

Chapter 3

Comparing secularization worldwide

The theory developed in this book argues that the erosion of religious values, beliefs and practices is shaped by long-term changes in existential security, a process linked with human development and socioeconomic equality, and with each society's cultural legacy and religious traditions¹. To clarify the core propositions, outlined earlier in Figure 1.1, we hypothesize that the process of societal modernization involves two key stages: (1) the transition from agrarian to industrial society, and (2) the development from industrial to postindustrial society. We argue that economic, cultural, and political changes go together in coherent ways, so that growing levels of existential security bring broadly similar trajectories. Nevertheless situation-specific factors make it impossible to specify exactly what will happen in any given society: certain developments become increasingly likely to occur, but the changes are probabilistic, not deterministic. The modernization process reduces the threats to survival that are common in developing societies, especially among the poorest strata; and this enhanced sense of security lessens the need for the reassurance provided by religion. The most crucial precondition for security, we believe, is *human* development even more than purely *economic* development: it involves how far all sectors of society have equal access to schooling and literacy, basic healthcare, adequate nutrition, a clean water-supply, and a minimal safety-net for the needy. Some developing countries have substantial national incomes derived from mineral and oil reserves, but many inhabitants remain illiterate, malnourished or impoverished, due to social inequality, greedy elites, and governmental corruption. Private affluence can coexist with public squalor, and wealth alone is insufficient to guarantee widespread security.

Our theory is not deterministic or teleological. Even in affluent stable democracies, people can feel suddenly vulnerable from natural or man-made disasters, severe economic downturns, or personal tragedies. Within rich nations, certain sectors remain most at risk, typically the elderly, as well as poorer groups and ethnic minorities. Moreover, we agree with religious market theorists that contingent factors can also affect patterns of religiosity in particular contexts; the charismatic appeal of specific spiritual leaders can convert or mobilize their congregation, while conversely states can repress or persecute religious expression, as in China. In the long term and in global perspective, however, our theory predicts that the importance of religion in people's lives will gradually diminish with the process of human development. Moreover it does so most dramatically during the *first* stage of human development, as nations emerge from low-income agrarian economies into moderate-income industrial societies with basic welfare safety nets safeguarding against the worst life-threatening risks; and, for reasons discussed in chapter 1, this process does not reverse itself, but becomes less pronounced during the second stage, with the rise of postindustrial societies.

Secularization is also shaped by the spiritual and theological beliefs emphasized by each society's predominant religious culture. Denominations and sects adhere to specific ideas, teachings, and

texts, for example distinguishing Unitarianian and Mormon Christians, Shi'a and Sunni Muslims, and Theravada and Mahayana Buddhists. These creeds are expected to operate at both specific and diffuse levels. Members who belong to, and identify with, particular faiths and denominations will hold the core beliefs most strongly. But we also anticipate that, at diffuse level, everyone living within a community will also be influenced by the predominant religious traditions within each society, through the shared public mechanisms of cultural socialization, including schools, universities, and the mass media, even if they never set foot in a church or participate in any particular religious service. We expect the central ideas embodied in the teachings in world religions will have their greatest impact upon those belonging to these faiths, although a fainter imprint from these ideas will be detectable among everyone living within each society. For this reason, for example, Muslims minority populations in Tanzania, Macedonia, and India, are expected to hold different moral values, political ideas, and religious beliefs from Muslims living in Iran, Egypt, and Indonesia, all predominant Islamic states.

Evidence of religious behavior

Previous studies of long-term trends in religious participation have commonly monitored the historical records of Catholic and Protestant churches in Western Europe, such as diocesan reports, membership records, and church rolls of baptisms and marriages, as well as official statistics derived from government censuses and general household surveys. During the postwar era, these sources have been supplemented by data derived from opinion polls and representative social surveys. Here patterns of religious participation are examined through survey data by looking at (i) *cross-national comparisons* across many societies found today at different levels of development, as well as by considering (ii) *longitudinal trends* in participation and beliefs in a smaller subset of (mainly postindustrial) countries where time-series survey data is available, and lastly (iii) by using *generational comparisons* to detect evidence of intergenerational value change. Secularization is a long-term process extending over many decades, and we do not have the massive time series database that would be needed to demonstrate it conclusively; but if the findings from these multiple approaches all point in the same direction, it increases our confidence in the conclusions to be drawn.

