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Trust and Confidence in Institutions: religious beliefs and educational attainment

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Abstract

The main objective of the paper is the analysis of intergenerational or cultural transmission of religious values during adolescence in order to explain interpersonal trust and confidence in institutions in adulthood. Trust and confidence in institutions outcomes are examined using the International Social Survey Program (ISSP) 2008 Religion III survey. Overall, the results are in line with previous literature: religious intensity and educational attainment are significantly and positively correlated with trust and confidence in institutions.

But people with higher educational attainment and religious engagement (present or past) are less confident in institutions than otherwise similar individuals with lower educational attainment and are less engaged in religion.

When it is used, instrumental variables the results suggest that religious engagement does not significantly explain trust though it is significantly related to confidence in institutions.

Keywords: religion, education, trust

Resumen

El objetivo principal de este trabajo es el análisis de la transmisión cultural e intergeneracional de los valores religiosos en la adolescencia con el fin de explicar la confianza interpersonal y en las instituciones en la edad adulta.

La confianza interpersonal y la confianza en las instituciones se examinan a través del International Social Survey Program (ISSP) 2008 encuesta sobre Religión III.

En general, los resultados están en línea con la literatura relevada: la intensidad religiosa y el nivel educativo se correlacionan de manera significativa y positivamente con la confianza y la confianza en las instituciones.

Pero las personas con mayor nivel educativo y compromiso religioso (presente o pasado) tienen menos confianza en las instituciones que otros individuos con similares características pero menores niveles educativos y menos comprometidos con la religión.

Cuando se utiliza, variables instrumentales los resultados sugieren que el compromiso religioso no explica de manera significativa la confianza interpersonal a pesar de que está significativamente relacionado con la confianza en las instituciones.

Palabras claves: religión, educación, confianza

JEL: Z12, D1

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1. Introduction

The strong and positive partial correlations between educational attainment and trust or confidence in institutions documented in the literature have supported the view that education is effective at promoting "good" attitudes (La Porta et al. 1997; Putman, 2000). However, several authors have argued that reported correlations may overestimate the true trust returns to education because schooling and civic outcomes are simultaneously influenced by a variety of unobservable traits specific to the environments in which individuals are reared. The confounding effects of these unobservables may bias the estimator of the "trust" returns to education.

For example, there is evidence that the intergenerational or cultural transmission of religious values or civic attitudes during adolescence is relevant to explaining both educational attainment and adult civic behavior. Verba et al. (1995) find that churchgoers are more likely to be engaged in political activities and to be more confident of institutions. Moreover, it has been observed that religious engagement is fundamentally culturally transmitted (Gutmann, 1999). Notice that, on the one hand, parent's religious attitudes may shape their children's view of the world and also their religious behavior later in life; on the other hand, children of religiously engaged parents are expected to do better in school and to achieve higher levels of educational certification than are children reared in other environments (Rosenstone and Hansen, 1993).

In previous studies, the absence of data on the transmission of religious attitudes had made it particularly difficult to separate the influence of these two effects -the additional schooling effect and the religious engagement effect- on trust or confidence on institutions. In order to circumvent this problem, two alternative strategies have been followed. The first approach is based on including a comprehensive set of explanatory variables to take care of the individual unobservable religious differences in cultural transmission (similar to selection on observables or the unconfoundedness matching approach). The second strategy relies on instrumental variables, which requires an exogenous variable that influences educational attainment yet uncorrelated with the unobserved determinants of religious engagement. This last approach identifies trust returns to education on a particular subpopulation of individuals, i.e. the compliers, those whose behavior was affected by the exogenous change induced by the instrumental variable.

In this empirical paper we are able to control for the transmission of religious attitudes. We have access to a cross country ISSP survey administered to a representative sample of 40 countries, with a special focus on religious issues. In 2008, the ISSP survey introduced a special questionnaire related to transmission of religious attitudes: information related to the religiosity during the respondent's childhood. We are not only able to observe whether the interviewee was raised religiously or not, as in Guiso et al. (2003), but can also observe the intensity of beliefs in his family during childhood, e.g. the frequency of attending religious services with parents and the interviewee; the religious affiliation of the child.

We use this information to shed some light on the separate influences that educational attainment and transmission of religiosity each have on both trust in people and confidence on institutions. As a general result, we find that religiosity has a positive and significant direct impact on both of these outcomes.

From the viewpoint of political science, disentangling the influence of these two factors on trust or confidence has grown more important in recent years. Nearly everyone agrees that both the stability of democratic institutions and the effectiveness of public policies depend to a great extent on the quality and attitudes of citizens; however, there is considerable disagreement about which is most responsible for the transmission of civic values: schools or families (Kimlycka and Norman, 1994; Gutmann, 1999). The dominant trend since about the 1950s has been to embrace the view that government intervention in education does not extend to the teaching of citizenship or moral-religious education---roles that are considered to be within the family's purview. Following this trend, the education systems in most developed countries have gradually moved from a vision of education for civic virtue to a vision of education for responding to market needs, leaving the inculcation of civic or religious values to the family (Labaree, 2010). Thus, the postwar public educational policies of most developed countries were not designed to encourage trust, confidence or an active involvement of citizens in civil society or in political decision making (Roche, 1992).

