

Inheritance of Religiosity Among Muslim Immigrants in a Secular Society

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Abstract This study examined the intergenerational transmission of religiosity within Muslim immigrant families who live in the Netherlands, a rather secular society. We studied whether transmission of religiosity within immigrant families is influenced by warm family relations on the one hand, and integration into the host country on the other hand. Two analyses were carried out on a nationally representative sample of Turkish and Moroccan first- and second-generation immigrants aged 15–45, in the Netherlands. The findings support the hypotheses to some extent: warm family ties are found to facilitate religious transmission but transmission is stronger when parents have different national backgrounds. A stronger transmission is found within families that are stronger embedded in religious communities; however there are large differences between men and women. Our research shows that the influence of parental religiosity cannot be ignored in the study of immigrants' religiosity.

Keywords Religious transmission · Islam · Integration

Introduction

Parents are the primary socialization agents of religiosity. They provide their children with a basis for a religious worldview, set examples of religious behavior and decide on religious education and participation in religious events (Bao et al. 1999; Regnerus et al. 2004; Ruiter and Van Tubergen 2009). Parents are more important in the development of one's religiosity than other socialization agents like

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school or peers (Hunsberger and Brown 1984; Hayes and Pittelkow 1993; Myers 1996; Sherkat 1998). There is firm evidence for the intergenerational transmission of religiosity from parents to their offspring during childhood and adolescence; studies also confirm that this transmission lasts up to adulthood (e.g. Willits and Crider 1989; Myers 1996; Martin et al. 2003).

Several parenting factors are found to facilitate the intergenerational transmission of religiosity. The transmission is strongest when there is a warm and positive parent–child relationship, when the child is raised by both biological parents and if parents agree in their religiosity (Myers 1996; Sherkat and Wilson 1995; Bao et al. 1999; Granqvist 2002; Bader and Desmond 2006; Abar et al. 2009).

However, the transmission of religiosity from parents to children does not happen independently from the social context. The socialization of children takes place within a society and families are embedded in communities and social networks; these factors have a potential influence on how successful parents are in transmitting their religious views and practices (Sherkat 2003; Vermeer et al. 2012). In the case of immigrants whose beliefs and practices differ from those of the majority population in a country, the transmission of religiosity might be less effective than among families in a majority situation (Kwak 2003). On the other hand, religious transmission might be fostered when families are integrated into communities in which their beliefs and views are shared by others.

In this respect, Turkish and Moroccan immigrants in the Netherlands form an interesting subpopulation. Most of them are brought up with a religious Islamic tradition but live in a rather secular society in which a majority is not familiar with Islam (Voas and Fleischmann 2012). They are considered not to be strongly integrated into the Dutch native society; this is partly because the migration of Turks and Moroccans started out with the intention of a temporarily stay as guest workers, and because their immigration is still an ongoing process (Martinović 2010; Vermeulen and Penninx 2000). As a result of cultural differences and anti-immigrant and anti-Muslim sentiments in Dutch society (Coenders et al. 2008), group boundaries between Turkish and Moroccan immigrants on the one hand and native majority members on the other hand are quite strong (Kwak 2003; Van Tubergen 2007). The question is: will Turkish and Moroccan parents be able to transmit their religiosity to the next generation in a secular Western society?

Despite the growing body of literature concerning the religiosity and religious vitality of Islamic minorities in the Netherlands and other West-European countries (for an overview, see Voas and Fleischmann 2012), up to now only two studies have taken the influence of parental religiosity into account. Güngör et al. (2011) studied the influence of parental religiosity and religious upbringing on religious identification, belief, and practices among second-generation Turkish and Moroccan immigrants in two Belgian cities. Their analyses show that parents are important factors in the religious socialization of their children, and that transmission is stronger within Turkish families than Moroccan families. Maliepaard and Lubbers (2013) used data on second-generation Turkish and Moroccan immigrants in the Netherlands to study the effect of parental religiosity on the religiosity of the children who live at their parental home. They also report transmission of religiosity, which is stronger among Turkish immigrant families than among

Moroccan families. With respect to the frequency of mosque visits, Maliepaard and Lubbers found no parental influence at all for Moroccan immigrants; only for Turkish immigrants.

The present article focuses on the two largest Muslim immigrant groups in the Netherlands: Turks and Moroccans. It contributes to previous studies on religious transmission, and that of Muslim minorities more specifically, in two ways. First, we examined separately the transmission of Quran reading, fasting, renouncing alcohol and pork, wearing headscarves and attending the mosque. This provides an overall indication of how successful Turkish and Moroccan parents are in transmitting their religious practices to their children. Previous studies only took into account parental mosque attendance and religious preferences. Then, we tested in which conditions the intergenerational religiosity transmission is stronger than in other conditions. This was done by (a) taking into account familial factors which are found to be influential for religious transmission in general; and (b) having a closer look on the influence of social contexts on the religious transmission. Our data allowed us to compare intergenerational transmission between the first- and the second-generation immigrants, between Turkish and Moroccan immigrants, and between highly and less integrated immigrant families. Apart from ethnic differences, none of these conditions have been studied before.

