

# Religious Practices Among Islamic Immigrants: Moroccan and Turkish Men in Belgium

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*This study examines the religious participation of Islamic immigrants in Belgium using data from the Migration History and Social Mobility Survey collected in 1994–1996 from 2,200 men who had immigrated from Turkey and Morocco. Religious participation is measured as mosque attendance, fasting during Ramadan, and sacrificing a sheep at the Festival of Sacrifice. Results show that the religious participation of Islamic immigrants depends on both premigration and postmigration characteristics. Religious participation is higher among immigrants who: (1) attended a Koranic school in their country of origin, (2) were socialized in a religious region of their home country, (3) received little schooling, (4) currently live in an area of Belgium with a greater number of mosques, and (5) associate with a high number of co-ethnics. These results suggest that the religious participation of Islamic immigrants in Belgium is an outcome of characteristics unique to immigrants as well as processes common among the general population.*

## INTRODUCTION

Scholars have become interested in the religiosity of immigrants in Western countries (Cadge and Ecklund 2007; Warner and Wittner 1998). Quantitative research has focused on the question as to why some non-Western immigrants in Western societies are more religious than others (Alanezi and Sherkat 2008; Cadge and Ecklund 2006; Connor 2008; Connor and Burgos 2007; Ebaugh and Chafetz 2000; Lesthaeghe and Neels 2000; Phalet, Gijssberts, and Hagendoorn 2008; Phalet and Haker 2004; Van Tubergen 2007). This question is important from a societal as well as from a scientific perspective. As a result of the inflow of immigrants into Western countries since the 1960s, immigrants now constitute a significant number of the population. Religion has strong attitudinal and behavioral consequences (e.g., fertility, marriage) and thus studying the religious practices of immigrants is relevant from a societal perspective.

In addition, immigrant religiosity offers an interesting case for testing well-established theories in the sociology of religion. Do well-established theories, which were originally developed for and mainly tested among the predominantly Christian and native-born majority members of Western societies, find empirical support when they are applied to immigrants who are from a non-Christian background (Van Tubergen 2007)? This study examines the religious practices of men from two Islamic immigrant groups (Turks and Moroccans)<sup>1</sup> who settled in the predominantly Catholic country of Belgium.

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<sup>1</sup> Almost the entire populations of Turkey and Morocco adhere to Islam ([www.adherents.com](http://www.adherents.com)) and this is also the case for Moroccan and Turkish populations in Western Europe (Phalet and Haker 2004).

The 1960s and 1970s witnessed a wave of low-skilled male “guest workers” who immigrated from Morocco and Turkey. Instead of returning to their home countries these immigrants stayed permanently and their families also came to Belgium in the 1970s and 1980s. In the 1990s, the Turks and Moroccans made up about 2.5 percent of the population in Belgium, and since then their presence has increased with the growth of the second generation (Directorate-general Statistics Belgium 2008; Eggerickx et al. 1999).<sup>2</sup> Moroccans and Turks are the two largest non-Western immigrant groups in Belgium (Directorate-general Statistics Belgium 2008).

The Moroccan and Turkish immigrants differ from native-born Belgians in various ways. Most notably, they are predominantly Muslim and highly religious. Belgians are more secular and mainly Catholic (Campbell and Curtis 1994; De Graaf and Need 2000; KONDA 2007; Need and De Graaf 1996; Te Grotenhuis and Scheepers 2001; Tozy, El Ayadi, and Rachik 2007; www.adherents.com 2009). The Moroccan and Turkish immigrants have lower levels of education, are more often unemployed, and occupy lower status jobs (Neels and Stoop 2000). Finally, the Moroccans and Turks in Belgium are characterized by a very high level of social cohesion; in 1991 almost 90 percent of the Turks and Moroccans were married to a co-ethnic partner (Lievens 2000).

Against this background, we study the religious participation of male Islamic immigrants from Moroccan and Turkish male immigrants in 1994–1996. At that time, the size of the immigrant populations had reached its peak, and we rely on a survey that was specifically designed to study immigrants from both Islamic groups.

Our aim is to contribute to the research on immigrants’ religion in three ways. First, little is known about the determinants of immigrants’ religious practices in Belgium. Previous studies have focused on the religiosity of immigrants in the Netherlands (Phalet, Gijssberts, and Hagendoorn 2008; Phalet and Haker 2004; Van Tubergen 2007), Canada (Connor 2008; Connor and Burgos 2007), and the United States (Alanezi and Sherkat 2008; Cadge and Ecklund 2006). Examining the religious practices of Moroccans and Turks in Belgium provides new tests of theories of religion (Jelen 2002). Do we find similar patterns for Belgium as in other countries? We compare our results to earlier findings.

Second, we improve upon previous research (e.g., Alanezi and Sherkat 2008; Cadge and Ecklund 2006; Connor 2008; Connor and Burgos 2007; Phalet and Haker 2004; Van Tubergen 2007) by examining multiple dimensions of religious participation. To be a good Muslim, individuals have to live according to the five pillars. That is, one has to testify that there is no God but Allah and that Muhammad is his messenger, pray five times a day, give to the poor, fast during the month of Ramadan, and make the pilgrimage to Mecca at least once in a lifetime. We examine religious service attendance, fasting during the last Ramadan, and whether the respondent sacrificed a sheep at the last Festival of Sacrifice (Eid al-Adha).<sup>3</sup>

Third, we use a more extensive explanatory model. We derive hypotheses from not one but four theories. Furthermore, we look at the importance of premigration characteristics and consider the enduring impact of (religious) conditions during the formative years (Inglehart 1977, 1990; Need and De Graaf 1996; Ryder 1965; Te Grotenhuis, De Graaf, and Peters 1997; Wuthnow 1976) on the religious practices of immigrants. Finally, we examine the role of postmigration characteristics. Lesthaeghe and Neels (2000) found that the mosque attendance of Moroccan and Turkish immigrant men differs across regions in Belgium. We examine the impact of regional characteristics on religious practices (e.g., ethnic concentration, level of urbanization, number of mosques in the region).

