Religion, social class, and entrepreneurial choice

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ABSTRACT

While considerable concern has emerged about the links between religion and economic growth, little is actually known about how religion and social class impact the decision making of individuals. Using institutional theory and social dominance theory, this paper examines the influence of religion and social class on individuals' occupational choices. Based on a large-scale database from India, this paper finds that while some religions are relatively conducive to self-employment, some others have a negative impact on self-employment choices. Furthermore, individuals belonging to social classes that are lower in the social hierarchy are less likely to be self-employed. The role of both religion and social class in influencing the likelihood of choosing self-employment suggests an important link between religion, social class, and occupational decision-making.

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1. Executive summary

This paper explores the relationship between religion, social class, and occupational choice. By linking the self-employment choice of individuals to their religion, the paper empirically investigates whether or not individuals adhering to different religions differ with respect to their probability of becoming self-employed. Furthermore, the paper examines whether individuals' self-employment choices depend on their social class, as recent studies show that social hierarchies are related to religion (Davidson and Pyle, 2011).

Referring to the institutional theory (Bruton et al., 2010; Scott, 1995, 2007), this paper argues that religion affects engagement in entrepreneurship in the form of self-employment. From an institutional theory perspective, even when the regulatory environment facing individuals of different religions is the same, the normative and cognitive dimensions differ significantly between the religions, and these give rise to institutional profiles that are either conducive or not conducive to self-employment. While some religions give rise to institutions that facilitate and promote self-employment, others give rise to institutions that have adverse effects on self-employment choice.

Furthermore, religion is closely associated with social stratification in a number of contexts, and the impact of religion on self-employment may differ across different social groups. In particular, individuals belonging to groups lower in the social hierarchy are more likely to be constrained from becoming self-employed if they are unable to access the networks and resources that are available to groups higher in the social hierarchy.

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We develop a conceptual framework using institutional theory and social dominance theory, and derive hypotheses linking religion, social class, and occupational choice. We test the hypotheses using a large-scale database obtained from a nationally representative survey conducted in India. The empirical results presented in this paper provide several important insights that are of broad interest to the entrepreneurship literature on self-employment. The results strongly support the view that religion has an important role in shaping individual occupational decision-making. The role of religion in shaping the institutional environment and individuals' decisions is central to explaining these compelling results.

While the institutional profiles of some religions, like Hinduism and Buddhism, restrict self-employment, the institutional profiles of Islam and Jainism encourage self-employment activities. Furthermore, the results suggest that Christianity has no impact on self-employment. In the Indian context, this result may be attributed to large-scale religious conversions of individuals from socially backward classes of Hinduism to Christianity.

We further examine the impact of one of the most rigid forms of social class structures found in the world, the Indian caste system, on occupational choice. Elements of the caste system like the superiority of some castes are found in the social hierarchies around the world. Caste is easier to identify empirically, while the heredity of caste ensures that it is exogenous. The empirical results suggest that individuals belonging to socially lower castes are least likely to become self-employed.

Hence, the results of this paper suggest that elements of religion and the social class need to be explicitly considered in understanding what influences entrepreneurship in the form of self-employment. Although the findings suggest that religion and social class have an impact on the probability of being a self-employed entrepreneur, the results should be interpreted as prima-facie evidence concerning this relationship. Future research can take this forward by investigating the role of religion in influencing the psychological traits of individuals, the role of geographic location, the impact of religious conversions, and the motivational or discriminatory nature of these effects.

2. Introduction

"And yet, for the most part, management researchers have stubbornly refused to engage meaningfully with religion and religious forms of organization, or to consider the effects of religious beliefs and practices on secular organizations. Of course, there are some important exceptions. …. However, these debates have largely taken place outside the major journals, and can hardly be said to have permeated thinking on management and organization. ….. Moreover, the existing literature focuses overwhelmingly on Western Christianity, and seldom examines other faiths or parts of the world." (Tracey, 2012, Academy of Management Annals, p. 88)

Although the life of a large proportion of the world's population is greatly influenced by religious beliefs, religion is only beginning to receive attention in top tier management journals (Tracey, 2012). Studying the consequences of religion has a long history in disciplines like sociology and economics. In *The Protestant Ethic and the Spirit of Capitalism*, Max Weber (1905) stated that the Protestant ethic was an important determinant of economic progress. In the *Wealth of Nations*, Adam Smith (1863) analyzed the economic consequences of religious beliefs. More recently, interest in the role of religion has found a wave of resurgence in scholarship (Iannaccone, 1998; Smith, 2008), and empirical studies increasingly suggest that economic outcomes are related to religious beliefs (Barro and McCleary, 2003; Guiso et al., 2006; McCleary and Barro, 2006).

A small but growing body of literature has started to examine the role of religion for self-employment (Minns and Rizov, 2005), and perceptions about entrepreneurs in different religions (Carswell and Rolland, 2007). The literature has also examined the role of religion in immigrant groups (Choi, 2010; Essers and Benschop, 2009), and the effect of religiosity on entrepreneurial attitudes (Drakopoulou Dodd and Spearman, 1998) and economic growth (Barro and McCleary, 2003; Galbraith and Galbraith, 2007). However, most of the studies are either purely anecdotal (Ryman and Turner, 2007), descriptive (Carswell and Rolland, 2007), restricted to one or two religions (Choi, 2010; Essers and Benschop, 2009; Minns and Rizov, 2005), historical (Minns and Rizov, 2005), or based on small databases (Drakopoulou Dodd and Spearman, 1998). This paper aims to provide a comprehensive understanding of the link between religion, social class, and self-employment, using the theoretical lens of institutional theory and social dominance theory, and a large-scale, nationally representative database of individuals.

We deal with two important questions here: Are some religions more conducive to entrepreneurship in the form of self-employment than others? Does social class influence an individual's decision to become a self-employed? Religion is closely associated with social stratification in a number of contexts. For example, Davidson and Pyle (2011) suggest that religion has played a compelling role in the formation of social class structures in America. In the Indian context, one of the most rigid forms of social class structures, the caste system, is closely linked to Hinduism. For these reasons, the impact of both religion and social class is examined here.

Self-employment is not synonymous with entrepreneurship, but it is often used as a proxy for entrepreneurship (Parker, 2009). Shane and Venkatraman (2000) define entrepreneurship as a process whereby "opportunities to create future goods and services are discovered, evaluated, and exploited". Other scholars claim that the creation of new enterprises lies at the heart of entrepreneurship (Gartner, 1988; Low and MacMillan, 1988; Shook et al., 2003). However, more broadly defined, entrepreneurship also comprises self-employment and independent business ownership (Parker, 2009). This article contributes to the entrepreneurship literature on self-employment (Parker, 2009), and to the emerging body of literature linking entrepreneurship and religion (Drakopoulou Dodd and Spearman, 1998; Minns and Rizov, 2005).

Religion plays an important role in shaping a society's institutional profiles for entrepreneurship. However, institutional theory (Scott, 1995, 2007; Bruton et al., 2010) has not been applied to the relationship between religion and entrepreneurial choice. Religious beliefs determine, at least to some extent, the institutions that shape the environment for self-employment activities. They influence the development of legal systems (regulatory dimension), determine values and norms affecting behavior by defining what people should be doing (normative dimension), and affect the development of individuals' cognitive abilities (cognitive dimension). While some religions are associated with institutions that facilitate and promote entrepreneurship in the form of self-employment, others give rise to institutions that have adverse effects on self-employment.

This paper empirically investigates whether individuals adhering to different religions and social classes differ with respect to their probability of becoming self-employed, by linking the self-employment choice of individuals to their religion and social class. The Employment-Unemployment Survey of the National Sample Survey Organization (NSSO) of India, collected in 2004, is used for the empirical analysis. This large-scale Indian survey contains rich information identifying individual characteristics, such as an individual's occupation, religion, social class, age, marital status, education, industry, and geographic location. The database is ideal for distinguishing the effects of religion and social class because the effect of religion can be controlled while examining the impact of social class. In particular, the empirical analysis on social class is restricted to the Hindu religion here, as social class can be clearly identified for Hindus.

