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The Less Extreme, the More You Leave: Radical Islam and Willingness to Migrate

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Summary. — This paper studies radical Islam as a determinant of individuals' willingness to migrate. Surprisingly, despite its relevance in the political debate, this topic has not been investigated empirically in the literature. In order to fill this gap, we develop a model of the decision to migrate focusing in particular on the role played by cultural traits. More specifically, we focus on radical Islam as a deterrent for migration. Following Berman (2003), we define radical Islam as a set of ideologies, also referred to as Political Islam, holding that Islam should guide not only personal life, but also social and political life. In our model, more radical values imply a higher psychological cost of migrating. This cost derives from the fact that connections with socio-religious friends and neighbors are generally not maintained after migration, thus deterring individuals from migrating (Mayers, 2000). We then test empirically the predictions of the model, using individual-level data from the second (2010–11) and third (2012–14) waves of the Arab Barometer. Our results suggest that, ceteris paribus, more radical individuals are less willing to migrate. This finding is robust to alternative specifications of the model and to the use of Instrumental Variables and Propensity Score Matching aimed at addressing the potential endogeneity of radical Islam. The result is also qualitatively unchanged when using aggregate data on actual outflows of migrants.
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1. INTRODUCTION

On January 7, 2015, 12 people were killed in a terrorist attack in Paris in the offices of *Charlie Hedbo*, a satirical French magazine well-known for its provocative cartoons lampooning politicians and religions. The political reaction from leaders around Europe and the international community was unanimous in condemning the terrorist attacks. At the same time, an anti-immigrant sentiment has spread around Europe, supported by populist and right-wing parties, who found in the attacks an opportunity to reclaim the need of closing borders to immigrants. [1]

This paper studies radical Islam as a determinant of individuals' willingness to migrate. Surprisingly, despite its relevance in the political debate, this topic has not been investigated empirically in the literature. In order to fill this gap, we develop a model of the decision to migrate focusing on the role played by economic motives and cultural traits. We then test empirically the predictions of the model, using individual-level data from the second (2010–11) and third (2012–14) waves of the Arab Barometer.

Following Berman (2003), we define radical Islam as a set of ideologies, also referred to as *Political Islam*, holding that Islam should guide not only personal life, but also social and political life. In our model, more radical values imply a higher psychological cost of migrating. This cost derives from the fact that connections with socio-religious friends and neighbors are generally not maintained after migration, thus deterring individuals from migrating (Mayers, 2000).

Our work contributes to the literature on the individual-level determinants of the willingness to migrate (Borjas, 1987; Hagen-Zanker, 2008; Mayda, 2010) and the cultural determinants of economic outcomes (Fogli & Fernandez, 2009; Guiso, Sapienza, & Zingales, 2006, 2009; Tabellini, 2010). Although the literature on migration has studied exten-

sively several economic factors affecting the individual willingness to migrate (i.e., employment and educational opportunities, expected income, relative deprivation, etc.), other non-pecuniary and cultural motivations, such as religion and religiosity, have been almost completely ignored. In fact, while some studies have looked at religiosity among migrants in their host country, there is little evidence about the association between migration aspirations and religiosity in the migrants' native country (Hoffman, Marsiglia, & Ayers, 2015; Mayers, 2000; Stinner, Van Loon, & Byun, 1992). According to the migration literature, however, migration motivations can be described as a combination of push and pull factors. [2] While pull factors are those in the destination country attracting the individual to leave his home, such as prospects of net economic advantages, employment, family reunification (Harris & Todaro, 1970; Massey & Arango, 1994; Mayda, 2010; Sjaastad, 1962), push factors are forces driving the individual to move voluntarily from his own country, including conflict, drought, famine, or extreme religious activity. We consider radical Islam as a push factor affecting migration behavior in the Arab world.

One limitation of our empirical analysis is that we do not consider actual migration decisions, but individual willingness to migrate. Although other papers in the literature have already used this measure (Stinner *et al.*, 1992; Otrachshenko & Popova, 2014; Hoffman *et al.*, 2015), emphasizing the importance of studying its determinants

(e.g., Becerra, 2012), we are aware of the fact that willingness to migrate is not equivalent to the decision to migrate. Nevertheless, from an economic perspective, migration is often the result of a process involving several steps, that ends with the matching between individual willingness and actual opportunities to migrate (Docquier, Peri, & Ruyssen, 2014). Migration flows are therefore determined by the interaction between the pool of would-be migrants, i.e., people exerting a preference for migration, and actual migration opportunities. Unfortunately, the Arab Barometer does not contain measures of actual migration at the individual level. Therefore, we also provide evidence, at the aggregate level, indicating that radical Islam is correlated with actual migration. This additional evidence helps us to bridge the theoretical model of migration decisions with the empirical analysis of the effects of radical Islam on the willingness to migrate.

Our findings indicate that, controlling for a wide set of individual characteristics, more radical individuals are less willing to migrate. This result is robust to alternative specifications of the model and to the use of econometric techniques aimed at addressing the potential endogeneity of radical Islam. The key findings are also robust to the use of aggregate data on actual migrants' outflows.

The rest of the paper is organized as follows. Section 2 reviews the related literature. Section 3 presents the theoretical framework. Sections 4 and 5 describe the data and methods, respectively. Section 6 presents the results. Section 7 concludes.