We used a large-scale dataset that represents the population between 15 and 45 years old of both first- and second-generation Turkish and Moroccan immigrants in the Netherlands (NELLS; De Graaf et al. 2010). The data include a set of questions on Islamic practices, which measure an important dimension of Islamic religiosity (Abu-Raiya and Pargament 2011). Previous studies only took into account parental mosque attendance and religious preferences.

Theory and Hypotheses

Religious Transmission

Different explanations account for a strong intergenerational transmission of religiosity as found in most studies. According to the socialization theory, parents are the main socialization agents who model and reinforce their children's values and attitudes. These beliefs are transmitted from parents to children both through active teaching by the parents and through observation and adapting by the children (Glass et al. 1986; Cornwall 1988; Bao et al. 1999).

Another explanation suggests that people develop preferences for familiar habits, values and explanations (Sherkat 2003). This is why they prefer religious goods which they "consumed" before, and parents lay the foundations for these adaptive preferences by making their offspring familiar with religion. In the end, both theories predict that one's religiosity will resemble that of the parents. Therefore, it was expected that *the more religious their parents were during their youth, the more religious Turkish and Moroccan immigrants in the Netherlands will be (Hypothesis 1).*

Conditions: Family Characteristics

The correspondence theory of religious learning states that in secure parent–child relationships, children’s religiosity is developed through social learning during childhood. Hence, children’s religiosity will correspond to their parents’ religiosity if there is a secure relationship between them (Granqvist and Hagekull 1999; Granqvist 2002). Granqvist (2002) observed that in insecure parent–child dyads there is less resemblance between parents’ and children’s religiosity. In these cases, some adolescents experience an increasing need for a compensatory attachment figure and turn to God who fulfills this role. However, children with insecure relations with their parents can also experience sudden losses in religiousness. Evidence for this association between religious transmission and the quality of the parent–child relationship is also found in many other studies of people from Christian background (e.g. Abar et al. 2009; Zhai and Stokes 2009). Some studies even suggest that the degree of “affectual solidarity” between parents and children might be the strongest predictor of the effectiveness of intergenerational transmission of religiosity (Bengtson et al. 2009). A recent study of Maylasian Muslim youth found no effect of parental attachment on children’s religiosity (Krauss et al. 2013), however, this study did not look at the effect of attachment on the *transmission* of religiosity. Other tests of the degree to which the quality of the parent–child relationship facilitates socialization of Islam within immigrant families are not available. However, we have no reason to expect different findings, so we hypothesizes that *the more strongly Turkish and Moroccan immigrants in the Netherlands are satisfied with the relationship with their parents, the stronger the religious transmission (Hypothesis 2).*

Another condition that might interfere with the transmission of religiosity is the ethnic homogeneity of the parents. Assuming that there are country-level differences in religious practices and in norms toward these practices, it can be expected that parents who are not born and raised in the same country differ more from each other in their values and opinions towards religious practices than when both parents are from the same country. An indication of this is the finding by Smith et al. (2012) in the Netherlands that divorce rates are higher among interethnic marriages than among couples with the same ethnic origin. Consequently, if parents disagree in their opinions towards religious practices, it will be harder for them to be consistent in teaching these practices to their children. They do not transmit an unambiguous message to their children of how religious they should be and how it should be practiced. In line with this argument, Myers (1996) and Bader and Desmond (2006) tested the effect of “belief homogeneity” (the degree to which parents are similarly religious) and found that if parents agree more, the transmission of religiosity to their child is stronger. We therefore expected that *in families in which both parents are Moroccan or both are Turkish, the transmission of religiosity will be stronger than in families in which parents have different national origins (Hypothesis 3).*

Conditions: Community Effects

Besides the characteristics of the family in which the transmission of religiosity takes place, we also expected the social setting in which the family is situated to

affect the transmission of religiosity from parents to children. Two mechanisms might play a role here. First, the socialization of norms and values to children by their parents will be more effective if these norms and values are reinforced by other persons in the children's social environment. As Coleman (1990, p. 592) illustrates, if parents can cooperate with other adults like friends and teachers in establishing their norms and transmitting their values to their children, there will be more social control of these children. This could not be established by the parents alone, and it will reduce inconsistencies and conflicting signals. Thus, more closure in the parent's network makes effective socialization of their children possible.

Muslim parents will, however, not receive help from non-religious people in transmitting religious norms and values to their children. As the Dutch society is rather secular (Te Grotenhuis and Scheepers 2001), social control for this purpose could only be obtained within an ethnic or religious community. As Kwak (2003) describes in a review of intergenerational family relations among immigrants, immigrant families experience more "active negotiations" in order to achieve a "positive" intergenerational socialization as opposed to non-immigrant families because of differences between the cultures of the country of origin and destination. If these cultural differences are absent, the transmission of values and beliefs would be easier because the signals their children receive are less unambiguous.

Another way in which the social context of the family can affect the transmission of religiosity is a similar mechanism that works the other way around: if there is more closure in the parent's network, network members will be better able to monitor the upbringing of the children by the parents. In religious communities, people who conform to group norms enforcing religious behaviors will enjoy more social status and respect than those who do not (Sherkat and Ellison 1999). Accordingly, there will be benefits to parents who give their children a "proper" Islamic upbringing (e.g., sending them to Quran schools or take them to the mosque regularly). In this way, the transmission of religiosity will be stronger for parents who are integrated in a religious community or network than for parents who are more integrated into the secular native society. The first will have more incentives to stick to the religious norm, even though the two types of parents may be equally religious.