<sup>2</sup> The percentages for 2006 include people who became naturalized citizens. Before 1995, the share of the Moroccans and Turks that had acquired the Belgian nationality was small (Federal Institute for Population Research 2000).

<sup>3</sup> This is linked to the fifth pillar as the Festival takes place (for both pilgrims and the many that stay home) at the end of the month of the pilgrimage.

## THEORIES AND HYPOTHESES

### Scientific Worldview

Some scholars suggest that a scientific and rational worldview diminishes religiosity (Berger 1967; Bruce 1999; Weber [1904] 1930, [1922] 1993). To the extent that science and technology is able to explain natural phenomena and individuals become more aware of inconsistencies within and between religious belief systems, people may be more likely to question the existence of a higher power. The loss of religious faith may be a consequence. Educational attainment increases knowledge of science and technology and offers different explanations of natural phenomena. Moreover, people learn critical thinking skills that make them more able to identify inconsistencies within and between religions. The more educated will have a scientific and rational worldview and would likely be less religious. We apply this reasoning to the population of immigrants, and hypothesize that *the more educated Moroccan and Turkish immigrants in Belgium are, the less they participate in religious practices* (H1).

### Religious Supply

According to the theory of religious supply, differences in religiosity are due to differences in the supply of religious “products” (Finke and Iannaccone 1993; Stark and Bainbridge 1987; Stark and Iannaccone 1994). Competition for members among religious organizations results in more attractive and diverse supply of religion, allowing people to find a suitable place of worship. We hypothesize that *the larger the religious supply in a region, the greater the religious participation of immigrants* (H2).

### Existential Security

A third theory argues that when survival security is taken for granted there is less need for rigid, predictable rules, and thus less need for religion (Norris and Inglehart 2004). People who feel more secure are less religious and, as a consequence attend religious meetings less often (Norris and Inglehart 2004; Ruiter and Van Tubergen 2009). Job stability, of course, is an indicator of greater financial security and we use financial security as an indicator of existential security. Therefore, we hypothesize that *immigrants with a permanent job are least likely to participate in religious practices, the unemployed participate the most, and immigrants with a temporary job fall in between* (H3).

### Social Integration

Social integration theory states that the extent to which people follow norms (e.g., norms regarding participation in religious practices) depends on the extent to which they are integrated in social groups or settings, and the norms prescribed in these groups or settings (Durkheim [1897] 1951). The more strongly people are integrated within a group, the more strongly they will comply with the prevailing norms of that group (Need and De Graaf 1996; Te Grotenhuis and Scheepers 2001; Van Tubergen 2007; Welch and Baltzell 1984).

We assume that Moroccan and Turkish immigrants emphasize more positive norms toward Islamic religious practices than native-born Belgians. We therefore argue that the larger the presence of Moroccans and Turks (*vis-à-vis* the presence of native-born Belgians), the more likely it is that Turkish and Moroccan immigrants comply with Islamic practices. We assess this using a measure of the presence of co-ethnics at work, in the living environment, and at home. We hypothesize that *the religious participation of Turkish and Moroccan immigrants increases*

with the presence of co-ethnics<sup>4</sup> at work (H4) and in the living environment (H5), and is higher among immigrant men with a co-ethnic wife (H6).

Social integration theory also suggests differences in religious participation between more and less urban areas. In cities, social ties are less intense, multiplex, and kin-based and networks are less dense and homogenous (e.g., Curtis White and Guest 2003). As a consequence, social control is weaker and norms governing religious practices are less powerful. We hypothesize that *immigrants who live in more urban regions are less likely to participate in religious practices* (H7).

Finally, social integration theory emphasizes the influence of social conditions during childhood. Norms that prevailed during a person's formative years, including norms governing religious participation, have an enduring effect on people's behavior (Myers 1996; Need and De Graaf 1996; Ruiter and Van Tubergen 2009). We assess this by taking into account whether immigrants attended a Koranic school in their country of origin, which in itself is a form of religious socialization, but that also means that someone's parents raised the person in a religious way. We hypothesize that *immigrants who attended a Koranic school in their country of origin are more likely to participate in religious practices in Belgium* (H8). We also hypothesize about the broader religious context in which immigrants were socialized, which includes peers, friends, neighbors, and others. Some immigrants were born in highly religious regions, whereas others were raised in less religious environments. We expect that *immigrants who originate from more religious regions within their country of origin are more likely to participate in religious practices in Belgium* (H9).