The results presented here provide considerable empirical evidence that people with certain religious beliefs, such as Hinduism, have a lower propensity to be self-employed, while individuals with certain other religious beliefs, such as Islam and Jainism, have a higher propensity to be self-employed. Similarly, belonging to social classes lower in the social hierarchy inhibits the propensity to be self-employed entrepreneurs. Thus, the empirical evidence suggests that both religion and social class influence entrepreneurial decision-making.

This paper makes several important contributions to the entrepreneurship literature on self-employment (Parker, 2009) and religion (Drakopoulou Dodd and Spearman, 1998; Minns and Rizov, 2005). Firstly, it links religion and occupational choice, an area of research that has received scant attention in the extant literature, and shows that religion shapes self-employment choices. Secondly, it makes a novel contribution by showing that social class has a direct bearing on individuals' occupational decisions. Thirdly, in contrast to extant studies, this paper uses a large-scale, nationally representative database to provide robust empirical evidence linking religion, social class, and self-employment.

The following section presents the theoretical foundations. It derives hypotheses on the relationship between religious beliefs, social class, and the decision to become self-employed. The fourth section describes the database consisting of a large sample of individuals from India, the descriptive statistics, and the methods. The fifth section presents the empirical analysis testing the conjecture that both religion and social class influence self-employment choices. The sixth section discusses the empirical results in the light of the extant literature, and discusses the limitations of this study and offers suggestions for future research.

3. Conceptual framework and hypothesis development

3.1. Religion and self-employment

Religion affects the behavior of people in a number of ways (Lehrer, 2004, 2008). For example, people tend to favor individuals having similar religious beliefs when seeking marriage partners (Becker, 1793; Lehrer and Chiswick, 1993), and religion affects work and business practices (Yousef, 2000; Parboteeah et al., 2009; see Tracey, 2012, for a survey). Many people do not follow business practices that are deterred by their religious beliefs. A ban on interest in Christian countries dissuaded Christians from engaging in banking in medieval times. Prohibition of usury in Islam encouraged religious Muslims to rely on their own savings or on funding by family and friends, instead of borrowing money from banks. As Weaver and Agel (2002) suggest, religious role expectations are internalized as a religious self-identity, and influence an individual's decision making.

Religion may influence entrepreneurial choice of individuals by encouraging or discouraging certain kinds of behavior. For example, the emergence of capitalism is often linked to the protestant work ethic. If a religion encourages self-reliance, risk-sharing or philanthropy, it may have a positive impact on entrepreneurial choice. Similarly, if a religion has a role model or a founder who encouraged entrepreneurship, followers of that religion are more likely to choose self-employment. However, a religion may also inhibit entrepreneurship by discouraging wealth accumulation or by placing prohibitive sanctions on those who pursue entrepreneurial activities.

Religion influences the institutional systems that affect individuals' decisions to become self-employed. According to Scott (1995, 2007), institutional systems comprise regulatory, normative, and cognitive dimensions. In entrepreneurship research, these three institutional pillars are used to examine countries' institutional profiles for entrepreneurship (Bruton et al., 2010). The regulatory dimension comprises laws, regulations, and government policies that influence the entrepreneurial process (Busenitz et al., 2000). The normative dimension comprises social norms that influence entrepreneurial behavior. As Bruton et al. (2010, p. 423) state, it "is increasingly important in entrepreneurship research in terms of how societies accept entrepreneurs, inculcate values, and even create a cultural milieu whereby entrepreneurship is accepted and encouraged". Thus, the values, beliefs, and norms of a country have an impact on the entrepreneurial orientation of its people (Busenitz et al., 2000). The cognitive dimension consists of shared social knowledge, cognitive structures, and attitudes. The decision to become self-employed is influenced by religion, through its impact on these dimensions.

Extant empirical studies have mainly focused on the relationship between national culture and entrepreneurship, and only a few studies have analyzed variation within countries (see Hayton et al., 2002, for a survey). While religious beliefs influence the

institutional profile for entrepreneurship at a country level, they also determine the institutional profiles of religious groups within a country. The variation in institutional profiles of different religious groups in a country has the potential to give rise to variations in self-employment across these religious groups.

The regulatory dimension facing individuals belonging to different religions may be similar for all individuals residing in a country, as laws that have an impact on the decision to become self-employed tend to be country-specific. Differences in the regulatory dimension are mainly attributed to cross-country differences in legal systems. However, the normative and cognitive dimensions differ significantly across different religions within the same country context. These differences give rise to variations in self-employment, as religious beliefs determine values and norms that affect behavior by defining what people should be doing, and influence the development of individuals' cognitive abilities and attitudes that are essential for self-employment. Consequently, while religions play an important role in shaping institutions at a national level, the institutional profiles of religious groups within a country also have an impact on individuals' occupational decision-making.

Here, using the lens of institutional theory, we develop hypotheses linking the six of the largest religions of the world and self-employment.

3.1.1. Hinduism

The institutional profile associated with Hinduism may not be conducive to entrepreneurship in the form of self-employment. Hinduism is closely associated with the caste system, a rigid form of social class hierarchy that places constraints on occupational choice. The caste system, discussed in detail in Section 3.3, refers to the classification of individuals into different classes, categories, or castes. In his third major work on the sociology of religion, Weber (1958) posits that, "If the stability of the caste order could not hinder property differentiation it could at least block technological change and occupational mobility, which from the point of view of caste were objectionable and ritually dangerous" (Weber, 1958, pp. 103-104). Thus, for Hinduism, the caste system puts normative pressures on Hindus to choose occupations based on the caste of their birth, and this may inhibit them from becoming self-employed entrepreneurs. This is also likely to influence the cognitive dimension of Hindus, who may develop a disinclination to pursue entrepreneurial opportunities.

The cognitive dimension in the form of the belief that people should be content with the *status quo* may discourage Hindus from choosing self-employment. Western scholars have argued that material progress in India may have been impaired by Hinduism, because of its philosophy of renunciation and asceticism, which means that Hinduism provides little encouragement to changing one's situation in terms of material wellbeing (Singer, 1956, 1966). Hindus believe it is better for the inner soul to accept destiny and to be content with the status quo than to proactively change the situation (Dana, 2000) as belief in the theory of *Karma* resigns people to their fate (Tripathi, 1992). Most scholars following this line of thought believe that Hinduism supports passive acceptance instead of placing emphasis on individual responsibility and activism. For these reasons, the normative and cognitive dimensions of Hinduism may not support self-employment activities.

Hypothesis 1. Followers of Hinduism are less likely to pursue entrepreneurial activities, and therefore have a lower likelihood to be self-employed than followers of other religions in general.

3.1.2. Islam

The institutional profile associated with Islam is conducive to entrepreneurship in the form of self-employment. The teachings of the Quran, the scripture that Muslims believe is God's command, promote self-employment through two important channels. Firstly, Islamic banking is based on the twin principles of prohibition of *riba* (interest) and permission of *bai* (trade) that are enunciated in the Quran (Khan, 1996). While risk-taking is fundamental to entrepreneurial activity (Kihlstrom and Laffont, 1979), the Islamic banking models, based on the *Sharia* law principles of risk sharing, indirectly provide incentives for risk-taking. Thus, Islam adds elements that have a positive impact on self-employment to the regulatory dimension. Secondly, the Quran encourages Muslims to engage in business activities. As Nadiri (2009) points out, "The Prophet of Islam, Muhammad, was a businessman himself. He not only brought wealth and profit to his community in Medina and Mecca, but his successors also established vast trading networks and treatises to bring prosperity to the Islamic empire which covered a vast territorial expanse." Thus, the normative dimension of Islam encourages self-employment.

Islamic religion is likely to motivate entrepreneurial attitudes in Muslims. In a study on the Islamic work ethic, Yousef (2000) finds that Islam positively influences attitudes toward organizational change. In Islam, "humanity is meant to prosper through use of the resources bestowed by God, which provide both sustenance (survival and physical needs) and wealth" (Kriger and Seng, 2005, p. 777). Compared to Hinduism, the regulatory, normative and cognitive dimensions of Islam are more supportive of Muslims becoming self-employed.

