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The Impact of Parents' Religious Affiliation on Children's Educational Attainment in Taiwan

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Abstract: This paper examines the effects of parents' religious affiliation on respondents' educational attainment in contemporary Taiwan. Data comes from religion module of 1999 *Taiwan Social Change Survey*. Controlling for various socio-demographic variables including ethnicity, occupational status of fathers, and educational attainment of parents, OLS regression analyses showed that educational attainment is significantly affected by the religious affiliation of parents. Clearer differences were found among Eastern religion such as folk religion and Taoism. These results imply that traditional religiosities maybe one of the important determinants of educational disparities in contemporary Taiwan.

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1 Introduction

This paper attempts to answer the following question: does parents' religious affiliation have any effects on respondents' educational attainment in contemporary Taiwan? By answering this question, it is possible to examine whether religious affiliation of parents is a factor of educational disparities in nowadays Taiwan.

It has long been argued in sociology that religion is one of the important factors that affects the various aspects of our social life. For instance, G. Lenski, a renowned scholar of social stratification, has studied the relationships between religion and educational/status attainment in America (Lenski 1961). However, in the 1960s to 1970s, studies of social stratification became less interested in religion. Some reasons are: first, more attention were paid to structural factors instead of cultural factors; second, there was narrowing of inequality gap between Protestants and Catholics as the latter had gradually improved their social-economic status. Since 1990, however, people were once again attracted to consider the question of whether religious-cultural factor is significant to social stratification. It is because conservative Protestant churches are having greater influence in society, and they are expressing their educational values and commenting on educational policies actively (Darnell and Sherkat 1997).

Some scholars tried to answer this question by examining the effects of parents' religious affiliation on children's educational attainment. Darnell and Sherkat (1997), for example, found that respondents with conservative Protestant parents reported a shorter year of education than those with parents from mainland Protestant churches. Moreover, when parents belong to conservative Protestant churches, respondents with evangelical parents report higher tendency of advancing to higher education, followed by Pentecostalism and Fundamentalism (Beyerlein 2004). If we look at a wider spectrum of religious traditions, it is even found that respondents with Jewish parents reported a longer year of education, followed by mainline Protestantism and Catholicism, and then Fundamental Protestantism (Lehrer 1999).

The differences in educational attainment caused by parent's religious affiliation can be explained in a number of ways. Firstly, different religions may, to different extent, affects parents' attitudes towards education. For instance, conservative Protestantism holds a strong belief in 'Biblical inerrancy'. This attitude explains why conservative Protestant churches are resistant to modern and secular education. For example, they are skeptical about teaching evolution and the lack of religious education in public schools. On the other hand, critical thinking skills acquired in higher education may weaken one's faith; and embracing liberal values may make someone lose respect for authority. Besides, critical attitudes towards education held by conservative Protestant parents may make children hesitate to pursue higher education. Even though parents do not directly interfere in children's education, their conservative values may be inherited by the next generation as cultural capital, making children less likely to advance to higher education (Darnell and Sherkat 1997). In fact, some studies show that respondents with parents believing in Biblical inerrancy receive less education (Darnell and Sherkat 1997), and these parents also do not want their children to seek a higher education (Sherkat and Darnell 1999).

For female, a strong religious identity may reinforce traditional gender views (e.g. 'happiness of female lies in marriage,' and 'male as breadwinners and female as housewives'). These attitudes weaken educational aspirations and thereby leading to a lower level of education (Keysar and Kosmin 1995).

On the other hand, it is argued that younger generation with a high level of church attendance is also linked to a high level of educational attainment (Loury 2004). It is because through participating in church, young people can obtain social supports, belong to peer groups, and avoid deviate behaviors and thereby focus on studies, etc. Indeed, it is also found that level of church attendance of parents is correlated to the level of educational attainment of children (Eirich2012).

While the above-mentioned studies offer important insights, they all focus on Christianity in America. To the best of our knowledge, this is no relevant studies in Taiwan so far. Therefore, this paper attempts to explore this topic using Taiwan as example, which has a relatively large amount of literatures on religion and education. The facts that non-Christian religions, such as Buddhism and Taoist, are popular in Taiwan, and that parental influence on education is great make Taiwan a suitable and significant case study. Besides, while there are many studies concerning the determinants of educational attainment in Taiwan (Chen 2005; Tsai and Chiu 1993; Tsai et al. 1994; Tsai and Kanomata 2011, 2012; Tsai and Shavit 2007; Yu and Su 2006),

there is inadequate study approaching this topic from the perspective of religion.

