

# Religious Clubs: The Strategic Role of Religious Identity\*

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## 1 Introduction

In the summer of 1967, college students from around the United States descended on the Haight-Ashbury district of San Francisco, squatting, playing music in the park, and providing free food, clothing and medical care. This became known as the Summer of Love. The aim of this quasi-religious utopian movement was to create a community that was at once inclusive and cooperative. By all accounts participants had a wonderful time. Why then was it the summer of love, and not the summers of love?

By the end of the summer, the movement had made national news. The next year, the college students arrived once more. But this time they were joined by people with no spiritual or ideological connection to the movement—the *free riders* there for the free food, free rent and free love of the flower children. The movement collapsed under the weight of its own success.

A successful social movement requires the production of both spiritual/ideological and material goods. Free-riders undermine both forms of production. First, they consume the material goods collectively produced by the group, without contributing, depleting the group's existing resources and undermining reciprocal altruism. Second, they erode the spiritual/ideological life of the community with an infectious lack of faith in the movement's mission. Without a way to screen out these free riders, such communities are self-undermining. Their success begets failure.

A great deal can be learned from religious communities in this regard. Religious organizations are among the most stable and long lived institutions in human history. They have a remarkable ability to survive even while at odds with their host society. For example, Sosis & Bressler (2003) find that over the 19th century religious communes were stricter and far longer-lived than secular communes. The economics of religion provides insights into why religious groups succeed where other social movements fail (see Iannaccone 1998, Iyer 2016). This chapter reviews and extends the theory of religious clubs developed by Laurence Iannaccone (1992, 1994).

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We depart from the original literature by making extensive reference to religious identity. The economics of identity (Akerlof & Kranton 2000, 2010) is connected to the economics of religion in important and largely unrecognized ways. In models of identity, individuals are assigned (and often assign themselves) to one or more social categories, based on observable characteristics. These characteristics can be ascriptive: sex, skin color, physical build. Or they could be chosen: speech (accents, dialects), styles of dress, religious symbols. Social identity includes gender, race, nationality, and many other things. Religious identity, more specifically, comes from religious group membership and markers thereof. Like other forms of identity, religious group membership can cut across existing social ties (e.g. families, neighborhoods) and reshape an individual's pattern of social interactions. This turns out to be important.

Central to the ubiquity and longevity of religious organizations is the development of various means of screening out free riders and stabilizing ingroup cooperation. The club structure of religious groups plays a critical role in this process. Clubs are groups that impose costly entry requirements and participation rules. Religious clubs produce religious identity through observance of these rules which distinguish members from nonmembers and define group boundaries. Conspicuous markers of religious identity include unconventional forms of dress, speech, dietary and sexual practices, all of which stigmatize members in the broader society. This stigma is obviously costly, but it plays a strategic role. In this chapter, we will examine six strategic functions of religious identity, the most basic of which mitigate the free-rider problem inherent in collective production.

The strategic role of religious identity rationalizes seemingly bizarre, inefficient and irrational religious beliefs and practices. All six functions examined in this chapter are examples of the *theory of the second best* (Lipsey & Lancaster 1956). The theory of the second best receives little attention but is at least as important as the two fundamental theorems of welfare economics. It warns against (improper) reductionism in economics. Rather than the stylized world of the welfare theorems, most economic systems are characterized by deep inefficiency with multiple causes. Acting locally to remove one inefficient behavior can *increase* the inefficiency of a system, as this behavior may have mitigated other sources of inefficiency. In the religious context, inefficiencies due to imperfect monitoring, observability of types, commitment etc. produce (compensating) institutions which may seem unproductive without the right theoretical lens and proper ecological knowledge.

## 2 The Canonical Model

At the core of the economics of religion lies the model of religious clubs developed by Ianaccone (1992, 1994), with notable contributions by Berman (2000), McBride (2008, 2010, 2015) and Aimone et al. (2013). Communities face severe free-rider problems (Olson 1965, Cornes & Sandler 1986). Members would like to join without contributing to the various club goods produced by the community. But if all members did so, production would col-

lapse, inducing exit *en masse* from the community. In the club model of religion, costly entry requirements and participation rules play two important strategic roles in mitigating this free-rider problems:

- (1) *Screening*: by raising the cost of membership, stigmatizing forms of religious identity ensure that only co-operators and true believers join the group.
- (2) *Substitution*: by lowering the payoff from outside activity, they induce members to divert time and money from non-group activities to group activities.

