



Generalized trust among Christians in urban China: Analysis based on propensity score matching

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Abstract

Drawing on a recently collected nationwide survey in mainland China, this article examines the average level of generalized trust among urban Protestants. This is the first rigorous quantitative study addressing the relationship between religion and trust in the context of mainland Chinese society. Through propensity score matching, this study also demonstrates how to deal with potential selection bias, a long-time overlooked issue in the sociology of religion. The findings in this article reveal that both male and female urban Protestants, compared with non-Protestants, show a significantly lower level of generalized trust in an average person. A similar pattern was not detected in Buddhists. Finally, urban Protestants in contemporary China on average exhibit a higher level of trust in religious adherents and religious organizations. Taken together, this study provides a preliminary portrait of urban Protestants in terms of their attitudes towards the trustworthiness of generalized others, religious followers, and religious organizations.

Keywords

China, generalized trust, matching, Protestants, urban residents

Introduction

Generalized trust refers to the trust in general social members. As a type of belief in the benevolence of human nature (Yamagishi and Yamagishi, 1994), generalized trust has been found to be related to many desirable social outcomes, such as economic growth

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(Berggren et al., 2008), social stability (Uslaner, 2003), and subjective wellbeing (Helliwell, 2006). Because of the significant function of generalized trust for a society, a central research question in empirical sociology is to examine the factors determining people's trust in generalized others. This question has spawned a strand of studies (for reviews, see Levi and Stoker, 2000; Nannestad, 2008; Welch et al., 2004). Among the documented determinants of generalized trust in previous research, religion has always been an important one (Beyerlein and Hipp, 2006; Welch et al., 2007).

As reported by Orbel et al. (1992), religious people are often viewed to have a higher level of generalized trust as a result of a commonly held idea that religious faith encourages religious adherents to do well to others. That is the case for many Protestant denominations according to the previous research. For example, individuals in liberal Protestant denominations in the United States have been shown to be more likely to expand their trust in the coreligionists of the same church to an average person, so as to exhibit a higher level of generalized trust (Wuthnow and Evans, 2002). However, not all Protestant denominations can promote generalized trust. The participants of conservative Protestantism (e.g., Fundamentalists and Evangelicals), for example, may show a lower level of generalized trust because the religious teachings held by these denominations may strengthen the social boundary and divide between the religious and the non-religious (Hempel et al., 2012; Smith, 1997).

No matter positive or negative, it is generally acknowledged that religion matters for an individual's propensity of generalized trust. However, most studies on the relationship between Protestantism and generalized trust were performed in Western societies where Judeo-Christian religions are dominant. What characteristics the Protestantism–trust nexus might have in a non-Judeo Christian context, especially in an Asian society, are understudied. This research, drawing on recently collected nationwide survey data, aims to fill this gap by examining the average level of generalized trust of urban Protestants in mainland China.

This research on the relationship between Protestantism and generalized trust in mainland China makes a marked contribution to the existing literature. It has been noted that the rapid and comprehensive social transition in the past decades drove Chinese citizens, especially urban residents, into a new political-social order, from state socialism to the market (Nee, 1989; Nee and Cao, 2005). In this transition process, generalized trust was observed to decline and many scholars used the term 'the crisis of trust' to describe the status of the social mentality in contemporary China (Mu, 2005; Shi, 2009). At the same time, there has been a wave of revival of Christianity across the country. For instance, according to a nationwide representative survey conducted in 2007, the number of Protestants in mainland China has reached around 30 million (Huang, 2011). In light of the linkage between Protestantism and generalized trust that has been well documented in many other societies, it is both theoretically and practically relevant to see whether Protestantism in China plays a similar pro-trust role in an era of transition.

In addition to adding the case of mainland China to the literature, the present research also makes methodological contributions by showing how to deal with potential selection bias using propensity score matching. Previous research on the relationship between religion and generalized trust largely failed to take into account selection bias. Selection bias, from the perspective of sampling methodology, refers to the bias in statistical

inference caused by the nonrandom under-coverage (or over-coverage) of some portion of the target population (Lohr, 2010; Winship and Mare, 1992). In order to infer the situation of the population, respondents should receive the treatment in a random manner, like the situation in a randomized experiment.¹ If not, the mechanism of receiving treatment should at least be estimated and controlled for. Otherwise, the conclusion might be misleading. Although selection bias has been noticed by social scientists for a long time, it has not been given enough attention in the sociology of religion. For instance, many empirical studies do not consider *how respondents become a Protestant* when examining the effect of Protestantism on generalized trust. This conventional analytical approach may be problematic as many covariates determining people's likelihood of converting to Christianity are *simultaneously* correlated with people's level of generalized trust. For instance, females have been found to be more likely than males to convert to Christianity and also show a higher average level of generalized trust (Cornwall, 2009; Hoffmann, 2009; Maddux and Brewer, 2005). In this case, if researchers do not control for gender, the apparent significant relationship between religion and generalized trust can be spurious. In this research, we use propensity score matching to deal with selection bias problem (Morgan and Winship, 2007; Rubin, 1997).

