

The measure of Chinese religions: Denomination-based or deity-based?

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Abstract

In the past two decades, scholars have devoted much attention to the measure of Chinese religions, mainly using the scheme based on denominational affiliation, which is the most common approach to religious classification in western societies. However, the denomination-based scheme cannot capture the actual religious life of China. We point out four challenges this scheme encounters in survey research in China: the foreignness of the Chinese term ‘religion’ (*Zongjiao*); the misconception of denominational affiliation; the inapplicability of compulsory, one-single-choice religion; and the social or political sensitivity of specific religions, especially Protestantism. After critiquing the traditional scheme used to measure Chinese religions, we offer a new approach that addresses its shortcomings. Our revised approach attempts to research belief without using the term ‘religion’, focuses on belief in deities rather than on denominational affiliation, and allows multiple answers to the question about religious beliefs. In order to compare the denomination-based scheme with the deity-based scheme, we conducted experiments in the three waves of the China Family Panel Studies in 2012, 2014, and 2016. Our results show that the deity-based scheme yields more meaningful interpretations and more accuracy in religious classification than the denomination-based scheme in China. This article ends with some suggestions for improving the measurement of Chinese religion in future survey research studies.

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Measures of Chinese religions, denomination-based scheme, deity-based scheme, China Family Panel Studies

Introduction

Whether China is a religious country or not is controversial. While some have claimed that China is a country without religion (e.g., Hu, 1998), others have called China highly religious (Lau and Yang, 2001; Yang, 1961). Nowadays, the debate has been developed into disputes among scholars between quantitative and qualitative camps. On the one hand, survey research always shows that China is one of the least religious countries in the world, with less than 15% of its population affiliated to religions. An international comparison based on the 2001 World Values Survey shows that the score of religiosity for the Chinese mainland was not only lower than that for traditionally religious developed countries, but also lower than the score for other communist and post-communist countries, such as Bulgaria, Slovenia, Vietnam, and East Germany (Tang, 2014). On the other hand, anthropologists argue that the majority of Chinese people engage in various kinds of religious practices, although they do not regard themselves as religious believers. Anthropologists observe that temples and shrines, which dot the whole landscape, are packed with worshipers during every religious festival. Spiritual practices such as fortune-telling, consulting geomancers, and picking an auspicious day for a funeral or marriage are very popular. China usually calls itself *Shenzhou*, which literally means 'Divine Land'. As this poetic name indicates, China is a religious country (Lagerwey, 2010). After years of untapped potential, China has emerged as a religious powerhouse to be reckoned with (Lu, 2013).

The above debate reflects different interpretations of the definition of religion. In his masterpiece, *Religion in Chinese Society*, C. K. Yang (1961) identifies two types of religion: institutional religion and diffused religion. Institutional religion, which has independent beliefs, organizations, clergies, rituals, and congregational sites, is differentiated from non-religious institutions. Diffused religion is merged with, or diffused among, various social institutions of societies and lacks independent organizations and membership. Yang argued that Chinese society is dominated by diffused religion, whereas institutional religion is weak. If we assume that the term 'religion' refers narrowly to institutional religion, then China is one of the least religious countries in the world, but if we take diffused religion into account, we must acknowledge that China is very religious. As Yang (1961: 3) argued, 'Viewing Chinese religious life on the folk level, one is inevitably struck by the vast number of magic practices and beliefs; the average man's mental picture of the universe—in fact, the whole pattern of his life—was heavily colored by a shadowy world of gods, spirits and specters'.

When measuring Chinese religion in surveys, however, sociologists tend to use the instruments developed in and designed for Judeo-Christian society, which is denominated by institutional religions. Consequently, these surveys largely neglect diffused religion, and thus quantitative researchers would think that China is mostly free of religious influence. In addition, the instrument neglects the fact that even institutional religions in China, namely Buddhism and Taoism, are quite different from their counterparts in western societies. Compared with the latter, the former are less exclusive and more syncretic; it is common for Chinese people to involve themselves with several religious traditions simultaneously. The polytheistic tradition in China blurred the boundaries among religions. In many cases, even people in charge of village temples, not to mention ordinary believers, could hardly tell whether the temple was Buddhist, Taoist, or Confucianist.

The debate described above calls into question the validity and reliability of measurements of Chinese religion. It is time to evaluate and update the instruments measuring Chinese religion, which is not only a methodological issue, but also a theoretical one which relates to how the term 'religion', as a foreign concept, could be correctly operationalized and measured by social surveys in China.

In this article, we will first explore the challenges of measuring Chinese religion. Next, we will propose several changes to survey instruments for enhancing respondents' comprehension of questions on religion in China, presenting what we have done in the China Family Panel Studies (CFPS). Finally, we provide several suggestions on measuring Chinese religion in future social surveys. The data analyzed in this article come from three waves of the CFPS in 2012, 2014, and 2016.

Challenges in measuring Chinese religion

The measurement of religiosity has been fully studied by sociologists since the 1950s. Glock (1962) conceptualized religiosity in five dimensions as experiential (feeling, emotion), ritualistic (e.g., church attendance, prayer), ideological (belief), intellectual (knowledge), and consequential (the effects of religion on the secular world). Based on Glock's 5-D religiosity conceptual framework, Faulkner and Jong (1966) developed a Guttman-type religiosity scale and applied it to investigating Judeo-Christian beliefs. The multidimensional approach of religion measurement was later empirically tested and discussed. Some scholars tried to find out the most important dimension in order to simplify the measurement (e.g., Clayton, 1968, 1972; Clayton and Gladden, 1974; Gibbs and Crader, 1970; Weigert and Thomas, 1969), suggesting that generic religiosity is composed of ideological, ritualistic, and experiential dimensions (Jong et al., 1976), and others suggested a more comprehensive multidimensional scheme (e.g., Neff, 2006, 2010). All the attempts above tried to improve the validity of religious measurement, making sure that the instrument could reflect the reality (Steenland et al., 2000). These instruments, however, were mainly designed for investigating Judeo-Christian beliefs.