2 Literature Review and the Originality of this Study

The relationships between education and religion in Taiwan have already attracted some scholarly attention. One way of doing so is to analyze the ties between religion and educational values. For example, based on his analysis of Taiwan Social Change Survey (TSCS), Chiu (1993=2003) found that 'Buddhism' in Taiwan tends to oppose to the instrumental value of education, while indigenous religions tend to agree with it. Also, Buddhism agrees with the 'moral values' of education but not its 'self-actualizing values.' Besides, Zhai and Woodberry (2011), also based on TSCS, analyzed the relationships between religious affiliation and educational aspiration. They found that 'Protestantism' shows the highest aspiration to education, followed by 'no religion,' 'Taoism and Buddhism,' and 'Yiguan Dao and Catholicism.'

These studies are important contributions, but they focus on educational values but not educational attainment. If we study the effects of religion on social-class achievement or socio-economic status formation in a way similar to Western literatures, it is necessary to look at educational attainment instead of educational values (Bessey 2013).

An important example of studies on religion and educational attainment is by Bessey (2013). She used the data from East Asia Social Survey and analyzed the relationships between one's religious affiliation and educational attainment. It is found that years of education ranked in descending order is 'no religion,' 'Christianity (general),' 'Catholicism,' 'other religions,' 'Asian religions,' and 'Buddhism'. Also, Terazawa and Ng (2015) analyzed the changes of socio-economic status by religious affiliation over the years based on data from TSCS. For example, the level of educational attainment (higher education advancement) by religious affiliation in 2010 showed the following order from high to low: 'Protestantism,' 'no religion,' 'Yiguan Dao,' 'other religions,' 'Catholicism,' 'Buddhism,' 'Taoism,' and 'folk religions'.

The above two studies are interesting because they directly analyzed the level of educational attainment instead of educational values. However, there is at least one limitation using one's religion affiliation to examine the influence of religion on the formation of cultural capital and status and then educational attainment. That is, it is possible that education attainment affect religious affiliation the other way round. It is difficult to distinguish which is the cause and which is the effect in the causal relationship (Bessey 2013).

To overcome this limitation, this paper attempts to study the effect of parent's religious affiliation on children's educational attainment. As parent's religious affiliation is usually decided before their children receive education, it is reasonable to argue there may be some causal relationships between the two. This method allows us to further examine and highlight the effects of religious affiliation on educational attainment.

This paper also concerns about the social class of parents. It is argued that father's education (year) affects both children's religious affiliation and educational values (Zhai and Woodberry 2011), as well as educational attainment (Chen 2005; Tsai and Chiu 1993; Tsai et al. 1994; Tsai and Kanomata 2011, 2012; Tsai and Shavit 2007; Yu and Su 2006). While it is possible to argue that the religious affiliation of parents may as well reflect the social class that children were born

into, Terazawa and Ng (2015) did not control the effects of the original class of parents, and Bessey (2013) only controlled the year of education of parents. This paper hypothesizes that there could be significant influence of parents' education and occupation on children's educational attainment, and therefore both of these factors are included as control variables in our studies.

3 Methodology

3.1 Data

This paper uses the data from the religious module of 3rd phase 5th wave of Taiwan Social Change Survey (TSCS) conducted in 1999. TSCS is an annual research project conducted by the Institute of Sociology, Academia Sinica (survey before the 3rd phase 1st wave were conducted by the Institute of Ethnology, Academia Sinica), and sponsored by the National Science Council, Republic of China. Respondents were randomly selected from both male and female aged 18 or above in Taiwan by three-stage stratified sampling. 3738 people were selected and 1925 people answered the survey; response rate is 51.5% (Chang 2000).