Yet, "civic virtue" theorists argue that relying solely on families to teach trust, confidence or civic values could lead to the exclusive promotion of particular values or worldview, e.g. that of economic or governing elites. If parents who stress religious responsibilities (these are usually higher-status people, Nie et al., 1996) also encourage more schooling

and if families tend to transmit only their own worldview and not alternative viewpoints (on religion, race dominance, winner-take-all attitudes, homophobia, etc.; Petrovic, 1999), then more highly educated individuals will likely internalize and promote the viewpoints stressed by their parents or communities unless schools expose students to alternative points of views. These theorists therefore argue that the educational system should include subjects that expose students to different civic and moral values than that of their families. For example, Gutmann (1999) remarks that "education for democratic citizenship... 'equip[s] children with the intellectual skills necessary to evaluate ways of life different from that of their parents' " (cf. Kimlycka and Norman, 1994), and argue that ethical behaviors or views differ according to the social class in which an individual was reared. In this sense, understanding the relative contributions of transmitted civic attitudes and educational attainment to enhancing civic engagement could shed some light on this discussion.

This paper contributes in two ways to the literature that analyze trust or confidence in institutions. First, it adds to the limited evidence in the literature concerning a separate effect---on adult behavior ---of educational attainment and cultural transmission. Second, this paper estimates a cultural transmission model confirming that the transmission of civic attitudes is relevant to the promotion of trust and confident in institutions in adulthood.

2. A review of the link between education, religion and trust or confidence in institutions

A well-established fact is that the social capital of parents is a determinant and good predictor of the social capital of children (Rice and Feldman, 1997; Putnam, 2000; Guiso, Sapienza and Zingales, 2006). Social capital has been used to explain phenomena like social solidarity and cohesion (Devine, 1972; Verba, 1965), crime (Glaeser et al., 1995), financial development (Guiso et al., 2008), democratization (Muller and Selgison, 1994; Guiso and Pinotti, 2012) and economic growth (Fukuyama, 1995; Knack and Keefer 1997).

The introduction of the concept of civic capital, referring to the beliefs and values which derive in cooperative behavior and mutual trust calls the attention to the role of informal

institutions, such as fairness and anti free-rider values (Guiso, Sapienza and Zingales, 2006). Civic capital is persistent over time and shared by a community, and is also passed through generations. This is why civic capital, trust in institutions and family ties are closely linked and in their study proved to explain various economic relationships. In fact, trust and strong family ties have been proven to lead to more stringent market regulations (Alesina et al., 2010) and to higher labor productivity in developed countries (Hall and Jones, 1999), and also shape fertility and employment patterns (Alesina and Giuliano, 2010, Algan and Cahuc, 2005). Also, Algan and Cahuc (2005) have shown that inherited trust and its variation over time both impact the persistence of economic development and growth.

When talking about the beliefs and values which are part of the civic capital of a society, a wide array of authors have found positive and strong correlations between education and beliefs in institutions. Education has a role in economic growth and several authors have produced empirical studies analyzing the relation between education and development. In fact, education is one of the most important determinants of social capital, according to Putnam (1995, 2000), Brehm and Rahn (1997) and Alesina and La Ferrara (2000). Papagapitos and Riley (2009) show that social trust positively contributes to secondary education enrollment rates. This causality has been shown to run in both directions between trust and growth. Huang, Maassen van den Brink and Groot (2009) assess the effects of education on social trust and participation, finding a positive relationship between the variables as well as a reciprocity mechanism. The authors also find that the erosion of social participation during the last decades coincides with a decrease of the marginal return to education on social capital. Other authors have also accounted for this endogeneity (Dee, 2003; Milligan, Moretti and Oreopoulos, 2003).

Religion has been found to be another trait which is closely related with civic capital and trust. Religion valuation has been linked to civic orientation, involving a connection to a social group. Faith may also promote civic orientation because places of worship are places where issues of public concern are discussed and where values which are in line with civic involvement are promoted (Crystal and DeBell, 2002). Cultural transmission of religious values is relevant to explain civic behavior. This is emphasized especially during childhood and adolescence (Cotterell, 1996; McClellan and Pugh, 1999). Many authors have dwelled on the issue of youth and civic engagement, suggesting that there are several

elements necessary for individuals to become active citizens, such as social cohesion and a sense of generalized reciprocity and bonding to others (Bobek, 2005, 2007; Levine, 2008; Sherrod and Lauchardt, 2009).

Religiosity is also a significant factor with relation to social trust: Tan and Vogel (2008) show that an increased level of religiosity has a positive impact on trust, and religious involvement predicts "civic virtue" (Smith, 1999).