The western instrument, which focuses on denominational affiliation, exerts significant influence on the measurement of Chinese religion. Table 1 lists the questions

Table 1. Survey questions on religious affiliation in selected domestic social surveys.

Survey projects	The survey question for religious affiliation and its response categories
Chinese General Social Survey (2010)	<p>A5. Your religious belief is: (Choose one answer)</p> <p>01 No religion 11 Buddhism 12 Taoism 13 Folk religion (e.g., <i>Mazu</i>, <i>Guangong</i>, etc.) 14 Islam 15 Catholicism 16 Protestantism 17 the Orthodox Church 18 Other Christianity 19 Judaism 20 Hinduism 21 Other (specify: _____)</p>
China Family Panel Studies (2012)	<p>M601. What is your religion? (Choose one answer)</p> <p>1. Buddhism 2. Taoism 3. Islamism 4. Protestantism 5. Catholicism 6. No religion 77. Other [please specify] _____</p>
World Values Survey (2012, China)	<p>VI44. What is your religion? (Choose one answer)</p> <p>1. Roman Catholicism 2. Protestantism 3. The Orthodox Church 4. Judaism 5. Islam 6. Hinduism 7. Buddhism 8. Taoism 0. No religion 77. Others (Please specify)</p>
China Labor Dynamics Survey (2011)	<p>I8.4. What is your religion? (Choose one answer)</p> <p>1. Catholicism 2. Protestantism 3. Buddhism 4. Tibetan Buddhism 5. Taoism 6. Islamism 7. The Orthodox Church 8. Other religion 9. No religion</p>

and options used by several influential social surveys in China when asking about religious beliefs. From the table, we can see that denominational affiliation lies at the core of religion measurement. The respondents were usually asked about their denominational affiliation with a single-choice question; the options usually included 'Buddhism', 'Taoism', 'Islam', 'Protestantism', 'Catholicism', 'No religion', and 'Others'. As we will analyze below, however, this scheme may encounter the following challenges in survey research in China: the foreignness of the Chinese term 'religion' (*Zongjiao*), the misconception of denominational affiliation, the inapplicability of forced one-single-choice of religion, and the social or political sensitivity related to specific religions, especially Protestantism.

The challenge caused by the term 'religion'

When investigating Chinese religion, researchers usually begin with the question 'What is your religion?' The question, however, may lead to misunderstandings because Chinese people understand the term 'religion' (*Zongjiao*) very narrowly. As a newly constructed term, *Zongjiao* did not exist in traditional Chinese language; but there were several terms used in connection with religion, including *Jiao* and *Zong*. The word *Jiao* is the closest equivalent to the western term 'religion'. According to the popular understanding, China had three orthodox *Jiao*, namely Confucianism (*Rujiao*), Taoism (*Daojiao*), and Buddhism (*Fojiao*). In addition, some heterodox sects, such as the white-lotus sect (*Bailian jiao*), also called themselves *Jiao*. The word *Zong* had various meanings, one of which referred to indigenized Buddhist denominations, such as Zen (*Chan zong*) and *Tiantai zong*. The term '*Zongjiao*', primarily constructed by Japanese scholars as a translation of the western term 'religion', was introduced into China in the late 19th century. It was used mainly by scholars and officials, while most Chinese people had only a very vague understanding of the term 'religion'.

When we use the term 'religion' in the survey, the respondent will be puzzled about their beliefs. If we ask Chinese people if they are religious believers, most of them say no, but this does not mean that they are not religious. A study by Soong and Li (1988) found that 62% of self-proclaimed 'non-religious' respondents in Taiwan (China) believed in geomantic omens (*Fengshui*) and a third of them in Auspicious Days (*Jiri*). They did not belong to any institutional religion, but they were not free of religious ideas or practices. Chang and Lin (1992) undertook a classic research study on the religious beliefs and practices of self-identified 'non-religious' respondents in Taiwan (China). They found that 60% of the non-religious-believers chose 'believe in gods' (*xin shen*), while 40% chose 'do not believe in gods'. Next, they continued to question these 40% who did not believe in gods, asking if they 'worship gods', and found that 70% of those who claimed to be 'non-religious' and 'do not believe in gods' worshiped gods. Finally, only 6.3% of respondents were truly non-religious and did not believe in or worship gods. This shows that many Chinese are not really atheists; they just fail to associate their religious beliefs with the term 'religion'.

The challenge created by the scheme centering on denominational affiliation

As we can see from Table 1, most of the surveys on Chinese religion begin with a single-choice question, and the options usually include 'Buddhism', 'Taoism', 'Islam', 'Protestantism', 'Catholicism', 'No religion', and 'Others'. The denomination-based scheme has certain shortcomings when measuring Chinese religion. One shortcoming of this scheme is that it can measure only institutional religion, and fails to provide a category capturing diffused religion, the mainstream of Chinese religious life. Diffused religion does not have independent organizations, and it is difficult to separate the religious and secular identities of practitioners, which makes it hard for us to distinguish clear and independent religious membership. Yang (1961) believed that Chinese people's beliefs and religious practices were diffused and rarely associated with any independent religious organization. Unlike with congregational religions that offer a clear religious identity, ordinary believers in China may not be affiliated with a specific religious organization, nor do they attach much importance to religious membership. For this reason, the denomination-based scheme totally ignores the existence of diffused religion in China.