## DATA, MEASUREMENTS, AND METHODS

### Data

To test our hypotheses, we use the Migration History and Social Mobility survey (MHSM), a cross-sectional survey conducted in the period 1994–1996 in Belgium using a clustered sampling design (Lesthaeghe 2000). A random selection of municipalities in Belgium was drawn from all municipalities with at least 100 Moroccan or Turkish men. As a consequence, there are sufficient municipalities to estimate effects of municipal characteristics. A representative number of men age 18 years and older with a Moroccan or Turkish nationality (2,296 men from 41 municipalities and 2,030 men from 47 municipalities, respectively) was drawn randomly from each selected municipality. Forty-four percent of Moroccans and 28 percent of Turks refused to participate. Accordingly, 2,748 Moroccan and Turkish men were interviewed. The questionnaire was available in four languages (Arabic, Turkish, Dutch, and French) and multilingual interviewers were used. Men who were not born in Morocco or Turkey or belonged to a Christian or other non-Islamic religious background were not included in the analysis, reducing the total sample size to 2,313 Moroccans and Turks who were born in 97 different regions of origin and who resided in 55 different Belgian municipalities.

### Dependent Variables

*Mosque Attendance:* Respondents were asked about their mosque attendance. Potential answers were: “No” (16 percent), “Rarely” (26 percent), “For special occasions” (14 percent), “Yes, weekly” (22 percent), and “Yes, daily” (22 percent). We constructed a dichotomous variable by combining the first three and the last two categories. “Weekly” attendance is clearly much more often than “Rarely” or “For special occasions.” Islamic prescriptions require men to attend the

<sup>4</sup> One reason for assessing the influence of co-ethnics is that Moroccans and Turks typically cannot communicate with each other given their distinctive languages of origin. Moreover, Moroccans and Turks typically attend different mosques.

mosque at least once a week, especially for the prayer on Friday afternoon. Men who do not obey the weekly expectation are given a score of “0”; those who do obey are given a score of “1.”

*Participation in Ramadan:* Respondents were asked: “Do you participate in the yearly fasting (Ramadan)?” Answers were coded “1” for yes and “0” for no.

*Sacrificing a Sheep at the Last Festival of Sacrifice:* Respondents were asked whether they sacrificed a sheep at the most recent Festival of Sacrifice. Answers were coded “1” for yes and “0” for no.

### **Independent Variables**

*Educational Level:* In order to construct a measure of the number of years of educational attainment, we constructed a measure of pre- and postmigration education and then took the highest of both scores. Premigration education for Turkish men was measured using ISCED scores quantified as number of years (OECD 1999). Because ISCED scores were not available for Moroccan men, we used the same method as for Turks to quantify education: 3 years (only education before primary school); 8 years (primary education); 12 years (lower vocational education); 13 years (higher vocational education); 15 years (higher education); 17 years (university). However, if a respondent did not obtain a diploma, numbers of years is adjusted to 2, 6, 10, 12, 14, and 15, respectively. Postmigration education is measured as the minimum number of years required to obtain the highest obtained Belgian diploma, again based on ISCED scores. Postmigration education was quantified as follows: 3 years (only education before primary school); 8 years (primary education); 13 years (lower vocational education); 14 years (higher vocational education); 18 years (higher education); (10 years) university. If no diploma, the number of years is reduced to 2, 7, 11, 13, 16, and 18, respectively.

*Religious Supply Within a Municipality:* Religious supply is measured by counting the number of co-ethnic mosques in the municipality of residence. We deliberately chose not to include other religious denominations because religious switching (which is generally really low in Europe [Need and De Graaf 2005]) is highly unlikely between Islam and other denominations. Although we do not know exactly to which Islamic movement a mosque belongs, we assume that the greater the number of mosques there are to choose from, the more diverse the religious supply in the municipality. Different imams deliver different sermons and lead the prayers in different ways. However, not every mosque is a suitable option. In Belgian mosques at least part of the religious services are held in Arabic, and in non-Arabic mosques there is also a certain part of the service presented in the native language of the immigrant group. In order to understand the full religious service immigrants must attend a co-ethnic mosque. And that is why we counted the number of Moroccan mosques for Moroccans and the number of Turkish mosques for Turks. We obtained the information on number of mosques per municipality from a list of mosques from the Administration of the Muslims in Belgium (2008). We do not know when the data on mosques are exactly collected, but we do know that they are collected after the turn of the century. Our survey data are from 1994–1996. Some mosques may not have existed at the time of the survey and some others may have existed but may have since been closed. Nevertheless, we assume that the relative position of different municipalities on this independent variable did not change much; municipalities with many mosques on the current list likely also had many places of worship during the survey period.<sup>5</sup> We contrast municipalities with 0 co-ethnic mosques (reference category) with those who have 1 to 2, 3 to 9, and 10 and over co-ethnic mosques. Note that this variable relates to the immigrant’s own ethnic background and it therefore is an individual-level variable.

<sup>5</sup> We believe this is a plausible assumption because the relative sizes of municipal immigrant communities are very stable: for the municipalities in our dataset the correlation between the relative group size in 1991 and the relative group size in 2001 is .99 for Moroccans and .96 for Turks.

*Job Stability:* We distinguished immigrants with a permanent appointment, a temporary appointment (including the self-employed), an unemployment benefit or disability pension, and immigrants who are students or pensioners. In our analyses we contrast all groups with the unemployed (reference category).

*Percentage of Co-Ethnic Colleagues:* Employed immigrants were asked about the total number of employees and the number of co-ethnic employees at their place of employment. The self-employed were asked about the number of co-ethnic and the number of Belgian employees. We used this information to calculate the percentage of co-ethnic colleagues. The questionnaire did not contain an adequate question for seasonal workers and immigrants with another type of appointment. This group constitutes less than 1 percent of the sample. This small group is assigned a percentage in the multiple imputation procedure. All unemployed immigrants have 0 co-ethnic colleagues by definition.

