fair_i$ denotes the mediating variable of perceived social equity; PC_i denotes the mediating variable of political capital; and ϵ_{ij} denotes the residual term.

The specific estimation steps of the model are as follows: firstly, the model (1) is used to carry out instrumental variable regression to obtain the empirical results between peasant class identity and rural governance behavior; secondly, the model (3) and the model (5) are used to estimate the results of social justice perception and political capital variables after being incorporated into the model; finally, the model (2) and the model (4) are used to estimate the relationship and specific coefficients between class identity and mediating variables. Since the dependent variable is a binary selection variable, this paper uses the GSEM, i.e., generalized structural equation modelling, to conduct estimation. β_0 is the total effect of class identity on rural governance behavior, $\gamma_0\delta_0$ is the indirect effect of the social justice perception mediating variable, and $\rho_0*\theta_0$ is the indirect effect of the political capital mediating variable.

TABLE 2 | Estimation results of instrumental variables model.

Variable	Stage 1	Stage 2
	Sssp	rg
Class identity	0.2695***(0.0316)	0.3413***(0.0810)
Dwelling area		
Male	-0.2399***(0.0439)	0.1493***(0.0277)
Age	-0.0096 (0.0088)	0.0367***(0.0042)
Age ² /100	0.0180***(0.0083)	-0.0341***(0.0041)
Ethnic minority	0.1556***(0.0743)	0.1103***(0.0336)
Marries	0.1017 (0.0846)	-0.0040 (0.0412)
Fitness level	0.3241****(0.0206)	-0.1067****(0.0282)
Literacy level	0.0366****(0.0065)	-0.0041 (0.0043)
Political affiliation	0.3244****(0.1015)	0.0760 (0.0536)
Religious belief	0.1630***(0.0709)	-0.1642****(0.0359)
Family size	0.0022 (0.0058)	-0.0013 (0.0028)
Frequency of internet use	0.0328***(0.0128)	-0.0365****(0.0079)
Social credit	0.1134****(0.0209)	-0.0200 (0.0135)
Individual annual income	0.0934****(0.0112)	-0.0312****(0.0074)
Constant item	-0.8001 (0.0191)	
Wald test of exogeneity:chi2		82.72***
R-squared	0.1089	0.0898
Pseudo R2		
Observations		5,741

Note: ***and ** indicate the 1% and 5% significance level, respectively.

ANALYSIS OF EMPIRICAL RESULTS

Instrumental Variables Estimation

Endogeneity Test

Since peasant class identity is classified into the psychological level and voting in villagers' committee elections is a specific political participation behavior, the psychological implication effect of voting behavior may in turn affect the level of class identity and thus may bring about reverse causality, leading to the existence of endogenous inability to accurately estimate the results or the deviation of the estimation result in the model. Therefore, before conducting the empirical analysis, the endogeneity test should be conducted on the core explanatory variable of peasant class identity, and the test results are shown in Table 2. The test results show that the wald value of the endogeneity test is 82.72 by passing the 1% significance level test, which indicates that the model does have endogeneity problems such as reverse causality.

Instrumental Variables Validation

To weaken the effect of the endogeneity problem on the estimation results, the endogeneity problem is addressed by finding a suitable instrumental variable. There are two criteria for the selection of instrumental variables, one of which is correlation with the explained variables and the other is no correlation with the explained variables, but no direct influence effect. To address the problem of endogeneity, considering that economic conditions are the direct influencing factor of class identity, and housing is the key proxy for economic level and living environment, this paper

selects the dwelling area of current housing (m²) as the instrumental variable of class identity, and weakens the endogeneity of the endogenous variable (class identity) through the instrumental variable method (two-step method) to get more accurate estimation results. It should be noted that, on the one hand, theoretically, the size of housing has a certain degree of randomness due to the influence of different macro-environments in different regions, and the size of housing does not directly affect whether individuals are qualified to vote and whether they participate in voting; on the other hand, housing size does not directly affect one's voting eligibility and voting behavior, but only has an indirect effect by affecting one's overall quality or class identity, and generally speaking, the larger the housing size, the better one's economic condition, and the more likely one has a higher class identity. To test the validity of the selected instrumental variables, the first stage of OLS regression is conducted using class identity for both instrumental and control variables, and it is found that dwelling area has a significant positive relationship with peasant class, with a possible 26.95% increase in subjective class identity level for every 1 m² increase in dwelling area (2-3 level increase in a total of 10 levels), and the model F-statistic value is 46.93, which is greater than the general empirical test value (10), indicating that there is no problem of weak instrumental variables in the model and the chosen instrumental variables are reasonable.