In this study, we focus on urban Protestants due to the following considerations. In the past decades, the population of Protestants in urban areas has been growing in the process of social reform and urbanization (Gao, 2011; Yang, 2005). Nevertheless, while rural Protestants have been relatively well studied, urban Protestants have been understudied. Field studies have shown that the demographic composition of urban Protestants is different from that of their rural counterparts, being more gender-balanced, younger, and better educated (Chen, 2010; Liu, 2006; Ma, 2008; Tang, 2009). In this case, there are good reasons to suspect that urban Protestants are more likely to emphasize religious identity, participate in religious programs more regularly, and pursue more theological than utilitarian ends in their religious activities (Ma, 2008). These distinctive characteristics of urban Protestants may affect their characteristics of trust in generalized others and also suggest that urban Protestantism in China is more comparable than its rural version with Protestantism in Western societies, thus contributing to cross-national comparative study.

In the rest of this article, we will proceed with a theoretical discussion about the relationship between Protestantism and generalized trust. Then, the data, methods, and measures used in this research are introduced, which is followed with the major findings and concluding remarks.

Generalized trust of Protestants: Western pattern and implications for mainland China

To date, there is no consensus on the relationship between Protestantism and generalized trust in the academic research conducted in many Western societies. Specifically, both positive and negative linkages between faith and trust have been found.

On the positive effect, it is a common perception that Protestant teachings may encourage an ethics of reciprocity towards others. Therefore, Protestants' trust may not be restricted within the scope of their church, but 'spill over' the organizational boundary

to promote church members' trust in people from other religions or in non-religious individuals (Putnam and Campbell, 2010; Ruiter and De Graaf, 2006). For example, participating in liberal Protestant denominations such as Mainline Protestantism has been shown to contribute to general civility and trust in others through social outreach (Park and Smith, 2000; Peterson, 1992; Wuthnow and Evans, 2002). Adherents to the religion learn how to place trust in average persons in the 'training ground' of their church organizations (Lenski, 1963: 247) by getting involved in church-organized voluntary programs aimed at issues beyond the church such as domestic violence and poverty, among others (Klandermans and Oegema, 1987; McAdam and Paulsen, 1993).

With regard to the negative effect, Protestantism may exacerbate the generalized trust of adherents towards members of society by creating or enlarging a social divide between religious and non-religious individuals. In some conservative denominations such as fundamentalism, believers hold a strong belief in people's sinfulness and the mitigation of such sinfulness can only be graced by God *to believers*. Therefore, a relatively strict classification between the religious and the non-religious has been drawn. Besides, conservative Protestantism usually demands high commitment from participants in exchange for spiritual 'goods' (Stark and Finke, 2000). In that case, the time or energy spent on people in general outside the church would be 'crowded out', so their trust in an average person would be reduced (Finke and Stark, 1992; Iannaccone, 1988; Schwadel, 2005; Wuthnow, 1988).

In sum, the relationship between Protestantism and generalized trust does not present a unanimous pattern. If we look at these studies in depth, we can find that the critical factor shaping the direction (positive or negative) of the faith–trust correlation is whether the social divide between the religious and the non-religious is *strengthened or alleviated* by a specific Protestant denomination. Liberal Protestant denominations in the United States are prone to alleviate the social divide through engagement in out-of-church public affairs, while conservative denominations emphasize the difference between within-group members and out-of-group people. Therefore, one important implication of the existing studies to our research is that *in order to examine the relationship between generalized trust and Protestantism in urban China, it is necessary to investigate whether there is a strong social divide between urban Protestants and lay persons.*