*Ethnic Composition of the Living Environment:* We include *two* measures for the ethnic composition of the living environment. Every respondent was asked about the ethnic composition of his street. They could answer “mainly Belgians,” “as many Belgians as non-Belgians,” “mainly non-Belgians,” and “mainly co-ethnics.” We contrast immigrants with mainly co-ethnics (1) in their neighborhood to all others (0). We also include a measure at the municipality level. After all, people do not associate only with people living in the same street. For Turks we use the percentage of the total population within a municipality that claims a Turkish nationality and for Moroccans we use the percentage of the total population within a municipality that claims a Moroccan nationality. We obtained both measures for the year 1991 from the Directorate-general Statistics Belgium (2008).

*Co-Ethnic Partner:* Men who cohabit with or are married to a co-ethnic partner are coded “1”; all others coded “0.”

*Urbanization Region of Destination:* We obtained data for 1991 on the level of urbanization of Belgian municipalities from the Directorate-general Statistics Belgium (2008).<sup>6</sup> Although municipalities are classified in five categories, all respondents in the data lived in the first three types of municipalities only: most important urban areas, highly urban municipalities, moderately urban municipalities, weakly urban municipalities, and rural municipalities. We contrast immigrants living in the two largest urban areas (1) with those living in moderately urban municipalities (0).

*Koranic School Attendance:* Respondents were asked whether they had attended a Koranic school in their country of origin. Attendance at a Koranic school is coded “1,” all others are coded “0.”

*Religiosity of Region of Origin:* This measure is created by aggregating Koranic school attendance in the region of origin. Because the number of respondents from each region of origin did not always suffice to reliably aggregate, we used information from adjacent regions as well. We used the percentage of respondents from each of these larger regions (origin region with all its adjacent regions) that attended a Koranic school. Because each region has different adjacent regions, we were able to calculate unique scores for each region of origin. The average number of respondents from these larger regions was 77. Although the data source is the same for Moroccans and Turks (i.e., the survey question on attending Koranic school), we decided to harmonize this variable by calculating *z*-scores per immigrant group. Turkey is a more secular country than Morocco and we indeed find a lower Koranic school attendance rate among Turkish immigrants than among Moroccan immigrants. The harmonization removes mean-level differences between the two countries of origin, which allows us to more strictly test whether contextual religiosity

<sup>6</sup> The correlation between municipal numbers of inhabitants in several years within the period 1990–2010 always is at least .99.

(within a given country) during one's early years matters for someone's participation in religious practices.

*Control Variables:* We take into account whether the immigrants came from Morocco or from Turkey. Furthermore, we control for a respondents' socioeconomic background since this could well be correlated to religious socialization. Respondents were asked whether their father had a paid job in Morocco, Turkey, or (in case father never had a job in Morocco/Turkey) Belgium, was self-employed, was an employer, had seasonal or irregular work, or never had a job. We created a single dummy variable distinguishing two groups. The first category combines the seasonal and irregular workers, the people whose father never had a job, and the self-employed (coded "0"). The second category includes fathers who had a paid job or who were employers (coded "1"). We also control for the level of urbanization in the region of origin. This is important because we are not sure whether there are Koranic schools in the smallest villages. Respondents were asked whether they grew up or were born in a village, small city, or big city. We include these as separate dummies. Destination-language proficiency is also controlled for because the degree to which an immigrant masters Dutch or French strongly determines the extent to which an immigrant is able to participate in Belgian society. Respondents were asked about their Dutch and French speaking skills ("not at all," "a little," "fairly well," "well," "very well"). For reasons of parsimony, the variable is treated as a continuous measure and is calculated by taking the highest of both scores (independent of which language is dominant in the region where a respondent lives). Finally, we controlled for age at migration and length of stay (in years). These variables are strongly associated with integration of immigrants. Taken together, these two variables represent with age; we therefore do not include age in the analyses.

### Multiple Imputation

After constructing dependent and independent variables, missing information remained. Eliminating all cases with one or more missing cases creates a suboptimal use of this unique dataset. Listwise deletion reduces the number of cases in the three analyses to approximately 1,900 respondents. This is a great loss of statistical power. Besides, listwise deletion potentially leads to biased estimates. Therefore, we used multiple imputation<sup>7</sup> (Allison 2000; Rubin 1987, 1996). Only respondents who had missing data on the variable that indicates from which region he originates or missing data on the variable that indicates in which Belgian municipality he lives were removed. We used the multiple imputation procedure *ice* from Stata and took several additional variables (on media consumption, union membership, and writing skills) into account. The variable that had the most missing information was socioeconomic background (approximately 8 percent). Rubin (1987) shows that the relative efficiency of parameter estimates is sufficiently high when five imputations are used. After we obtained the five imputed datasets, we deleted the cases that initially had missing data on the dependent variable (Von Hippel 2007). We subsequently estimated our statistical models on each imputed dataset separately. Finally, we applied Rubin's (1987) rules to calculate the parameters reported in the results section.

Table 1 presents the descriptive statistics for all variables. A vast majority of Turkish and Moroccan immigrants in Belgium participate in Ramadan (90 percent) and sacrifice a sheep at the Festival of Sacrifice (83 percent). Compared to other religious practices, weekly mosque attendance is relatively low (44 percent).<sup>8</sup> However, it is really high compared to the weekly

<sup>7</sup> Multiple imputation procedures fill in missing data with the most plausible values. These procedures use nonmissing scores on other variables to estimate plausible scores for missing data points.