Another shortcoming of the denomination-centered scheme is that, even when measuring institutional religion, it may lead to confusion and distortion (Thoraval, 1996). This scheme assumes that Chinese people know their exact religious affiliations, if they are religious at all. But this is not the case. We cannot assume that Chinese people are aware of their religious identities. Influenced by the polytheistic tradition, Chinese people have a vague idea of exclusive religious affiliation; they probably know which deity they worship, but they rarely care which religion the deity belongs to.

Thoraval (1996) provides a case study illustrating this point. When Hong Kong was a British colony, the colonial government conducted two censuses, including items on religious affiliation. The first census, conducted in 1881, showed that there were 46,531 Confucians and 43,841 'Laities' (*sujia*), whereas there were only 183 Taoists and 15 Buddhists. The second census, conducted in 1911, showed that 'Confucians' represented nearly three-quarters of the native population, more than one-quarter were 'Animists'—a newly constructed category replacing 'Laities' in the first census—and Buddhists and Taoists together represented less than 1% of the total population. It was not strange that Confucianism was the most influential religion in Hong Kong, but it puzzled the colonial administrators that the proportion of 'Taoists' and 'Buddhists' was so small. If China really was the country of 'Three religions' (*sanjiao*), namely Confucianism, Buddhism, and Taoism, the data on religious affiliation in the censuses must be wrong. 'These baffling discrepancies are probably the reason why the items on religious affiliation of the Colony's Chinese population were no longer included in census after 1911' (Thoraval, 1996: 60).

Furthermore, Thoraval considered why the proportion of Taoists and Buddhists was so small. In China, most people had only a vague idea of

denominational affiliation. "The small percentage of 'Buddhists' and 'Taoists' can be explained by the fact that only the specialists, such as monks and *daoshi*, would claim this affiliation" (Thoraval, 1996: 62). The high proportion of 'Laities' in the 1881 census and 'Animists' in the 1911 census indicate that the majority of Hong Kong Chinese indeed had certain kinds of religious beliefs, but these beliefs could not be correctly classified in the survey, and thus only a few religious professionals remained in the data. In short, the western misconception of Chinese religion failed to capture the essential nature of Chinese religious life.

While Buddhists were historically underestimated in the Hong Kong census, it is interesting to note that they ironically were over-counted in survey research studies conducted in Taiwan (China). Because Buddhism was very popular in Chinese society there, and because many people occasionally worshipped Buddha, they tended to regard themselves as Buddhists when interviewed. The Taiwan Social Change Survey (TSCS) conducted in 1984 showed that nearly half of the respondents were Buddhist followers, but two-thirds of these self-proclaimed Buddhists did not really convert to Buddhism. They were not lay Buddhists in any sense, because they were not vegetarians, nor did they regularly worship Buddha or read sutras. Chiu (1997: 4) argues that these respondents, which could be labeled 'diffused Buddhists' (*Hunhe Fojiaotu*), overlapped extensively with practitioners of folk religion. As time went on, these people gradually realized that they had wrongly classified their religious affiliations. As a result, the TSCS shows that the percentage of Buddhists decreased from 46.1% in 1984 to 17.4% in 2017. The decrease in the proportion of Buddhists does not mean that Buddhism was declining in the island; in fact, Buddhism has become more and more prosperous in the past decades in Taiwan (China). The decline of the Buddhist proportion in the survey was due mainly to the fact that 'diffused Buddhists' no longer identified themselves as Buddhists.

The miscalculation of Buddhists, whether in the underestimation in the Hong Kong census or the overestimation in the 1984 TSCS, can be explained by the fact that Chinese people have a quite different cognition of denomination and that denominational affiliation did not play an important role in Chinese religious life. The denomination-based scheme, which does not capture the essential differences between western religions and Chinese religions, results in confusion rather than clarification.

The challenge caused by the single-choice question

Exclusivity lies at the core of western religions. Accordingly, the western instrument of religiosity measurement usually asks the respondent to choose a single option of religious affiliation. In the past years, Chinese colleagues used the same instrument, without considering that the single-choice question regarding religious affiliation is not applicable to China. The single choice implies that China's religions are as completely exclusive as their western counterparts. However, that perception is inconsistent with religious life in China. In traditional China,

religious beliefs could easily be changed and were largely related to the life cycle: when Chinese were young, they believed in Confucianism; when they became old, they would convert to Taoism or Buddhism (Lu, 2008). If we force respondents to choose any one denomination, it will distort the actual religious life of China and omit all polytheists who make up the majority of Chinese believers.

In China, practitioners of folk religions, Buddhists, and Taoists are entangled with each other. Leamaster and Hu's research on the Chinese mainland found that Buddhists, especially those who have undergone Buddhist conversion rituals, have a very high participation rate in folk religious activities. They pointed out that this may be due to the closeness between Chinese Buddhism and folk religion (Leamaster and Hu, 2014). The long existence of a polytheistic tradition, which contrasts with exclusivity, makes the single choice of denominational affiliation inapplicable to China. Diffuseness, rather than exclusiveness, is the most salient characteristic of Chinese religious life; the single-choice scheme is in sharp conflict with the actual religious life of China.