As for differences between religions, Stulz and Williamson (2001) show that the low level of creditor's protection present in Catholic countries is related to the anti-usury culture which is part of the Catholic tradition. Other authors, such as La Porta et al. (1997) and Verba et al. (1995) provide evidence of a robust relationship between religion, engagement and trust in institutions. One explanation for this relationship is related to the inherent rules of certain religions, which foster certain institutions or values related to economic growth. Grier (1997) shows that Protestantism is correlated positively with growth and development. This could be explained by the fact that the Protestant ethic improved the level of mutual cooperation with respect to Catholicism (Blum and Dudley, 2001). Ingelhart (1999) shows that Catholics indeed have a lower level of trust. Other findings show that different religions have different effects on civic capital, as religious attendance increases trust in Christians, the effect being stronger for Protestants (Guiso, Sapienza and Zingales, 2003). Individuals with higher religious engagement tend to trust the government more than non-religious. Judaism has a strong negative impact on willingness to cheat on taxes.

3. Data and methodology

Trust and confidence in institutions outcomes are examined using the International Social Survey Programme (ISSP) 2008 Religion III survey. The ISSP surveys have been carried out since 1985 on an annual basis and covers different topics related to social science research. The sample includes near 60,000 observations from 40 countries but we consider a subsample includes only respondents between 25 to 58 years of age, amounting to 34,793 observations.

We understand that individuals older than 25 years of age have mostly finished their formal education. Furthermore, given that for some survey questions the responses are

based on recalling what happened in adolescence, it should be noted that selecting a younger cohort could reduce the possibility and extent of recall bias.

An advantage of this survey with respect to data used in previous studies is that it includes certain questions related to the respondent's adolescent environment that can be used to approximate the transmission of religious attitudes. Respondents were asked whether they recall their parents being actively engaged in religion or whether its parents participate in religious services or activities during adolescence, regardless of whether the respondent was actively engaged in religion during his/her adolescence.

The main dependent variables are specific questions on trusting other people and confidence on institutions. Specifically, the question defining trust is given by: "Generally speaking, would you say that people can be trusted or on the contrary, that carefulness should be exercised when dealing with people?" The answer takes four possible values: 0: You almost always can't be too careful, to 3: People can almost always be trusted. The mean value of trust is 1.28 with a standard deviation of 0.83.

The confidence dependent variable is obtained from combining the questions: "Which degree of confidence does the (relevant institution) inspire in you?" where the relevant institutions are the parliament, the church, courts or education. The values of the dependent variable for confidence are obtained by adding up the values of the answers for the different relevant institutions, such that a higher value reflects a higher confidence. The mean value of the confidence variable is 7.5 with a maximum value of 16 and a standard deviation of 3.11. The Kendall-tau of these two variables –trust and confidence in institutions- has a lower bound of 0.12 and an upper bound of 0.16 and a Spearman coefficient of 0.20.

In order to define a measure of educational attainment, the ISSP reports the years of full-time schooling or the highest school level achieved. Here we prefer to use this last which is used to define a dummy variable on whether or not the respondent has achieved post-compulsory schooling. The main reason behind this approach is that we believe that there are important differences in retention rates between countries which could affect the interpretation of the returns to education parameter. Nearly 20% of the individuals in the sample have post-compulsory schooling studies and there is a positive and significant

unconditional correlation between post compulsory schooling and trust or confidence (recovered from the OLS parameter estimate with country fixed effects). Furthermore, we have selected a subsample of individuals older than 25 years of age, expecting that they have already finished the schooling process.

The 2008 ISSP special issue was particularly concerned with characterizing the religious environment where the respondent was raised as well as her current religious engagement. In relation to the first issue, the survey asked questions such as: What religion, if any, were you raised in?; What was your mother's (father's) religious preference when you were a child?; When you were a child, how often did your mother (father; yourself when you were around 11 or 12 years of age) attend religious services?; About how often did you pray?

The survey asks questions related to the respondents actual religious engagement, such as:

- How often do you take part in the activities or organizations of a church or place of worship other than attending services?
- Would you describe yourself as extremely religious, very religious...?

Furthermore, there are important questions about the transition between states of belief or how the respondent currently sees him/herself with regard to religious beliefs.

In order to have a global picture of these questions for the different countries, in Table 1 we describe some of the responses to these questions, presenting the percentage of respondents within countries who recall being raised in a religious family, or who were engaged in religion during childhood (proxied by the mother's religiosity).

INSERT TABLE 1

Overall, around four of every five respondents recall being raised in a religious family, although only 2 of every 5 were actively engaged in religion during childhood and basically the same percentage of respondents are currently engaged in religion.

Finally, the survey ask questions that can be used to capture the respondent's attitudes or values: A husband's job is to earn money; A wife's job is to look after the home and family; Do you think it is wrong or not wrong if a man and a woman have sexual relations before marriage?; Should all religious groups have equal rights?; Must we respect all religions?