Three hypotheses can be formulated. First, a difference was expected between Turkish and Moroccan communities in the transmission of religiosity. In the Netherlands, it has been found that the Turkish immigrant community is more cohesive than the Moroccan community (Vermeulen and Penninx 2000) and that among Turkish first- and second-generation immigrants in the Netherlands there is a higher degree of civic organization (Van Heelsum et al. 2004). Phalet and Heath (2011) found a higher degree of cultural continuity and more social control in Turkish families compared to Moroccan families in Belgium. In Belgium, Turkish and Moroccan immigrant groups have the same history as guest workers as in the Netherlands. Based on these insights, religious transmission should be stronger within Turkish families than within Moroccan families, because parents, as members of the ethnic community, will be more strongly integrated if there is more cohesion and a larger network closure. Güngör et al. (2011) indeed found a stronger effect of father's attendance to the mosque on the religiosity of second-generation Belgian Turks than that of Belgian Moroccans. Maliepaard and Lubbers (2013)

found in the Netherlands among second-generation children living at home, that there is not any effect of parental mosque visits for Moroccan immigrants, while there is evidence for religious transmission among Turkish immigrants. Thus, we hypothesized for the Netherlands that *for Turkish families, the transmission of religiosity is stronger than for Moroccan families (Hypothesis 4)*.

Besides the differences between national origin groups, we also expected differences between generations. As first-generation immigrants are born, and at least partly raised, in the country of origin (i.e., Turkey or Morocco), we expected the influence of parental religiosity to be stronger for them. In both Turkey and Morocco, Islam (almost) has a monopoly as religious worldview (Voas and Fleischmann 2012). In those countries, the religious norms and values of the parents are shared by most people, including other important socialization agents. In such a context, the religious socialization of children was expected to be stronger than in a country such as the Netherlands, where a majority does not agree with the religious norms and values of the immigrants' parents (Van Tubergen 2007). For this reason, it will be harder for immigrants to transmit religiosity to their children in the Netherlands. This is why we expected that *the religiosity of the first-generation immigrants is more similar to that of their parents than the religiosity of the second-generation immigrants is to that of their parents (Hypothesis 5)*.

Third, we expected an effect of the integration of parents into a religious community. The more the family is embedded in a religious context, which is provided by an ethnic community that shares the same religious norms and values, the more effective the religious upbringing of children will be monitored and controlled. Inversely, the more a family is integrated into the native, secular society during one's childhood, the less social control on religious norms will be available, and the more children will come into contact with explanations, norms and values that are different from their parents'. Therefore, for the second generation it was predicted that *if their parents were less socially integrated into mainstream Dutch society, the transmission of religiosity is stronger (Hypothesis 6)*.

Data and Measurements

Data

To test the hypotheses, we used data from the first wave of the Netherlands Longitudinal Lifecourse Study (NELLS), a large-scale mixed-mode survey conducted by Tilburg University and Radboud University from December 2008 until May 2010 (De Graaf et al. 2010). Unique features of this dataset are that both first- and second-generation immigrants were surveyed, who also provided information about their parents. This enabled studying the religiosity transmission for two generations of immigrants. Moreover, measures of religious practices are similar for respondents and their parents, which made it possible to closely compare the transmission of several practices. The cross-sectional sample is nationally representative for Turkish and Moroccan immigrants in the Netherlands between 15 and 45 years old. A two-stage sampling procedure was used: first, 35 municipalities

were randomly selected, stratified by region (the North and East; the West, and the South of the Netherlands) and urbanization. Second, within these municipalities local authorities were asked to draw a sample from the population register, stratified by ethnicity. Turkish and Moroccan immigrants were identified on basis of father's, mother's and own place of birth. In this study, all other respondents (native Dutch citizens and other immigrant groups) were excluded, because relevant questions about religiosity were only asked to Turkish and Moroccan immigrants. The complex sampling design was taken into account in the analyses (see below). The response was 50 percent for Turks and 46 percent for Moroccans.¹

Questions about one's parents were asked to the respondents. Their parents were not involved in the survey. This may decrease the reliability of the answers because it is hard to exactly remember these behaviors after some years. It might increase the association between one's own religiosity and parental religiosity because respondents incline to give consistent answers. All interviews and questionnaires were in Dutch, which may have led to some selectivity in the sample: immigrants who speak the host language are more integrated into the host society than immigrants who do not. This should be kept in mind when interpreting results. Cases with missing values on these variables were deleted listwise (see below). Furthermore, respondents whose parents were both deceased before they were 12 were excluded from the analysis, because parent's religiosity was measured for the period in which the respondent was 12–14 years old. The final sample contains 1,797 cases.