2. RELATED LITERATURE

In the economic literature there is a growing body of research indicating that cultural factors play an important role for economic behavior (Fogli & Fernandez, 2009; Guiso *et al.*, 2006, Guiso, Sapienza, & Zingales, 2009; Tabellini, 2010). Recently, part of this literature has shown how religiosity affects, among other things, school attendance (Freeman, 1986), educational attainment of women (Lehrer, 2004), tax-morale (Torgler, 2006), corruption (Sommer, Bloom, & Arikan, 2013), well-being (Gundlach & Opfinger, 2013; Opfinger, 2010), health (Ellison, 1991) and, most importantly, wages (Chiswick, 1983), income and growth (Barro & McCleary, 2003; Guiso, Sapienza, & Zingales, 2003). [3]

So far, the link between religion and migration has mainly focused on the effects of migration on religiosity at individual level (Bosswick & Husband, 2005; Connor, 2008; Smith, Sikkink, & Bailey, 1998). While Finke and Stark (1992) suggest that migration lowers religious participation, other studies emphasize the fact that migration increases an immigrant's spiritual consciousness and participation (Hagan & Ebaugh, 2003; Warner, 1998). Religion and religiosity among migrants in their home country can be considered a push factor influencing their willingness to migrate. The literature on this topic is relatively underdeveloped. Stinner *et al.* (1992) analyze how factors related to Mormon beliefs influence migration aspirations in Utah, finding that church-active individuals are less likely to migrate. Mayers (2000) finds that religious networks may not persist after migration, deterring individuals from migrating. Using data collected in 2007 among students enrolled in a high school program located in the state of Guanajuato (Mexico), Hoffman *et al.* (2015) focus on the extent to which internal and external religiosity influence migration aspirations of young individuals. Their findings indicate that, as external religiosity rises, the desire to work or live in the US falls. Furthermore, higher internal religiosity increases the desire to work or live in the US and plans to migrate.

There is an extensive literature on Islam in Western Europe suggesting that conservative Islamic milieus are indeed forming in many European cities, and that Muslim religious institutions are increasingly integrated into European societies (Astor, 2014; Koenig, 2007; Mourão Permoser, Rosenberger, & Stoeckl, 2010). Part of this literature (Casanova, 2007; Roy, 2004; Zemni & Parker, 2002) suggests that fundamentalism has been gaining ground among a rootless Muslim youth, especially second and third generation migrants in the West and that this new-fundamentalism is not embedded in any particular society or territory. Indeed, this literature is rooted in the studies of the relationship between religion and transnational migration (Levitt, 2003, 2004) showing how religion influences the way in which migrants are incorporated into host societies, stay attached to their homelands and create alternative allegiances and places of belonging, and to the literature surrounding the notion of "diaspora" that is the geographical dispersion of adherents of religious faiths (Van Dijk, 1997; Vertovec, 2003).

3. THEORY

In our theoretical framework, risk-neutral agents from country 0 (the source country) [4] have to choose between migrating to country 1 (the host country), or staying in country 0. If an agent stays in country 0 he enjoys a (log) income w_0^s, where s are the years of schooling (with $\frac{\partial w_0}{\partial s} > 0$). If the agent chooses to move to country 1 he will enjoy a (log) income w_1^s (with $w_1^s > w_0^s$ and $\frac{\partial w_1}{\partial s} > 0$), but will face a cost C. This cost is composed of a material component (c_f, e.g., travel expenses) and a psychological component (c_p) deriving from experiencing a loss of cultural and religious customs determined by the adjustment to a new culture (Mayers, 2000). As in Akerlof (1980), this cost depends not only on the importance of values for the agent (V), but also on his sensitivity to the social norm imposing the respect of these values (ε), and on how much these values are widespread in the source country (β with $0 < \beta \leqslant 1$). [5] c_p is therefore given by:

$$c_p = \beta \varepsilon V \qquad (1)$$

with $\frac{\partial c_p}{\partial \beta} > 0$, $\frac{\partial c_p}{\partial \varepsilon} > 0$ and $\frac{\partial c_p}{\partial V} > 0$. The density function of ε, denoted by $f(\varepsilon)$, is assumed to be uniform with support on $[0, 1]$.

An agent will choose to migrate if the net benefit from migration is higher than income in the home country:

$$w_1^s - c_f - c_p > w_0^s \qquad (2)$$

Therefore, given $c_p(\varepsilon, V, \beta)$, agents with a lower value of ε are more likely to emigrate. The critical ε which makes an agent just indifferent between emigrating or not is given by:

$$\varepsilon^* = \frac{w_1^s - w_0^s - c_f}{\beta V} \qquad (3)$$

Denoting by α the willingness to migrate, and given the assumption that ε has a uniform distribution between 0 and 1, we have:

$$\varepsilon^* = \int_0^{\varepsilon^*} f(\varepsilon) d\varepsilon = \alpha \qquad (4)$$

Eqn. (3) indicates that the higher the (log) income in the source/host country, the lower/higher the willingness to migrate $\left(\frac{\partial \alpha}{\partial w_0^s} < 0 \text{ and } \frac{\partial \alpha}{\partial w_1^s} > 0 \right)$; the higher the level of