Standard survey measures used to monitor religious behavior include the frequency of attendance at services of worship, engagement in prayer or meditation, membership of churches, groups and religious organizations, and religious self-identities. The primary indicator of religious participation analyzed in this chapter is measured by the standard question that is widely used in the literature: "*Apart from weddings, funerals and christenings, how often do you attend religious services?*" Responses in the World Values Survey ranged on a 7-point scale from '*never*' (scored 1) to '*more than once a week*' (scored 7). Based on this item, '*regular*' religious participation is understood to denote at least weekly attendance (i.e. combining either '*once a week*' or '*more than once a week*'). This item has been carried on all four waves of the WVS, allowing comparisons over time in the sub-set of countries included since 1981, as well as facilitating cross-national comparisons in the most recent 1995-2001 waves. This item

has also been used in many other cross-national surveys, such as the Gallup International Millennium Survey in fall 1999, facilitating an independent check on the reliability of the WVS estimates².

Yet one important limitation of this measure should be noted: Asian faiths such as Buddhism, Confucianism and Shinto differ from Christianity in the notion of congregations, and how often people are expected to attend religious services at churches, mosques, temples, synagogues and shrines, outside of special festivals and ceremonies³. Other forms of individual participation are often regarded as equally or even more important than collective service, such as private contemplation, meditation, and prayer, as well as other rituals, such as alms giving, ancestor worship, or living a spiritual life. Asian religions are characterized by their private practices: membership has little or no meaning, people visit temples or monasteries as individuals or families rather than as collective congregations, and people may patronize more than one temple⁴. In Japan, for example, participation in religious rites at a shrine or temple is more a matter of custom, to commemorate the feast of the dead in August or to make annual visits at the New Year, rather than indicating religious commitment⁵. Indigenous and folk-religions in Africa are also characterized by varied rituals, informal practices and diverse beliefs, often rooted in the sub-cultures of local communities, rather than embodied in formal church organizations. New Age spiritual movements that have developed in recent decades also employ highly diverse practices, such as channeling, meditation therapy or crystals, which are often individualistic rather than collective. Comparing the frequency of attendance at congregations therefore, while common in the Western literature, may generate a systematic bias when gauging levels of engagement across different world religions.

To investigate whether serious bias arises from this measure, religious participation (monitored by the frequency of attending religious service) was compared against a second measure of religious behavior, using a 7-point scale monitoring how often people prayed or meditated outside of religious services. The correlation indicates that both items were significantly associated (at micro and macro-levels) in every type of faith, although the association was strongest, as expected, among Roman Catholics and Protestants⁶. Some Muslim societies, such as Jordan and Egypt, proved more likely to follow the injunction to regular prayers than to engage often in regular services of worship. Religious participation was also significantly associated with religious values (the importance of religion) for different faiths, as well as with having a religious self-identity⁷. This suggests the important proviso that comparison of the frequency of attendance at services of worship may under-estimate levels of engagement among world faiths that do not emphasize this practice, outside of ceremonies, rites of passage, and special occasions. The measure of regular attendance at services of worship is used here for comparability with many previous studies, but we also compare this indicator with the frequency of prayer, as an important alternative measure of religious behavior common in many world religions.

Cross-national patterns of religious behavior

The comparison of religious behavior is summarized in Table 3.1 and Figure 3.1, based on the pooled WVS in 1981-2001 in the 74 societies where data was available. Important and striking contrasts

are evident by the basic type of society, in a consistent and significant pattern, with affluent post-industrial nations proving by far the most secular in their behavior and values as well as, to a lesser extent, in their beliefs. Overall almost half (44%) of the public in the agrarian societies attended a religious service at least weekly, compared with one quarter of those living in industrial societies, and only one fifth in post-industrial societies. Nor was this simply the product of the measure used since the propensity to engage in daily prayer showed similar disparities: over half of the population in agrarian societies prayed regularly, compared with only a third of those living in industrial nations, and only one quarter of those in postindustrial states. Both measures, therefore, showed that *religious participation was twice as strong in poorer than in richer societies*. The contrasts were even more marked when it came to the importance of religious values in people's lives: two-thirds of those living in poorer societies regarded religion as 'very important' compared with only one third of those living in industrial nations, and only one fifth of those in postindustrial societies. It is true that religious beliefs are less sharply demarcated by the basic type of society, but even here there are similarly consistent patterns: for example, about two-thirds of the public in postindustrial and in industrial societies expressed belief in God, but the majority in these societies proved skeptical about other metaphysical doctrines, including belief in reincarnation, heaven and hell, and the existence of a soul⁸. By contrast in agrarian societies, however, the majority believed in these ideas.