<sup>8</sup> Percentages differ for Turks and Moroccans. Male Moroccan immigrants are more likely to participate in religious practices than male Turkish immigrants. The percentages for mosque attendance, Ramadan, and sacrificing a sheep are 48 percent and 41 percent, 98 percent and 84 percent, and 85 percent and 82 percent for Moroccan and Turkish male immigrants, respectively.

Table 1: Descriptive statistics of the dependent, independent, and control variables (range, mean, and standard deviation *after* imputation), grouped by theory

	N before Imputation	Range	Mean	Standard Deviation
<b>Dependent variables</b>				
Mosque attendance	2,259	0/1	.439	
Participation in Ramadan	2,264	0/1	.902	
Sacrificed a sheep	2,223	0/1	.831	
<b>Independent variables</b>				
<i>Scientific worldview</i>				
Educational level	2,305	0–19	9.683	4.604
<i>Religious supply</i>				
0 co-ethnic mosques in municipality	2,313	0/1	.034	
1–2 co-ethnic mosques in municipality	2,313	0/1	.296	
3–9 co-ethnic mosques in municipality	2,313	0/1	.459	
10 co-ethnic mosques in municipality	2,313	0/1	.211	
<i>Existential security</i>				
Unemployed	2,259	0/1	.358	
Temporary appointment and self-employed	2,259	0/1	.114	
Permanent appointment	2,259	0/1	.349	
Students and pensioners	2,259	0/1	.179	
<i>Social integration</i>				
Percentage co-ethnic colleagues	2,286	0–100	13.218	25.063
Ethnic composition street (mainly co-ethnics = 1)	2,275	0/1	.157	
Percentage of co-ethnics in municipality	2,313	.299–20.482	7.574	5.878
Co-ethnic partner	2,301	0/1	.759	
Moderately urban municipalities	2,313	0/1	.164	
Highly urban municipalities	2,313	0/1	.382	
Most important urban areas	2,313	0/1	.455	
Attended Koranic school (1 = yes)	2,261	0/1	.584	
Religiosity region of origin	2,313	–1.846–2.060	.102	.751
<b>Control variables</b>				
Turk (Moroccan = 0)	2,313	0/1	.535	
Socioeconomic background (paid job/employer = 1)	2,080	0/1	.283	
Originally from a village	2,313	0/1	.443	
Originally from a small city	2,313	0/1	.266	
Originally from a big city	2,313	0/1	.291	
Destination-language proficiency	2,311	0–4	2.389	1.157
Age of migration	2,313	0–59	19.161	10.017
Length of stay	2,313	1–46	18.884	8.834

Source: MHSM.

church attendance rate among other religious denominations in Belgium. European Values Study data from 1999/2000 show that about 28 percent of all Belgian men who consider themselves to belong to a religious denomination (other than Islam) weekly attend church (own calculations).

## Analysis

Because all three dependent variables are dichotomous, we conducted logistic regression analyses. We combined this with cross-classified multilevel analysis techniques, since there is a nonhierarchical nested structure in which immigrants are clustered in regions of origin and regions of destination (Raudenbush and Bryk 2002; Snijders and Bosker 1999). For the estimation of our models, we used Laplace approximation implemented in the *lme4* package (Bates, Maechler, and Dai 2008) for the statistical programming language R.

## RESULTS

The results of the cross-classified multilevel logistic regression analyses are presented in Table 2.<sup>9</sup>

### Scientific Worldview

We expected to find a negative effect for the immigrant's level of education (H1). Indeed, we find significant inverse relationships between educational level and the likelihood of mosque attendance and sacrificing a sheep. With each successive year of education (on a range of 0–19), the odds of attending mosque at least once a week decreases by 3.1 percent ( $(1 - \exp(-.032)) * 100$ ) and the odds of having sacrificed a sheep at the last Festival of Sacrifice decreases by 6.5 percent. While educational level diminishes mosque attendance and sacrificing a sheep, it does not affect whether Moroccan and Turkish immigrants in Belgium participate in Ramadan. On the one hand, this may seem surprising because Ramadan participation is one of the five pillars according to which devout Muslims should live and therefore is probably most strongly related to religious beliefs. Furthermore, to participate in Ramadan people are not necessarily dependent on others. On the other hand, Ramadan participation requires a sense of personal efficacy that may be enhanced by education. We conclude that the first hypothesis is supported in two out of three tests. Earlier research has shown mixed effects for the influence of education on religious service attendance of immigrants. There is some evidence of a negative effect in the United States, Cadge and Ecklund (2006), the Netherlands (Phalet, Gijsberts, and Hagendoorn 2008; Phalet and Haker 2004; Van Tubergen 2007), and in a cross-national study of immigrants in eight Western countries (Van Tubergen 2006). However, some studies from the United States (Alanezi and Sherkat 2008; Vegler 1988), Canada (Connor 2008; Connor and Burgos 2007), and Germany (Diehl and Koenig 2009) do not find a negative relationship between schooling and religious service attendance among immigrants.

### Religious Supply

We expected to find a positive effect for the number of co-ethnic mosques in the municipality (H2). The results corroborate this expectation. For all three dependent variables, we see an increasing likelihood of religious participation as the number of co-ethnic mosques in the municipality increases. Immigrants who live in municipalities with 10 or more co-ethnic mosques have an almost two times greater odds of weekly mosque attendance and sacrificing a sheep at the last Festival of Sacrifice than those who live in municipalities without such mosques. The

<sup>9</sup> Since multilevel models easily suffer from multicollinearity due to the limited number of cases at the higher levels, we conducted separate regression analyses per level to check for multicollinearity among the individual and contextual variables. Regression diagnostics showed that our independent variables do not suffer from multicollinearity.