Instrumental Variables Model Estimation Results

The second-stage results in **Table 2** report the marginal effect of class identity on farmers' participation in rural governance behavior. The results show that class identity is positively related to farmers' participation in rural governance behavior by passing the 1% significance level test. The odds of farmers' participation in rural governance behavior increase by 34.13% for each level of class identity, indicating that higher peasant class identity does motivate the occurrence of rural governance behavior, and the stronger the motivation and greater the probability of their participation in rural governance participation. In the context of urban-rural integration, a large number of new social classes, such as economically capable people, politically capable people, large farmers and entrepreneurs, have emerged. With the capital going to the countryside and social changes in rural areas, such new social classes along with a large number of ordinary small farmers have led to the highly homogeneous class identity gradually differentiated. In the current reality of low class identity in rural areas, the improvement of class identity is conducive to enhancing farmers' motivation to participate in rural governance.

The effects of controlled variables have on the behavior of farmers' participation in rural governance. The regression results of each model show that related variables such as personal characteristics, family capital, and social capital all have significant effects on farmers' rural governance behavior. In terms of personal characteristics, farmers' gender variable has a significant positive contribution to their election voting

behavior, and rural men are more likely to participate in rural governance than women, which conversely illustrates the realistic proposition that rural women are marginalized in current Chinese rural governance; both farmers' age and the age-squared term pass the 1% significance level test and have a highly significant effect on farmers' participation in election behavior, and age is significantly and positively related to the behavior of farmers' participation in rural governance. This paper further investigates the effect of the squared age term on voting behavior, and the results show that the squared age term is significantly and negatively related to rural governance participation behavior. This indicates that the relationship between age and voting behavior is not a simple linear relationship, but an inverted "U" shaped relationship. In other words, the older the farmer is, the more likely he or she is to vote in elections and the stronger motivation he or she has to vote. However, as age increases, the probability of participating in rural governance tends to decrease, and the marginal voting probability decreases. Analysis of the results combined with descriptive statistics reveals that the inflection point of the nonlinear relationship is around the age of 50. It is worth exploring that the proxy variable for rural governance in this paper is whether or not one participates in voting in villagers' committee elections. Voting in villagers' committee is not a technical act. It is simple to operate, and older age does not indicate greater proficiency in the act of voting. There are mainly two implied reasons and meanings behind this circumstance: one is that as the young age-appropriate labor force continues to move to the cities, the elderly peasant group becomes the main body of village elections, and there is a certain natural screening in the electoral subjects with a higher proportion of the elderly group; the second is that the traditional view is that household heads are relatively elderly individuals with relatively poor health and relatively conservative and backward ideas of their own, and their willingness for political activities are not high. However, because the elderly group has lived in the countryside for many years, they have a deeper "love and care" feeling for the countryside they live in. Middle-aged villagers are the main labor force among farmers, and they may have higher voting motivation by participating in the election of rulers related to their own interests, which is closely related to their own environment; marriage status, literacy level and political affiliation have no significant impact on participation in rural governance behavior, while individual characteristics such as ethnic minority identity also have a significant positive effect on voting behavior. Ethnic minorities have high enthusiasm for participating in politics in order to express their demands, while religious belief attributes and fitness level have negative effects on their voting behavior.

In terms of social capital, the coefficient of Internet use frequency is negative and rejects the original hypothesis at 1% significance level, which may be because the study population of this paper is mainly farmers, and the important reason may be the generally low level of Internet use and reliance among the older generation of farmers. Combined with the descriptive statistics analysis, it is found that more than 50% of the sample farmers rarely use the Internet. In terms of household

TABLE 3 | Estimated results for different offspring groups.

Variable	Male offspring groups	Female offspring groups
Class identity	0.2949*** (0.0766)	0.3765***(0.1861)
Controlled variable	Yes	Yes
Pseudo R2	0.0575	0.1502
Sample size	4,407	1,524

characteristics, there is no significant effect of household size on rural governance behavior, while personal income level has a significant responsible effect on rural governance behavior.