The strategic costs of religious membership are sometimes referred to as ‘sacrifice’ to distance them from more standard solutions to the free-rider problem such as punishment, exclusion, fees, etc. which are often infeasible in religious groups due to monitoring constraints and taboos on the use of financial incentives. Aimone et al. (2013) test the religious clubs model experimentally, finding that individuals playing a public goods (VCM) game voluntarily joined groups that taxed private investment vis-à-vis contribution to the group. This endogenous group formation produced substitution and especially screening effects, which increased members’ welfare.

Hence the costs of religious identity and club membership are designed (or emerge) to solve incentive problems associated with collective production by stigmatizing members in mainstream society and segregating them from non-members. We see this with many strict religious sects, including ultra-Orthodox Jews (Berman 2000, Carvalho & Koyama 2016), Mormons (McBride 2007), and strict Muslims (Carvalho 2013). The beauty of this theory is that it provides a simple and powerful explanation for many types of religious behavior that may be considered ‘irrational’.

The basic club model has been extended in various ways. Carvalho and Koyama (2016) allow members to choose between time and money contributions to the group. In low-wage environments, the standard substitution effect applies. Religious groups impose stigmatizing membership rules that ‘tax’ outside activity in order to increase time contributions to the religious club good. In high-wage environments, however, religious groups will liberalize and lower stigmatizing requirements to encourage social integration of members and benefit from their financial contributions. Carvalho and Koyama also characterize conditions under which an expansion in outside economic opportunities leads to stricter forms of religiosity and religious polarization. Based on this analysis, they present an historical account of Jewish emancipation in nineteenth century Europe. Emancipation suddenly exposed isolated and relatively homogenous communities to different economic environments. Community responses differed not just quantitatively, but qualitatively, and in a manner predicted by the theory. In Germany, a liberal Reform movement developed in response to emancipation, while ultra-Orthodox Judaism emerged in Eastern Europe which was even stricter and more isolationist than traditional Judaism.

McBride (2015) introduces to religious clubs models the notion of religious capital (see Iannaccone 1990). Religious preferences, particularly willingness to contribute to the group,

are cultivated through religious participation. As such, religious groups must grant new members a period of participation without contribution, so that new members can develop religious preferences and contribute more intensively at a later stage. This explains why many religious groups tolerate some free riding by new members and emphasizes the importance of this strategy to the success of the group.

The most recent work on religious clubs by Chen, McBride & Short (2018) and Carvalho & Sacks (2018) adds competition and dynamics to the standard religious clubs model. Chen et al. examine competition among groups with heterogeneous objectives and endogenous fertility, whereas Carvalho and Sacks introduce forward-looking religious leaders and cultural transmission of religious preferences.

### 3 Religious Identity - Further Strategic Functions

The religious clubs model is a simple, economic rationalization for seemingly inefficient and bizarre religious practices. However, one can go further than the screening and substitution effects studied in the first generation of club models by exploring a richer set of social and psychological motivations for costly forms of religious identity. Recent research identifies four additional strategic functions of religious costs:

- (3) *Social sorting,*
- (4) *Esteem maintenance,*
- (5) *Religious commitment,*
- (6) *Cultural transmission.*

#### 3.1 Social Sorting

In the standard club model of religion, religious groups require various sacrifices in order to screen out free riders and promote efficient production of club goods. This screening function can be described as the ‘economic role’ of religious sacrifice and stigma. Carvalho (forthcoming) proposes a complementary ‘social role’ in religious clubs based on social sorting. Sorting differs from the usual screening function of religious clubs in that it operates on traits that do not directly affect club goods production.

Like many other types of groups, one of the primary functions of religious clubs is to facilitate social interactions among members. Suppose individuals vary in their ethnolinguistic background, taste in art and music, hobbies, etc. These can be termed ‘economically neutral’ traits, because unlike cooperativeness or commitment to the group, these traits are unlikely to directly affect an individual’s productivity in the group. Instead these social traits play

an important role in social interactions. In Carvalho’s model, individuals prefer to interact with people possessing similar traits. This preference is referred to as *own-type bias*.