Table 2: Cross-classified multilevel logistic regression analyses on the three Islamic religious practices

	Mosque Attendance		Ramadan		Sacrificed a Sheep	
	B	(SE)	B	(SE)	B	(SE)
Intercept	-.900*	(.476)	4.605**	(.868)	.621	(.683)
<b>Scientific worldview</b>						
Educational level	-.032*	(.015)	-.001	(.029)	-.067**	(.023)
<b>Religious supply</b>						
0 co-ethnic mosques (Ref.)	-	-	-	-	-	-
1-2 co-ethnic mosques	.455	(.281)	.683	(.418)	.668*	(.351)
3-9 co-ethnic mosques	.657**	(.279)	.907*	(.418)	.764*	(.351)
10+ co-ethnic mosques	.644*	(.286)	.993*	(.448)	.686*	(.378)
<b>Existential security</b>						
Unemployed (ref.)	-	-	-	-	-	-
Temporary appointment and self-employed	-.238	(.180)	-.350	(.277)	.641**	(.242)
Permanent appointment	-.559**	(.128)	-.490**	(.202)	.462**	(.171)
Students and pensioners	.314*	(.151)	.628*	(.288)	.091	(.208)
<b>Social integration</b>						
Percentage co-ethnic colleagues	.000	(.002)	.007*	(.004)	.002	(.003)
Percentage co-ethnics in municipality	.001	(.009)	-.012	(.016)	.007	(.014)
Ethnic composition street (mainly co-ethnics = 1)	.217*	(.132)	.392	(.240)	-.074	(.187)
Co-ethnic partner	.520**	(.138)	.956**	(.212)	1.387**	(.165)
Moderately urban municipalities (ref.)	-	-	-	-	-	-
Highly urban municipality	-.782**	(.258)	-.605	(.408)	-.102	(.380)
Most important urban areas	-.753**	(.232)	-.552	(.376)	-.456	(.340)
Attended Koran school	.364**	(.101)	.737**	(.165)	.499**	(.135)
Religiosity region of origin	.232*	(.108)	.410*	(.225)	.025	(.155)
<b>Control variables</b>						
Turk (Moroccan = 0)	-.413**	(.139)	-3.022**	(.387)	-1.009**	(.230)
Socioeconomic background (paid job/employer = 1)	-.124	(.117)	-.392*	(.181)	-.061	(.142)
Originally from a village (ref.)	-	-	-	-	-	-
Originally from a small city	-.278*	(.117)	-.015	(.195)	-.206	(.166)
Originally from a big city	-.121	(.117)	-.176	(.221)	-.431*	(.173)
Destination-language proficiency	-.092	(.058)	-.350**	(.102)	-.264**	(.083)
Age of migration	.035**	(.007)	-.008	(.012)	.027**	(.010)
Length of stay	.026**	(.007)	-.019	(.013)	.053**	(.010)

\*\* $p < .01$  (one-tailed tests for the variables from the hypotheses, two-tailed for the control variables).

\* $p < .05$  (one-tailed tests for the variables from the hypotheses, two-tailed for the control variables).

Source: MHSM.

odds of participating in Ramadan are even greater (by 2.7 ( $= \exp(.993)$ )). For Ramadan and mosque attendance, we find no statistically significant differences between immigrants living in municipalities without co-ethnic mosques and those living in municipalities with only a few. Nevertheless, the parameter estimates are clearly in the expected direction and lend support to the hypothesis. Previous research in Canada (Connor and Burgos 2007<sup>10</sup>), eight Western countries (Van Tubergen 2006), and 18 advanced industrial countries (Chaves, Schraeder, and Sprindys 1994) also finds positive effects for different indicators of pluralism on religious attendance and participation in the Hajj.

### **Insecurity**

We hypothesized a negative effect of job stability (H3). Immigrants with a temporary appointment and the self-employed do not differ significantly from the unemployed with respect to mosque attendance and participation in Ramadan. Although the differences do not reach significance, the direction of the parameters is in line with the hypothesis. Also the way in which immigrants with a permanent appointment differ from the unemployed is in line with our expectations. People with a permanent appointment have a lower likelihood of attending mosque and fasting during Ramadan. These differences reach statistical significance. For the likelihood of sacrificing a sheep the results point in a different direction. Immigrants with a temporary or permanent appointment and self-employed immigrants all are more likely to sacrifice a sheep than unemployed immigrants. This does not support the hypothesis, but it could reflect the fact that sacrificing a sheep requires sufficient financial means, especially because the meat is not meant to be for one's own use. All in all, only some support is found for a negative effect of job security on religious practices. Previous research on the influence of work and income on immigrants' religiosity has mostly demonstrated only small negative effects (Cadge and Ecklund 2006; Connor and Burgos 2007; Phalet, Gijsberts, and Hagendoorn 2008; Phalet and Haker 2004; Van Tubergen 2006, 2007).

### **Social Integration**

Contrary to expectations, having many or only a few co-ethnic colleagues does not affect whether immigrants attend the mosque or sacrifice a sheep at the Festival of Sacrifice. However, the results do show a modest effect for the percentage of co-ethnic colleagues on participation in Ramadan. An increase of 10 percent more co-ethnic colleagues results in about a 7 percent increase in the odds of participating. Although we hypothesized that co-ethnic colleagues would affect participation in religious practices in general (H4), we believe co-ethnic colleagues would most likely affect participation in Ramadan. After all, attending Ramadan is more visible to co-workers than is mosque attendance and the sacrifice of sheep. Nevertheless, we conclude that this hypothesis receives only weak support.