[Table 3.1 and Figure 3.1 about here]

By any of these measures, therefore, religious participation, values and beliefs remain widespread in poorer developing nations, but today they engage less than the majority of the publics in the most affluent post-industrial societies. Nor is this simply the product of questions, survey design or fieldwork practices in the World Values Survey; a 44-nation survey conducted in 2002 for the Pew Global Attitudes Project confirms stark global contrasts in the personal importance of religion, with all wealthier nations except the United States placing less importance on religion than in poorer developing countries⁹. Similar differences in religiosity among rich and poor societies were also confirmed in the Gallup International Millennium Survey on religion conducted in sixty countries.¹⁰

[Figure 3.2 about here]

Yet there are some important exceptions to these patterns, where specific countries are either more or less religious than would be expected from human development alone. To analyze these cross-national variations in more depth, Figure 3.2 presents the distribution of societies in the core indicators of religious behavior. The scatter gram shows that the religious societies (in the top-right quadrant) include some of the poorest societies in the world, notably Nigeria, Tanzania, Uganda, and Zimbabwe, where about three-quarters of the population or more attend religious services at least weekly, as well as Indonesia, the Philippines, and Bangladesh. But the most religious societies were not confined to Africa and Asia, as the top rankings also include El Salvador, Poland, and Mexico, all with moderate levels of socioeconomic development. Moreover although many of the most religious nations are poor, this

phenomenon is not simply a matter of economic development as there are some striking exception in this category, notably Ireland and the United States, as discussed further in the next chapter¹¹. The most religious category includes predominately Catholic, Muslim, and Protestant societies, as well as some plural cultures divided among multiple faiths.

The moderately religious category in the middle of the scatter gram includes many West European nations, there is no clearly observable pattern allowing us to explain the distribution in terms of a single factor, such as the particular type of society, religious culture, or even world region. Lastly, the most secular states in the bottom-left hand corner include many affluent post-industrial societies such as Denmark, Iceland, Finland, Norway, and Sweden, all sharing a cultural heritage as Protestant Nordic nations with established churches from the Lutheran side of the Reformation, characterized by persistently low, and eroding, levels of church attendance during the last sixty years¹². Japan is also in this category, as well as many of the post-Communist nations, whatever their predominant faith, including (Orthodox) Russia, (Muslim) Azerbaijan, (Catholic) Czech Republic, and (Protestant) Estonia. The Communist state actively repressed religion, including closing Orthodox churches, limiting legal parish activities, persecuting the faithful, and using intensive atheist indoctrination, and this legacy continues to leave a contemporary imprint in Central and Eastern Europe¹³. Chapter 6 goes on to explore whether a religious revival occurred in these regions during the 1990s, following the fall of the Soviet Union, as many suspect, in particular whether the younger generation that grew up under conditions of greater freedom are more religious than their parents and grandparents.

What is the role of societal modernization and human development in this process? To look at this issue more systematically, the two indicators of religious behavior were correlated with a range of standard indicators associated with the process of societal development and human security, without any prior controls. The measures selected for comparison include the UNDP Human Development Index, combining income, literacy and education, and longevity into a single 100-point scale. This measure has been widely used to compare rich and poor nations around the globe, providing a broader indicator of human security and the distribution of basic public goods than economic growth alone. We also compare the separate effect of alternative indicators of economic development (logged per capita GDP in US\$ standardized in purchasing power parity), the proportion of the population living in urban and rural areas, and the GINI coefficient (used to summarize the distribution of income inequality in any society). Education and communication are compared by measures of the level of adult literacy for women and men, gross educational enrollment, and also access to mass communications, including the distribution of television, radios, telephones, and newspapers. The provision of health care is measured using multiple social indicators standardized for population size, including the number of HIV/AIDS cases, infant and child mortality rates, access to an improved water source, immunization rates, and the distribution of physicians. Lastly demographic data includes the annual percentage population growth, the average life expectancy at birth, and the distribution of the population among the young and elderly.