Specifically, we hypothesize that Protestants in urban China show a strong social divide with lay persons, resulting in a lower level of generalized trust. First, as many studies have highlighted, one important contributor to the mass conversion to Christianity in contemporary urban China is life hardship (Chen, 2010; Ma, 2008; Yang, 2005). For instance, through a questionnaire-based survey and interviews in Shijiazhuang (the capital of Hebei Province), Ma Enyu (2008) found that the conversion to Protestantism is associated with an assortment of life hardships including health, marriage, education, and occupation, among others (Ma, 2008: 34). Such hardships, according to the field research conducted by Yang Fenggang (2005), have much to do with the rapid and comprehensive social transition over the past decades in China. 'The converts commonly struggled with various kinds of jobs in the emerging market and once lived lifestyles that they now consider morally unacceptable and devoid of meaning. They were lost in an exciting yet perilous market' (Yang, 2005: 439). In this context, urban Protestants turn to Christianity for life and moral meaning, which may amplify the social distance of

Protestants from the ‘fallen world’ and enlarge the social divide between the religious and the non-religious. Second, as mentioned in the previous section, many Protestant denominations may promote generalized trust through a well-established organization (e.g., the local church), but such an organizational platform is largely underdeveloped in contemporary China, due to the state regulation and restriction (Bays, 2011). Without an effective organizational foundation where church members could build a common identity, strengthen their ties to local communities, and promote their sense of belonging through regular gathering and open discussion, Protestantism in urban China is less able to reduce the social divide between the religious and the non-religious.

In light of the above-mentioned conditions of urban Protestants in contemporary China, there are good reasons to suspect that there may be marked divide between Protestants and lay persons, resulting in a relatively lower level of generalized trust of Protestants in urban China. In the following analysis, we investigate this hypothesis drawing on recently collected nationwide survey data.

Data and methodology

Data

The data used in this research are from the urban section of the 2010 wave of the Chinese General Social Survey (CGSS). The CGSS is a nationwide comprehensive social survey which resembles the General Social Survey in the United States. This survey was organized by the Renmin University in China and implemented in cooperation with universities in different parts of mainland China. The 2010 wave is the most recent one and also the first wave which includes an independent module in the questionnaire focusing on the religious life of Chinese citizens. Thus, the CGSS 2010 is an ideal data source for our research objectives in this article. The original sample size for the urban section is 5742.

A four-stage clustered sampling design with unequal probabilities was used in the CGSS. At the first stage, 2801 county-level primary sampling units (PSUs) constitute the sampling frame, which cover 22 provinces, four autonomous regions, and four municipalities directly under the central government (Beijing, Shanghai, Tianjin, and Chongqing). Residents of Hong Kong, Macau, and Taiwan are not included in this survey. The second sampling stage randomly selects sub-district offices from each PSU, and then the third stage selects neighborhood committees from each sub-district office. The final stage randomly selects one respondent from each household. Data were obtained from the questionnaire-based interview.

Methods

Selection bias can be a severe problem in the examination of the relationship between Protestantism and generalized trust because many confounding covariates can *simultaneously* affect the likelihood of converting to Protestantism and the level of generalized trust, consequently resulting in a spurious correlation between Protestantism and generalized trust. One way to deal with this problem in observational studies is to explicitly estimate each individual’s odds of converting to Protestantism and ensure the analyzed

cases have similar odds of becoming a Protestant. The predicted probability of self-identifying as a Protestant is called the propensity score, and our analysis used propensity score matching to ensure similarity in the odds of converting to Protestantism among respondents (Morgan and Winship, 2007; Rubin, 1997). In propensity score matching, we first search for potential covariates which determine people's probability to convert to Protestantism and use these covariates to predict such probability (propensity score). Then, each Protestant is matched with one or several non-Protestants as long as their propensity score values are close. Respondents who cannot find a matched counterpart are left out, so finally we obtain a matched sample in which each Protestant has one or several matched non-Protestants who have a similar likelihood of being a Protestant according to their values on covariates. Since selection bias refers to the differential likelihoods of being a Protestant, a matched sample would thus function to deal with selection bias by balancing the differential likelihoods between Protestants and non-Protestants.²

In this research, we use logistic regression modeling to predict the probability of converting to Protestantism for each respondent, conditional on a series of theoretically relevant covariates (measures of these variables are provided below). Two tests are used to assess the approach of propensity score matching. One is the balance test examining whether the values of the covariates considered in the logistic model are balanced between the Protestant group and non-Protestant group. The statistical procedure of propensity score matching in Stata would generate the results automatically and our model satisfies this test.