Dependent Variable

The dependent variable in this study is *religious practices of the respondent*. Islamic religiosity has different aspects and dimensions, such as worldview, beliefs, knowledge and practices (Abu-Raiya and Pargament 2011), which are interrelated but not the same (Kraus et al. 2006). There are also many differences and nuances in the way Muslims in different parts of the world practice their religion (Abu-Raiya and Pargament 2011). For the present study we selected six items measuring relatively common practices of Muslims: respondents were asked whether they had read the Quran in the past 3 months, fast, abstain from alcohol and if they do not eat pork. In addition, women were asked whether they wear a headscarf and men are asked how frequently they visit the mosque. Together, these practices form a quite general measure of religiosity (as opposed to measures discriminating between, for instance, different strands or denominations of Islam), which is reflected in the relatively high scores of respondents on these measures (see Table 1). All items are dichotomous, and coded such that value 1 means that one behaves according to religious prescriptions (e.g. reading the Quran and not eating pork) and the lowest means they do not. For technical purposes, the frequency of mosque visits was also recoded to a dichotomous item.

¹ This response rate is common for face-to-face surveys in the Netherlands among Turkish and Moroccan minorities (Stoop 2005).

Independent Variables

To measure the transmission of religiosity, we compared the six items discussed above with six similar questions that were asked about parent's behavior during the time they were 12–14 years old. The items were recoded in the same way as the items measuring respondent's religiosity. The frequency of mosque visits of women was not included in the analysis because in Islam, unlike men, women are not obliged to visit the mosque (Cherribi 2010). Therefore, the frequency with which women visit the mosque would not reflect religiosity in the same way it does for men. In addition, the frequency of mosque visits was not measured for mothers; and comparing father's mosque visits to daughter's mosque visits would not be a valid measure of religious transmission.

To measure the degree of *satisfaction with the relationship* with parents, we combined the answers respondents gave to the questions of how satisfied they are with the relationship they have with their mother and father, respectively. Their answers were recorded on a five-point scale ranging from "very unsatisfied" to

Table 1 Descriptive statistics of the dependent and independent variables

	Men (n = 831)			Women (n = 966)		
	Mean/ prop.	SD	Range	Mean/ prop.	SD	Range
Religiosity (1 = yes)						
Reading the Quran	0.51	0.50	0/1	0.60	0.49	0/1
Fasting	0.80	0.39	0/1	0.86	0.34	0/1
Not drinking alcohol	0.59	0.49	0/1	0.79	0.41	0/1
Not eating pork	0.83	0.38	0/1	0.88	0.33	0/1
Wearing headscarves				0.49	0.50	0/1
Visit the mosque more than once a month	0.47	0.50	0/1			
Parents' religiosity (1 = yes)						
Reading the Quran	0.70	0.46	0/1	0.73	0.45	0/1
Fasting	0.94	0.23	0/1	0.94	0.23	0/1
Not drinking alcohol	0.86	0.35	0/1	0.87	0.33	0/1
Not eating pork	0.98	0.15	0/1	0.98	0.14	0/1
Wearing headscarves				0.83	0.37	0/1
Visit the mosque more than once a month	0.74	0.44	0/1			
Satisfaction with relationship with parents	8.61	1.57	2–10	8.57	1.56	2–10
Interethnic parents	0.03	0.16	0/1	0.02	0.14	0/1
National origin (Turkish = 0 Moroccan = 1)	0.48	0.50	0/1	0.52	0.50	0/1
Second generation	0.34	0.47	0/1	0.38	0.49	0/1
Invite Dutch citizens at home	0.57	0.49	0/1	0.62	0.49	0/1
Age	31.22	8.91	15–45	29.84	8.60	15–45
Education completed, in years	12.99	3.17	0–22	12.85	3.66	0–22
Married	0.57	0.50	0/1	0.58	0.49	0/1

“very satisfied”. The sum of the values for fathers and mothers was taken, resulting in a general ten-point scale which was used as an interval variable. Unfortunately, causality problems cannot be solved completely when including this effect. It cannot be ruled out that respondents are not satisfied with their relationship because they are less (or more) religious than their parents in the first place, instead of being not satisfied with the relationship and *as a result* they do not follow their parents’ example with respect to religious practices. Respondents whose parents were deceased did not report satisfaction of their relationship with them. If only one parent was present, only his or her information was used.

To determine whether respondents were raised by *interethnic parents*, the country of birth of both parents was measured, and respondents have a value 1 if parents were *not* both born in Turkey or both in Morocco, and value 0 if they were. In the case of interethnic parents, either one of the parents was born in the Netherlands, another country such as Surinam or (former) Yugoslavia; or one was born in Turkey and the other in Morocco.

National origin is measured according to the definition of Statistics Netherlands (CBS): if either the respondent or at least one of his/her parents is born in Turkey, the respondent was regarded to be from Turkish origin. The same applies for Moroccan respondents. First-generation Turkish and Moroccan immigrants are born in Turkey or Morocco; second-generation Turkish and Moroccan immigrants are born in the country of destination to at least one parent who is born in Turkey or Morocco.²

To measure the *social integration of one’s parents* into the native Dutch society, respondents were asked whether their parents, during the time they were 12–14 years old, invited Dutch natives into their home. First-generation immigrants whose parents lived in Turkey or Morocco, to whom this question is not applicable, had a value 0 on this variable.