[Table 3.2 about here]

The simple correlations in Table 3.2, without any prior controls, confirm that all the indicators concerning human development, education, healthcare, and population demographics are powerfully and significantly related to both forms of religious behavior, with correlation coefficients (R) ranging from about .40 to .74, depending upon the particular measure used. The extent to which sacred or secular orientations are present in a society can be predicted by any of these basic indicators of human development with a remarkable degree of accuracy, even if we know nothing further about the country. To explain and predict the strength and popularity of religion in any country we do not need to understand specific factors such as the activities and role of Pentecostal evangelists in Guatemala and Presbyterian missionaries in South Korea, the specific belief-systems in Buddhism, the impact of madrassa teaching Wahhabism in Pakistan, the fund-raising capacity and organizational strength of the Christian Right in the US South, the philanthropic efforts of Catholic missionaries in West Africa, tensions over the imposition of Sharia law in Nigeria, the crack-down on freedom of worship in China, or divisions over the endorsement of women and homosexual clergy within the Anglican church. What we do need to know, however, are the basic characteristics of a vulnerable society that generate the demand for religion, including factors far removed from the spiritual, exemplified by levels of medical immunization, cases of AIDS/HIV, and access to an improved water source.

Now establishing correlations at macro-level provide only limited insights into the factors causing these relationships and we should always bear in mind the possibility of reverse causation; it could always be argued that religious participation and the frequency of prayer (both indicators of spiritual values) somehow systematically *cause* countries to develop more slowly. But this hypothesis does not seem very plausible theoretically; there are classic Weberian theories suggesting that Protestant values should matter for the process of industrialization, as examined further in chapter 7. Yet no generally-accepted theory claims that *all* forms of religion deter economic development¹⁴. Nor could such an explanation account satisfactorily for why religiosity should lead towards the diverse range of social indicators used, which are not purely economic, all generating similarly strong correlations, whether we compare rates of medical immunizations, child mortality, or literacy. It could also be argued by critics that a spurious relationship could be at work, with a miss-specified model, so that we may have exaggerated the role of human security in this process. For example, religious beliefs could be undermined primarily by the effect of rising education and growing cognitive awareness on human rationality, as Weberian theory suggests. Since countries with widespread access to schooling, universities, and literacy also usually have higher levels of affluence, healthcare and lower population growth, it is admittedly difficult, if not impossible, to disentangle these effects to isolate the individual impact of existential security per se that we suspect underlies all these factors. But there is no direct correlation at individual level between faith in

science and religiosity. It is true that we do not have a *direct* specific measure of existential security, in part because the manifestation of this phenomenon differs in the specific risks and threats common in different societies; in South Africa, for example, vulnerability of the population to HIV/AIDS has created a national pandemic, while citizens in Columbia face substantial threats from drugs and drug-cartel related crime. In Bangladesh, many peasant farmers face problems of disastrous floods wiping out their homes and farms, while in Eritrea, Rwanda, and Liberia, which were pulled apart by bloody civil wars, the public faced grave risks of becoming a victim of deep-seated ethnic conflict. At the same time, although the type of risks differ, what poorer developing countries share in common are precarious lives vulnerable to insecurity, lacking the basics of health care and food, literacy and a clean water supply, and we believe that these typify the conditions of uncertainty and unpredictability which lead many people towards valuing religion.

Given the much shorter life spans commonly found in poorer and less secure societies, one might expect that demographic trends would lead towards steadily rising levels of secularization around the world. But as we discuss further in the conclusion, the reality is more complex—and culminates in exactly the opposite result. Although poorer societies such as Nigeria, Bangladesh, and Uganda have infant mortality rates of 80 deaths per 1000 live births, compared with rates of 4 deaths per 1000 live births in Sweden, the former countries also have incomparably higher levels of population growth. These factors are linked, we argue, because social vulnerability and lack of human development drives both religiosity *and* population growth. This means that the total number of religious people continues to expand around the globe, even while secularization is *also* taking place in the more affluent nations.