The challenge caused by the social desirability pressure

Religion, by and large, is socially or politically sensitive in China and the sensitivity discourages respondents from disclosing their religious affiliations, which might conflict with their society's expectations. Answering a social survey is a process of social interaction. Answering survey questions involves a cognitive process whereby a respondent must comprehend the question, extract information from memory, make a judgment and develop an answer (Groves et al., 2014). Social contexts affect how a respondent answers a question, because an individual may perceive social desirability pressures or the expectations of others. Such pressures can lead to measurement bias. Even information about overt religious practices, which are thought to be objective, can be biased by the context. In the United States, most people hold that church-going fits the expectations of their society, and thus social desirability pressure may result in exaggeration regarding the frequency of religious participation (Hadaway et al., 1993; Presser and Stinson, 1998).

The influence of social desirability pressure on religion measurement is equally significant in eastern societies, but in the opposite direction. Fujiwara pointed out that Japanese people have a prejudice against apocalyptic religions, such as Christianity, and they tend to hide their religious affiliations when being investigated (Fujiwara, 2007). Tanaka also pointed out that 'religion' is an exotic word in Japan; for historical reasons, people tend to hide their religious identities to avoid the suppression and stigma associated with religion. In addition, folk religion is often ignored in the measurement. As a result, the popularity of religion in Japan is greatly underestimated (Tanaka, 2010).

Similarly, the extent of Chinese religion can be miscalculated for social or political reasons. In China, many Protestants belong to house churches, which are illegal. They tend to hide their religious affiliation when interviewed by survey researchers, and thus the number of Chinese Protestants may be underestimated

(Lu and Zhang, 2016). Theoretically, the denomination-based scheme is very effective in measuring Christianity, but it unintentionally yields measurement errors when we apply it to measuring Chinese Christianity.

To summarize, when applying western measurement of religion to Chinese society, we may encounter at least four challenges. First, the term 'religion' (*Zongjiao*) was a newly constructed conception and thus it may mislead respondents in survey research studies; most of 'non-religious' respondents actually participate in various kinds of religious activities. Second, the denomination-based scheme does not capture the actual religious life of Chinese society, which revolves around belief in deities rather than denominations. On the one hand, the scheme totally ignores diffused religion; on the other hand, even when measuring institutional religion, the denomination-based scheme may yield miscalculation. Third, the forced single-choice scheme on religion is not applicable to China, which has a long polytheistic tradition. Finally, the denomination-based scheme cannot reduce the social or political sensitivity of specific religions, especially Protestantism.

Improving measurement of Chinese religion

To address the above challenges, we propose the following strategies to improve survey instruments. First, because the term 'religion' could mislead respondents, we suggest replacing the question 'What is your religion?' with 'What do you believe in?', which Chinese respondents could more easily understand. In China, it is best to avoid using the term 'religion' (*Zongjiao*), which can lead to misunderstandings.

Second, considering that actual Chinese religious life revolves around the idea of deities rather than religious denominations, we suggest that it will be better to focus on belief in deities rather than denominational affiliation. We could change denomination-based response categories (such as Buddhism, Taoism, Islam, Christianity, Catholicism, etc.) to deity-based categories, such as Buddha/Bodhisattva, Taoist gods, Allah, the Catholic God (*Tianzhu*), and the Protestant God (*Shangdi*). Keep in mind that God has different Chinese translations; in the Chinese context, Catholics refer to God as *Tianzhu* while Protestants call God *Shangdi*. In contrast with the denomination-based scheme, the deity-based scheme is more accurate in describing Chinese religious life.

And, finally, since the single-choice scheme is not applicable to Chinese religious life, we suggest replacing it with a check-all-that-apply question. Because religions in China are not so exclusive, allowing only one option for religious affiliation, as in previous surveys, may exclude respondents with multiple beliefs. If we allow respondents to give multiple answers, we can observe a certain percentage of multiple believers.

The CFPS, as a panel survey, is enabling us to test whether the above revisions can improve the measurement of Chinese religions. In the following section, we will use the data from the social survey to demonstrate the influence of different questionnaire designs on the measurement of religious affiliation.

Data and methods

The CFPS is a nationwide, comprehensive, panel social survey conducted since 2010 by the Institute of Social Science Survey at Peking University. This survey adopted multi-stage, implicit-stratified, and probability proportion to population size sampling to draw a baseline sample of 19,986 households from 25 Chinese provinces, excluding Tibet, Xinjiang, Qinghai, Ningxia, Inner Mongolia, Hainan, Hong Kong, Macau, and Taiwan. The baseline CFPS in 2010 successfully interviewed 14,960 households, in which 33,600 adults (aged 16 and above) were interviewed personally (Xie et al., 2014). The CFPS follows up all member of its baseline sample every two years. The data of this study are mainly from waves 2012, 2014, and 2016.

The CFPS began to include a module of religion in the questionnaire for adults in 2012, which covered three aspects of religiosity: religious affiliation, religious practice, and religious attitude. The questions differed little from those in many other surveys. The affiliation question asked ‘What is your religion?’ and offered seven response categories, including ‘Buddhism’, ‘Taoism’, ‘Islam’, ‘Protestantism’, ‘Catholicism’, ‘No religion’, and ‘Others’.