Heterogeneity Analysis

Class Identity and Rural Governance of Peasants With Different Offspring

In order to empirically test the difference in the effect of class identity on rural governance participation behavior among different offspring groups of farmers, two groups of farmers, male offspring only and female offspring only, are divided by gender of farmers' offspring and the instrumental variables are estimated separately, and the estimated results are presented in **Table 3**. The marginal effect of peasant class identity on rural governance behavior is 0.2949 in the male offspring group and 0.3765 in the female offspring group, with a greater incentive effect of peasant class identity on rural governance behavior in the female offspring group.

In fact, familism is still the most basic social structure and behavior in rural China (Albanesi et al., 2012) Influenced by traditional Confucianism, traditional Chinese fertility culture is mainly characterized by "raising children for retirement safeguard," "more sons for more blessings," and "sons are most valuable." In China, India and other countries, male offspring take the main responsibility for parental security such as old age support, and male offspring can provide additional status to the family (Henn and Foard, 2014; Tzeng, 2020). Therefore, there may be some differences between the family status and social status of the peasant group of male offspring. Male offspring have a certain substitution relationship for social security in family relations, which may reduce their motivation to express their power and social status in rural governance through villagers' committee election and voting. On the contrary, among the female offspring farmers, with the improvement of their class identity, they have a stronger motivation to seek the power status consistent with their class by participating in rural governance.

Class Identity and Rural Governance of Peasant Groups at Different Economic Levels

To test the influence of class identity on rural governance behavior for farmer groups at different economic levels, farmers with annual household income levels below or equal to the median income (RMB30,000) are classified as relatively low-income group, and farmers with annual household income levels above the median income (RMB30,000) are classified as relatively high-income group. The model results are estimated by

TABLE 4 | Estimated results for groups at different economic levels.

Variable	Groups at low-income level	Groups at high-income level
Class identity	0.0701 (0.0801)	0.6137***(0.1604)
Controlled variable	Yes	Yes
Pseudo R2	0.0489	0.1159
Sample size	3,105	2,826

instrumental variable method according to different income groups, and the corresponding results are reported in **Table 4**. The results show that in the relatively low-income group of farmers, the incentive effect of class identity on their rural governance participation behavior is not significant, while in the relatively high-income group of farmers, the marginal effect of class identity reaches 0.6137 by passing the significance level test of 1%.

Analysis of the Mechanism of Action

On the premise of controlling other variables, the relationship between farmers' class identity and rural governance participation behavior is studied above. However, in real economy, the relationship between the two may be more complicated. Especially in the context of the continuous widening gap between urban and rural areas, the core of public administration should be justice and social equity (H.Georg Frederikson, 1980). Therefore, the perception of social equity environment and political capital play a crucial role in influencing farmers' behavior choices.

The relationship between peasant class identity and participation behavior in rural governance has been studied above controlling other variables, however, in the real economy, the relationship may be more complex. In particular, in the context of a widening urban-rural gap, the core of public administration should be justice and social equity (), and thus the perception of a socially equitable environment and political capital play a crucial role in influencing farmers' behavioral choices. The question of perceived social justice environment was "In general, do you think that the society today is fair or unfair?" There are 5 options: "not fair at all," "relatively unfair," "not fair but not unfair either," "relatively fair," and "completely fair," which are assigned a value of 1–5 respectively. The higher the value, the stronger the perception of social fairness and the fairer the society. According to the definition of political capital, it refers to the individual power of political action through various participation in the process of interaction between civil society and the political system, so the frequency of farmers' participation in the activities of the corresponding political groups can be used as a proxy variable to measure political capital. In view of this, the question can be asked like "In the past 12 months, how often did you participate in the activities of political parties, political groups or political associations," and there are five options: "never participated," "participated once last year," "participated several times last year," "once to three times a month," "once a week or more," etc., which are

TABLE 5 | GSEM mediating effect test.

Mediation path	Indirect effects	Proportion of total effect (%)
Class identity→Social equity→Rural governance	0.0018***	32.14
Class identity→Political capital→Rural governance	0.0014***	34.14

assigned a value of 1–5 respectively. The higher the value, the more political capital they have gained.