Multivariate analysis at the macro-level provides some additional insight. The theory we have outlined holds that conditions of human security and experience of greater economic equality influence rates of religious participation indirectly, by reducing the importance of religious values in people's everyday lives. A society's predominant type of religious culture may also shape participation through religious beliefs. Table 3.3 tests empirical evidence of the main propositions in this theory using a series of OLS regression analysis models. *Model A* first enters two indicators of societal security, namely the UNDP Human Development index and also the GINI coefficient summarizing the economic inequality in each nation. The dependent variable here is the aggregate-level strength of participation in services of worship for the 56 societies for which complete data is available. Since many aspects of human security are closely interrelated (with greater affluence and the industrialization of the workforce often leading to improvements in health care and education), the other social indicators we have already examined are dropped from the regression models to avoid problems of multicollinearity and to produce a reasonably parsimonious model. *Model B* then adds measures of religious values (the importance of religion, using a 4-point scale). *Models C* and *D* repeat this process with frequency of prayer as the dependent variable, to see whether the main relationships remain robust and consistent.

[Table 3.3 about here]

The first results in Model A show that by itself, without any controls, the level of human development and economic inequality alone explained 46% of the variance in participation in services of worship. But our analytical model, outlined in Figure 1.1, hypothesizes that growing human security influences participation indirectly, by reducing the importance of religious values in each society. Model B therefore adds the measures of religious values, which proved strongly and significantly related to religious participation, and at this stage the index of human development and the GINI coefficient become insignificant in the model. Most importantly, this confirms that human security operates as expected by reducing the importance of religious values, and thereby *indirectly* influencing religious behavior. Moreover the simple model proves highly successful: overall Model B explains over two thirds (66%) of the variance in participation in services of worship in these societies, an impressive amount given the measurement error inherent in cross-national survey research and the data limitations in the analysis. Models C and D repeat this process with frequency of prayer as the key dependent variable and the results are very similar, confirming the findings are robust independent of the specific measure selected for comparison.

Yet we acknowledge that it is always difficult to establish causality conclusively, and in the present case, the massive time series database that would be required to do so is not available. We will simply say that the regression analysis results are fully consistent with our argument that human security, measured here by the process of human development and the degree of socioeconomic equality, has an impact on the priority given to religious values and beliefs, as more affluent and egalitarian societies reduce vulnerability to daily life-threatening risks. These initial models do not take account of many other factors that could plausibly shape the strength and vitality of spiritual life in particular countries, including restriction of religious freedom experienced in China and Vietnam, the role of Pentecostal missionaries in Latin America, the legacy of post-Communist states in Eastern and Central Europe, and the degree of religious pluralism in Protestant Scandinavia and Catholic Europe. Some of these factors are examined further in subsequent chapters. Nevertheless the fairly simple and parsimonious models presented so far, suggests that, among the factors that we have compared cross-nationally, religious values play the strongest role in mobilizing religious participation. And the importance of these values is, in turn, intimately related to patterns of societal modernization, human security, and socioeconomic equality.

The cross-national analysis that we have presented cannot by itself *prove* causation, and it could always be argued that some other unspecified cause is driving human security *and* religiosity. So far, however, no one has come up with a satisfactory explanation of what this other factor might be. What we can do is to rule out the Weberian argument, discussed in Chapter 1, that belief in science and technology has undermined faith in the magical and metaphysical. If the adoption of a rational worldview had played this role then we might expect that those societies with the most positive attitudes towards science would also prove the most skeptical when it came to religious beliefs. Instead, as clearly shown in Figure 3.3, societies with greater faith in science also often have *stronger* religious beliefs. Far from a negative relationship, as we might expect from Weberian theory, in fact there is a positive one. The

publics in many Muslim societies apparently see no apparent contradictions between believing that scientific advances hold great promise for human progress and that they have faith in common tenants of spiritual beliefs, such as the existence of heaven and hell. Indeed the more secular postindustrial societies, exemplified by the Netherlands, Norway and Denmark, prove most skeptical towards the impact of science and technology, and this is in accordance with the countries where there have been the strongest public disquiet expressed about certain contemporary scientific developments such as the use of genetically modified food, biotechnological cloning and nuclear power. Interestingly, again the United States displays distinctive attitudes compared with similar European nations, showing greater faith in both God and scientific progress. Of course the Weberian account could still be valid if the rise of the rational worldview was interpreted as a broader shift in social norms and values occurring during earlier centuries of European history, associated with the gradual spread of education and literacy, and the rise of industrialization and modern technology, rather than reflecting contemporary attitudes towards science. But, as discussed further in Chapter 7, this historical interpretation of the Weberian argument cannot be tested with any contemporary evidence. What the survey data does show is that, rather than a clear trade-off, many people can believe in the beneficial effects of science without apparently abandoning faith in God.