To minimize estimating spurious relationships, we included some control variables in the analyses. These are *age*, *sex*, *level of education* and *marital status*. These variables have repeatedly proved to be strongly correlated with religiosity. Generally, people are more religious when they are older, female and married (Sherkat and Ellison 1999). The effect of education is more ambiguous but is proved to be strong for religious participation (Albrecht and Heaton 1984; Sherkat and Ellison 1999). Table 1 shows the descriptive statistics of the dependent and independent variables.

Analytic Strategy

Two analyses were carried out. First, in a descriptive analysis, separately for each religious practice, we studied how successful parents are in transmitting their behavior. We did this by calculating statistics on the intergenerational mobility of religiosity. Second, in an explanatory Structural Equation Modeling (SEM) analysis

² The group of “third generation” Turkish and Moroccan migrants (at least one grandparent from Turkey or Morocco) is estimated by Statistics Netherlands to be only 1.4 % of the Turkish migrants and 1.8 % of the Moroccan migrants.

using *Mplus* version 6 (Muthén and Muthén 2010), we studied to what extent this intergenerational religious transmission depends on several conditions. The advantage of SEM is that it efficiently combines a measurement model with a structural model of the religious transmission and the conditions affecting it. In the SEM analyses, the indicators for religious practices were combined to measure latent variables *religiosity* and *parents' religiosity*. A confirmatory factor analysis (CFA) was conducted to assess the measurement of religiosity and parent's religiosity, and subsequently the hypotheses were tested in a structural model that includes satisfaction with the relationship, interethnic family, national origin, generation and integration as moderators.

The structural model was analyzed separately for men and women. The reason for this is that among Muslims, some religious practices differ for men and women. As discussed above, we have an additional measure for the religiosity of women and their mothers (wearing headscarves) and for men and their fathers (visiting the mosque frequently). These additional measures allow for a better measurement of religiosity, but this is at the cost of invariance of the measures of religiosity and parents' religiosity between men and women. We therefore tried to verify the findings in additional sensitivity analyses.

In both analyses, complex sampling was taken into account. *Mplus* uses MLR estimation (maximum likelihood estimation with robust standard errors) in order to deal with complex sampling and to calculate latent variable interactions. A drawback of using MLR estimation in this case is that no missing value modeling could be used; cases with missing values were deleted listwise.

Results

Religious Transmission Decomposed

Table 2 shows the transmission of religiosity in detail. For each behavior, percentages are separately shown of respondents who are less religious (that is, do not behave according to the religious prescription, whereas their parents did during their youth), equally religious (do the same as their parents did) or more religious (behave according to the religious prescription, whereas their parents did not). The Yule's *Q*s show to what extent the religious practices of respondents resemble that of their parents: like correlation, Yule's *Q* is 1 when there is a perfect resemblance of parents' and children's religiosity and 0 if children's religiosity is completely independent of their parents'.³

The table shows that overall, the religiosity of respondents resembles that of their parents, in line with hypothesis 1. The percentage of people doing the same as their parents did is, for each practice, much larger than the percentage not doing the same.

³ Yule's *Q* is calculated as follows: if *a* is the frequency of respondents who do not behave religiously and whose parents also do not; *b* is the frequency of non-religiously behaving people whose parents are; *c* is the frequency of religiously behaving respondents but whose parents are not; and *d* is the frequency of respondents and parents who behave religiously and whose parents do as well, $Q = \frac{ad-bc}{ad+bc}$.

Table 2 Transmission of religiosity per indicator; percentage of respondents compared to their parents and Yule's Q

	Higher (%)	Same (%)	Lower (%)	Yule's Q
Reading the Quran	9.88	64.33	25.79	0.54
Fasting	1.48	86.95	11.56	0.92
Not drinking alcohol	4.91	72.52	22.58	0.68
Not eating pork	0.63	85.90	13.47	0.89
Wearing headscarves (only women)	1.61	63.49	34.90	0.87
Visiting the mosque more than once a month (only men)	4.12	65.53	30.35	0.77

We can, however, also conclude that it is more often the case that people are *less* religious as opposed to *more* religious than their parents. The percentage of people not behaving according to religious prescriptions, whereas their parents did, is for every practice much larger than the percentage of people for whom it is the other way around. This may be an indication that intergenerational transmission of religiosity is hindered by living in a secular, non-Islamic society.

When comparing Yule's Q for different religious practices, it is shown that the transmission is weakest for reading the Quran and for renouncing alcohol (these have the lowest Q). Note that the transmission is weak for these practices not only because many people stop practicing them, but also because many people started practicing them while their parents never have. Parents are most successful in transmitting behaviors such as fasting and not eating pork; these have the highest Q.