The other test is a sensitivity test in the interests of seeing whether the considered covariates used to predict the propensity score are *sufficient*. Or, to put it in another way, this test is used to evaluate whether we are omitting key *unobserved* covariates when we estimate individuals' likelihood of converting to Protestantism. This assessment is necessary because usually not all confounding covariates are available in a survey. Thus, the procedure of propensity score matching may be subject to the omitted-covariate problem. Whether there are unobserved covariates which are sufficiently influential to confound the relationship between religious identity and generalized trust will be examined using a sensitivity test. The Rosenbaum Bound Test is a widely used method to perform a sensitivity test and thus it is applied in this research (Rosenbaum, 2002). In the Rosenbaum Bound Test, the gamma coefficient denotes the impact of a *hypothesized* omitted unobserved covariate on the odds of converting to Protestantism. If gamma is equal to 1, for example, the hypothesized omitted covariate has no effect. If gamma is equal to 2, then an individual is predicted to have two times the estimated probability of converting to Protestantism than another individual if their values on this hypothesized omitted covariate differ. This probability difference persists even if these two individuals' scores on the observed covariates in the logistic model are the same. Thus, as the gamma becomes larger, the hypothesized omitted unobserved covariate becomes increasingly influential, and accordingly our conclusion based only on the observed covariates becomes increasingly more tenuous. This is statistically reflected by the significance level of certain statistics (e.g., McNemar's test). If the statistic is significant, then our conclusion is valid. In the Rosenbaum Bounds Test, we typically test how large the gamma coefficient has to be in order to make the statistic *not* significant. If the gamma

coefficient has to be very large to make the statistic insignificant, the hypothesized omitted unobserved covariate is then very rare and our model is acceptable. A rule of thumb for the social sciences is to set the range of gamma coefficients between 1 and 2. If the gamma coefficient has to be quite large (close to 2) to make the corresponding statistic insignificant, then our model used to predict the propensity score can be considered relatively robust to the potential problems caused by omitted unobserved covariates.

After constructing the matched sample, we build a regular model to regress generalized trust on a binary variable of identifying with Protestantism or not, along with a series of control variables. In order to investigate the gender difference, we perform analysis separately for males and females. Since the dependent variable of generalized trust is a multi-categorical variable, it seems appropriate to use multinomial logistic regression or ordered logistic regression. However, a potential problem in these logistic models is the heterogeneous variances of the error terms for different research groups/populations (two gender groups in this study). Because logistic regression coefficients are obtained by integrating the information of the heterogeneous variance of error terms, a direct comparison of logistic regression coefficients across groups would be problematic (Mood, 2010; Williams, 2009). One solution to this problem, suggested by Mood (2010), is to perform regular linear regression models by treating a categorical dependent variable as if it were continuous. In this way, we can compare coefficients based on the results of linear regression rather than logistic regression across sexes.

Using Proc MI in SAS 9.2, we created five imputed data sets, each of which contains a random error component for missing values derived from all independent variables in our full statistical model. In accord with Von Hippel (2007) we delete all cases with imputed dependent variables prior to statistical analyses. Then, we obtained our final estimates using Proc MIANALYZE. The final standard error is calculated based on the formula provided by Rubin (1987). All categorical variables are transformed into dummy variables in our analysis.

Measures

In the present study, covariates used to predict individuals' likelihoods of identifying with Protestantism (1 = yes; 0 = no) include whether one or both parents are a Christian (1 = yes; 0 = no), gender (1 = female; 0 = male), ethnicity (1 = Han; 0 = other), age, political identity of parents (1 = Communist Party membership; 0 = other), and where the respondent lives (1 = metropolis; 0 = town). The widely documented intergenerational religious transmission suggests that children would have a higher chance of identifying with Christianity if their one or both of their parents are a Christian (Iannaccone, 1990; Stark and Finke, 2000: 120). Thus, the religious identity of parents is an important predictor of propensity score values. Besides, females have been found to be more religious than males (Cornwall, 2009; Hoffmann, 2009). Ethnicity is a commonly considered covariate and minority groups in China usually have their own native religions, which might reduce their odds of converting to Protestantism (Xu and Qi, 1996). Age is related to individuals' religious preferences according to previous empirical research (Hoge et al., 1981). Political identity of parents is another important factor which determines children's probability of converting to Christianity due to the atheist ideological requirement

Table 1. Descriptive statistics of covariates.