Hypothesis 2. Followers of Islam are more likely to pursue entrepreneurial activities and therefore have a greater likelihood of being self-employed than Hindus.

3.1.3. Jainism

The institutional profile associated with Jainism encourages entrepreneurship in the form of self-employment. Self-employment is an activity that is most consistent with the religious values of Jainism. For example, Jainism emphasizes self-reliance in daily life (Jaini,

1979). Self-employment provides an opportunity for Jains to make a living while adhering to the social norm of relying on oneself. The normative dimension in the form of emphasis on self-reliance in Jainism is likely to promote self-employment among Jains.

The cognitive dimension of Jainism is also conducive to self-employment. The majority of Jains are likely to have positive attitudes towards self-employment as Mahavira, the founder of Jainism, emphasized "benevolence and attention to business" as one of the twenty-one qualities of a true Jain (Caillat, 1987, p. 509). Compared to Hinduism, Jainism is more likely to give rise to an institutional profile that is conducive to self-employment.

Hypothesis 3. Followers of Jainism are more likely to pursue entrepreneurial activities and therefore have a greater likelihood of being self-employed than Hindus.

3.1.4. Buddhism

The institutional profile associated with Buddhism discourages Buddhists from choosing entrepreneurship in the form of self-employment. Although Buddhism is closely related to Hinduism in its core beliefs, and shares many of its values, it adopts an extreme view of the concept of *Karma*, the law of cause and effect. In an exploratory study linking Buddhism and entrepreneurship, Valliere (2008) posits that Buddhists aim to reduce the accumulation of *Karma* by acting without intention towards personal benefit. For them, "a business entered for the express purpose of generating personal wealth at the expense of other people may create much karma, while a business entered to improve society while incidentally generating modest profits may not" (Valliere, 2008, p. 181). Although the normative structures of Buddhism provide some legitimacy for entrepreneurship, they simultaneously constrain the design of effective business practices and the evaluation of business opportunities (Valliere, 2008). This is likely to have an impact on the cognitive development of Buddhists, who may develop a severe disinclination for pursuing profitable opportunities and rent-seeking activities. Thus, compared to Hinduism, the institutional profile associated with Buddhism is less conducive to self-employment.

Hypothesis 4. Followers of Buddhism are less likely to pursue entrepreneurial activities, and therefore Buddhists have a lower likelihood to be self-employed than Hindus.

3.1.5. Sikhism

The institutional profile associated with Sikhism is favorable to entrepreneurship in the form of self-employment. Although closely related to Hinduism, Sikhism rejects the notion of a social class hierarchy, and considers all people equal. Thus, the normative constraints on occupational choice, as are seen in Hinduism, are absent in Sikhism to a large extent. Furthermore, one of the three important aspects of Sikhism is "*Kirat Karni*", which essentially refers to earning honestly by one's physical and mental effort. In the sacred text *Guru Granth Sahib Ji*, hard work is emphasized, and by "having worked by the sweat of their brows", Sikhs attain honor in the court of God (Guru Granth Sahib Ji, page 8). Sikhism encourages attributes that are important for self-employment by shaping positive attitudes towards diligence and a proactive work ethic. Furthermore, Sikhism is not against wealth accumulated through honest means, but it emphasizes "*Vand Chakna*", which refers to sharing one's wealth through philanthropy. The normative dimension in the form of "*Vand Chakna*" may encourage self-employment in Sikhism, as a growing body of literature suggests that philanthropy and entrepreneurial activity are closely linked (Acs, 2013). For these reasons, the institutional profile of Sikhism is conducive to self-employment.

Hypothesis 5. Followers of Sikhism are more likely to pursue entrepreneurial opportunities, and therefore Sikhs have a higher likelihood to be self-employed than Hindus.

3.1.6. Christianity

The institutional profile associated with Christianity encourages self-employment activities. The main denominations of Christianity are Catholicism and Protestantism. Although the existing literature points to differences between the two (Kumar et al., 2011; Minns and Rizov, 2005; Schaltegger and Torgler, 2010), it is likely that they share a large part of their normative and cognitive dimensions. For example, both declarations of Christianity underscore individualism and emphasize action in the present. Pope John Paul II affirmed the role of entrepreneurs and their work in *Centesimus Annus* (Percy, 2010). The entrepreneur appears in both the Old and New Testaments, and "he and his behavior are met with approval" in the New Testament (Percy, 2010, p.6). In Protestantism, "enterprise by its very nature is ethical" (Carr, 2003, p.7). Weber claimed that Protestantism developed a work ethic that is conducive to capitalism (Weber, 1905). Thus, Christianity gives rise to an institutional profile that is conducive to self-employment activities by encouraging individualism and initiative, and affirming the role of entrepreneurs.

Hypothesis 6. Followers of Christianity are more likely to pursue entrepreneurial activities, and therefore Christians are more likely to be self-employed than Hindus.

3.2. Social class and self-employment

A compelling body of literature suggests that religion plays an important role in social stratification. For example, religion is associated with social class structures in America (Davidson and Pyle, 2011). In the Indian context, Hinduism is linked to social

stratification in the form of the caste system. A prominent characteristic of social structures is their hierarchical nature. As Berreman (1960, pp. 122–123) states, "In both the United States and India, high castes maintain their superior position by exercising powerful sanctions, and they rationalize their status with elaborate philosophical, religious, psychological, or genetic explanations." *Social dominance theory* suggests that social hierarchies play an important role in shaping the dynamics between different social groups (Sidanius and Prato, 1999; Sidanius et al., 1992). As Sidanius et al. (1994, p.339) suggest, "Complex social systems are inherently group-based, caste-like hierarchies consisting of at least two social groups, a hegemonic or dominant group at the top and one or several subordinate groups at the bottom". Pratto et al. (1994) refer to these non-egalitarian beliefs of dominant social groups as *social dominance orientation*. For example, in Israel, Ashkenazim are found to have a higher social dominance orientation than Mizrachim (Levin et al., 1998), and in the United States, European and Asian Americans are found to have higher social dominance orientation than Latinos and African Americans.

Consistent with the social dominance theory, individuals belonging to social classes lower in the social hierarchy may be subject to social and economic discrimination. This results in strong social boundaries, as "individuals with similar backgrounds and interests tend to associate with one another, rather than with people having dissimilar backgrounds, thus generating social networks characterized by low diversity" (Kim and Aldrich, 2005, p. 93). Strong social boundaries reinforce the negative impact of belonging to a lower social class by limiting access to social capital, defined as the "resources available to people through their social connections" (Kim and Aldrich, 2005, p.58). Entrepreneurs rely on financial help from family members and friends, and this is particularly true when households have limited access to formal financial services (Cole et al., 2011; Honohan, 2008). For members of lower social classes, limited access to finance and information becomes self-sustaining, because of strong intra-class externalities (Bönte and Filipiak, 2012). For example, while high caste entrepreneurs in India are able to overcome failure through the support of caste groupings, low caste entrepreneurs are unable to do so (Shivani et al., 2006). For these reasons, the total effect of being a member of a socially lower class on self-employment is expected to be negative.

Hypothesis 7. Individuals belonging to social classes lower in the social hierarchy are less likely to be self-employed when compared to individuals belonging to social classes higher in social hierarchy.

3.3. The Indian context

India is well suited to examine the relationship between religion, social class, and self-employment for several reasons: firstly, India is a large country where people tend to be deeply religious and many religions have existed here for a long period. According to Uppal (2001, p. 20), "The people of South Asia are deeply religious and all facets of their lives including their endeavors to achieve material advancement are affected greatly by religious beliefs and values". Secondly, the presence of the caste system, one of the most rigid forms of social class structure found in the world, allows us to examine the role of social class for entrepreneurial choice. Caste can be identified empirically, while the heredity of caste ensures that it is exogenous. This allows us to estimate the impact of social class on entrepreneurial choice without problems of reverse causality. Thirdly, because including multiple countries makes it difficult to disentangle the effect of religion from other possible fundamental determinants of self-employment that vary across countries, like legal systems, examining the relationship between self-employment and religion within the context of a single country addresses these important concerns. Here, we present some unique aspects of the religions discussed in Section 3.1 for the Indian context, and extend the theory on social class to one of the most prominent and rigid social hierarchies found in the world, the caste system.