Since the dependent variable of the study is a dichotomous variable, the generalized structural equation modelling (GSEM) regression is used to estimate the results of the mediating effect test of peasant class identity through perceived social equity and political capital that affect their participation behavior in villagers' committee elections, and the corresponding empirical results are reported in **Table 5**. The results show that the mediating effect tests of social equity and political capital variables passed the 1% significance level test, and the proportion of mediating effect reached 32.14% and 34.14%, respectively. It can be concluded that with the increase in the frequency of political activities and the increase in farmers' perception of fairness, the positive incentive of peasant class identity on participation in rural governance behavior will be amplified, and popularizing political association activities and improving the perception of social fairness are important ways to stimulate farmers' motivation to participate in social governance.

CONCLUSION AND SUGGESTIONS ON COUNTERMEASURES

This paper analyzes the mechanism of villagers' participation in rural governance from the perspective of psychosocial effects. Unlike previous studies that focused more on the real inherent conditions affecting electoral participation, this study focuses on the internal logic of class identity and farmers' participation behavior in rural governance. This paper finds that, in the context of low peasant class identity, class identity generally has a positive incentive effect on farmers' participation in elections, and this finding still holds and is robust after eliminating endogeneity. Secondly, there are significant differences in the promotion effect of class identity on rural governance behavior among farmers with different offspring and at different household economic levels, and the motivating effect of class identity on rural governance behavior is stronger among farmers with female offspring, and the motivating effect of class identity on rural governance behavior is only significant among relatively high economic level household groups. Finally, social equity and political capital are important mediating paths for class identity to influence farmers' participation in rural governance behavior. The driving role of class identity on political participation in rural governance cannot be played without the synergy and integration of the perceived effects of social fairness of acting subjects, and more importantly, without the support of corresponding political capital. This finding has very important policy implications and provides theoretical and empirical support for the government's efforts to improve the effect of village

autonomy and build a corresponding rural governance system. In summary, the following countermeasures are given.

First, in addition to economic levels and environmental influences, class identity has a significant impact on farmers' participation in rural governance behavior. Against the background of generally low peasant class identity, it is necessary for us to pay more attention to rural public cultural services and cultural guidance; build an endogenous mechanism of public cultural services in China's rural areas and put in place a policy system of public cultural services in rural areas to realize rural cultural revitalization; increase the supply of rural public goods; improve peasants' sense of well-being, sense of gain and peasant class identity, providing sustainable endogenous motivation for their participation in rural governance.

Second, at a deeper level, to involve farmers in rural governance, we should pay more attention to the role of social opinion guidance and social equity perception, and at the same time play the role of political groups and political associations in aggregating group will and integrating group power through multiple channels and platforms, strengthen the awareness of rule of law and political participation, promote political and social democracy, enhance social and political supervision, design a series of policies for the fair and reasonable distribution of rural public interests, respond to the reasonable interests of farmers to boost confidence and class identity, strengthen the behavior demonstration of village cadres to stimulate villagers' inner sense of identity, alleviate social conflicts brought by class cognitive bias and class solidification, and foster a positive atmosphere for rural governance.

Third, against the background of generally low peasant class identity, we should build a class identity system consistent with objective class status in terms of social perception, economic level, literacy level, and professional prestige, accelerate the development of urban-rural integration, minimize or remove the "shackle" effect of class identity bias on farmers' participation in rural governance brought about by the reference effect of urban-rural differences. In particular, the economic situation of low-income farmers should be improved. More importantly, attention should be paid to the political mentality and social responsibility of low-income farmers, and a more convenient and low-cost political participation model should be designed for low-income farmers to improve the effect of participation in rural governance, and improve the effect of participation in rural governance.

DATA AVAILABILITY STATEMENT

Publicly available datasets were analyzed in this study. This data can be found here: <http://cgss.ruc.edu.cn/>.

AUTHOR CONTRIBUTIONS

Conceptualization, Writing—original draft, Validation RL; Data curation, Methodology XM; Formal analysis, Investigation BL; Project administration XY; Software, Resources XC; Supervision, Writing—review and editing, Funding acquisition SL.