[Figure 3.3 about here]

At this point, let us simply emphasize the consistency of the correlations between human security and secularization, which prove robust regardless of the particular developmental indicator selected from the wide range that are available. Although it does not prove causality, the results are consistent with our argument that religion becomes less central as people's lives become less vulnerable to the constant threat of death, disease and misfortune. As the first stage of modernization progresses, and people escape the Hobbesian condition where life is nasty, brutish and short, they often become more secular in their concerns. To enhance our confidence in our proposed interpretation, we will examine further relevant evidence concerning macro-level time-series trends, generational comparisons, and micro-level comparisons of religiosity by social sectors within nations.

Social Characteristics

So far we have explored some of the primary factors driving religious engagement at macro or societal-level. To explore the data further we can also examine the individual-level background characteristics of religious participants, to determine whether religiosity proves strongest, as expected, among the more vulnerable strata of society. Table 3.4 shows the patterns of regular religious participation in agrarian, industrial and postindustrial societies broken down by the standard social characteristics. In the agrarian societies, religiosity was strong and broadly distributed across most social groups by gender, age, work status, income and marital status, although, as expected, participation was indeed strongest among the least educated and the poorest groups. Since religious participation is so pervasive in all of these developing societies, there may well be a 'ceiling' effect limiting variance in the

data, with most social sectors participating fairly equally. In industrial societies, however, as secular orientations become more widespread, sharper social differences emerge among the residual religious population. Religiosity remains stronger in industrial societies among the more vulnerable populations who are most vulnerable to risks, including among women, the older population, poorer households, the less educated, and the unskilled working class¹⁵. In postindustrial societies, as well, religion is also more pervasive among women than men, and there is a sharp division by age, with the older population twice as likely to attend services regularly as the youngest group (under 30). Nevertheless in these societies the patterns of religiosity by education and class remain mixed and inconsistent¹⁶. Further exploration, discussed in the next chapter, suggests that in postindustrial societies with the sharpest socioeconomic disparities, including in the United States, religion remains strongest among the poorest classes, but these differences diminish in more egalitarian postindustrial societies such as Norway and Sweden.

[Table 3.4 about here]

Two other general observations are important. First, overall the basic type of society has a far greater impact on religiosity than differences by social sector; *all* groups in agrarian societies are more religious than *any* single group in postindustrial societies. In other words, the macro-level factors determining conditions of socio-tropic security in any country are more important than the micro-level predictors of ego-tropic security. We can interpret this pattern as indicating that even the affluent professional classes living in secure gated-communities in Johannesburg, San Paolo, or Lagos, located well away from the shanty-towns and favelas, with deep-pockets for private healthcare, private education and private insurance, cannot insulate themselves and their families entirely from the risks of crime, the threat of violence, and the problems of political instability endemic in society. On the other hand, even political refugees and unemployed first-generation immigrants from Afghanistan, Algeria or Bangladesh now living in Stockholm, Paris, or Manchester, despite encountering serious poverty and discrimination, usually have access to basic public healthcare, state welfare benefits, and schooling for their children. Human security therefore has a diffuse effect upon the whole of society, both rich and poor, which generates the conditions leading towards religiosity. In addition, the evidence shows that the sharpest reduction in religiosity occurs following the first stage of societal modernization, in the shift from agrarian to industrial societies. The second stage is also associated with a modest erosion of religiosity, but this step is far less dramatic. The process of development is not a linear process steadily and continuously generating more secular and secure society. Nor is greater affluence alone sufficient where economic inequalities are severe. Instead it appears that societies become less responsive to the appeals of the metaphysical world when people's lives are lifted out of dire poverty and the life-threatening risks and life in this world become more secure with the complex process of human development.

Trends in religious participation and beliefs

So far we have established that agrarian societies are far more religious than either industrial or postindustrial societies. But cross-sectional analysis cannot *prove* the causality underlying our

interpretation. Is there any longitudinal evidence demonstrating the erosion of religious participation over relatively long periods of time, as suggested by our theory of secularization and existential security? The most extensive available time-series survey evidence is relatively limited in geographic coverage, because surveys about religion were not conducted in most developing nations until recently-- but we can compare trends over recent decades from surveys in many postindustrial societies.