Variable	Mean	SD
Protestantism	0.02	0.12
Generalized trust	3.43	1.09
Parents' religious identity (Christianity = 1) ^a	0.03	0.17
Gender (female = 1)	0.49	0.50
Ethnicity (Han = 1)	0.92	0.26
Age	47.75	16.08
Father (Communist Party member = 1)	0.23	0.42
Mother (Communist Party member = 1)	0.05	0.23
Location (city = 1)	0.58	0.49
Education (college educated=1)	0.26	0.44
Log individual annual income	9.82	0.95
Attitudes towards social justice	1.92	0.86
Happiness	3.83	0.84
Marital status (being divorced or widowed = 1)	0.10	0.30
Political identity (Communist Party membership = 1)	0.26	0.44
N	5472	

^aThe number of available cases is 1961.

upon Communist Party members in China. Finally, where a respondent lives may be also relevant as Christians might gain more developmental space to evangelize in towns rather than metropolitan areas (Hunter and Chan, 1993; Leung, 1999).

In the regression model examining the relationship between the level of generalized trust (valued from 1 to 5) and Protestantism, we take several control variables into account, which include age, gender, ethnicity, education (1 = college educated; 0 = less educated), log annual income, political identity (1 = Communist Party membership; 0 = other), where one lives (1 = metropolis; 0 = town), scores of the perception of social justice (1 = social justice problem is severe; 2 = neutral; 3 = social justice is not a problem), happiness scores (from 1 to 5 with 5 being very happy), and marital status (1 = divorced or widowed; 0 = other). In addition to regular socioeconomic status, social justice and happiness have been found to have a significant correlation with generalized trust (Bègue, 2002; Dunn and Schweitzer, 2005). Besides, being divorced or widowed is also negatively correlated with generalized trust (Lindström, 2012). Thus, they are controlled for in our analysis.

Results

Descriptive information and the prediction of propensity score

The descriptive information of the variables used in this research can be found in Table 1. The percentage of Protestants in the urban population is around 2%. With the range from 1 to 5, the average level of generalized trust in the urban population is 3.43. The point estimate of the percentage of Protestants in urban China is consistent with existing

Table 2. Results of logistic model estimating propensity score.

Parents' religious identity (Christianity = 1)	3.62(0.40)***
Female	-1.60(0.37)***
Ethnicity (Han = 1)	-1.96(0.33)***
Age	-0.03(0.01)***
Father (Communist Party member = 1)	-0.86(0.48)#
Mother (Communist Party member = 1)	0.38(0.80)
Location (city = 1)	-0.47(0.30)
N	1713
Log likelihood	-175.35

Unstandardized coefficients with standard error in parentheses.
 # $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-sided test).

findings. For instance, Huang (2011: 129) mentioned that according to the Chinese Spiritual Life Survey conducted in 2007, the overall percentage of Protestants in mainland China is 2.3%. In light of the fact that Protestantism may develop faster in rural areas, our finding shown in Table 1 is a reasonable estimate.

The results of the logistic model estimating the odds of converting to Protestantism, namely, the propensity score values, can be found in Table 2. As expected, respondents are more likely to convert to Christianity if one or both of their parents are Christians. Also, people whose father is a Communist Party member are marginally less likely to be a Protestant. Furthermore, the findings in Table 2 suggest that Protestants in urban China are not mainly females or older individuals, supporting the demographic distinctions between urban and rural Protestants pointed out in ethnographic studies.

With the results shown in Table 2, we predicted propensity score values for each respondent. As discussed above, we perform the balance test and Rosenbaum Bound Test to assess the logistic model. It turns out that the covariates in Table 2 are balanced. The result of the Rosenbaum Bound Test is also satisfactory, with McNemar's test being significant when the gamma coefficient reaches values above 2. Overall, our model predicting the odds of converting to Protestantism fits well and is robust to the omitted-covariate problem. The range of propensity score values is between 0.0007 and 0.6077, which is the common support of our following research. The number of cases in this common support is 1479.³

Generalized trust among urban Protestants in China: Females and males

What is the average level of generalized trust among urban Protestants in China? The answer can be found in Table 3. From Table 3, we find a significantly negative relationship between the identification with Protestantism and the level of generalized trust for both males (coefficient = -0.37) and females (coefficient = -1.12). Since the results shown in Table 3 are not obtained from an ordinary logistic model, we can make a cross-gender comparison. Further analysis (not shown here) indicates that the negative effects of Protestantism on generalized trust do not differ significantly across genders. In

Table 3. Conversion to Protestantism and the level of generalized trust.