We have discussed the shortcomings of regular survey instruments on religion in China. Against this background, we revised the module of religion in CFPS 2014. First, to avoid the cognitive confusion caused by the term ‘religion’, we avoided using the term and rephrased the question of religious affiliation to ‘What do you believe in?’ At the same time, considering that Chinese religious beliefs centered on deities rather than denominations, we changed the response categories accordingly, including ‘Buddha/bodhisattva’ (佛/菩萨), ‘Taoist deity’ (道教的神仙), ‘Allah’ (安拉), ‘Catholic God’ (天主教的天主), ‘Protestant God’ (基督教的上帝), ‘ancestors’ (祖先), and ‘none of the above’. In addition, we allowed respondents to report as many gods/deities as they believed in. This helped us to find out who believed in multiple religions. We expect that the changes made in the CFPS 2014 can reveal the measurement problems concerning the religious beliefs of contemporary Chinese people. The panel design of the CFPS allows us to compare the two schemes and to determine whether the new scheme is more accurate in measuring Chinese religion.

We must acknowledge that the differences in answers about religious affiliation of the same group of respondents between 2012 and 2014 could also be influenced by religious conversions. To tackle this problem, in the CFPS 2016, we used the denomination-based scheme to measure religion. We hoped the rotation of schemes would help us to gather more data and thus improve the state of the art for measuring Chinese religion. Furthermore, we made a minor revision to the instrument used in 2012 that allows respondents to report multiple affiliations in 2016.

Next, we will demonstrate, by comparing results between different waves of the CFPS, how the different schemes can influence the distribution of religious believers. We primarily compare results among CFPS 2012, 2014, and 2016. We

will also briefly refer to the data from other prestigious social surveys in China, such as the Chinese General Social Survey (or CGSS) and the World Values Surveys (WVS) to cross-validate and support our findings.

Results

We begin with the distribution of self-proclaimed religious affiliations. In the CFPS 2014, we used an alternative method, probing religious affiliation that is deity-based. Taking advantage of the available panel data, we can compare the answers to the questions of religious affiliation from the same person between waves 2012 and 2014. Table 2 is a contingency table on the cell percentages of religious affiliations in 2012 and 2014 from respondents who were interviewed in both waves. Since we will also compare the results of the CFPS 2016, we restrict our analytical sample to respondents who received three waves of personal interviews in 2012, 2014, and 2016.

Table 2 shows four main findings. First, the change to the deity-based scheme in 2014 has little effect on self-proclaimed religious affiliation for those who had already claimed to have a denomination-based belief in 2012, as we can see from the percentages in the diagonal cells (underlined) of the contingency table. In other words, a respondent who had identified himself/herself with any one denomination was also able to report that they believed in the exact deities of that religion. Second, even though the majority of believers are distributed in the diagonal cells, a very few cases are off the diagonal or swinging between two religions. These discrepancies were mainly found between Buddhism and Taoism, and between Protestantism and Catholicism. Because conversion is not an easy thing for most of believers, particularly during a short period of time such as two

Table 2. The cross-tabulation of answers on religious affiliations between the denomination-based question (2012) and the deity-based question (2014), the CFPS 2012, 2014 (%).

2012	2014								Total	N
	Buddha	Taoist deity	Allah	Protestant God	Catholic God	Ancestor	Multiple religions	No religion		
Buddhism	<u>4.4</u>	0.1	0.0	0.0	0.0	0.2	0.1	2.0	6.9	1422
Taoism	0.2	<u>0.1</u>	0.0	0.0	0.0	0.0	0.0	0.1	0.4	88
Islamism	0.0	0.0	<u>0.8</u>	0.0	0.0	0.0	0.0	0.1	0.9	177
Protestantism	0.0	0.0	0.0	<u>1.6</u>	0.1	0.0	0.0	0.4	2.0	418
Catholicism	0.0	0.0	0.0	0.0	<u>0.3</u>	0.0	0.0	0.1	0.4	83
Other religions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	19
No religion	<u>11.5</u>	<u>0.9</u>	<u>0.0</u>	<u>0.8</u>	<u>0.1</u>	<u>5.0</u>	<u>0.6</u>	<u>70.3</u>	89.3	18,437
Total	16.2	1.1	0.8	2.4	0.5	5.3	0.8	73.0	100.0	
N	3342	231	157	501	93	1085	163	15,072		20,644

Notes: Except for sample size *N*, numbers are cell percentages. The percentage base is the number of respondents who received personal interviews in three waves of the CFPS from 2012 to 2016. 'Multiple religions' did not include ancestor worship.

years, it is likely that these self-proclaimed believers had only a vague idea of religious identity. Third, when respondents were allowed to choose as many religions as they wanted in the 2014 survey, we found that there were very few multi-religious respondents, accounting for only 0.8% in CFPS 2014. This is consistent with the findings of Yang and Hu (2012). Finally, we observe a sudden decrease in non-believers from 89.3% of the total sample in 2012 to 73% in 2014. Accordingly, 11.5%, 0.9%, 0.01%, 0.8%, 0.1%, 5%, and 0.6% of the respondents formerly claimed that they were not affiliated with any denomination but in 2014 reported that they believed in Buddha, Taoist deities, Allah, Protestant God, Catholic God, ancestors, and multiple gods, respectively. Although we cannot exclude the possibility of within-individual reporting errors and real religious conversions, such a dramatic decline in the number of non-believers over such a short period of time should hardly be viewed as resulting from the growing popularity of religion. Instead, this change is largely attributable to the change of survey instrument. In other words, a considerable number of Chinese people are religious, but they do not consider themselves to be religious believers.