The standard approach in the literature has been to regress trust or confidence in institutions on religious engagement and educational attainment. However, there is a lack of consensus on what entails religious engagement and how it should be measured. Here we follow three different approaches: first, we measure religious engagement by its intensity, obtained by summing up the numerical answers given to each question related to the respondents current religious activities (e.g. frequency she attends to religious services, prays, or helps or participates in church activities) in such a way that a higher number corresponds to a more intense engagement (similar, for example, to Alessina and Giuliano, 2011). Second, we consider the respondent's self-perception of her religious engagement, i.e. a dummy variable that takes a value 1 if the respondent perceives herself as actively engaged in religion. In the third place, we use the respondent's transitions regarding her belief, i.e. whether she was always a believer or whether he/she changed from not being a believer to belief in God and regular religious practice.

To study trust, confidence, returns to education and religión we follow two approaches. First, we use a standard OLS regression approach as is common in the literature. For this, we introduce a set of comprehensive variables in order to potentially capture those omitted variables that could be confounding the relationship between education, religion and trust. Notice, however, that these results suggest partial correlation effects –association between variables- and cannot be interpreted as causal. The results obtained following this approach are in line with those reported in the literature: both religious engagement and education are positively correlated with trust and confidence in institutions.

As a second approach we follow an instrumental variable procedure. We assume that actual religious engagement could covary with trust or confidence in institutions due to unobservable effects. As instruments, we use the religious environment that the respondent was born in. In particular, we use the respondent's religious engagement as well as the family religious engagement during the respondent's adolescence. In this sense, we are arguing that the individual's actual religious commitment is, in part, a result of her engagement when she was an adolescent, i.e., those raised in a religious family or taken by their parents to attend to religious services during childhood are more prone to be engaged in religion in adulthood than otherwise similar children who were raised in a different

religious environment. Moreover, we assume that the decision to attend religious services during childhood is not the decision of the child but is the parent’s decision, i.e. it is not correlated with an individual unobserved characteristic, such as ability.

For each model, the educational attainment impact is measured through a dummy variable that captures post-compulsory education. To isolate the effect of religious engagement and educational attainment from other possible confounding effects, we control for variables which represent basic demographic information on age, gender, marital status, and position on the income ladder; variables to control for the opportunity cost of time include income, full-time work, working full-time and being a civil servant; we additionally introduce living area dummies as well as country fixed-effects. Finally, we include some variables that capture values, such as ideology, whether the respondent considers that the traditional breadwinner in the family is the appropriate one; whether having sex with individuals of the same sex or before marriage is correct or tolerance. Standard errors are clustered by countries. Descriptions of the variables used are included in Table 2.

INSERT TABLE 2

4. Religion, trust and confidence in institutions

In Table 3 we present the OLS results of regressing trust or confidence in institutions on different measures of religious engagement, as discussed in the previous section. In column I we use intensity of religious practice, in column II the dummy variable that captures the respondent’s perception about his religiosity and in column III the belief transitions.

INSERT TABLE 3

Overall, the results are in line with previous literature: religious intensity and educational attainment are significantly and positively correlated with trust and confidence in institutions. In the above regression we considered that religious engagement and educational attainment additively and separately influence trust or confidence in institutions. However, it is unlikely that the economic theory resulting from this estimation would suggest a linearly additive impact of these variables on trust or confidence. In Table

4 we follow the literature in considering OLS regressions but instead of considering only linearity we introduce an interaction effect between educational attainment and religious engagement.

INSERT TABLE 4

The results in Table 4 suggest that there is a nonlinear effect of educational attainment and religiosity on trust or confidence in institutions. In particular, the interaction term between these two variables is negative and significant in all models of confidence in institution. More precisely, it seems that there exists a negative association between confidence in institutions and those highly educated religious individuals. With regard to trust, the association is not so clear because the interaction coefficient, though negative, is not significant.

It could be argued that religious engagement is an endogenous variable in the trust or confidence equation. Current religious engagement and trust or confidence in institutions can be simultaneously influenced by a variety of unobservable traits specific to the environments in which individuals interact. In particular, there is evidence that the intergenerational transmission of religious values during adolescence could shape adult behavior. Therefore, in what follows, we use an instrumental variable approach which uses the instrument of the respondent's religious environment when she was a child, i.e. her and her mother's intensity of religious practice when she was a child.

In the tables 5, 6 and 7 we only present the estimates of interest (religious intensity or how does the respondent see him/herself in religious terms and a dummy variable for post-compulsory education). The top panel shows the two least squares estimates and the lower panel shows the first stage regression estimate of the instrumental variables. We observe that in all cases the first stage coefficient is significantly different from zero. This result could suggest that the parent's imposition of religiosity during adolescence -which was not a decision of the adolescent at that time- could explain the observed variations in the respondents' actual religious engagement (which is now a decision of the individual).

INSERT TABLES 5, 6 AND 7

The results of tables 5, 6 and 7 point towards the same direction: an individual's actual religious engagement does not significantly explain interpersonal trust but does explain confidence in institutions. Moreover, educational attainment positively and significantly explains both trust and confidence in institutions. In other words, while educational attainment has a robust effect enhancing trust and confidence in institutions, religiosity only positively affects confidence in institutions but not trust on individuals.