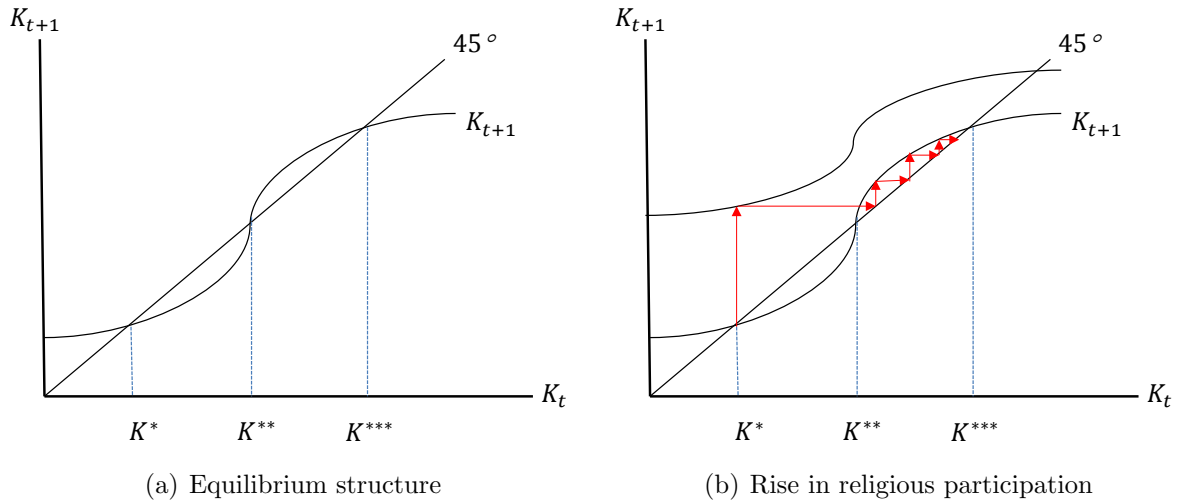
Consider a population in which individuals have one of two (economically neutral) social types  $\tau \in \{A, B\}$ . Suppose type  $A$  is the minority. Each player joins one of two groups. The payoff to a type- $\tau$  agent who joins group  $k$  is a function of (1) private consumption, (2) club good consumption in group  $k$ , (3) the proportion of group  $k$  members of type  $\tau$  (own-type bias). The strength of own-type bias is parameterized by  $\alpha$ . One may think that because individuals prefer to interact with their own type, they will be perfectly sorted into groups, with one group composed exclusively of  $A$  types and the other of  $B$  types. But this is not necessarily the case. This is where the social sorting theory of clubs intersects with the standard club goods model and its focus on screening out free riders. It turns out that the usual free-rider problem in club goods production can inhibit sorting.

In the absence of membership costs, a perfect sorting equilibrium exists if and only if own-type bias is large:  $\alpha \geq \bar{\alpha}$  for some threshold  $\bar{\alpha} > 0$ . For  $\alpha \in (0, \bar{\alpha})$ , sorting breaks down. Suppose all  $A$  types join group 1 and all  $B$  types group 2. Because group 1 is smaller (as  $A$  is the minority type), it will face a less severe free-rider problem in collective production and better produce club goods including mutual insurance (Olson 1965). To gain access to these club goods,  $B$  types would deviate and join group 1, breaking sorting. Suppose now that group 1 imposes a membership cost  $c > 0$  on all group members (e.g. stigmatizing form of identity). Because the group is initially composed exclusively of  $A$  types and due to own-group bias,  $A$  types value membership in group 1 more highly than deviating  $B$  types. Hence there exists a positive (uniform) membership cost that deters  $B$  types from joining group 1 while retaining  $A$  types, stabilizing a perfect sorting equilibrium. The minimum membership cost required for perfect sorting is strictly decreasing in the share of the minority population. Costly sacrifices are demanded not by groups catering to the majority, but by those attracting rare/exotic types. The rarer the type, the more costly the sacrifice required to achieve sorting.