Confirmatory Factor Analysis

As mentioned above, in the explanatory model we combined the indicators for religious practices to measure a latent variable *religiosity*. Table 3 shows the standardized loadings and the standard errors of the confirmatory factor analysis (CFA) models of the measurement of religiosity and parents' religiosity; once for men and once for women. The (unstandardized) loadings were constrained to be the same for the respondent's religiosity and their parents' religiosity, i.e. metric measurement invariance is assumed. The loadings show that for men, not eating pork contributes least and fasting contributes most to the latent variable; for women reading the Quran contributes least and not drinking alcohol matters most. The additional indicators for men and women (attending the mosque and wearing headscarves, respectively) contribute much as well. The CFA model for men fits the data well: $\chi^2(38) = 114.740$, $p < .001$, $\chi^2/df = 3.019$, CFI = .935, RMSEA = .034. The CFA model for women is not optimal: $\chi^2(38) = 262.542$, $p < .001$, $\chi^2/df = 6.909$, CFI = .931, RMSEA = .057. However, the fit is better than that of alternative measurement models with less predictors (e.g., without the lowest loading indicator *reading the Quran*, the fit is $\chi^2(22) = 216.080$, $p < .001$, $\chi^2/df = 9.822$, CFI = .941, RMSEA = .070).⁴

⁴ It is not possible to estimate covariances between some indicators in the structural model in order to improve the fit, this is probably because of the estimator used by Mplus in the structural model (MLR).

Table 3 Measurement model of religiosity: standardized loadings and standard errors

Latent factor	Indicators	Men		Women	
		Loading	SE	Loading	SE
Religiosity	Reading the Quran	0.620	0.024	0.537	0.032
	Fasting	0.827	0.029	0.983	0.014
	Not drinking alcohol	0.694	0.031	0.911	0.023
	Not eating pork	0.559	0.049	0.858	0.028
	Wearing headscarves			0.823	0.021
	Visiting the mosque more than once a month	0.793	0.023		
Parents' religiosity	Reading the Quran	0.657	0.029	0.522	0.029
	Fasting	0.875	0.028	0.956	0.024
	Not drinking alcohol	0.734	0.026	0.887	0.023
	Not eating pork	0.592	0.050	0.835	0.033
	Wearing headscarves			0.801	0.017
	Visiting the mosque more than once a month	0.839	0.024		

In order to rule out the possibility that effects observed in the explanatory model are the result of response effects or differences in what is understood as being religious between groups, rather than differences in the degree of religiosity, we need to assess measurement invariance. Specifically, we tried to check whether the measurement of religiosity is invariant on both loadings and thresholds for respondents and their parents, and whether the measurement of parents' and respondents' religiosity is invariant for generation and ethnicity. However, estimates were inadmissible, probably due to (almost) empty cells in the joint distribution of the binary indicators for religiosity. Therefore, we are unable to provide an indication of the invariance in the measures of religiosity across groups.

Structural Model

Tables 4 and 5 show the results of the structural analyses, respectively for men and for women. Models 1 and 3 include only main effects, controlling for age, education and marital status. Models 2 and 4 include all interaction effects as well, which test our remaining hypotheses.⁵ In line with hypothesis 1 and with the findings in the descriptive analysis, there is a significant main effect of parents' religiosity on the religiosity of respondents. This effect is found for both men and women and the coefficients suggest the influences are similar for men and women.

Models 2 and 4 show that the intergenerational transmission of religiosity is stronger if one is more satisfied with the relationship with their parents, however this only holds for men. This supports our second hypothesis only partly. There is

⁵ The effect of satisfaction is grand mean centered to obtain interpretable interaction coefficients with parental religiosity.

Table 4 Unstandardized regression coefficients (standard errors in parentheses) of the structural models of religiosity for men; latent factors include mosque attendance; clustering by municipalities and stratification by region and urbanization are taken into account

	M1: No interactions	M2: Full Model
Parents' religiosity	0.702 (0.047)***	0.854 (0.133)***
Satisfaction with relationship × parents' religiosity		0.060 (0.030)*
Interethnic parents × parents' religiosity		0.317 (0.380)
Moroccan × parents' religiosity		-0.273 (0.070)***
Second generation × parents' religiosity		-0.018 (0.084)
Social integration × parents' religiosity		-0.209 (0.114)
Satisfaction with relationship	0.050 (0.013)***	0.073 (0.029)*
Interethnic parents	-0.011 (0.154)	0.134 (0.486)
Moroccan	0.229 (0.039)***	0.222 (0.107)*
Second generation	-0.076 (0.084)	-0.038 (0.175)
Social integration	-0.133 (0.034)***	-0.171 (0.115)
Age	-0.020 (0.003)***	-0.034 (0.006)***
Education	-0.016 (0.005)**	-0.006 (0.009)
Married	0.291 (0.044)***	0.595 (0.182)***

Coefficients are unstandardized, standard errors are shown in parentheses, two-tailed *p* values

* *p* < .05, ** *p* < .01, *** *p* < .001

Table 5 Unstandardized regression coefficients (standard errors in parentheses) of the structural models of religiosity for women; latent factors include wearing headscarves; clustering by municipalities and stratification by region and urbanization are taken into account

	M3: No interactions	M4: Full model
Parents' religiosity	0.731 (0.036)***	0.604 (0.068)***
Satisfaction with relationship × parents' religiosity		-0.008 (0.022)
Interethnic parents × parents' religiosity		0.543 (0.191)**
Moroccan × parents' religiosity		-0.005 (0.097)
Second generation × parents' religiosity		-0.208 (0.050)***
Social integration × parents' religiosity		-0.007 (0.061)
Satisfaction with relationship	0.016 (0.010)	0.051 (0.028)
Interethnic parents	-0.286 (0.134)*	0.462 (0.352)
Moroccan	0.287 (0.056)***	0.481 (0.117)***
Second generation	-0.151 (0.036)***	-0.346 (0.076)***
Social integration	-0.121 (0.040)**	-0.177 (0.104)
Age	-0.012 (0.003)***	-0.019 (0.006)**
Education	-0.017 (0.006)**	-0.029 (0.014)*
Married	0.140 (0.038)***	0.271 (0.072)***

Coefficients are unstandardized, standard errors are shown in parentheses, two-tailed *p* values

* *p* < .05, ** *p* < .01, *** *p* < .001

also a main effect for men: we find a positive association between satisfaction with the relationship with one's parents and being religious. No differences have been found for women.