The relevance of the above result could be found in the civic virtue argument of the importance of teaching civic values in the school system, and not leaving it exclusively to the family, which could mostly teach their particular viewpoint, as expressed by "education for democratic citizenship... 'equip[s] children with the intellectual skills necessary to evaluate ways of life different from that of their parents' " (cf. Kimlycka and Norman, 1994).

5. Conclusions

The main objective of the paper is the analysis of intergenerational or cultural transmission of religious values during adolescence in order to explain interpersonal trust and confidence in institutions in adulthood. The results for trust and confidence in institutions are examined using the International Social Survey Programme (ISSP) 2008 Religion III survey.

Overall, the results are in line with previous literature: religious intensity and educational attainment are significantly and positively correlated with trust and confidence in institutions.

But when it is included, interaction between religious intensity and education those with higher educational attainment and religious engagement (present or past) are less confident in institutions than otherwise similar individuals that have lower educational attainment and are less engaged in religion.

When instrumental variables are used, the results suggest that religious engagement does not significantly explain trust, although it is significantly related to confidence in

institutions. In other terms, those who are the most religiously engaged do not seem to have trust in individuals but do have confidence in democratic institutions. Moreover, education has a positive and significant effect in all the specifications.

These main findings mean that a blunt discrimination between supporters of religion and civic virtue theorists may no longer hold, and instead that a mixed approach where both education and religion exist. In this case religion and education would have specific roles in the raising of children and in the intergenerational transmission of cultural values, civic responsibilities and viewpoints as well as providing the basis for potentially challenging the dominant political values.

Bibliography

Alesina, A. and Giuliano P. (2010) The Power of Family, *Journal of the Economic Growth*, vol. 25(2), 93-125

Alesina, A.F., Algan, Y., Cahuc, P. and Giuliano, P. (2010). Family Values and the Regulation of Labor. NBER working paper 15747

Alesina, A., and La Ferrara, E. (2000).The determinants of trust. NBER working paper 7621.

Algan, Y. and Cahuc, P. (2005). The Roots of Low European Employment: Family Culture?, in *NBER International Seminar on Macroeconomics 2005*, Pissarides, C.and Frankel, J. (eds), Cambridge, MIT Press.

Blum, U. and Dudley, L. (2001). Religion and economic growth: was Weber right? *Journal of Evolutionary Economics* 11 (2), 207–230.

Bobek, D.L. (2005). Maintaining civil society and democracy in the United States: The role of social capital, civic knowledge, skills, and attitudes, and civic engagement among youth. Unpublished manuscript. Medford, MA: Institute for Applied Research in Youth Development, Tufts University.

Bobek, D. (2007). Maintaining civil society and democracy. Unpublished dissertation. Medford, MA: Tufts University.

Brehm, J., and Rahn, W. (1997) Individual-level evidence for the causes and consequences of social capital. *American Journal of Political Science*,41, 99–1023.

Cotterell, J. (1996). *Social networks and social influences in adolescence*. London: Routledge.

Cystal, D.S. and DeBell, M. (2002). Sources of Civic Orientation among American Youth: Trust, Religious Valuation, and Attributions of Responsibility. *Political Psychology* , Vol. 23, No. 1. 113-132

Dee, Th. S. (2003). Are there civic returns to education? NBER working paper 9588.

Devine, D. J. (1972). *The political culture of the United States: Influence of member values on regime maintenance*. Boston: Little, Brown

Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*. New York: Free Press.

Glaeser, E. L., Sacerdote, B. and Scheinkman, J.A. (1995), *Crime and Social Interactions*, *Quarterly Journal of Economics*, v. 111, 507-48.

Grier, R. (1997). *The Effect of religion on economic development: a cross-national study of 63 former colonies*. *Kyklos* 50 (1), 47–62.

Guiso, L.; Sapienza, P. and Zingales, L. (2008), *Trusting the Stock Market*, *Journal of Finance*, v. 63 (6), 2557-2600.

Guiso, L. and Pinotti, P. (2012). *Democratization and Civic Capital*. EIEF Working Papers Series 1202, Einaudi Institute for Economic and Finance (EIEF)

Guiso, L.; Sapienza, P. and Zingales, L. (2006). *Does Culture Affect Economic Outcomes?*, *Journal of Economic Perspectives*, v. 20, 23-48.

Guiso, L.; Sapienza, P. and Zingales, L. (2003), *People's Opium? Religion and Economic Attitudes*”, *Journal of Monetary Economics*, v. 50 (1), 225-82.

Gutmann, A. (1999) *Democratic education*. Princeton University Press.

Hall, Robert E. and Charles I. Jones (1999), “*Why Do Some Countries Produce So Much More*

Output Per Worker Than Others?”, *Quarterly Journal of Economics*, v. 114 (1), 83-116.

Huang, J., Maasen van den Brink, H. and Groot, W. (2009). *A meta-analysis of the effect of education on social capital*. *Economics of Education Review* 28, 454–464.

Inglehart, R. (1999). *Trust, well-being and democracy*. In: Warren, M. (Ed.), *Democracy and Trust*. Cambridge University Press, New York, Cambridge, pp. 88–120.