With the data from the CFPS 2016, we can provide more evidence to support the argument that the declining number of non-believers from 2012 to 2014 is due mainly to the change in scheme rather than a substantial change in beliefs. In CFPS 2016, we returned to the denomination-based question used in 2012. We hypothesize that the proportion of religious believers in the population will continue to grow steadily from 2014 to 2016, given an upward trend in the popularity of religion from 2012 to 2014 and an absence of any influential social or political events between the two years that may have caused a great change to the religious landscape. Nevertheless, the comparison of self-proclaimed religious affiliations

Table 3. The cross-tabulation of answers on religious affiliations between the denomination-based question (2016) and the deity-based question (2014), the CFPS 2014, 2016 (%).

2016	2014								Total	N
	Buddha	Taoist deity	Allah	Protestant God	Catholic God	Multiple religions	No religion	ancestors		
Buddhism	6.1	0.2	0.0	0.0	0.0	0.3	0.2	2.6	9.3	1920
Taoism	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.6	114
Islamism	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.1	0.9	180
Protestantism	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.5	2.3	479
Catholicism	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.5	106
Other religions	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	56
Multiple religions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	18
No religion	9.8	0.8	0.0	0.6	0.1	4.9	0.6	69.3	86.1	17,771
Total	16.2	1.1	0.8	2.4	0.5	5.3	0.8	73.0	100.0	
N	3342	231	157	501	93	1085	163	15,072		20,644

Notes: Except for sample size N, numbers are cell percentages. The percentage base is the number of respondents who received personal interviews in three waves of the CFPS from 2012 to 2016. 'Multiple religions' did not include ancestor worship.

between 2014 and 2016 from the same group of respondents in Table 3 shows that the proportion of believers almost returned to the level in 2012. When we returned to the denomination-based scheme, the percentage of self-proclaimed believers in 2016 fell back to 13.9% (=100%–86.1%), closer to the level in 2012 (10.7%); meanwhile, 16.8% (=86.1%–69.3%) of self-proclaimed believers defined by the deity-based scheme in 2014 denied their religious beliefs in 2016. More than half of them went to Buddhism. Other findings in Table 3 are also inconsistent with those in Table 2. For self-proclaimed religious believers, the change of question had little effect on their answers, and most of them were distributed in the diagonal cells. Furthermore, a small number of discrepancies are still found between Buddhism and Taoism. In addition, multi-religious believers were also very few in the CFPS 2016, accounting for 0.1% of the sample, and most of them were not the same multi-religious believers as in the 2014 surveys.

Next, we decompose the changes in self-proclaimed religious affiliation by religion across three waves of the CFPS. As Table 4 shows, 0.1% to 3% of respondents consistently reported single affiliation to the same religion *I* in all three waves, varying across religions; 67.5% of respondents consistently reported that they had no religious affiliation in all three waves. These two groups (i.e., *III* and *000*) neither changed their answers in response to the change of question nor changed their religious beliefs over time. In contrast, two other groups of respondents swung between self-proclaimed believers and non-believers when the question of religious

Table 4. The decomposition of changes of religious affiliation from 2012 to 2016 by religion (%).

Components	2012	2014	2016	Buddhism	Taoism	Islamism	Protestantism	Catholicism
Unchanged component	0	0	0	67.5	67.5	67.5	67.5	67.5
	<i>I</i>	<i>I</i>	<i>I</i>	3.0	0.1	0.7	1.4	0.2
Changes due to change of survey instrument	0	<i>I</i>	0	8.4	0.7	0.01	0.5	0.1
	<i>I</i>	0	<i>I</i>	0.6	0.0	0.1	0.1	0.0
Changes due to temporal variation in belief and/or report errors	0	<i>I</i>	<i>I</i>	2.9	0.1	0.0	0.3	0.0
	0	0	<i>I</i>	2.0	0.2	0.0	0.4	0.1
	<i>I</i>	<i>I</i>	0	1.3	0.0	0.0	0.2	0.0
	<i>I</i>	0	0	1.4	0.1	0.0	0.2	0.1
	<i>I</i>	<i>A</i> ₁	<i>A</i> ₂	0.3	0.2	0.0	0.1	0.1
	<i>I</i>	<i>I</i>	<i>A</i>	0.1	0.0	0.0	0.0	0.0
	<i>A</i> ₁	<i>I</i>	<i>A</i> ₂	0.3	0.3	0.0	0.1	0.0
	<i>A</i>	<i>I</i>	<i>I</i>	0.2	0.0	0.0	0.1	0.0
	<i>A</i> ₁	<i>A</i> ₂	<i>I</i>	0.5	0.2	0.0	0.1	0.1
	<i>I</i>	<i>A</i>	<i>I</i>	0.2	0.0	0.0	0.0	0.0
	<i>A</i> ₁	<i>A</i> ₂	<i>A</i> ₃	11.4	30.6	31.5	29.1	31.7
Total				100.0	100.0	100.0	100.0	100.0
Measurement effect 1				71.6	66.0	100.0	52.3	50.0
Measurement effect 2				63.5	50.4	66.7	43.2	29.0

Notes: 0 = does not believe in any religion 'no religion', *I* = believe in religion *I*; *A* = believe in any religion *A* other than religion *I*; *A*₁, *A*₂, *A*₃ = believe in religions *A*₁, *A*₂, or *A*₃ other than religion *I*. We allow *A*₁ = *A*₂ = *A*₃, but not allow *A*₁ = *A*₂ = *A*₃ = 0.