The main religions of India are Hinduism, Islam, Christianity, Buddhism, Jainism, and Sikhism. Hinduism is the largest religion in India, and has played an important role in shaping the social and cultural context. Hinduism is closely associated with the origin of the social institution of caste system, which refers to the classification of individuals into different classes, categories, or castes. India has the third largest population of Muslims in the world, and Islam is the second largest religion in India. In civil matters relating to inheritance, religious properties, and marriage, the Indian legal system gives precedence to the *Sharia* law. Thus, the regulatory profile facing Muslims in India is slightly different from the regulatory profile facing individuals of other religions.

The Christian community in India has a large number of converts from lower caste Hindus and, according to some estimates, more than 70% of all Christians are converts from lower caste Hindus (Henderson, 2002). The majority of Christians in India are Catholics. The Jains are the most literate group in India, according to the 2001 census. Max Weber (1958) stated that "their wealth was also famous: formerly it has been maintained that more than half of the trade of India passed through their hands" (Weber, 1958, p. 120). Buddhism and Sikhism have close links with Hinduism. The founders of both the religions were Hindus. Gautam Buddha, the founder of Buddhism, and Gurunanak Dev, the founder of Sikhism, established religions that do not accept the hierarchical social class structure of the caste system.

The caste system is one of the most prominent social class structures in the world. It can be viewed as an extremely rigid form of the social class structures found in many societies. A fundamental difference between race or ethnicity based and caste-based identities is that caste does not depend on the color of the skin (Deshpande, 2005). However, as Berreman (1960, p. 127) suggests, "Many writers who have contributed to the vast literature on the caste system in India have emphasized its unique aspects and ignored or denied the qualities it shares with rigid systems of social stratification found in other societies." A compelling body of literature argues that the caste system shares many qualities with rigid systems of social stratifications found around the world (Berreman, 1960; Donoghue, 1957). Scholars have found caste systems or caste groups in Arabia, Polynesia, Africa, Guatemala, and

Japan (Berreman, 1960). Elements of the caste system like the superiority of some castes are found in social hierarchies around the world.

Historically, Hindus were classified into four major castes. Individuals' occupations determined their caste and, like religion, their caste affiliation was passed on to their descendants. *Brahmins* were scholars, priests, and advisors to kings. They were the intelligentsia of the community. *Kshatriyas* were kings and noblemen. Their duties involved administration and protection of the community from enemies. *Viashyas* were traders, businessmen, and entrepreneurs. Artisans, peasants, and people of unskilled occupations were classified as *Shudras*. Finally, ostracized people were called *Pariahs*, or untouchables. The social hierarchy has Brahmins at the helm followed by the Kshatrias, the Viashyas, the Shudras, and the Pariahs. In the sociological discourse on the Indian caste system (Revankar, 1971; Srinivas, 1957), Brahmins, Kshatrias and Viashyas are referred to as forward classes (higher castes), and Shudras and Pariahs are referred to as backward classes (lower castes). Although the Indian government abolished some aspects of the caste system, like untouchability, it remains formidable and imposing in practice. There remains a heated public debate in India regarding the impact of the caste system on the economic status of what is widely referred to as the "backward classes".

Consistent with the social dominance theory, when backward class individuals are compelled to believe that it is socially unacceptable for them to start businesses, they may perceive self-employment as inappropriate. This may lead to caste-based differences in self-employment. As Hutton (1946, pp 97–98) states, "From the point of view of the individual member of a caste the system provides him from birth with a fixed social milieu from which neither wealth nor poverty, success nor disaster can remove him, unless of course he so violates the standards of behavior laid down by his caste that it spews him forth—temporarily or permanently. He is provided in this way with a permanent body of associations which controls almost all his behavior and contacts". Weber claimed that the impact of the caste system on the economy is essentially negative (Medhora, 1965).

The institutional profile associated with the caste system is not conducive to individuals from backward classes becoming self-employed entrepreneurs. By shaping the subjective norms, the caste system exerts social pressure on backward class individuals not to enter into self-employment. Munshi and Rosenzweig (2006) examined the influence of the caste within the context of an educational choice model in Bombay. They found that lower caste boys are more likely to study in schools where the medium of instruction is the local language, and not English. This is very likely to lead them into traditional occupations as defined by the caste structure. As Munshi and Rosenzweig (2006, p. 1230) note, "caste networks might place tacit restrictions on the occupational mobility of theirs members to preserve the integrity of the network" and "such restrictions could result in dynamic inefficiencies when the structure of the economy changes".

The underlying system of values linked to a specific group or society shapes the development of certain personality traits (Mueller and Thomas, 2001). If the caste system restricts the development of personality traits that are necessary for entrepreneurship, it may inhibit self-employment. Furthermore, Bönte and Filipiak (2012) find that individuals belonging to backward classes tend to have a lower level of financial literacy than individuals belonging to forward classes. As cognitive development associated with financial literacy is important for self-employment, this may have a negative impact on their willingness to become self-employed. Following Hypothesis 7, Hindus belonging to socially backward classes are less likely to be self-employed when compared to Hindus belonging to socially forward classes.

4. Methods

4.1. Data and variables

The main source of data to link religion and social class to self-employment are the National Sample Survey Organization (NSSO) of India. We used the NSSO's 60th round Employment-Unemployment Survey. This household level survey was conducted in 2004. Almost three hundred thousand individuals in sixty thousand households were questioned about their economic status, religious affiliation, and personal background. The households were selected based on a stratified sampling methodology.

Since the focus of this paper is on economically active individuals, the analysis considers only those who reported to being self-employed, including own account workers and employers, salaried employees, and casual laborers. For similar reasons, the sample was restricted to those who were older than 15 years, but younger than 70 years. Children and the elderly, family members who assist household enterprises, as well as people classified into other miscellaneous occupational categories were excluded from the analysis. This resulted in a sample of 82,438 individuals. During the estimations, 465 individuals were dropped due to missing values of some of the variables, and the final sample consisted of 81,973 individuals. The questionnaire has an extensive set of questions relating to the characteristics of the individuals, their economic activity, religion, and social class. Table 1 describes the variables in the database, and provides the summary statistics of the variables in the weighted sample.

4.1.1. Dependent variable
The dependent variable is the primary occupation of an individual. This variable assumes the values "self-employment", "salaried employment", and "casual labor". In the database, 40.38% are self-employed individuals, 20.19% are salaried employees, and 39.43% are casual laborers.

The high level of self-employment in the Indian economy is attributable to the absence of large-scale industrialization in many regions. Prior to the economic liberalization in 1991, domestic competition levels were low, and the state was the main employer. A number of products were reserved for small-scale industry production to encourage entrepreneurship and self-employment. This resulted in a large number of small firms and a high level of self-employment. Necessity entrepreneurship is another potential

Table 1
Variable descriptions and summary statistics.