As for the hypothesis about the effect of the ethnic composition of the living environment on religious participation (H5), we found only very little support. For the municipality-level measure, we find no support. For the street-level measure, we find some support. If immigrants live in streets with mainly co-ethnics, they are more likely to attend the mosque, but we find no effect for Ramadan and sacrificing a sheep. We generally reject our hypothesis. Previous research tested the impact of ethnic concentration on immigrants' religiosity, but results were mixed. In his study on immigrants in eight Western countries, Van Tubergen (2006) found no effect of relative group size on affiliation and attendance. Because the little support we find relates to the street level and not the higher municipality level, it could well be that Van

<sup>10</sup> They did not find it for Christian immigrants but found it for non-Christian immigrants.

Tubergen finds no support because ethnic composition is measured at the national level. We assume that ethnic concentration in the proximate vicinity is more relevant for participation than ethnic concentration more aggregated levels. Phalet and Haker (2004) find a significant positive effect of ethnic concentration on religious attitudes of Turkish and Moroccan immigrants in the Netherlands, but they find no effect on religious participation. Alanezi and Sherkat (2008) find a negative effect of ethnic concentration on religious service attendance for immigrants in the United States. This surprising finding could well be related to the fact that immigrant religiosity in the United States differs relatively little from natives' religiosity levels. Moreover, the ethnic concentration measurement that is used primarily measures urbanization. Van Tubergen (2007) finds positive effects of ethnic concentration on affiliation and attendance for Turkish, Moroccan, Surinamese, and Dutch Antillean immigrants in the Netherlands. Connor and Burgos (2007) find a positive effect of ethnic concentration on attendance for non-Christian immigrants in Canada.

We find strong support for the hypothesis that immigrants who have a co-ethnic partner are more likely to participate in religious practices (H6). Immigrants with co-ethnic partners have 1.7 times higher odds of attending the mosque weekly, 2.6 times higher odds of participating in Ramadan, and 4.0 times higher odds of sacrificing a sheep at the Festival of Sacrifice than immigrants with a partner of another ethnicity or without a partner at all. Previous research on immigrants' religiosity often only examined the effect of *having* a partner (e.g., Alanezi and Sherkat 2008; Cadge and Ecklund 2006; Connor 2008; Connor and Burgos 2007; Van Tubergen 2006). Van Tubergen (2007) looked at the effect of the *ethnicity* of the partner for immigrants in the Netherlands and his findings are in line with ours.

The municipal level of urbanization significantly affects only one of the three Islamic religious practices, namely, mosque attendance. Immigrants who live in more urban municipalities have a much lower likelihood to attend mosque than immigrants in less urban settings. This is in line with the hypothesis (H7). Interestingly, more mosques are found in the larger cities and, as already demonstrated, the number of mosques positively affects participation in religious practices. This demonstrates the importance of separating effects of urbanization from those of religious supply. We find no significant differences for Ramadan and sacrificing a sheep.

Finally, our results indicate a lasting effect of norms that prevailed during the immigrant's past. Immigrants who ever attended a Koranic school (H8) are much more likely to attend mosque weekly, to participate in Ramadan, and sacrifice a sheep during the Festival of Sacrifice. The odds of participating are 1.4 higher for weekly mosque attendance, 2.1 for participating in Ramadan, and 1.6 for sacrificing a sheep among those immigrants who attended a Koranic school than among those who did not. On top of these individual-level effects, we find significant positive effects for religiosity in the region of origin (H9) on both mosque attendance and participation in Ramadan. Apparently, it not only matters whether people themselves went to a Koranic school or had parents who sent them to a Koranic school; it also matters whether people around them attended Koranic schools. Alanezi and Sherkat (2008) and Van Tubergen (2006) tested the hypothesis that the religious context in the region of origin affects immigrants' religious behavior in the United States and eight Western countries, respectively. The first study showed the expected positive effect, the second found no effect. We conclude that for Moroccans and Turks in Belgium, religious socialization continues to affect participation in religious practices even though they now live in a much more secular context.

Finally, we briefly pay attention to the effects of the control variables. Turks are less likely than Moroccans to participate in all three religious practices, net of other factors taken into account. Socioeconomic background is significant in only one of the three models. Immigrants whose fathers had a paid job or were employers are significantly less likely to participate in Ramadan. The level of urbanization of an immigrant's town of origin seems to have a negative effect on participation in religious practices. People who grew up in small villages and then migrated to Belgium are more likely to attend the mosque and to sacrifice a sheep at the Festival of Sacrifice than those who grew up in larger municipalities. Destination-language proficiency

lowers the likelihood to participate in Ramadan and to sacrifice a sheep. Furthermore, we find that immigrants who moved to Belgium at an older age are more likely to attend a mosque at least once a week and to sacrifice a sheep. Age of migration does not matter for the likelihood to participate in Ramadan. Finally, the longer immigrants are in Belgium, the more likely they are to attend a mosque at least once a week and to sacrifice a sheep.