$$\text{Measurement effect 1} = \frac{OIO}{OIO+OI+I+IOO+A_1IA_2+AI}; \text{Measurement effect 2} = \frac{OIO+IOI}{OIO+IOI+OI+IOO+A_1IA_2+IA_1A_2+AI+IAI}$$

affiliation was asked in a different way. One group was those answering a specific religious affiliation only when the deity-based scheme was applied in 2014 but failing to report it when the denomination-based question was used in 2012 and 2016 (i.e., *OIO*). The percentage of this group varies from 0.01% to 8.4% of the total respondents across religions. Another group consisted of those answering a specific religion only to a denomination-based question but not to a deity-based question (i.e., *IOI*); however, the latter is much smaller than the former. We estimate that introduction of the deity-based scheme increased the proportion of believers in religion *I* by over 50% for all religions (i.e., measurement effect 1) and contributed to the overall changes (including both increase and decrease) of the proportion of believers in religion *I* by 29% to 66.7% (i.e., measurement effect 2). The measurement effect varies across religions: for Buddhism and Taoism, which are highly mixed religions, over two-thirds of the increase in the proportion of believers was due to the change of deity-based scheme; for western religions, such as Protestantism and Catholicism, about half of the overall increase in reports goes to the use of the deity-based scheme. It should be noted that the change of scheme had a very different effect on the majority of Muslims: 80% of Muslims gave consistent answers in the three waves of interviews. If there were any inconsistent answers, they are almost entirely attributable to the change of schemes. Unlike other religions, the denomination-based scheme captured more Muslims than the deity-based scheme, as the percentage of *IOI* group (0.1%) is higher than *OIO* group (0.01%).

In addition, there were other kinds of changes among the three waves of interviews, as we can see from Table 4. The changes may be attributable to substantial changes in religious beliefs over time, such as conversion to a religion (e.g., *OII*, *OOI*), withdrawing from a religion (e.g., *IIO*, *IOO*), or shifting from one religion to another (e.g., *A₁A₂I*, *AII*, etc.). Given the limited information, however, we are unable to estimate how many changes are due to reporting errors or temporal changes in beliefs.

In summary, the deity-based scheme on religious affiliation as we designed it tends to capture a higher proportion of self-proclaimed religious believers than the traditional, standard denomination-based scheme does. CFPS 2012 and 2016 estimated the percentage of self-proclaimed believers as below 15%, which is similar to the level estimated by other social surveys using similar denomination-based instruments. For example, the percentage of believers in the CGSS was 14.4% in 2012, 11.4% in 2013, and 10.5% in 2015. The percentage of believers was 14.8% in the WVS 2012. By contrast, the percentage of self-proclaimed believers measured by the deity-based scheme in CFPS 2014 was as high as 27% (or 23% if weights are applied). This shows that the deity-based design is more powerful in capturing believers than the denomination-based scheme.

Discussion and conclusion

Social surveys have become one of the mainstream methods for studying social phenomena in China. Compared with qualitative research studies on Chinese

religion, social surveys are better at estimating the number of believers, describing the distribution of social demographic characteristics of believers, and testing the causal relationship. However, social survey is not a panacea for research. Only when the phenomenon being studied can be correctly measured is the quantitative method better than the qualitative method (King and Powell, 2008).

When measuring the extent of Chinese religious beliefs, scholars tend to use a scheme based on denominational affiliation, which is the most common approach to religious classification in western society. This scheme, however, has many shortcomings: the foreignness of the Chinese term 'religion' (*Zongjiao*); the misconception of denominational affiliation; the inapplicability of the forced single-choice question on religion; and the social or political sensitivity attached to specific religions, especially Protestantism. Against this background, we provide an alternative method, namely the deity-based scheme, to measure Chinese religions.

As a panel survey, the CFPS provides a good opportunity to compare the deity-based scheme with the denomination-based scheme. We use the denomination-based scheme in CFPS 2012 and 2016, while using the deity-based scheme in 2014. The rotation of the two schemes permits us to probe which scheme is more accurate in placing respondents into categories grounded in actual religious life of China.

The result shows that the deity-based scheme increases the accuracy in measuring Chinese religion. First, the deity-based scheme is more effective in capturing the religious beliefs of 'non-religious' respondents identified by the denomination-based scheme. Over 10% of respondents who chose 'non-religious' in 2016 actually believed in several kinds of deities. Second, the deity-based scheme is more suitable for measuring institutional religions in China. The CFPS 2014 indicated that the overall percentage of adherents of the five major religions increases from 7% to 10% compared to the denomination-based measurement conducted in CFPS 2012. And, finally, the deity-based scheme is helpful for reducing the social or political sensitivity of specific religions, especially those under repression. For example, when the TSCS was conducted in 1984, *Yiguan Dao*, an influential sect in Taiwan (China), was still illegal at the time. Given this fact, the investigators replaced the sect's name with its main deity, 'the Eternal Venerable Mother', in the survey, and this method effectively avoided political sensitivities. Similarly, in contemporary China, many Christians would not acknowledge that they practiced Protestantism, but they would disclose that they believed in Jesus Christ. Compared with the data of CFPS 2012 and 2014, we can find that 0.8% of respondents would hide their religious affiliation with Protestantism in 2012. Thus, we can hold that the deity-based scheme is helpful in finding these hidden Protestants and estimating the number of Christians in China (Lu et al., 2019).