The interaction effect of being raised by interethnic parents with parents' religiosity is significant and positive for women, which means that women who grew up in an interethnic family are more strongly influenced by their parents' religiosity than women who were raised by two Turkish or two Moroccan parents. This refutes our third hypothesis, which expected *less* successful religious transmission among interethnic families. For men, there is no difference between mono- and interethnic families. We reject hypothesis 3.

Turkish immigrant men are more strongly influenced by their parents' religiosity than Moroccan immigrant men; there is no difference between Turkish and Moroccan women. Additional analyses on the subsample of Moroccan men show that they are not significantly influenced by their parents' religiosity at all. These findings partially support hypothesis 4. Nevertheless, the main effects in models 1 and 3 show that on average, Moroccan immigrants are more religious than Turkish immigrants.

In line with our fifth hypothesis, first-generation immigrant women are more strongly influenced by their parents' religiosity than second-generation immigrant women. We also performed additional analyses on the subset of second-generation immigrant women, which show that although smaller, there still is a significant parental influence on their religiosity. For men, no differences are found. As models 1 and 3 show, in general second-generation immigrant women are less religious than first-generation immigrant women; there is no effect of generation for men.

Finally, we could not find the expected negative effect of the extent to which parents are integrated into Dutch native society on the intergenerational transmission of religiosity. However, models 1 and 3 show that if one's parents were more socially integrated into Dutch society, he or she is significantly less religious. It may be the case that the effect of parents' social integration on the transmission of religiosity is absent because it relates strongly with intermarriage; many of the interethnic parents are Dutch. To examine whether the absence of the effect of parents' social integration on the religious transmission is a result of including interethnic parents in the model, we carried out additional analyses without the effect of interethnic parents. Indeed, these analyses show a significant negative interaction effect of parents' social integration and the influence of their religiosity, but only for men.

The control variables behaved as expected, except for age: older immigrants are found to be generally less religious than younger immigrants. This finding contradicts the well-established positive effect of age on religiosity, but note that our sample only contains people aged 15–45.

Sensitivity Analyses

Because latent variable interactions are specified in the structural model, the SEM model was fitted on the entire data instead of the covariance matrix. The consequence is that regular fit statistics are not relevant; it is therefore not possible

to evaluate the fit of the structural model. Another drawback of this model specification is that it does not allow computing standardized effects in *Mplus*, which means that the effect size could also not be evaluated.

We performed some additional analyses (of which the results are not shown) to still have some indication of the robustness of the results. First, we tested the structural SEM models in multiple group analysis (MGA) for men and women together, without the additional measures of wearing headscarves and visiting the mosque. In these MGA models, measurement invariance between men and women is assumed, and coefficients can be compared. Results do not differ much, except that some significant findings in Tables 4 and 5 were not significant in the MGA model: for men, the interaction effect of national origin disappears; for women, the effects of interethnic parents, generation, education and being married disappear. Both the coefficients and the standard errors differ somewhat; this is probably the result of different specification of the latent variables. Comparing the main effects of parents' religiosity (the intergenerational transmission), we find that it is stronger for women than for men, $z = 2.01$, two-sided $p = .044$.⁶

Second, we carried out logistic regressions with the full structural model for men and women together and for each predictor separately (i.e., the logistic regressions were conducted six times, one for each of the indicators for religiosity and parents' religiosity—results not presented). No important distinctions appear from the results presented in Tables 4 and 5; across the different indicators, the coefficients were almost all in the same directions. However, most interaction effects were not significant. This is probably because the SEM model is more efficient and has therefore more power.

In sum, the findings seem quite robust; they do not seem to be influenced much by specifying the variables of religiosity differently. No large differences emerged either by specifying the models in Tables 4 and 5 differently (excluding predictors), except for the effect of parents' social integration as discussed above.

Discussion

This study investigated to what extent religiosity is transmitted from parents to children in Turkish and Moroccan immigrant families, and how the intergenerational transmission of religiosity is affected by living in a secular host society. We analyzed the data in two separate ways; a descriptive analysis of religious transmission for each indicator separately and an explanatory analysis of the conditions affecting the religious transmission. The results of both analyses show that overall, immigrants' religious practices are substantially influenced by their parents' religious practices. This finding is in line with research on religious transmission among general populations and non-immigrant families (e.g. Myers 1996; Martin et al. 2003). However, the transmission was found to be stronger for certain practices, such as fasting and not eating pork, than for other practices, such

⁶ The z-statistic was obtained using the formula $z = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}$.

as reading the Quran. Moreover, we found that the strength of religious transmission depends on several conditions and that the way the transmission depends on these conditions differs for men and women.