## CONCLUSION AND DISCUSSION

We provide an answer to the question as to what factors influence the religious practices of male Moroccan and Turkish immigrants in Belgium. We used four dominant theories in the sociology of religion to derive hypotheses about the characteristics that would influence immigrant's participation in religious practices. We extended previous research on immigrants' religiosity by looking at the unexplored context of Belgium, by examining multiple types of specifically Islamic religious practices (i.e., mosque attendance, participation in Ramadan, and sacrificing a sheep at the Festival of Sacrifice), and by expanding the explanatory model (i.e., by deriving hypotheses from four theories, and by considering both pre- and postmigration characteristics). We used a unique large-scale dataset on Moroccan and Turkish immigrants in Belgium, which was collected during 1994–1996, to estimate the effects of several individual and contextual characteristics on participation in religious practices. We both corroborate and refute the four theories.

Educational level and religious participation are inversely related, supporting the theory of scientific worldviews (Berger 1967; Bruce 1999; Weber [1904] 1930, [1922] 1993). A higher level of education is associated with a lower likelihood of participation in two of the three religious practices examined. Some scholars argue for the opposite effect; more educated immigrants would be more conscious about diversity and discrimination against their ethnic group, which would encourage them to return to their (religious) roots (Buijs, Demant, and Hamdy 2006; Gijsberts and Dagevos 2004; Gijsberts and Vervoort 2007). We find no support for such a positive effect of education. In fact, we find similar patterns as those that were generally found for natives (De Graaf, Need, and Ultee 2004; Need and De Graaf 1996; Ruiter and Van Tubergen 2009). Because of our cross-sectional research design, we cannot be conclusive about the direction of this effect. It is conceivable that a religious cultural orientation conflicts with secular schooling programs. There is some evidence that individual religiosity negatively affects educational attainment (Darnell and Sherkat 1997; Lehrer 1999).

We also find that immigrants who live in municipalities with more mosques are more likely to attend mosque weekly, to participate in Ramadan, and to sacrifice a sheep at the Festival of Sacrifice. This provides some support for the religious supply theory and underlines the importance of opportunities for immigrants in their direct living environment to participate in religious practices. Our study thereby contributes to the ongoing discussion about the supply side theory of religion (Bruce 1999; Chaves and Gorski 2001; Kelley and De Graaf 1997; Voas, Crockett, and Olson 2002); studies among the general population provide positive evidence for its empirical claims (e.g., Bernts and De Graaf 2003; Ruiter and Van Tubergen 2009), whereas other studies do not (Chaves and Cann 1992; Chaves and Gorski 2001).

With respect to insecurity theory, we find that job stability plays a role in participation in religious practices. For two of the three dependent variables, the findings are quite in line with our predictions. Similar to Ruiter and Van Tubergen (2009), our results show that immigrants with a permanent appointment are significantly less likely to attend a mosque and participate in Ramadan compared to the unemployed. Although these effects may be partly due to differences in the time constraints experienced by the unemployed and the employed, this does not explain why there is also a gap between people with a temporary appointment and the self-employed compared to people with permanent employment. Furthermore, time constraints are much more

severe when it comes to mosque attendance than when it comes to participation in Ramadan. We thus believe it is not merely time constraints but indeed security that makes the difference.

We find support for the social integration theory. Immigrants who have a co-ethnic partner participate more often in religious practices than those who have a partner from another ethnic group. This finding is consistent with findings from a study on immigrants in the Netherlands and studies on native populations (Need and De Graaf 1996; Te Grotenhuis and Scheepers 2001). Religious conditions in the country of origin affect religious participation of immigrants in their destination country. More specifically, immigrants who attended a Koranic school in their country of origin, and who were raised in a more religious region, show stronger levels of religious participation in Belgium over and above individual factors included in the model. The importance of such premigration characteristics on immigrants' current religiosity has received little attention in the literature and we encourage researchers to pursue this line of study.

We believe that research on immigrant populations can progress in three ways. First, subsequent research should adopt a more dynamic perspective and utilize panel data. Until recently, studying immigrants' religiosity was difficult because of a lack of high-quality large-scale survey data (Ebaugh and Chafetz 2000; Van Tubergen 2006, 2007; Warner and Wittner 1998; Yang and Ebaugh 2001). Although we use data from a large-scale survey that is exceptional in other ways (e.g., by providing detailed information on religious practices and the region of birth of immigrants), the cross-sectional design remains a drawback. With panel data, more insight could be gained into the causal impact of postmigration factors that vary over time.

Second, future research should be extended to women. This survey was restricted to men only. Within Islam, the religious practices of men and women are substantially different. Islam compels men to go to the mosque each Friday while this is not compulsory for women (Breuilly, O'Brien, and Palmer 1997; Horrie and Chippindale 1990). While research on native populations generally finds that women report a higher attendance rate than men (Miller and Hoffmann 1995; Ruiter and Van Tubergen 2009), the opposite pattern is found in studies on Islamic immigrants in the Netherlands (Phalet and Haker 2004; Van Tubergen 2007). However, differences in the likelihood of participating might indeed differ between men and women; this does not necessarily mean that determinants of participation are also different.

Third, more research is needed about the linkage between religious belief and religious participation among immigrants. The hypotheses derived from the scientific worldview and insecurity theories are first and foremost concerned with religious beliefs. We used these theories under the assumption that there is a strong link between beliefs and practices. While we know that this is true for native inhabitants of Western societies (Aarts et al. 2008), more study is necessary to conclude that the link also holds among non-Western immigrants. Among new immigrants the association between beliefs and religious practice may be smaller because newcomers may participate in religious practices not just for spiritual but also for social reasons. For example, the mosque serves as a meeting place for co-ethnics. Many immigrants live in close-knit, inward-oriented communities, and therefore social control of religious practice may be more intense. Consequently, even for those who do not believe in Allah, not participating in religious practices may be too large a step.

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