One costly sacrifice that is neglected in the literature is the cost of entertaining ‘weird’ beliefs. Many religious groups have elaborate and exotic belief systems. Carvalho’s theory of religious clubs suggests that these belief systems may play a strategic role in social sorting. The more exotic the belief system, the more costly it may be to entertain for some types relative to others. Hence individuals may join a group not because they adhere deeply to its belief system, but because they can entertain its beliefs at low cost and know only those with similar characteristics can do so. Thus religious beliefs come to be associated with certain traits and become a basis for sorting in social interactions.

## 3.2 Esteem Maintenance

Club models of religion rationalize strict and unusual religious rules on economic grounds. Binzel & Carvalho (2017) add a psychological role for these rules to religious club models,



Source: Binzel & Carvalho (2017)

Figure 1: (a) Multiple steady-state levels of religious capacity. (b) A temporary shock to social mobility induces a large, permanent increase in religious participation/capacity.

proposing that religion is part of the ‘psychological immune system’ (Bénabou & Tirole 2002). This conception of religion has a long history, with Marx’s claim that religion is “the opium of the people” being only its most famous statement. In particular, suppose people care about relative performance, including comparisons with others (*envy*) and with their own expectations (*unfulfilled aspirations*). Building on recent advances in behavioral economics, Binzel and Carvalho develop the first model connecting religion to unfulfilled aspirations and other forms of relative deprivation. The principal idea is that religion boosts self esteem by minimizing the psychological loss that occurs when consumption falls below an endogenous expectations-based reference point. For example, religion can adjust downward an individual’s reference point or shift attention to other (non-material) dimensions of comparison (see also Akerlof 2017, on the production of esteem). This approach is consistent with empirical evidence that religious people have higher self-esteem, life satisfaction and ability to withstand traumatic experiences (Smith et al. 2003).

In contrast to work in other fields which assumes that relative deprivation automatically increases religiosity, Binzel and Carvalho show that individuals face a tradeoff. They can work harder and participate less in religion to *live up to expectations*, or they can immerse themselves in religious activity to better *cope* with unfulfilled aspirations. It turns out there is a simple condition governing which way individuals go: the coping effect dominates when expected social mobility, inequality and poverty are high.

They proceed to show how these psychological motivations for religiosity interact with orga-

nizational dynamics. Suppose religious organizations have capacity for providing standard club goods, such as leisure activities, social insurance and labor market contacts. Organizational capacity evolves with religious participation. Denote religious organizational capacity by  $K_t$  in period  $t$ . The evolution of religious capacity is depicted in Figure 1. A stable steady state occurs where the function cuts the 45 degree line from above. As illustrated in panel (a), there could be multiple steady states:  $K^*$  and  $K^{***}$  are asymptotically stable while  $K^{**}$  is not.

In periods of high expected social mobility and inequality, a negative economic shock to individuals with high aspirations raises religious participation through the coping effect. This is represented by the upward shift of the function in panel (b). This builds up the organizational capacity of religious groups, eliminating the low-religiosity steady states and tipping society into the basin of attraction of the high-religiosity steady state  $K^{***}$ . Thus a negative shock to social mobility can produce a large, rapid rise in religious participation and organizational capacity, which persists even after the shock has dissipated and expectations have adjusted. In this way, the psychological function of religion can attenuate the free-rider problem faced by religious clubs.

Binzel and Carvalho apply their theory to the Islamic revival in Egypt—the rise in religious piety and participation in the last quarter of the twentieth century. They present evidence of a sudden and economically significant decline in social mobility for educated Egyptians in the 1980s, due to rapid expansion of education combined with a contraction in public sector employment. On this basis, they argue that coping with unfulfilled aspirations was one of the factors behind Egypt’s Islamic revival, a movement led by the educated middle class.

### 3.3 Religious Commitment

In the canonical model, religious identity acts as a tax on outside activity. But not all outside activity is created equal from a religious perspective. Except in the strictest religious groups (e.g. the Amish, ultra-Orthodox Jews), economic activity (e.g. education, labor force participation) is not as threatening as forms of social interaction that violate religious norms (e.g. dating, eating with nonmembers). Moderately strict religious groups would like members to enjoy the economic benefits of integration, while avoiding religiously prohibited forms of consumption. Carvalho (2013) proposes that conspicuous religious markers can facilitate such a partial integration strategy by *committing* group members to religious norms of behavior even while they are outside the monitoring range of their community.