	Males	Females
Protestantism	-0.37# (0.22)	-1.12** (0.39)
Age	0.01*** (0.00)	0.00 (0.00)
Ethnicity (Han = 1)	-0.46** (0.16)	-0.27 (0.19)
College education (yes)	0.20# (0.12)	-0.03 (0.13)
Log individual annual income	-0.12* (0.06)	-0.04 (0.06)
Location (city = 1)	0.04 (0.09)	-0.18# (0.10)
Attitudes towards social justice	0.31*** (0.05)	0.32*** (0.06)
Happiness	0.06 (0.05)	0.12# (0.07)
Being divorced or widowed	-0.22# (0.13)	-0.23 (0.17)
Communist Party member	0.25* (0.12)	0.13 (0.11)
Intercept	3.59*** (0.56)	3.20*** (0.64)
N	611	533
Adj. R ²	0.10	0.10

Unstandardized coefficients with standard errors in parentheses.

$p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-sided test).

summary, the average level of generalized trust for both male and female Protestants, after controlling for sociodemographic variables, is lower than that of non-Protestants.

Protestants' trust in religious adherents and religious organizations

The significantly lower level of generalized trust of urban Protestantism in China tempts us to go further to study Protestants' trust in church members. According to our theoretical hypothesis about urban Protestants' inward-orientation, the lower level of generalized trust among urban Protestants might be accompanied with higher trust in people in the same church. Unfortunately, the variables in the CGSS 2010 do not include a corresponding measure of the trust in coreligionists. In this section, we have to adopt a compromised analytical strategy by investigating Protestants' trust in general religious adherents and religious organizations. We believe this investigation can be still enlightening for at least two reasons. First, due to the official atheist ideology, adherents of different religions have always been categorized into the group of theists (or superstition

Table 4. Conversion to Protestantism and the level of trust in religious adherents.

	Males	Females
Protestantism	1.30*** (0.22)	1.17*** (0.36)
Age	-0.00 (0.00)	0.00 (0.00)
Ethnicity (Han = 1)	-0.20 (0.16)	-0.62*** (0.18)
College education (yes)	0.10 (0.12)	0.27* (0.12)
Log individual annual income	0.02 (0.06)	0.10# (0.05)
Location (city = 1)	-0.00 (0.09)	0.16# (0.09)
Attitudes towards social justice	-0.03 (0.05)	0.03 (0.05)
Happiness	0.03 (0.06)	0.04 (0.06)
Being divorced or widowed	0.21# (0.13)	0.44** (0.16)
Communist Party member	0.24* (0.12)	-0.19# (0.10)
Intercept	2.57*** (0.57)	1.85** (0.59)
N	608	524
Adj. R ²	0.06	0.07

Unstandardized coefficients with standard errors in parentheses.

$p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-sided test).

believers) in Chinese society. Therefore, religious adherents from different religions are close to each other, and the attitude towards general religious followers and organizations of Protestants *indirectly* reflects their perceptions of Protestants and Protestant churches. Second, Protestantism, unlike syncretistic religions such as Chinese Buddhism or Taoism, maintains a relatively clear and stable religious identity. Thus, when being asked about the trust in religious adherents and organizations, most Protestants, we believe, would be prone to think of Protestants and the Protestant church. In this regard, the attitude towards general religious followers and general religious groups among Protestants may still shed light on the extent of the inward trust, though we admit that a more nuanced measure of the trust in coreligionists of the same church is needed in the future studies.

From Tables 4 and 5, we obtained findings which are in accordance with our hypothesis. It turns out that both male and female Protestants show a significantly higher level of trust in religious adherents, and no gender difference is detected. In terms of the trust in religious organizations, Protestants of both genders again show a significantly higher

Table 5. Conversion to Protestantism and the level of trust in religious organizations.

	Males	Females
Protestantism	1.78*** (0.24)	1.03** (0.41)
Age	0.00 (0.00)	0.00 (0.00)
Ethnicity (Han = 1)	-0.51** (0.17)	-0.64*** (0.19)
College education (yes)	-0.02 (0.13)	0.24# (0.13)
Log individual annual income	0.08 (0.06)	0.06 (0.06)
Location (city = 1)	0.12 (0.09)	-0.03 (0.10)
Attitudes towards social justice	-0.06 (0.05)	0.04 (0.06)
Happiness	0.09# (0.06)	0.13* (0.07)
Being divorced or widowed	-0.06 (0.13)	0.17 (0.18)
Communist Party member	0.06 (0.12)	-0.17# (0.11)
Intercept	2.20*** (0.59)	2.08*** (0.64)
N	599	524
Adj. R ²	0.10	0.04

Unstandardized coefficients with standard errors in parentheses.

$p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-sided test).

level. These findings, along with the significantly lower level of generalized trust, provide us with the basic pattern regarding urban Protestants' attitude towards the trustworthiness of different objects. They are less likely to trust an average person, but they do assume that religious adherents and organizations are more trustworthy. This faith-trust pattern supports our hypothesis.