Variables		Description	Mean (weighted)
Dependent:			
Primary occupation	Self employed	The dependent variable is the primary occupation of the individual which	40.38%
	Salaried employee	can be self-employment, salaried employment or casual labor.	20.19%
	Casual labor		39.43%
Independent:			
Religion	Hinduism	1 if the individual is a Hindu, 0 otherwise	84.62%
	Islam	1 if the individual is a Muslim, 0 otherwise	10.42%
	Christianity	1 if the individual is a Christian, 0 otherwise	2.30%
	Sikhism	1 if the individual is a Sikh, 0 otherwise	1.58%
	Jainism	1 if the individual is a Jain, 0 otherwise	0.21%
	Buddhism	1 if the individual is a Buddhist, 0 otherwise	0.88%
Social class (in Hinduism)	Backward class (ST)	1 if the individual belongs to backward classes Scheduled Tribes, 0 otherwise	10.16%
	Backward class (SC)	1 if the individual belong to backward classes Scheduled Castes, 0 otherwise	24.21%
	Backward class (OB)	1 if the individual belongs to other backward classes, 0 otherwise	41.11%
	Forward class	1 if the individual belongs to forward classes, 0 otherwise	24.51%
Controls:			
Education	Secondary school or less	1 if education is less than secondary school, 0 otherwise	78.52%
	High school	1 if education is high school, 0 otherwise	13.76%
	University	1 if education is university, 0 otherwise	7.72%
Demographics	Age	Age in years	37.33
	Age std. dev	Standard deviation of age	12.63
	Agesq/100	Square of Age/100	15.53
	Agesq/100 std. dev	Standard deviation of Agesquare/100	10.12
	Male	1 if male, 0 otherwise	79.52%
	Female	1 if female, 0 otherwise	20.48%
	Unmarried	1 if unmarried, 0 otherwise	15.58%
	Married	1 if married, 0 otherwise	84.42%
Location	Rural	1 if located in a rural region, 0 otherwise	73.60%
	Urban	1 if located in an urban region, 0 otherwise	26.40%
	State dummies	35 state dummies. 1 for the state the individual lives in, 0 otherwise.	
Wealth	Land1	1 if the individual has no land, 0 otherwise	23.61%
	Land2	1 if the individual has land but less than 2 hectares, 0 otherwise	69.37%
	Land3	1 if the individual has land but more than 2 hectares, 0 otherwise	7.02%
	Consumption Qn	1 if the individual belongs to the consumption quintile Qn, 0 otherwise (n = 1,2,3,4,5)	20%
Industry	Manufacturing	1 if working in manufacturing, 0 otherwise	13.65%
	Agriculture	1 if working in agriculture, 0 otherwise	49.18%
	Trade	1 if working in trade, 0 otherwise	9.98%
	Construction	1 if working in construction, 0 otherwise	8.07%
	Service	1 if working in service sector, 0 otherwise	13.14%
	Public sector	1 if working in public sector, 0 otherwise	5.99%
	N	Sample size	81973
	Weighted N	Weighted sample size	273337825

reason for the high level of self-employment. However, the empirical strategy controls this, and ensures that the results are not because of the prevalence of necessity entrepreneurship.

4.1.2. Independent variables

The independent variables are the different religions and social classes. There are six religion variables that assume a value of 1 if an individual belongs to that particular religion, and assume a value of 0 otherwise. In the sample, 84.62% are Hindus, 10.42% are Muslims, 2.30% are Christians, 1.58% are Sikhs, 0.21% are Jains, and 0.88% are Buddhists. According to the 2001 Census, the religious composition of the population in India is as follows: 80.9% are Hindus, 12.9% are Muslims, 2.4% are Christians, 1.9% are Sikhs, 0.4% are Jains, and 0.8% are Buddhists (Premi, 2004). Thus, the sample corresponds closely with the distribution of religions within the overall population of India. Minor differences between the sample and the census data are attributable to the sample being restricted to economically active individuals.

Consistent with the sociological discourse on India, *Brahmins*, *Kshatriyas*, and the *Viashyas* were classified as forward classes in the database. The remaining Hindu groups were classified as backward classes. The Government of India has determined the groups that have historically belonged to the lower rungs of the caste hierarchy, and through the Constitution of India (Scheduled Castes) Order of 1950 and the Constitution of India (Scheduled Tribes) Order, also of 1950, classified them as Scheduled Castes and Scheduled Tribes. Socially backward castes that were not included in these two lists were grouped together as Other Backward Classes, through the National Commission for Backward Classes Act (NCBC, 1993). Thus, the backward classes are sub-grouped into three categories: the scheduled tribes (ST), scheduled castes (SC) and other backward classes (OB). In the

weighted Hindu subsample, 10.16% belong to the Backward Class (ST), 24.21% belong to the Backward Class (SC), 41.11% belong to the Backward Class (OB), and 24.51% are in the forward classes.

4.1.3. Control variables

We controlled the effects of a number of variables that were likely to have an impact on occupational choice. Parker (2009) presents a broad survey on the role of these important characteristics for self-employment. Empirical research suggests that individuals' personal characteristics, like age, gender, marital status, and education play an important role in influencing self-employment decisions (Block et al., 2012; Evans and Leighton, 1989; Parker, 2009; van der Sluis et al., 2005). Following this stream of literature, we controlled for the effects of age, gender, marital status, and education. The average age of individuals in the sample is 37.33 years. The database consists mainly of married men. In terms of education, 13.76% have education at high-school level and 7.72% have education at university level.

In financial markets that are dominated by traditional banking systems, the ability to offer collateral has a direct impact on individuals' ability to get credit (Bohacek, 2006). Thus, wealth influences the self-employment choices of individuals by easing their financial constraints (Blanchflower and Oswald, 1998). We controlled for wealth using land possessed by the households as a proxy, because the database does not contain any alternate measurements that can be used as a surrogate for wealth. In the database, 23.61% of the individuals have no land, 69.37% have some land (less than 2 hectares), and 7% have more than 2 hectares of land.

To address the potential problem of necessity entrepreneurship driving the empirical results, the position of individuals in the consumption distribution was introduced in the estimations. Individuals in the database belong to one of the five consumption quintiles, Q1 to Q5. Q1 is the lowest consumption quintile (bottom 20% of the consumption distribution) and Q5 is highest consumption quintile (top 20% of the consumption distribution). Together with the land variables, the consumption quintiles ensure that necessity entrepreneurship is not driving the empirical results. Thus, the estimated effects of religion and social class allow ceteris paribus interpretation conditional on these controls, and the results cannot be attributed to extremely poor people choosing self-employment.

We controlled for the industrial sector, as it has an influence on self-employment (Bates, 1995). In terms of the industry sector, 13.65% of the individuals are in manufacturing, 49.18% are in agriculture, 9.98% are in trade, 8.07% are in construction, 13.14% are in the service sector, and 5.99% are in the public sector. We controlled for regional location, as location has an influence on self-employment choice (Blanchflower and Oswald, 1998; Georgellis and Wall, 2000; Robson, 1998). In the sample, 26.40% are located in urban regions, and 73.60% are located in rural regions. Furthermore, India has a federal administrative set-up, and

Table 2A
Correlation matrix (religion).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1)Self-employed	1.00												
(2)Salaried employee	-0.41^*												
(3)Casual labor	-0.66^*	-0.41^*											
(4)Hinduism	-0.04^*	-0.01^*	0.05^*										
(5)Islam	0.05^*	-0.02^*	-0.04^*	-0.80^*									
(6)Christianity	-0.01^+	0.05^*	-0.03^*	-0.36^*	-0.05^*								
(7)Sikhism	-0.00	0.02^*	-0.01^*	-0.30^*	-0.04^*	-0.02^*							
(8)Jainism	0.03^*	0.01^*	-0.04^*	-0.11^*	-0.02^*	-0.01^+	-0.01						
(9)Buddhism	-0.04^*	0.00	0.04^*	-0.22^*	-0.03^*	-0.01^*	-0.01^*	-0.00					
(10)University	-0.04^*	0.32^*	-0.22^*	0.01^*	-0.04^*	0.04^*	-0.00	0.05^*	-0.01^*				
(11)Age	0.25^*	-0.07^*	-0.19^*	0.02^*	-0.04^*	0.02^*	-0.00	0.01^*	-0.00	0.02^*			
(12)Female	-0.20^*	-0.03^*	0.23^*	0.06^*	-0.07^*	0.03^*	-0.04^*	-0.01^*	0.03^*	-0.03^*	-0.05^*		
(13)Urban	-0.05^*	0.39^*	-0.27^*	-0.08^*	0.08^*	0.02^*	-0.00	0.05^*	0.02^*	0.26^*	-0.04^*	-0.07^*	
(14)Land3	0.21^*	-0.06^*	-0.17^*	0.05^*	-0.05^*	-0.02^*	0.03^*	-0.00	-0.01^*	0.02^*	0.10^*	-0.07^*	-0.12^*

$^+ p < 0.05$, $^* p < 0.01$.