In addition to the education level of respondents, parents' religious affiliation, education, and occupation were also asked, which makes this dataset suitable for our research topic. While religious module was also conducted in both the 2004 and 2009 surveys, they contained no variables concerning parents' occupation and therefore not used in our analysis. Besides, the 1999 survey that we used contains questions related to family members (e.g. sibling structure) (Yu and Su 2006), and the educational attitudes, child rearing methods, and cultural capitals (Huang1996) of parents, which maybe important factors that affect the educational attainments of respondents. It is appropriate to say that the 1999 survey may provide the greatest advantage in studying this subject matter.

3.2 Dependent Variable

The dependent variable of this study is *year of education* of informants. Their final education is converted into years in the following way: no or self-educated=0, secondary school=6, high school or vocational education=9, junior college=14, university or above=16 (Chang and Kuan 2014: 88).

3.3 Independent Variables

The religious affiliation of both fathers and mothers are divided into six categories, namely *Buddhism*, *Taoism*, *folk religion*, *Christianity*, *other religion*, and *no religion*. The exact contents of each category are as follows. (1) *Buddhism* includes 'Jinto Zhong,' 'Chan Zhong,' 'Mi Zhong esoteric sect,' 'dual practicing Chan and Pure Land,' 'dual practicing of exoteric and esoteric teachings in Buddhism,' and 'other' (Buddhism). (2) *Taoism* refers only to the option 'Taoism.' (3) *Folk religion* includes the following options: 'I believe in this way,' 'I worship god,' 'it's hard to tell, but I think it is folk religion,' and 'other religion (folk religion)'. (4) *Christianity* composes of both 'Catholicism' and 'Protestantism'. (5) *Other religion* refers to 'Yiguan Dao,' 'Tiande Church,' 'Soka Gakkai,' 'other religion (new religion),' 'both Taoism and Buddhism,'

'fusion of the three religions,' and 'other religion'.

3.4 Control Variables

A number of factors are controlled in our analysis. *Original class* is controlled by using 'father's education (year)' and 'mother's education (year)' (calculated based on their final education), as well as 'social-economic index of father'. *Age cohort* is divided into: before 1949(=reference), 1950–1955, 1956–1961, 1962–1969, and after 1970). *Sex* composes of female (=1) and male (=0). *Place of birth* is divided into Taipei City, county (e.g. Kaohsiung City), township (town, city, district) (=reference), and Mainland China/Overseas/others (Chen 2014). *Ethnicity* composes of Minnan Islanders (=reference), Hakka Islanders, Mainlander, and Aborigine. The descriptive statistics of variables are shown in Table 1.

Table 1. Descriptive Statistics

	Max	Min	Mean/%	S.D.
Year of Education (respondents)	0	16	10.815	4.043
Religious affiliation (father) (folk religion=ref)	0	1	33.8%	
No Religion	0	1	7.6%	
Buddhism	0	1	27.0%	
Taoism	0	1	20.6%	
Christianity	0	1	6.4%	
Other religion	0	1	4.6%	
Religious affiliation (mother) (folk religion=ref)	0	1	33.8%	
No Religion	0	1	5.2%	
Buddhism	0	1	28.9%	
Taoism	0	1	20.3%	
Christianity	0	1	6.7%	
Other religion	0	1	3.9%	
Year of education (father)	0	16	6.329	4.514
Year of education (mother)	0	16	4.249	4.080
Socio-economic index (SEI) (father)	28.5	98.7	49.749	18.555
Age cohort (before 1949=ref)	0	1	21.2%	
1950~1955	0	1	14.5%	
1956~1961	0	1	18.4%	
1962~1969	0	1	22.0%	
After 1970	0	1	23.8%	
Sex (Male=1)	0	1	50.8%	
Ethnicity (Minnan=ref)	0	1	78.3%	
Hakka	0	1	9.7%	
Mainlanders	0	1	8.2%	
Aborigine	0	1	3.7%	
Place of birth (counties/cities/townships=ref)	0	1	11.3%	
Taipei City	0	1	22.2%	
General cities (Kaohsiung City/provincial cities)	0	1	62.9%	
Mainland China/Overseas/others	0	1	3.6%	

N=1644

4 Results

First of all, the effects of parent's religious affiliation on respondents' year of education

(mean) are examined (Table 2). On average, respondents, whose fathers have no religion, affiliate to Taoism, or Buddhism, reported a longer school year, followed by Christianity and other religion, and folk religion showed the lowest. Results of mother's religious affiliation are very similar to that of father's. In fact, Terazawa and Ng's analysis (2005) of TSCS 2000 found that Christianity has the highest year of education, and Buddhism, Taoism, and folk religion have the lowest. Some possible reasons for the differences in results are: (1) the categories of religion used in the two analyses are different, (2) higher education advancement rate (instead of year of education), (3) only people with occupation, and (4) respondents' religious affiliation (instead of parents') were analyzed in the previous study.