A leading example is veiling. By veiling, we mean the various concealing forms of dress, especially headcovering, that are worn today by Muslim women. Amid current concerns over cultural assimilation and social integration of immigrants, veiling by Muslim women has become a symbol of cultural rejection and separation, prompting various bans in France, Belgium, the Netherlands and parts of Italy, Spain, Switzerland and Russia. The cultural rejection/separation interpretation of veiling is in line with the basic religious clubs model,

but not with the version discussed here.

Let us place veiling in its proper context. Earlier forms of veiling were aristocratic markers, signalling that a man could provide for his wife (or wives) without them having recourse to work (Amer 2014). The new veiling movement is as the name suggests a late twentieth century innovation rather than a preservation of ancient tradition (El Guindi 1981). In 1923, there was a de veiling movement in Cairo initiated by an Egyptian woman named Huda Sharawi after she attended a meeting of feminists in Rome. After that middle and upper class women stopped veiling and indeed anthropologists report virtually no veiling in public in 1970 (Abu-Lughod 1971). By 2000, however, around 80% of women in Cairo wore some form of headcovering (Bayat 2007), in styles distinct from those of the past.

Carvalho (2013) addresses three unanswered questions: (1) Why do women veil? (2) Why has there been a rise in veiling among Muslim women? (3) What are the consequences of banning veiling?

The basic idea comes from the economics of identity. Being assigned to a social category, either through self or social categorization, imposes certain behavioral prescriptions, i.e. identity-specific ideals and expectations (Akerlof & Kranton 2000, 2010). If a woman adopts a conspicuous religious symbol by veiling, she is categorized as a strict Muslim and the ideals and expectations of a strict Muslim are applied. Thus veiled women face different behavioral prescriptions: they are expected to more strictly adhere to religious rules and face greater stigma for violating religious proscriptions than unveiled women. In this way, veiling acts as a commitment to observing religious norms. One cannot walk into a bar wearing a headscarf; it is simply incongruous. One attracts different kinds of friends and social encounters. Moreover, veiling is a signal of this commitment to one's community (see Patel 2012).

This links the new veiling movement to rising economic opportunities for Muslim women. When one takes a close look at the movement one sees educated, urban, working, middle class women in its vanguard (e.g. El Guindi 1981). Whether it be among migrants to Cairo from rural Egypt or migrants from Muslim societies to Europe, Muslim women face an expansion in economic opportunities, especially educational and labor market opportunities. In religiously conservative communities, women's behavior is subjective to intense social scrutiny and judgement. Exploiting these new economic opportunities, and in doing so venturing outside the monitoring range of one's community, can mean a loss of community esteem, a deterioration of marriage market options and access to community resources. By committing an individual to religious norms of behavior outside of her community, veiling can be seen as a kind of partial integration strategy, a way of participating in economic and social life while minimizing temptation to violate religious norms and preserving esteem in one's community. In this sense, some forms of veiling may not be regressive.

This changes our view of the consequences of banning veiling. Banning veiling in public spaces may actually inhibit social integration, as women segregate in the home or local community as a costly substitute. Even more surprisingly, when embedding this in a model of



intergenerational transmission of preferences, Carvalho (2013) finds that bans on veiling can lead to higher levels of religiosity in these communities. The mechanism is not blowback, but is more subtle. Suppose a parent wants to control the behavior of her child. She can use both internal and external control instruments to do so. Banning veiling (an external instrument) can lead to substitution toward internal control methods such as religious education. A parent will invest more in religious education when the behavior of a religious child is very different to the behavior of a non-religious child. Suppose, in response to a ban on veiling, non-religious women integrate while not veiling and religious women segregate in the home/community. This drives a wedge between the behavior of religious and non-children women and increases the willingness of parents to invest in religious education and other means of transmitting religious preferences to their children. This can be viewed as a form of *cultural resistance*. Thus bans on veiling aimed at integrating and secularizing Muslim communities could in fact have the opposite outcome.