Knack, S. and Keefer, P., (1997). *Does social capital have an economic payoff? A cross-country investigation*. *Quarterly Journal of Economics* 112, 1252–1288.

Kimlycka and Norman, 1994 Return of the citizen: A survey of recent work on citizenship theory. *Ethics* 104.

Someone has to fail: The zero-sum game of public schooling. Cambridge: Harvard University Press.

Labaree, 2010. Someone has to fail: The zero-sum game of public schooling. Cambridge: Harvard University Press.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (1997). Trust in large organizations. *The American Economic Review* 87, 333–338

Levine, P. (2008). *The future of democracy: Developing the next generation of American citizens*. Medford, MA: Tufts University Press.

McClellan, J. A., and Pugh, M. V. (1999). *The role of peer groups in adolescent social identity: Exploring the importance of stability and change*. San Francisco: Jossey-Bas.

Milligan, K., Moretti, E., and Oreopoulos, P. (2003). Does education improve citizenship? Evidence from the U.S and the U.K. NBER working paper 9584.

Muller, E. N., and Seligson, M. A. (1994). Civic culture and democracy: The question of causal relationships. *American Political Science Review*, 88, 635-652

Papagapitos, A. and Riley, R. (2009). Social trust and human capital formation. *Economics Letters* 102, 3, 158-160

Petrovic, J. (1999) Moral democratic education and homosexuality: censoring morality. *Journal of Moral Education* 28.

Putnam, R. D. (1995). Bowling alone: America's declining social capital. *The Journal of Democracy*, 6(1), 65–78.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.

Rice, T.W. and Feldman, J. (1997). Civic Culture and Democracy from Europe to America, *Journal of Politics*, v. 59, 1143-1172.

Roche, 1992. *Rethinking citizenship: welfare, ideology and change in modern society*. Cambridge: Polity Press.

Rosenstone, S.J. & Hansen, J.M. (1993). *Mobilization, participation and democracy* (Rev.ed.). New York: Macmillan.

Rosenstone and Hansen (1993) *Mobilization, participation and democracy*. New York: Macmillan.

Sherrod, L. R., & Lauchardt, J. (2009). The development of citizenship. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology: Vol. 2. Contextual influences on adolescent development* (3rd ed., pp. 372–407). New York: Wiley & Sons.

Smith, E. S. (1999). The effects of investments in the social capital of youth on political and civic behavior in young adulthood: A longitudinal analysis. *Political Psychology*, 20, 553-580.

Stulz, R. and Williamson, R. (2001). *Culture, openness and finance*. NBER working paper 8222.

Tan, J.H.W. and Vogel, C. (2008). Religion and trust: An experimental study. *Journal of Economic Psychology*, Volume 29, Issue 6, Pages 832-848

Verba, S., Schlozman, K. L., and Brady, H. E. (1995). *Voice and equality: Civic voluntarism in American politics*. Cambridge, MA: Harvard University Press.

Verba, S. (1965). Comparative political culture. In L. W. Pye & S. Verba (Eds.), *Political culture and political development* (pp. 512-560). Princeton, NJ: Princeton University Press

ANNEX

Table 1: Religion transmission within the family

<i>Country</i>	<i>% raised in a religious family</i>	<i>religiosity during childhood</i>	<i>religiosity of those raised in religion</i>	<i>% mothers with religiosity</i>	<i>Mother's dominant religi3n</i>	<i>%Mothers in dominant religion</i>
<i>Australia</i>	0.82	0.39	0.26	0.37	Protestant	49.28
<i>Austria</i>	0.95	0.36	0.25	0.42	Roman Catholic	83.73
<i>Belgium</i>	0.91	0.51	0.14	0.46	Roman Catholic	87.74
<i>Chile</i>	0.97	0.50	0.61	0.48	Roman Catholic	79.87
<i>Taiwan</i>	0.93	0.13	0.22	0.17	Other Eastern Religions	70.29
<i>Croatia</i>	0.91	0.56	0.51	0.45	Roman Catholic	91.23
<i>Cyprus</i>	1.00	0.36	0.41	0.40	Christian Orthodox	98.26
<i>Czech Republic</i>	0.36	0.13	0.28	0.23	Roman Catholic	50.63
<i>Denmark</i>	0.84	0.08	0.17	0.10	Protestant	78.83
<i>Dominican Republic</i>	0.95	0.56	0.55	0.58	Roman Catholic	82.97
<i>Finland</i>	0.94	0.05	0.21	0.10	Protestant	93.56
<i>France</i>	0.84	0.38	0.16	0.30	Roman Catholic	84.97
<i>Germany</i>	0.75	0.29	0.32	0.31	Protestant	40.27
<i>Hungary</i>	0.81	0.26	0.24	0.21	Roman Catholic	68.38
<i>Ireland</i>	0.98	0.85	0.52	0.85	Roman Catholic	91.59
<i>Israel</i>	0.95	0.30	0.44	0.25	Jewish	80.44
<i>Italy</i>	0.95	0.64	0.40	0.60	Roman Catholic	93.92
<i>Japan</i>	0.39	0.13	0.31	0.17	Buddhist	43.94
<i>South Korea</i>	0.62	0.23	0.66	0.28	Buddhist	45.71
<i>Latvia</i>	0.48	0.11	0.30	0.24	Protestant	30.42
<i>Mexico</i>	0.96	0.60	0.63	0.60	Roman Catholic	88.75
<i>Netherlands</i>	0.76	0.32	0.22	0.41	Roman Catholic	41.90
<i>New Zealand</i>	0.66	0.41	0.36	0.43	Protestant	38.61
<i>Norway</i>	0.87	0.13	0.21	0.17	Protestant	85.84
<i>Philippines</i>	1.00	0.60	0.91	0.66	Roman Catholic	86.79
<i>Poland</i>	0.99	0.82	0.59	0.76	Roman Catholic	98.27
<i>Portugal</i>	0.98	0.62	0.37	0.59	Roman Catholic	94.98
<i>Russia</i>	0.30	0.18	0.14	0.34	Christian Orthodox	64.59
<i>Slovak Republic</i>	0.85	0.48	0.55	0.50	Roman Catholic	78.21
<i>Slovenia</i>	0.87	0.53	0.30	0.42	Roman Catholic	86.42
<i>South Africa</i>	0.88	0.64	0.81	0.67	Protestant	64.91
<i>Spain</i>	0.97	0.59	0.25	0.53	Roman Catholic	91.95