Table 2. Respondents' Educational Years and Parents' Religious Affiliation

	Religious Affiliation			
	Father		Mother	
	Mean	N	Mean	N
No Religion	12.500	126	12.310	87
Folk Religion	9.634	563	9.664	563
Buddhism	11.341	449	11.482	481
Taoism	11.499	343	11.447	338
Christianity	10.717	106	10.766	111
Other Religion	10.714	77	10.679	84
Overall	10.815	1664	10.815	1664

Next, the variables are then analyzed using multiple regression. Results are summarized in Table 3. As the religious affiliation of father and mother are highly correlated, they are separated into two models for analysis, i.e. model 1 and 2 for father and 3 and 4 for mother. Besides, to examine whether the relations between parent's religious affiliation and year of education of respondents are affected by the original class of parents, three variables, namely years of education of father and mother, and father's socio-economic index, are included into model 2 and 4. As the model has a vif less than 3, the level of multicollinearity is acceptable. Also, coefficients of determination shown in all models are statistically significant, meaning the models themselves are also highly statistically significant.

Starting with the religious affiliation of father, in Model 1, where original class is not controlled, all religious categories are statistically significant. It means that respondents, whose fathers belong to no religion, Buddhism, Taoism, Christianity, or other religion, tend to report a longer year of education than those whose fathers believe in folk religion.

Model 2 has original class controlled. The effects of Buddhism, Christianity, and other religion became insignificant. This suggests that many correlations between religious affiliation and year of education founded in Model 1 can better be explained by the original class of parents. On the other hand, no religion and Taoism remain statistically significant. Parents' original class helps to explain 62% of the difference between no religion and folk religion and 17% of the difference between Taoism and folk religion.⁽¹⁾ It can be argued that respondents' year of education is correlated to other factors and therefore cannot be fully reduced to the effects of original class.

Table 3. OLS estimates of Educational Attainment (β)

	Model 1	Model 2	Model 3	Model 4
Father's religious affiliation (folk religion=ref)				
No religion	.089 ***	.034 +		
Buddhism	.107 ***	.019		
Taoism	.083 ***	.069 **		
Christianity	.121 ***	.024		
Other religion	.055 **	.018		
Mother's religious affiliation (folk religion=ref)				
No religion			.078 ***	.032 +
Buddhism			.111 ***	.024
Taoism			.073 **	.059 **
Christianity			.128 ***	.002
Other religion			.061 **	.017
Year of education (father)		.245 ***		.246 ***
Year of education (mother)		.133 ***		.134 ***
Socio-economic index (SEI) (father)		.174 ***		.174 ***
Age cohort (before 1949=ref)				
1950~1955	.201 ***	.157 ***	.202 ***	.158 ***
1956~1961	.361 ***	.285 ***	.365 ***	.288 ***
1962~1969	.484 ***	.383 ***	.487 ***	.385 ***
After 1970	.585 ***	.380 ***	.590 ***	.381 ***
Sex (male=1)	.128 ***	.132 ***	.128 ***	.131 ***
Ethnicity (Minnan=ref)				
Hakka	.059 ***	.045 *	.058 **	.044 *
Mainlanders	.097 ***	.027	.099 ***	.029
Aborigine	-.155 ***	-.101 ***	-.160 **	-.088 ***
Place of birth (counties/cities/townships=ref)				
Taipei City	.059 **	.000	.061 **	.001
General cities (Kaohsiung City/provincial cities)	.022	-.011	.021	-.012
Mainland China/Overseas/others	.044 *	.035 *	.042 *	.035 *
R ²	.361 ***	.525 ***	.362 ***	.525 ***
Adj.R ²	.355	.520	.356	.519

Note: ***p<.001 **p<.01 *p<.05 +p<.10 N=1664

In terms of correlation, parental religious influences on children's education are not necessarily higher than other variables (e.g. original class and age cohort). However, religious effects are similar to or even higher than ethnicity and place of birth in some cases.