With regard to familial conditions, as we expected, the transmission was found to be stronger for men if they are satisfied with the relationship with their parents. For women, the transmission was found to be stronger if they are raised by parents from different national origins. We expected the transmission to be weaker in this case, because it is difficult to persuade a child if the parents are of different convictions. An explanation might be that parents from different origins *do* agree with each other. On the one hand, very religious people base their partner choice on religiosity and may therefore be indifferent to national identity and marry a highly religious partner from, for instance, Algeria or Egypt. Their children will be raised in a very religious way. On the other hand, in line with suggestions made by Voas (2003), people who take non-religious spouses will, because of this reason, not be very religious either. This may be the case for some Turkish–Dutch or Moroccan–Dutch parents, who will not raise their children in a religious way. With respect to community effects, we found that with Moroccan immigrant men, there is no religious transmission at all, while there is for Turkish immigrant men and for Turkish and Moroccan women. This is more or less in line with our expectations, and with the findings of Maliepaard and Lubbers (2013) who did not find any religious transmission for Moroccan second-generation immigrants in the Netherlands, but did for Turkish immigrants. More closure and social control in Turkish immigrant communities could account for the fact that intergenerational religious transmission is stronger, especially with men. Moreover, we found support for our hypothesis that religious transmission is stronger in first-generation than in second-generation immigrants, but only for women. This could be the result of first-generation immigrants being (partly) raised in a more religious social context in the country of origin. Furthermore, we found that religious transmission is weaker if parents are more socially integrated; however this influence disappears when taking the origin of the parents into account. Children of Moroccan–Dutch or Turkish–Dutch parents are most probably less religious than children without interethnic parents, and their parents by definition are more integrated.

In sum, we found some evidence that religious transmission among Muslim immigrants is facilitated by warm parent–child relationships, as it is among general populations of Western countries (e.g. Bao et al. 1999), and we found support for the thesis that the intergenerational transmission of religiosity among Muslim immigrants is hindered by living in a secular society. Support, control and influence from like-minded people are less available when parents are in a minority position and this makes it harder to transmit one’s norms and values. However, the gender differences in effects are striking. In general, transmission of religiosity seems to be slightly more effective to women than to men. This, nevertheless, does not explain how the influence of several conditions differs between men and women. Future research should find out if these findings are stable; up to now this is the only study of an Islamic immigrant population in which gender differences in religious transmission are studied.

Another striking result is that generally, religiosity decreases with age. This conflicts with a positive effect of age as established in most studies (e.g. Argue et al. 1999). However, our sample only includes people aged 15–45, and therefore the age range is not very high. What we encountered might be an effect of adolescents leaving their parent's home, which may be associated with a loss in faith, as suggested by Need and De Graaf (1996).

Some remarks should be made regarding the interpretation of the results. First, ideally, measurement invariance was tested between parents and children, and for ethnicity and generation. Because this was not possible for this data, we cannot be sure that differences found between these groups are results of response effects and different notions as to what religiosity is. Second, the analyses in the present study are based on cross-sectional data which means that causality could not be verified. For example, instead of relationship quality facilitating religiosity transmission, it could also be the case that respondents are more satisfied *because* they agree with their parent's religiosity. Third, religiosity of parents is reported in retrospect by the respondents, which might result in an overestimation of the religious transmission. However, the findings on general religious transmission are in line with those of Maliepaard and Lubbers (2013), who used information reported by both parent and child. Fourth, the measurement of social integration is not optimal: it only captures one aspect of social integration and not much variance as it is a yes/no question. In future research an improved measure could be used, with which possibly a stronger effect could be identified.

Another possible improvement for future research is to measure more dimensions of religiosity. In the data utilized in this study, only religious practices could be compared. Other studies on the intergenerational transmission of religiosity among immigrants only used the frequency of mosque visits (Güngör et al. 2011) and opinions towards religious intermarriage and school choice (Maliepaard and Lubbers 2013). If indicators of belief, knowledge and attitudes had been included, different results could have emerged. For example, some research suggests parental influence is greater for private religiosity (e.g. beliefs, praying) than for public religiosity (e.g. service attendance—see Myers 1996). To achieve a comprehensive view of the mechanisms underlying religious transmission—among Muslims in secular European countries or among immigrants in general—the scope of research should not be constrained to merely religious practices.

In addition, our findings that religious transmission varies considerably per religious practice, calls for more research into the mechanisms behind this variance: why are fasting, not eating pork and wearing headscarves more strongly transmitted than reading the Quran, not drinking alcohol and visiting the mosque? It might be that some practices—such as not eating pork—are more easy to imitate than other practices—such as not drinking alcohol. Drinking alcohol is perhaps more strongly influenced by others, such as peers. Furthermore, as some practices are more private than others—like reading the Quran—they are harder to monitor and sanction and may therefore be transmitted less effectively. In addition, there may be implications from some practices being less strongly transmitted: might a decline of Quran reading habits change beliefs of future generations, or the way future generations practice Islam?

Finally, since most studies on immigrant religiosity do not take into account the influence of parents, our most important recommendation is that parental religiosity as a predictor of their children's religiosity should not be ignored. This study shows the importance of parental religiosity for immigrant's religious practices in almost all the conditions studied.

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