<i>Sweden</i>	0.89	0.12	0.13	0.19	Protestant	73.23
<i>Switzerland</i>	0.95	0.46	0.39	0.39	Roman Catholic	51.30
<i>Turkey</i>	1.00	0.41	0.76	0.50	Islam	99.77
<i>Ukraine</i>	0.71	0.11	0.44	0.26	Christian Orthodox	76.02
<i>United Kingdom</i>	0.87	0.42	0.31	0.39	Protestant	52.62
<i>United States</i>	0.90	0.60	0.73	0.56	Protestant	53.29
<i>Uruguay</i>	0.78	0.42	0.42	0.26	Roman Catholic	69.64

Source: International Social Survey Programme (ISSP) 2008 Religion III survey.

Table 2: Description of independent variables

Variable	Description	Mean	Std. Dev.
trust	1 if people can almost always be trusted; 4 if people can not be trusted most of the time	1.280	0.837
confidencei	confidence in institutions index	7.531	3.116
rintens_h	index based on the frequency the individual prays and attends religious services as an adult	10.684	6.778
rintens_n	index based on the frequency the individual prays and attends religious services as a child	4.925	2.734
rintens_m	index based on the frequency the individual's mother prays and attends religious services	4.979	2.685
howyouseeyourself	1 if the person sees him/herself as very religious	0.149	0.357
postc	1 if respondent has attended tertiary education (completed or not)	0.205	0.404
Belief_no_no	1 if respondent does not believe in God neither now nor before	0.143	0.350
Belief_no_yes	1 if respondent does not believe in God but used to	0.081	0.273
Belief_yes_no	1 if respondent believes in God but did not use to	0.071	0.257
Belief_yes_yes	1 if respondent believes in God and used to believe before as well	0.554	0.497
age	age of the respondent	41.466	9.041
ageq	age squared	1801	753
gender	1 if female	1.556	0.497
married	1 if married	0.707	0.455
fulltime	1 if respondent is employed full-time	0.605	0.489
sameplace	1 if respondent has lived in the same place	0.281	0.450

dingresom	Relative income	1.000	0.673
Selpaisti	International Transparency corruption	0.205	0.404
Lower	1 if respondent self-places himself at the bottom of the social scale	0.064	0.245
Upper	1 if respondent self-places himself at the top of the social scale	0.236	0.425
Happy	0 if respondent is very happy, 3 if respondent is not at all happy	2.056	0.716
womenopp	1 if respondent agrees that sexual relations before marriage are wrong	1.466	1.332
Happy	1 if respondent is not happy, 4 if very happy	2.056	0.716
conservative_view_sex	index on conservative views about marriage, sexual relations, and abortion	1.725	1.533
religious_respect	1 if respondent thinks is wrong to have sexual relations with other than his/her spouse	3.028	1.000
religious_marry	1 if respondent would definitely not accept marrying someone from other religion, 4 if definitely accept	2.079	0.934
Pizqda	1 if identifying with left wing ideology	0.046	0.210
Pdcha	1 if identifying with right wing ideology	0.027	0.161

Table 3: OLS regression of trust and confidence in institutions on religious engagement and educational attainment

	Trust			Confidence in institutions		
	I	II	III	I	II	III
rintens_h	0.006 (0.001)			0.031 (0.005)		
howyouseeyorself		0.104 (0.022)			0.326 (0.097)	
Belief_yes_yes			0.007 (0.017)			0.315 (0.070)
Belief_yes_no			0.006 (0.022)			0.330 (0.079)
Belief_no_yes			0.076 (0.020)			0.189 (0.061)
postc	0.157 (0.021)	0.160 (0.021)	0.163 (0.021)	0.408 (0.074)	0.425 (0.078)	0.430 (0.077)
N° observations	24,631	24,631	24,631	23,396	23,396	23,396
R2	0.205	0.202	0.201	0.184	0.182	0.182

Note: all regressions include a country fixed effect; sociodemographic variables: sex, age, age squared, fulltime worker, married, lived always in the same place, income, social scale position (poor or rich), rural or urban dummies; values: wife should stay at home; ideology (left or right wing); religious tolerance; conservative views with respect to sexual relations.