Table 2B
Correlation matrix (social class).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1)Self-employed	1.00										
(2)Salaried employee	-0.40^*										
(3)Casual labor	-0.67^*	-0.41^*									
(4)Backward class (ST)	-0.06^*	-0.09^*	0.13^*								
(5)Backward class (SC)	-0.14^*	-0.08^*	0.21^*	-0.19^*							
(6)Backward class (OB)	0.07^*	-0.04^*	-0.04^*	-0.28^*	-0.47^*						
(7)Forward class	0.10^*	0.19^*	-0.25^*	-0.19^*	-0.32^*	-0.48^*					
(8)University	-0.03^*	0.32^*	-0.23^*	-0.08^*	-0.11^*	-0.07^*	0.25^*				
(9)Age	0.25^*	-0.07^*	-0.20^*	-0.04^*	-0.05^*	0.02^*	0.06^*	0.01^*			
(10)Female	-0.21^*	-0.04^*	0.24^*	0.07^*	0.04^*	-0.01^+	-0.08^*	-0.04^*	-0.05^*		
(11)Urban	-0.06^*	0.41^*	-0.27^*	-0.14^*	-0.09^*	-0.04^*	0.23^*	0.27^*	-0.03^*	-0.07^*	
(12)Land3	0.23^*	-0.06^*	-0.18^*	0.01	-0.12^*	0.04^*	0.07^*	0.02^*	0.10^*	-0.08^*	-0.12^*

consists of 28 states and 7 union territories. The 28 states have independent governance institutions and political systems. The federal government directly administers the seven union territories. Each individual in the database is located in one of these 35 regions. To account for the inherent heterogeneity across these regions, we introduced 34 regional dummies in the estimations.

The correlations in Tables 2A and 2B suggest that the independent variables are not highly correlated. In particular, the religion variables are not highly correlated with other independent variables. Because of the large-scale database, some of the correlations are significant. However, the post-estimation variance inflation factors are below the threshold level of 3, and there is no evidence of multicollinearity in the estimations.

Table 3A shows the distribution of occupations across different religions. Consistent with the hypotheses linking religions and self-employment, Jains and Muslims have a greater proportion of individuals in the self-employed category, compared to individuals of other religions. While 67.73% of Jains and 48.22% of Muslims are self-employed, only 20.75% of Buddhists, 39.96% of Sikhs, and 39.62% of Hindus are self-employed. Christians also have a lower proportion in the self-employed group.

Table 3B reports the distribution of occupations across different castes in the Hindu religion. The table shows that there is a significantly lower proportion of Backward Class (ST) and Backward Class (SC) individuals in the self-employed category. Nearly half of all individuals in these backward classes are casual laborers. These descriptive statistics are consistent with the hypothesis that members of the backward classes are less likely to become self-employed.

4.2. Estimation models

We estimated multinomial probit models to link religion, social class, and occupational choice. This approach is preferred to binary choice models like logit or probit, as the binary choice models implicitly merge individuals belonging to the two disparate groups of salaried employees and casual laborers into one category. In some databases, the casual laborers are grouped with self-employed workers, and this exacerbates the problem with necessity entrepreneurship. Thus, by considering casual labor as a distinct group, the multinomial probit analysis mitigates these problems that arise by merging the casual labor group into one of the other two groups. The following regression models are estimated to link occupational choice with religion and social class:

$$Y = \alpha + \beta_1 * \text{Religion} + \beta_2 * \text{Education} + \beta_3 * \text{Demographics} + \beta_4 * \text{Wealth} + \beta_5 * \text{Location} + \beta_6 * \text{Industry} + \varepsilon_1 \qquad (1)$$

$$Y = c + \delta_1 * \text{Social Class} + \delta_2 * \text{Education} + \delta_3 * \text{Demographics} + \delta_4 * \text{Wealth} + \delta_5 * \text{Location} + \delta_6 * \text{Industry} + \varepsilon_2 \qquad (2)$$

Eq. (1) is estimated for all the individuals in the database. Eq. (2) is estimated for the Hindu sub-sample, as the social class structure of caste system is closely associated with Hinduism. Standard errors clustered at household level are used to correct for correlations between the choices made by individuals in the same household. Sample stratification is accounted by using sample weights in the estimations.

The estimation tables present the marginal effects post multinomial probit estimations, as it is easier to interpret the marginal effects than the estimated coefficients. The standard benchmark category for the multinomial probit estimation is the self-employment category. The marginal effects tables allow interpretation without referring to a benchmark category, as the estimated marginal effects are the same whichever benchmark category is chosen for the estimations.

Table 3A
Religion and occupations (cross tabulations).

Religion	Self-employed	Salaried employee	Casual labor	Total
Hinduism	39.62	19.99	40.38	100
Islam	48.22	17.7	34.08	100
Christianity	37.88	33.11	29.01	100
Sikhism	39.96	26.23	33.81	100
Jainism	67.73	30.26	2.01	100
Buddhism	20.75	21.54	57.71	100
Total	40.38	20.19	39.43	100

Table 3B
Social class and occupations in Hinduism (cross tabulations).

Social class	Self-employed	Salaried employee	Casual labor	Total
Backward class (ST)	31.31	8.94	59.74	100
Backward class (SC)	27.28	14.11	58.61	100
Backward class (OB)	43.95	18.2	37.85	100
Forward class	48	33.39	18.61	100
Total	39.62	19.99	40.38	100

5. Empirical results

5.1. Religion and occupations

The empirical results showing the marginal effects from the multinomial probit estimations linking religion and occupational choice are presented in Tables 4–6. In Table 4, a multinomial probit model is estimated to examine the effect of Hinduism on occupational choice by including a dummy that takes the value of one if an individual is Hindu. Consistent with Hypothesis 1, the estimation results show that Hindus are less likely to be self-employed compared to individuals of other religions, and have a higher probability of being salaried employees or casual laborers. In particular, the probability of becoming self-employed is 3.5% less for the followers of Hinduism. In Table 5, the multinomial probit specification is estimated, with "Hinduism" as the base category for the religion variables. The empirical results in Table 5 support the conjecture that, while some religions facilitate entrepreneurship in the form of self-employment, others impede it. Providing support for Hypothesis 2, the coefficient of the Islam variable is positive and statistically significant, and suggests that Muslims are, on an average, 4.5% more likely to be self-employed than Hindus. Consistent with the prediction of Hypothesis 3, the coefficient of the Jainism variable is positive and significant, and suggests that Jains are 25.5% more likely to be self-employed than Hindus. Both Muslims and Jains are significantly less likely to be salaried employees.

As predicted by Hypothesis 4, the coefficient of Buddhism is negative and significant at a 10% significance level. However, the results do not support Hypothesis 5 as the coefficient of Sikhism for self-employment is statistically insignificant. Both Buddhists and Sikhs are more likely to be casual laborers in the Indian context. The coefficient of the Christianity variable is insignificant for self-employment. The results suggest that Christians are more likely to be salaried employees and are less likely to be casual laborers in India.

As the underlying social class structures may potentially influence the results in Table 5, we excluded individuals belonging to the backward classes to isolate the impact of religion on occupational choice. These results, available upon request, are broadly consistent with the results presented in Table 5. In particular, the results confirm that Muslims and Jains are more likely to be self-employed and are less likely to be salaried employees.

The estimated coefficients of the variables included to control for individual characteristics in Tables 4 and 5 are generally consistent with results already well established in the literature. As has been commonly found, the evidence suggests a quadratic relationship between age and the probability of becoming self-employed. In addition, married people are more likely to be self-employed when compared to unmarried individuals. Both higher education and wealth have a positive impact on self-employment choices. The coefficients on consumption quintiles Q2–Q5 are positive and significant for self-employment suggesting that necessity is not driving the empirical results.