Veiling is a complex phenomenon and there are many potential reasons for adopting the practice. Recent empirical work by sociologists, however, supports Carvalho's (2013) commitment-signaling theory of veiling (Aksoy & Gambetta 2016). In particular, religious women tend to exhibit higher rates of veiling when they are more exposed to modern influences including education, urbanization and contact with non-Muslims.

Let us return to the standard club model, in which religious identity stigmatizes members of a religious group and segregates them from mainstream society. We have distinguished here between two domains in which stigma can operate, the economic and the social. If in the extreme a religious leader wishes to set up a fully segregated community, she needs to impose rules such as avoiding money and modern technology that lead to economic as well as social stigma and separation. Suppose instead a religious leader wants to build a partially integrated community, with economically productive members that adhere to non-mainstream behavioral norms. Then she might impose requirements such as veiling that do not induce discrimination in education and the labor market, but do induce social stigma. Veiling functions as a partial integration strategy due to the combination of these two factors: (1) tolerance of veiling in education and the labor market, combined with (2) stigma in social interactions.

If either discrimination appears in the economic domain, or veiling is normalized (i.e. not stigmatized) in the social domain, then veiling loses its power as a partial integration strategy. The response is likely to be extreme: either community members fully integrate if economic returns are sufficiently high or fully segregate otherwise.

### 3.4 Cultural Transmission

Economic models tend to treat tastes/preferences as primitive and fixed. However, there are important cases in which preferences are endogenous to the system being analyzed (Stigler & Becker 1977, Bowles 1998). Religion in particular provides fertile ground for analyz-

ing preference/belief formation. Iannaccone (1990) models changes in religious preferences over an individual's lifetime as a product of conscious accumulation of religious capital. This model can be extended to analyze the intergenerational transmission of religious preferences, which would explain why the strongest determinant of individual religious affiliation and participation is parental religious affiliation and participation (Iannaccone 1998). To model cultural transmission of religious preferences more broadly, including oblique transmission (non-parent adult to child) and horizontal transmission (child to child), however, one has to engage with the literature on cultural transmission in evolutionary biology (Cavalli-Sforza & Feldman 1981), evolutionary anthropology (Boyd & Richerson 1985, 2005) and economics (Bisin & Verdier 2000, 2001). The major breakthrough of Bisin and Verdier (2000, 2001) is to make cultural transmission probabilities endogenous by allowing parents to invest in socialization of their children. Among other things, they find that cultural diversity persists under a larger set of conditions than in previous analyses with fixed transmission probabilities.

One neglected aspect of the cultural transmission process is the fact that it entails its own *free rider* and *externality* problems. Suppose one wishes to acquire a particular system of metaphysical and moral beliefs and makes costly investments to do so (e.g. in education). These beliefs, if successfully acquired, can be rapidly undermined by contact with nonbelievers. This is the externality problem. Likewise, beliefs can be acquired through contact with believers, without much personal investment. This is the free-rider problem. It is natural that organizations emerge to solve and possibly exploit these problems.

Carvalho (2016) examines identity formation in groups, where (personal) identity is modeled as a socially transmitted trait. We will interpret this model in terms of the formation of religious beliefs. Unlike work on cultural leaders (Hauk & Mueller 2015, Verdier & Zenou 2015, Carvalho et al. 2017, Prummer & Siedlarek 2017), group membership is endogenous in Carvalho (2016). Religious leaders do not directly transmit cultural traits in society, but rather indirectly shape cultural transmission in their own groups through club membership, participation and club goods production. In this model, religious organizations cultivate religious belief by (1) imposing rules of participation in belief-producing activities (e.g. communal prayer, scriptural study, rituals) and (2) excluding non-members from social interactions. Because belief formation is based on the exclusion of nonmembers, religious beliefs can be viewed as a club good. Religious membership costs play a strategic role in production of this psychic club good.