When conducting the CFPS, we adopted the single-choice scheme for asking religious affiliation in 2012, then, alternatively, used a check-it-all-that-apply question in 2014 and 2016. The result shows that, although believers in multiple religions do exist, the proportion of these respondents is much smaller than we expected. In future studies, we should improve the scheme to capture believers

who become involved in various religious traditions. Also, we suggest that, in addition to deities, such supernatural forces as *Fengshui*, fate (*mingyun*) and merit (*gongde*) be included in the survey on Chinese religious life.

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References

- Chang M and Lin P (1992) The social imaginations of religion: A research problem for the sociology of knowledge. *Bulletin of the Institute of Ethnology Academia Sinica* 74: 95–123 (in Chinese).
- Chiu H (1997) *A Social-political Analysis on Religious Transformation in Taiwan*. Taipei: Laurel Book Company (in Chinese).
- Clayton RR (1968) Religiosity in 5-D: A southern test. *Social Forces* 47: 80–83.
- Clayton RR (1972) 5-D or I? *Journal for the Scientific Study of Religion* 10(1): 37–40.
- Clayton RR and Gladden JW (1974) The five dimensions of religiosity: Toward demythologizing a sacred artifact. *Journal for the Scientific Study of Religion* 13(2): 135–143.
- Faulkner JE and Jong GFD (1966) Religiosity in 5-D: An empirical analysis. *Social Forces* 45(2): 246–254.
- Fujiwara S (2007) Problems of teaching about religion in Japan: Another textbook controversy against peace? *British Journal of Religious Education* 29(1): 45–61.
- Gibbs JO and Crader KW (1970) A criticism of two recent attempts to scale Glock and Stark's dimensions of religiosity: A research note. *Sociological Analysis* 31(2): 107–114.
- Glock CL (1962) On the study of religious commitment. *Religious Education Research Supplement* 42: 98–110.
- Groves RM, Fowler Jr. FJ, Couper MP et al. (2014) *Survey Methodology*. Hoboken: John Wiley and Sons, Inc.
- Hadaway CK, Marler PL and Chaves M (1993) What the polls don't show: A closer look at U.S. church attendance. *American Sociological Review* 58(6): 741–752.
- Hu S (1998) *Anthology of Hu Shi* (Volume 4). Beijing: Peking University Press (in Chinese).
- Jong GFD, Faulkner JE and Warland RH (1976) Dimensions of religiosity reconsidered: Evidence from a cross-cultural study. *Social Forces* 54(4): 866–889.
- King G and Powell EN (2008) How not to lie without statistics. Available at: <https://gking.harvard.edu/files/gking/files/nolie.pdf> (accessed 4 April 2020).
- Lagerwey J (2010) *China: A Religious State*. Hong Kong: Hong Kong University Press.
- Lau C and Yang CK (2001) *The Chinese Society*. Hong Kong: The Chinese University of Hong Kong (in Chinese).
- Leamaster R and Hu A (2014) Popular Buddhists: Predicting popular religious belief and practice in contemporary China. *Sociology of Religion* 75(2): 234–259.

- Lu Y (2008) Beyond the sociology of Christianity: Probing the applicability of the religious economy model to China. *Sociological Studies* 23(5): 81–97 (in Chinese).
- Lu Y (2013) Understanding the rise of religion in China. *Chinese Sociological Review* 45(2): 3–7.
- Lu Y and Zhang C (2016) The Christians in contemporary China: Evidences from CGSS and CFPS. *The World Religious Culture* 1: 34–46 (in Chinese).
- Lu Y, Wu Y and Zhang C (2019) How many Christians in China? Evidence from the China Family Panel Studies. *Open Times* 1: 165–178 (in Chinese).
- Neff JA (2006) Exploring the dimensionality of ‘religiosity’ and ‘spirituality’ in the Fetzer multidimensional measure. *Journal for the Scientific Study of Religion* 45(3): 449–459.
- Neff JA (2010) Confirmatory factor analysis validation of a four-factor measure of spirituality-religiosity: For use in diverse abuse treatment population. *Review of Religious Research* 52(1): 41–56.
- Presser S and Stinson L (1998) Data collection mode and social desirability bias in self-reported religious attendance. *American Sociological Review* 63(1): 137–145.
- Soong W and Li Y (1988) Individual religiosity: An alternative observation on religious belief in Taiwan. *Taiwan: Tsing Hua Journal of Chinese Studies* 18(1): 113–139 (in Chinese).
- Stensland B, Park JZ, Regnerus MD, et al. (2000) The measure of American religion: Toward improving the state of the art. *Social Forces* 79(1): 291–318.
- Tanaka K (2010) Limitations for measuring religion in a different cultural context—the case of Japan. *Social Science Journal* 47(4): 845.
- Tang W (2014) The worshipping atheist: Institutional and diffused religiosities in China. *China: An International Journal* 12(3): 1–26.
- Thoraval J (1996) The western misconception of Chinese religion: A Hong Kong example. *China Perspectives* 11(3): 58–65.
- Weigert AJ and Thomas DL (1969) Religiosity in 5-D: A critical note. *Social Forces* 48(2): 260–263.
- Yang CK (1961) *Religion in Chinese Society*. Berkeley: University of California Press.
- Yang F and Hu A (2012) Mapping Chinese folk religion in mainland China and Taiwan. *Journal for the Scientific Study of Religion* 51(3): 505–521.
- Xie Y, Hu J and Zhang C (2014) The China Family Panel Studies: Design and practice. *Chinese Journal of Sociology* (Chinese version) 34(2): 1–32 (in Chinese).