5.2. Social class and occupations in Hinduism

The empirical results showing the marginal effects from the multinomial probit estimation linking social class and occupational choice are presented in Table 6. The model is estimated for the Hindu sub-sample, as the social class hierarchy of the caste system is closely associated with Hinduism. The "Forward Class" variable is the base category for the social class variables in the estimation. The results support Hypothesis 7 and suggest that individuals belonging to the lower rungs of the social hierarchy have a significantly lower likelihood of choosing self-employment. In particular, the results suggest that individuals belonging to Backward Class (ST) are 11.4% less likely to choose self-employment, individuals in Backward Class (SC) are 21.9% less likely to choose self-employment, and individuals in Backward Class (OB) are 5.0% less likely to choose self-employment, when compared to individuals belonging to the forward classes. People in Backward Class (SC), Backward Class (ST), and Backward Class (OB) are significantly more likely to be casual laborers.

6. Discussion, limitations and future research

The results strongly support the conjecture that religion and social class influence self-employment. Although a small body of literature has started to examine the role of religion for entrepreneurship, the few articles in this area of scholarly inquiry are equivocal in their findings. Drakopoulou Dodd and Spearman (1998) find that the level of religiosity of British entrepreneurs and non-entrepreneurs is similar, and conclude that religion may not be important for British entrepreneurship. Minns and Rizov (2005) find that Christianity had little role in shaping self-employment in historical Canada. However, more recently, some studies suggest that religion has a positive effect on entrepreneurial activity. In a cross-country study using the Global Entrepreneurship Monitor (GEM) data, Galbraith and Galbraith (2007) find that intrinsic religiosity is positively related to total entrepreneurial activity. Choi (2010) finds that religious institutions like churches act as small business incubators, and enhance ethnic entrepreneurship through social capital in Korean immigrants in Los Angeles.

We make several compelling contributions here. Firstly, using the lens of institutional theory (Bruton et al., 2010; Scott, 1995, 2007), we examine how different religions give rise to institutional profiles that influence entrepreneurship in the form of self-employment. We contribute to the extant literature on self-employment (Parker, 2009) by linking religion and occupational choice. Secondly, although the extant research sheds light on the role of ethnicity and race in entrepreneurship (Aldrich and Waldinger, 1990; Clark and Drinkwater, 1998; Fairlie and Meyer, 1996; Fairlie and Robb, 2007; Fairlie and Robb, 2008), the literature does not examine the role of hierarchical social class structures. We make a novel contribution by showing that social class has an impact on individuals' occupational

Table 4
Hinduism and occupation (*marginal effects after multinomial probit estimation*).

	Self-employed	Salaried employee	Casual labor
Hindu	−0.035***	0.036***	−0.001
	(0.000)	(0.000)	(0.909)
High school	0.121***	0.090***	−0.211***
	(0.000)	(0.000)	(0.000)
University	0.165***	0.164***	−0.329***
	(0.000)	(0.000)	(0.000)
Age	0.016***	−0.001	−0.015***
	(0.000)	(0.531)	(0.000)
Agesq/100	−0.007***	0.000	0.007***
	(0.000)	(0.897)	(0.000)
Female	−0.180***	−0.016***	0.196***
	(0.000)	(0.004)	(0.000)
Married	0.098***	−0.051***	−0.047***
	(0.000)	(0.000)	(0.000)
Urban	0.010	0.095***	−0.105***
	(0.279)	(0.000)	(0.000)
Land2	0.156***	−0.039***	−0.117***
	(0.000)	(0.000)	(0.000)
Land3	0.403***	−0.046***	−0.357***
	(0.000)	(0.000)	(0.000)
Agriculture	0.020*	−0.309***	0.289***
	(0.063)	(0.000)	(0.000)
Trade	0.342***	−0.082***	−0.260***
	(0.000)	(0.000)	(0.000)
Construction	−0.385***	−0.128***	0.513***
	(0.000)	(0.000)	(0.000)
Service	0.052***	0.043***	−0.095***
	(0.000)	(0.000)	(0.000)
Public sector	−0.368***	0.583***	−0.215***
	(0.000)	(0.000)	(0.000)
Consumption Q2	0.047***	−0.010	−0.037***
	(0.000)	(0.250)	(0.000)
Consumption Q3	0.085***	0.004	−0.089***
	(0.000)	(0.653)	(0.000)
Consumption Q4	0.136***	0.030***	−0.166***
	(0.000)	(0.000)	(0.000)
Consumption Q5	0.177***	0.064***	−0.241***
	(0.000)	(0.000)	(0.000)
State dummies	Yes		
Observations			81973
Observations (weighted)			273,337,825
Log Likelihood			−1.770e + 08
χ^2			17284

Notes: Sample weights used in the estimation. *Signifies $p < 0.05$; ** Signifies $p < 0.01$;*** Signifies $p < 0.001$. Standard errors clustered at household level are reported in parentheses. Dependent variable is primary occupation of the individual. Base categories for marital status, education, land dummies, and industry are unmarried, no education, no land, and manufacturing respectively. State level regional dummies are included in the regression.

decisions. Thirdly, while the few extant studies linking religion and entrepreneurship use small databases, we analyze a large-scale, nationally representative database to provide robust empirical evidence linking religion, social-class, and self-employment.

While India is rich in diverse religions, some of them, such as Islam and Jainism, are more conducive to self-employment. The institutional profile associated with Islam strongly supports entrepreneurial activity. For example, Islamic banking models, based on the Koranic principles of risk sharing (Khan, 1996), may encourage even risk-averse Muslims to become self-employed. In Jainism, principles of self-reliance and benevolence to business (Caillat, 1987) give rise to an institutional profile that is conducive to self-employment. By contrast, Hinduism inhibits self-employment by shaping an institutional profile that is not conducive to self-employment choices. The normative pressures on Hindus to choose occupations based on the caste of their birth (Hutton, 1946), and the cognitive beliefs that do not support proactively changing the *status quo* (Singer, 1966; Tripathi, 1992) may discourage self-employment in Hinduism.

Although Christianity is associated with an institutional profile that is conducive to self-employment, it does not have a positive effect on self-employment in the Indian context. This result may be attributed to the large number of individuals from the Hindu backward classes converting to Christianity (Henderson, 2002). Thus, the estimated effect of the Christian religion in India shows the mixed effects of prior learning and new beliefs particularly with regard to the normative and cognitive dimensions of the two religions. The estimated effects of Buddhism and Sikhism show that the followers of these two religions are not different from Hindus when it comes to their self-employment choices. These results are attributable to the close relationship that Buddhism and Sikhism

Table 5
Religion and occupation (*marginal effects after multinomial probit estimation*).

	Self-employed	Salaried employee	Casual labor
Islam	0.045***	−0.051***	0.005
	(0.000)	(0.000)	(0.636)
Christianity	0.030	0.051***	−0.081***
	(0.179)	(0.009)	(0.000)
Sikhism	−0.058	−0.029*	0.087*
	(0.127)	(0.096)	(0.056)
Jainism	0.255***	−0.068***	−0.187**
	(0.002)	(0.000)	(0.039)
Buddhism	−0.067*	−0.010	0.077**
	(0.079)	(0.622)	(0.031)
High school	0.121***	0.088***	−0.209***
	(0.000)	(0.000)	(0.000)
University	0.167***	0.161***	−0.328***
	(0.000)	(0.000)	(0.000)
Age	0.016***	−0.001	−0.015***
	(0.000)	(0.462)	(0.000)
Agesq/100	−0.007***	0.000	0.007***
	(0.000)	(0.830)	(0.000)
Female	−0.179***	−0.017***	0.197***
	(0.000)	(0.002)	(0.000)
Married	0.098***	−0.051***	−0.047***
	(0.000)	(0.000)	(0.000)
Urban	0.008	0.096***	−0.105***
	(0.361)	(0.000)	(0.000)
Land2	0.155***	−0.039***	−0.117***
	(0.000)	(0.000)	(0.000)
Land3	0.403***	−0.046***	−0.357***
	(0.000)	(0.000)	(0.000)
Agriculture	0.022**	−0.311***	0.289***
	(0.042)	(0.000)	(0.000)
Trade	0.342***	−0.081***	−0.260***
	(0.000)	(0.000)	(0.000)
Construction	−0.385***	−0.128***	0.513***
	(0.000)	(0.000)	(0.000)
Service	0.053***	0.042***	−0.095***
	(0.000)	(0.000)	(0.000)
Public sector	−0.367***	0.580***	−0.213***
	(0.000)	(0.000)	(0.000)
Consumption Q2	0.048***	−0.010	−0.038***
	(0.000)	(0.236)	(0.000)
Consumption Q3	0.085***	0.003	−0.089***
	(0.000)	(0.687)	(0.000)
Consumption Q4	0.136***	0.030***	−0.166***
	(0.000)	(0.000)	(0.000)
Consumption Q5	0.177***	0.063***	−0.240***
	(0.000)	(0.000)	(0.000)
State dummies	Yes		
Observations			81973
Observations (weighted)			273,337,825
Log likelihood			−1.760e + 08
χ^2			17449