Consider a population composed of  $A$  and  $B$  types.  $A$  ( $B$ ) types want to acquire belief system  $A$  ( $B$ ). Let  $B$  be the mainstream or default belief system, which can be acquired outside of a group (e.g. through the education system and media). Individuals can join one of two groups, 1 and 2, or can be unaffiliated. Participation in group 1 (2) cultivates belief system  $A$  ( $B$ ). There are two stages of belief formation. Suppose an  $A$  type joins group 1 and chooses to spend proportion  $x$  of her time in the group on costly (belief-forming) activities. With probability  $x$ , she becomes a carrier of trait  $A$ . With probability,  $1 - x$  direct transmission of beliefs fails and she acquires the mainstream trait  $B$ . In the second stage, this individual is randomly matched with another member of her group (nonmembers are excluded to avoid

the externality problem) and acquires the trait of her partner. Thus, the likelihood that she ends up with trait  $A$  depends on the average participation level in the group. Thus there is a severe free-rider problem. In the absence of participation requirements, production of belief system  $A$  would collapse as no group 1 member would choose a positive participation level. To mitigate this free-rider problem in belief formation, groups choose a level of strictness, which is a minimum participation requirement imposed on members.

In equilibrium, no type  $B$  individual is affiliated because they can acquire their preferred belief system at no cost by interacting in mainstream society. As such, group 2 attracts no members. In contrast, group 1, which cultivates the oppositional belief  $A$ , can attract members as long as its strictness is not too low as to only weakly produce beliefs and not too high as to make membership prohibitively costly. How far can group 1 push strictness? There is a natural concept of ‘religious tension’ in this model. Tension is an important concept in the sociology of religion. Stark & Finke (2000) propose that “[a]ll religious groups can be located along an axis of tension between the group and its sociocultural environment”, where tension is defined in terms of “distinctiveness, separation, and antagonism” [p. 143]. Tension in Carvalho’s model can be defined as the distaste for the mainstream belief system  $B$  by  $A$  type individuals. When tension is high, it is more costly for  $A$  types to remain unaffiliated and acquire a mainstream identity. Thus, group 1 can push its members further in terms of participation and strengthen belief formation under conditions of high tension. Of course, the results switch if  $A$  becomes the mainstream belief system.

This theory has two main implications. First, it provides a link between religious doctrine and religious participation that is missing from the economics of religion, which has focused largely on religious practice. Specifically, religious organizations that cultivate belief systems that are further from the mainstream can be more extreme in terms of their practical demands of members. Episcopalian congregations, for example, may be unable to make strict demands of members because beliefs prevailing in mainstream society are a close substitute for their belief system. Second, the theory provides a link between religious doctrine and collective action. Religious organizations are exceptionally effective at various forms of collective action, including public good provision, political opposition and violent rebellion (e.g. Gruber & Hungerman 2007, Berman 2009). Berman (2009) identifies the strict club structure of religious groups as the reason why they are more successful than secular groups in collective action and in particular terrorism. Carvalho’s (2016) theory attributes this strict club structure to belief systems that are at odds with mainstream thought (e.g. apocalyptic beliefs). In light of this theory, it is unsurprising that religious organizations which expend an extraordinary amount of resources on cultivating metaphysical and moral beliefs are so effective at collective action.

Further analysis of the role of costly religious sacrifices in cultural transmission is conducted by Carvalho & Koyama (2016), Carvalho et al. (2017) and Carvalho & Sacks (2018). Among other things, Carvalho & Sacks (2018) study various dynamic radicalization strategies by religious groups. One such strategy is to begin by forming a small group of highly committed individuals and use the intensive participation of these members to cultivate religious beliefs

in subsequent generations. In this way, the group becomes both stricter and larger over time. This radicalization strategy works only in the absence of religious competition and when extremists in the community have disproportionate influence over cultural transmission.

## 4 Conclusion

This chapter examined the strategic role of sacrifice and stigma in religious clubs. Religious clubs impose costly entry requirements and participation rules on members, including stigmatizing forms of dress, speech and diet. These entry requirements produce religious identity by defining group boundaries. In the canonical model (Iannaccone 1992), religious prohibitions and proscriptions are designed (or emerge) to solve incentive problems associated with collective production by (1) screening out non-cooperators and (2) inducing substitution from outside activity to group activity. Recent research explores new social and psychological motivations for religion and identifies four additional strategic functions of religious identity: (3) social sorting, (4) esteem maintenance, (5) religious commitment, and (6) cultural transmission. This produces new explanations for exotic religious beliefs, oppositional identity, political mobilization by religious groups, and religious radicalization. All strategic functions of religious identity are examples of the theory of the second best.

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