REFERENCES

- Albanesi, C., Zani, B., and Cicognani, E. (2012). Youth Civic and Political Participation through the Lens of Gender: The Italian Case. *J. Hum. Aff.* 22 (3), 360–374. doi:10.2478/s13374-012-0030-3
- Cai, M., and Sun, X. (2018). Institutional Bindingness, Power Structure, and Land Expropriation in China. *World Dev.* 109, 172–186. doi:10.1016/j.worlddev.2018.04.019
- Chen, H., and Zhu, Z. (2021). Social Trust and Emotional Health in Older Adults in China: The Mediating and Moderating Role of Subjective Well-Being and Subjective Social Status. *BMC Public Health* 1. 1. doi:10.21203/rs.3.rs-44978/v1
- Chen, J., Kan, K., and Davis, D. S. (2021). Administrative Reclassification and Neighborhood Governance in Urbanizing China. *Cities* 118, 103386. doi:10.1016/j.cities.2021.103386
- Donaldson, J. A., and Zhang, Q. F. (2010). From Peasants to Farmers: Peasant Differentiation, Labor Regimes, and Land-Rights Institutions in China's Agrarian Transition. *Polit. Soc.* 4, 458–489. doi:10.1177/0032329210381236
- Elisia, L. (2010). Some Factors that Hinder Women Participation in Social, Political and Economic Activities in Tanzania. *Arts Soc. Sci. J.* 01, 1. doi:10.4172/2151-6200.1000004
- Henn, M., and Foard, N. (2014). Social Differentiation in Young People's Political Participation: the Impact of Social and Educational Factors on Youth Political Engagement in Britain. *J. Youth Stud.* 17, 360–380. doi:10.1080/13676261.2013.830704
- Shen, Y., and Yao, Y. (2008). Does Grassroots Democracy Reduce Income Inequality in China? *J. Public Economics* 92, 182–2198. doi:10.1016/j.jpubeco.2008.04.002
- Song, Y. (2016). Institutionalizing Rural Women's Political Participation in China: Reserved Seats Election for Women. *Asian Women* 32, 77. doi:10.14451/aw.2016.09.32.3.77
- SuRan, F. T., Ran, T., Sun, X., and Liu, M. (2011). Clans, Electoral Procedures and Voter Turnout: Evidence from Villagers' Committee Elections in Transitional China. *Polit. Stud.* 59, 432–457. doi:10.1111/j.1467-9248.2011.00881.x
- Tao, R., SuLu, F. X. xi, Sun, X., and Lu, X. (2011). Political Trust as Rational Belief: Evidence from Chinese Village Elections. *J. Comp. Econ.* 39, 108–121. doi:10.1016/j.jce.2010.09.004
- Tzeng, W.-F. (2020). A Rural-Urban Divide Reassessing Voting in Chinese Villagers' Committee and Residents' Committee Elections. *J. Chin. Polit. Sci.* 25, 615–637. doi:10.1007/s11366-020-09688-2
- Wald, N. (2013). Bridging Identity Divides in Current Rural Social Mobilisation. *Identities* 20, 598–615. doi:10.1080/1070289x.2013.819001
- Wang, S., and Yao, Y. (2007). Grassroots Democracy and Local Governance: Evidence from Rural China. *World Dev.* 35, 1635–1649. doi:10.1016/j.worlddev.2006.10.014
- Wang, X. (2009). The Aged Women and the Civil Society. *Asian Women* 4, 3–21. doi:10.14431/aw.2009.12.25.4.3
- Wang, X., Wang, X., Wu, J., and Zhao, G. (2017). Social Network Analysis of Actors in Rural Development: a Case Study of Yanhe Village, Hubei Province, China. *Growth and Change* 48, 869. doi:10.1111/grow.12195
- Xu, Q., Perkins, D. D., and Chow, J. C.-C. (2010). Sense of Community, Neighboring, and Social Capital as Predictors of Local Political Participation in China. *Am. J. Community Psychol.* 45, 259–271. doi:10.1007/s10464-010-9312-2
- Yang, Y. (2006). Village Elections, Accountability and Income Distribution in Rural China [J]. *China & World Economy* 6, 20–38. doi:10.22459/tpced.08.2006.13
- Yi, Z. (2006). A Study on Stratum Conflict Consciousness in Urban China. *Social Sci. China* 1, 3–18.
- Yunsong, C., and Xiaoguang, F. (2019). Subjective Social Status, Income Inequality and Subjective Perceptions of Mobility (2003–2013). *Soc. Sci. China* 40, 70–88. doi:10.1080/02529203.2019.1595063
- ZhangForrest, Q. F. (2015). Class Differentiation in Rural China: Dynamics of Accumulation, Commodification and State Intervention. *J. Agrarian Change* 15, 338–365. doi:10.1111/joac.12120

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