have with Hinduism. The founders of both the religions were Hindus and, Buddhism, in particular, shares many of the Hindu values and beliefs (Valliere, 2008).

Consistent with the social dominance theory (Sidanius et al., 1992; Sidanius and Prato, 1999), the social class hierarchy defined by the caste system influences the propensity to become self-employed, and belonging to a social class that is lower in the social hierarchy has a negative impact on self-employment choice because of normative pressures (Dana, 2000; Weber, 1958) and strong social boundaries (Berreman, 1960; Hutton, 1946; Kim and Aldrich, 2005).

A number of important considerations may affect the interpretation of the results. Many studies found that ethnic minorities in developed countries have a higher propensity to be self-employed (Clark and Drinkwater, 1998; Fairlie and Meyer, 1996; OECD, 2010). However, the results presented here cannot be attributed solely to minority effects. We have estimated the regression equations in regions that have a significantly higher proportion of Muslims and Christians. These results, available upon request, are remarkably consistent with the results presented here.

Table 6
Social class and occupation in Hinduism (*marginal effects after multinomial probit estimation*).

	Self-employed	Salaried employee	Casual labor
Backward class (ST)	−0.114***	−0.008	0.122***
	(0.000)	(0.501)	(0.000)
Backward class (SC)	−0.219***	−0.043***	0.262***
	(0.000)	(0.000)	(0.000)
Backward class (OB)	−0.050***	−0.033***	0.082***
	(0.000)	(0.000)	(0.000)
High school	0.115***	0.084***	−0.199***
	(0.000)	(0.000)	(0.000)
University	0.166***	0.151***	−0.318***
	(0.000)	(0.000)	(0.000)
Age	0.015***	−0.001	−0.014***
	(0.000)	(0.319)	(0.000)
Agesq/100	−0.006***	0.001	0.005**
	(0.004)	(0.593)	(0.017)
Female	−0.191***	−0.016***	0.207***
	(0.000)	(0.006)	(0.000)
Married	0.098***	−0.044***	−0.054***
	(0.000)	(0.000)	(0.000)
Urban	−0.007	0.098***	−0.090***
	(0.495)	(0.000)	(0.000)
Land2	0.146***	−0.035***	−0.111***
	(0.000)	(0.000)	(0.000)
Land3	0.399***	−0.045***	−0.354***
	(0.000)	(0.000)	(0.000)
Agriculture	0.051***	−0.329***	0.278***
	(0.000)	(0.000)	(0.000)
Trade	0.362***	−0.083***	−0.280***
	(0.000)	(0.000)	(0.000)
Construction	−0.374***	−0.125***	0.499***
	(0.000)	(0.000)	(0.000)
Service	0.079***	0.034***	−0.113***
	(0.000)	(0.000)	(0.000)
Public sector	−0.339***	0.562***	−0.223***
	(0.000)	(0.000)	(0.000)
Consumption Q2	0.036***	−0.006	−0.031***
	(0.002)	(0.547)	(0.006)
Consumption Q3	0.072***	0.006	−0.077***
	(0.000)	(0.534)	(0.000)
Consumption Q4	0.123***	0.041***	−0.164***
	(0.000)	(0.000)	(0.000)
Consumption Q5	0.149***	0.070***	−0.219***
	(0.000)	(0.000)	(0.000)
State dummies	Yes		
Observations			65801
Observations (weighted)			231,275,927
Log likelihood			−1.440e + 08
χ^2			14885

In the estimations, we controlled for geographic location by introducing state level dummies in the models. As the regions are administered under the same policy regimes, we do not expect the results to change dramatically if we introduce more fine-grained regional variables. Each state is further divided into districts and, in total, there are more than 600 districts in India. Estimating these models and the corresponding marginal effects is computationally intensive. We have nevertheless estimated the first model with the district dummies, and found that the results do not change. These results are available upon request.

Although the results presented above are robust to alternate specifications and empirical approaches, there are certain limitations that future research can address. While this study presents a conceptual framework linking religion to self-employment using institutional theory, we were unable to directly test empirically the link between the regulatory, normative, and cognitive pillars of different religions and self-employment choices. However, we empirically examine reduced form relationships between religion, social class, and self-employment choices. Future research can, therefore, extend the reduced form results presented here, by explicitly linking religions' institutional profiles and occupational outcomes.

The database does not have information on individuals belonging to religions like Judaism and Confucianism, nor to the different religious sects of Christianity and Islam. Future research can expand the scope of this research by including more world religions and their sub-sects. The database has information about religious affiliation, but it does not have information on how religious the individuals are. The analysis implicitly assumes that the individuals belonging to different religions practice those religions. Furthermore, we were

unable to examine if entrepreneurial choice makes individuals more or less religious. Future research can address these compelling issues.

Many societies have social hierarchies similar to the caste system. Certain elements of the Indian caste system, like the superiority of some groups, are found in social hierarchies in other societies. Social dominance orientation refers to these non-egalitarian beliefs of dominant social groups. The paper does not explicitly explore the role of social dominance orientation for entrepreneurial choice. This is a promising area for future research.

It can be argued that resource dependence provides an alternative explanation for the results. For example, the Jain community in India is widely known to be highly literate and wealthy. Similarly, the socially backward class individuals may be constrained by limited financial and social resources. In the Indian context, the experience of socially backward class individuals mirrors the discrimination based on race and ethnicity in some countries. The large array of controls for education and wealth should be able to control for these effects to a considerable extent. However, it is important that future research examines the mediating role of resource dependence on the link between religion and occupation.

For controlling the problem of necessity entrepreneurship, land ownership measures and consumption quintiles were introduced in the estimations. However, there are some limitations of these measures. For example, individuals with large amounts of land may become self-employed because they are unwilling to work for others. Similarly, if lower consumption is a lifestyle choice, it may not necessarily mean that the individuals are acting out of necessity.

Furthermore, we do not have information on psychological variables like individual risk aversion and locus of control (McCelland, 1961), which have an important role in occupational decision-making. This may result in an omitted variable bias. Most studies on self-employment choice have this limitation, and future research should offer more insights by using richer databases. The effects of variables like wealth should be interpreted with caution, as it is difficult to draw causal conclusions due to potential reverse causality and the cross-sectional nature of the database. However, since religion and social class variables are exogenous, this limitation is not particularly relevant to the estimated impact of these variables for occupational choice. Nonetheless, religious conversions can bias the results by mixing the effects of multiple religions on occupational outcomes. In this context, although some individuals might have switched religions, we are unable to identify the motivation and timing of such shifts. Future research can address this limitation by tracking the timing and the motivation of religious conversions, and the impact religious conversions have on entrepreneurial choice.

Future research can also investigate whether these phenomena are geographically bounded, or exert their influence even after individuals migrate to other geographic locations. By investigating these important issues, and by referring to other aspects of entrepreneurial behavior and activity, future research can expand the scope of the current discussion on the role of religion and social class for entrepreneurship.

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