Model 3 and 4 analyzing mother's religious affiliation have very similar results to Model 1 and 2. As the religious affiliations of both father and mother were not analyzed in the same model, it is difficult to examine precisely which one is the predictor of education. It is possible that both father's and mother's religious affiliations have similar impacts on the education of respondents.⁽²⁾

5 Discussion and Conclusion

Based on the analysis above, the following two observations can be made. Firstly, after controlling the effects of age cohort, sex, ethnicity, and place of birth, religious affiliations of parents still have significant effects on the year of education of respondents. In particular, in

comparison to folk religion, all other religious affiliations show stronger impacts on education. Secondly, if the original class of parents (year of education of parents and father's socio-economic status) is controlled, only the differences between folk religion and no religion, and between folk religion and Taoism remain statistically significant.

Two remarks can be made based on the above insights. First of all, though the effects of parents' religious affiliations might not be as strong as we expected, they are in many cases correlated to respondent's year of education. This suggests that the religious affiliation of parents can be an independent and significant factor causing differences in the educational achievements of children. As discussed earlier, previous studies tend to explain educational attainment of respondents by focusing on their own religious affiliation. This paper overcomes these limits by showing the independent effects of parent's religious affiliation on education. It provides good evidences to further support the possibility of a mechanism that parental religious influence is a significant factor causing differences in educational attainment.

The second point is that, the differences in educational attainment caused by parents' religious affiliation are clarified by comparing no religion and Taoism with folk religion. For the differences between folk religion and Christianity, Buddhism, and other religion, the original class of parents tend to provide better explanations. The results are somehow complicated as Buddhism shows no significance when parents' original class is controlled. One possible implication from such results is that Taiwanese indigenous religiosities held by parents may affect the educational attainment of respondents. In the beginning of this paper, we discussed some examples of mechanisms through which parents' religious affiliation may affect educational attainment of children (e.g. reinforcement of 'Biblical inerrancy' and conservative gender values). The relationships between church attendance of younger generation and educational attainment are also discussed. Following these arguments, the results of this paper suggest that educational attainment in Taiwan should also be examined from other perspectives, such as the relationships between 'indigenous' religious values/religiosities and conservative values, as well as networks in traditional religious communities (e.g. temples).

The limitations of this paper and directions for future studies are as follows. First of all, the number of variables regarding parents' religiosities are limited. While the effects of religious affiliation are shown in this paper, other important variables such as religious values of parents are not included. To overcome this limitation, it may be helpful to analyze the religious module of TSCS 2004 which measures the religious attendance of parents, making it possible to also examine the effects of religious variables other than affiliation. It may be more meaningful to focus on samples from no religion, Buddhism, Taoism, and folk religion, which are indigenous religious traditions found in Taiwan that might also affect educational attainments. Secondly, the dataset used in this paper does not contain variables concerning family structure, cultural capital, parent's educational attitude, and child caring methods. They are all possible determinants of parents' religious affiliation. Future studies may therefore make use of the religious module of TSCS 2004 as it contains some of these variables (another limitation may arise as parents' occupation is not asked in the module). The third point refers to the predictive power of parents' religious affiliation in general. This paper shows the correlations between parents' religious affiliation and educational attainment only, but how much influence does it have in the

overall class structure? Apart from educational attainment, does it have any effects on aspects like occupation and income? Answering these questions may allow us to have a better understanding of the relationships between religion and class, and inequality in Taiwan.

Regardless of the above limitations, this paper fills the gap of previous studies of Taiwan by examining the correlations between parents' religious affiliation and children's educational attainment. The effects of parents' religious affiliation remain significant after controlling the original class of parents. In particular, the significance of 'indigenous' religiosities of Taiwan are also confirmed. It also suggests that the discussion of household religion is necessary in the studies of educational inequality in Taiwan.

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Notes

- (1) The results are $[(.089-.034/.089)]$, $[(.083-.069/.083)]$ respectively. This method refers to Ellison (1993: 386-389)とBurdette et al. (2005: 194).
- (2) Converting educational attainment into ordinal variables causes no significant changes in the results of multiple regression analysis.

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