Buddhism: A preliminary comparison

The research above documents a negative relationship between Protestantism and generalized trust. Is such a negative relationship specific to Protestantism or a largely universal pattern for other religions in mainland China? The investigation of all Chinese religions is beyond the scope of this research. However, it would be enlightening to perform the same set of analyses to another major religion in mainland China in the interest of comparison. In this section, we examine whether self-identification with Buddhism generates similar consequences on generalized trust.

Table 6. Conversion to Buddhism and the level of generalized trust.

	Males	Females
Buddhism	-0.07(0.09)	-0.13(0.13)
Age	0.00(0.00)**	0.01(0.00)***
Ethnicity (Han = 1)	-0.14(0.09)	-0.01(0.09)
College education (yes)	0.08(0.07)	0.15(0.06)**
Log individual annual income	-0.03(0.03)	-0.02(0.03)
Living region (city = 1)	0.02(0.05)	-0.10(0.05)*
Attitudes towards social justice	0.28(0.03)***	0.29(0.03)***
Happiness	0.13(0.03)***	0.19(0.03)***
Being divorced or widowed	0.01(0.07)	-0.05(0.10)
Communist Party member	0.15(0.07)*	0.05(0.05)
Intercept	2.49(0.31)***	2.04(0.30)***
N	1796	2029
Adj. R ²	0.09	0.12

Unstandardized coefficients with standard errors in parentheses.

$p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-sided test).

Buddhism has been a major religion in China, and many studies have shown its revival in the reform era (e.g., Overmyer, 2003). One major difference of Buddhism from Christianity is its syncretistic characteristics. As early as the 1600s, Western Sinologists have noticed the overlap between Buddhism and folk religious practices (Clart, 2007; Soothill, 1913). This situation is still alive in China today (Fan, 2003; Kurtz, 2007; Lin, 2008). Due to syncretism, we suspect that Buddhism might attract more heterogeneous followers than Protestantism, suggesting self-identified Buddhists may not show a significantly lower level of trust in generalized others. Besides, compared to Protestantism, the restrictions on Buddhism from the state are much looser. For instance, many local governments even encourage the construction of Buddhist temples as it is an effective way of attracting tourists and contributing to local revenue. Thus, we hypothesize that Buddhists on average do not exhibit a lower level of generalized trust.

Following the same analytical procedure above, we performed propensity score matching and constructed a matched sample.⁴ Then, we studied the relationship between self-identification with Buddhism and generalized trust. The findings are presented in Table 6.

As expected, for both male and female self-identified Buddhists, the coefficients for the binary variable Buddhism are not significant, which means self-identified Buddhists do not show a significantly lower level of generalized trust in contemporary China. In this regard, the lower trust level among Protestants in generalized others should not be treated to be a universal phenomenon as it is at least not the case for Buddhists.

Summary and concluding remarks

Drawing on a recently collected nationwide survey in mainland China, we examined the average level of generalized trust among urban Protestants. This is the first

rigorous quantitative study addressing the relationship between religion and trust in the context of mainland Chinese society. Through propensity score matching, this study also demonstrates how to deal with potential selection bias, a long-time overlooked issue in the sociology of religion. The findings in this article reveal that both male and female urban Protestants, compared with non-Protestants, show a significantly lower level of generalized trust in an average person. A similar pattern was not detected in self-identified Buddhists. Finally, urban Protestants in contemporary China on average exhibit a higher level of trust in religious adherents and religious organizations. Taken together, this study provides a preliminary portrait of urban Protestants in terms of their attitudes towards the trustworthiness of generalized others, religious followers, and religious organizations.

Although a negative correlation between the identification with Protestantism and the level of generalized trust is documented in this research, this negative pattern might change *in the long run*. For example, field research suggests that urban Protestants are recruiting more and more social elites. For instance, in Wenzhou, a city in Zhejiang Province, a considerable proportion of Protestant converts are local business elites (e.g., Cao, 2011). Also, the number of college-educated Protestants is growing (Peng, 2012; Zhao and Yang, 2011). With the changing composition of urban Protestants, it is reasonable to suspect that the divide between Protestantism and the secular society will decline, indirectly promoting urban Protestants' trust in others. In addition, Protestant churches have been developing in many parts of China. With the gradual development of the organizational foundation, Protestantism may play more significant roles than before in public affairs such as organizing charity programs. In that case, bridging social capital in Putnam's sense (2000) may be generated and the average level of generalized trust of Protestants is expected to increase. In sum, although urban Protestants are found to show a low level of generalized trust in this study, there are yet good reasons to expect their pro-trust roles in the future. When longitudinal data become available, it will be of great academic significance to see whether the documented lower level of generalized trust among urban Christians alters in the long run.