In parentheses: standard errors (clustered by country)

Table 4: OLS regression of trust and confidence in institutions on religious engagement and educational attainment: interaction effects

	Trust			Confidence in institutions		
	I	II	III	I	II	III
rintens_h	0.007 (0.001)			0.040 (0.006)		
Howyouseeyorself		0.104 (0.021)			0.428 (0.122)	
Belief_yes_yes			0.007 (0.020)			0.442 (0.069)
Belief_yes_no			-0.003 (0.028)			0.416 (0.089)
Belief_no_yes			0.095 (0.023)			0.229 (0.066)
Postc	0.190 (0.031)	0.161 (0.022)	0.166 (0.028)	0.828 (0.090)	0.499 (0.078)	0.729 (0.106)
rintens_h*postc	-0.003 (0.003)			-0.041 (0.007)		
how*postc		-0.002 (0.037)			-0.557 (0.182)	
Belief_yes_yes*postc			0.003 (0.032)			-0.531 (0.119)
Belief_yes_no*postc			0.038 (0.049)			-0.326 (0.156)
Belief_no_yes*postc			-0.071 (0.039)			-0.166 (0.150)

Note: all regressions include a country fixed effect; sociodemographic variables: sex, age, age squared, fulltime worker, married, lived always in the same place, income, social scale position (poor or rich), rural or urban dummies; values: wife should stay at home; ideology (left or right wing); religious tolerance; conservative views with respect to sexual relations.

In parentheses: standard errors (clustered by country)

Table 5: Instrumental Variable Regression: Religious intensity as a child as Instrumental Variable

	Trust		Confidence in institutions	
rintens_h	0.005 (0.003)		0.058 (0.013)	
Howyouseeyorself		0.179 (0.133)		2.719 (0.554)
Postc	0.160 (0.022)	0.158 (0.022)	0.367 (0.072)	0.332 (0.069)
<i>Coefficient First Stage Regression</i>				
<i>Endogenous variable</i>				
	<i>rintens_h</i>	<i>howyousee</i>		
IV: rintens_n	0.883 (0.056)	0.020 (0.002)		
N° observations	23,391	24,631	21,313	21,313
R2	0.207	0.203	0.181	0.182

Note: all regressions include a country fixed effect; sociodemographic variables: sex, age, age squared, fulltime worker, married, lived always in the same place, income, social scale position (poor or rich), rural or urban dummies; values: wife should stay at home; ideology (left or right wing); religious tolerance; conservative views with respect to sexual relations.

In parentheses: standard errors (clustered by country)

Table 6: Instrumental Variable Regression: Mothers religious intensity when respondent was adolescent as Instrumental Variable

	Trust		Confidence in institutions	
rintens_h	0.007 (0.004)		0.060 (0.014)	
Howyouseeyorself		0.265 (0.186)		2.809 (0.708)
Postc	0.158 (0.021)	0.156 (0.021)	0.387 (0.064)	0.352 (0.061)
<i>Coefficient First Stage Regression</i>				
<i>Endogenous variable</i>				
IV: rintens_m	0.789 (0.050)	0.016 (0.002)		
N° observations	21,128	22,670	20,165	21,640
R2	0.211	0.204	0.187	0.111

Note: all regressions include a country fixed effect; sociodemographic variables: sex, age, age squared, fulltime worker, married, lived always in the same place, income, social scale position (poor or rich), rural or urban dummies; values: wife should stay at home; ideology (left or right wing); religious tolerance; conservative views with respect to sexual relations.

In parentheses: standard errors (clustered by country)

Table 7: Instrumental Variable Regression Overidentification: Child's and Mother's religious intensity when respondent was adolescent as Instrumental Variable

	Trust		Confidence in institutions	
rintens_h	0.006 (0.003)		0.056 (0.009)	
Howyouseeyorself		0.204 (0.109)		2.676 (0.428)
Postc	0.161 (0.022)	0.158 (0.014)	0.390 (0.050)	0.352 (0.051)
<i>Test of overidentifying restrictions</i>				
Pvalue	0.207	0.326	0.670	0.742

Note: all regressions include a country fixed effect; sociodemographic variables: sex, age, age squared, fulltime worker, married, lived always in the same place, income, social scale position (poor or rich), rural or urban dummies; values: wife should stay at home; ideology (left or right wing); religious tolerance; conservative views with respect to sexual relations.

In parentheses: standard errors (clustered by country)