The primary limitation of this research is that we cannot distinguish between the official church (the Three-Self Patriotic Church) and the underground house church using the present survey data. There are considerable differences between these two types of Protestants in urban China. Using the metaphor proposed by Yang (2006), the official church is located in the 'red' and legal market while the house church belongs to the 'grey' /semi-legal or 'black'/illegal market. Therefore, members of the house church may show a lower level of generalized trust compared with members of the official church due to their semi-legal or illegal status. Acknowledging the official-underground distinction in urban Protestantism, we cannot know explicitly which type of church our respondents attend in the nationwide survey. What is more, it is also somewhat inappropriate to simply assume those who explicitly stated their religious identity in the questionnaire survey are all from the official church or the household church. In this regard, what we find in this article should be treated as an *average* situation and any interpretation of our findings should be cautious and take into account the potential official-underground distinction. In this light, it is thus highly recommended for future research to make such distinction when measures are available.

Bearing this limitation in mind, we believe what we find in this study does shed light on the *average* characteristics of urban Protestants with regard to their tendency of generalized trust. By examining mainland China, a rapidly changing society, what we find here is an important addition to the existing literature. Also, this study extends our understanding of Chinese Protestantism, a burgeoning religion in the reform era.

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Notes

1. A random sampling procedure is not sufficient in this regard.
2. It is noteworthy that propensity score matching can only address the selection effects caused by variables that are measured and cannot control for the selection effects caused by the unobservable characteristics. In order to assess how the potential unobserved variables affect the odds of conversion to Christianity, we performed the Rosenbaum Bound Test and it turns out that our analysis is robust to the influences of unobserved variables.
3. Power analysis suggests that with conventional assumptions our sample size is sufficiently large to guarantee at least 80% statistical power.
4. Parental religious identity refers to whether one or both of them are Buddhists.

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Author biography

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Résumé

A partir des données recueillies lors d'un récent sondage, nous examinons le niveau moyen de confiance généralisée chez les protestants des zones urbaines de la Chine continentale. Cette recherche est la première étude quantitative rigoureuse portant sur les relations entre religion et confiance généralisée dans le contexte de la société chinoise continentale. En utilisant la méthode d'appariement par score de propension, ce travail montre comment corriger d'éventuel biais de sélection, un problème récurrent dans la sociologie des religions. Les résultats de cette recherche révèlent que les protestants urbains, hommes et femmes, expriment un niveau de confiance généralisée nettement inférieur à celui des non-protestants à l'égard d'un individu moyen. Une tendance similaire n'a pas été détectée parmi les personnes se déclarant bouddhistes. Enfin, les protestants urbains de la Chine contemporaine présentent un niveau de confiance

supérieur à l'égard des membres de communauté confessionnelle et des organisations religieuses. Considérée dans son ensemble, cette étude permet de dresser un premier portrait des protestants urbains dans leur attitudes envers l'individu moyen, les croyants et les organisations confessionnelles.

Mot-clés

Appariement, Chine, confiance généralisée, protestants, résidents urbains

Resumen

A partir de una encuesta a nivel nacional aplicada recientemente en la China continental, fue analizado el promedio de confianza generalizada entre los protestantes urbanos. Este es el primer estudio cuantitativo riguroso que aborda la relación entre religión y confianza en el contexto de la sociedad china continental. A través de un análisis de Propensity Score Matching (PSM), este estudio también demuestra cómo hacer frente a los posibles sesgos de selección, un tema pasado por alto durante mucho tiempo en la sociología de la religión. Las conclusiones de este artículo revelan que, comparados con los no protestantes, los protestantes urbanos, tanto hombres como mujeres, muestran un nivel significativamente más bajo de confianza generalizada que una persona promedio. Esta misma tendencia no se detectó entre quienes se auto-identificaron como budistas. Por último, los protestantes urbanos en la China contemporánea presentan, en promedio, un mayor nivel de confianza que los adherentes religiosos y organizaciones religiosas. En conjunto, este estudio ofrece un retrato preliminar de las actitudes los protestantes urbanos en cuanto a su fiabilidad hacia los otros generalizados, seguidores religiosos, y organizaciones religiosas.

Palabras clave

China, confianza generalizada, protestantes, PSM, residentes urbanos