Table 3.5 shows the annual trends in regular (weekly) religious participation in thirteen European societies from 1970 to 2001, based on a comparable 5-point scale measuring attendance at religious services from the Eurobarometer surveys. To monitor the significance and direction of any change over time, models are used where the year of the survey is regressed on the proportion of the population attending weekly religious services in each society. The result of the analysis clearly confirms that a substantial fall in regular attendance has occurred in every society, with negative regression coefficients, and the models demonstrate that this decline proved statistically significant (at the .10 level) in every European society except for Italy. We can monitor trends across the full series of surveys available since 1970 in the six core EU member states (France, Belgium, the Netherlands, Germany and Italy). In these countries, on average about 40% of the public attended church regularly in 1970, with this proportion falling by half in recent years. The predominately Catholic nations saw the greatest shrinkage of their church population, notably the dramatic fall in Belgium, Luxembourg, Spain, although these countries also started from the highest levels of religiosity.

[Table 3.5 about here]

To examine the trends in a broader range of nations (but over a shorter time span), religious participation can be compared in the 22 industrial and postindustrial societies contained in the 1981, 1990 and 2001 waves of the World Values Survey. As in the Eurobarometer surveys, the strongest falls of churchgoing (of over 10 percent over two decades) are registered in Catholic Europe (see in Table 3.6), notably in Ireland, Spain, Belgium and the Netherlands. Six other Catholic societies, including Argentina, France and Canada, experienced more modest erosions. Religious participation in most of the Northern European Protestant nations was extremely low at the start of the series but possibly for this reason, if there is a 'floor' effect, it remains largely stable over these decades in most countries. By contrast only three societies register a modest increase during this period: the United States (+3%), Italy (+8%), and South Africa (+13%). The overall picture confirms one of secular decline in most, although not all, countries, with Catholic churches facing the greatest loss of congregations and emptying church pews.

[Table 3.6 about here]

Therefore the cross-sectional analysis suggests that the strength of religious participation can be predicted with a fair degree of accuracy from contemporary levels of human development, as well as from the strength of religious values and beliefs in any society. Moreover the time-series evidence lends further confirmation to our arguments; where we have survey evidence for many post-industrial and some industrial societies, this demonstrates that religious participation has usually (not everywhere) fallen. The

next chapter demonstrates that in rich nations this erosion has been accompanied by a fall in subjective religiosity, measured by trends in belief in God and in life after death. Any one indicator can be questioned, as the patterns are not always clean-cut; different series start in different periods; and the country coverage remains limited. Nevertheless the time-series evidence examined so far adds great plausibility to story told on the basis of the cross-sectional comparisons.

[Table 3.7 about here]

The only exception to this general pattern of growing secularization in affluent postindustrial societies lies in some evidence that suggests that even if the public in these nations is becoming increasingly indifferent to traditional religious values and collective forms of participation through religious institutions, nevertheless they may not be abandoning all forms of private or individualized spirituality. The systematic survey evidence supporting this argument remains limited, and we lack suitable survey indicators tapping the popularity of beliefs about 'new age' spirituality, with practices such as astrology, yoga and meditation. Nevertheless Table 3.7 examines trends during the last twenty years in one item monitoring how far people often thought about the '*meaning and purpose of life*'. The way that this question is understood remains open to debate, given the wording, and any interpretation also raises important questions about the conceptualization and definition of what exactly constitutes 'religion'. This item may be understood to tap into the search for personal spirituality although it could also simply reflect a more secular search for knowledge and critical reflection. What the results suggest, however, is that even although other indicators of religiosity declined, on this matter in most countries there was a positive shift from the surveys in the early 1980s until the latest survey conducted in either the mid or late-1990s. Growing proportions of the public thought about the meaning of life, according to this benchmark, in affluent nations such as Sweden, Canada and Italy, although this growth was also evident in Argentina and Mexico. If this response can be understood to reflect the search for newer forms of reflection and meditation, and if it perhaps even provides an indirect indicator of the popularity of New Age religiosity, then the fall in traditional church-going does not necessarily mean that the public in affluent nations is turning their back on all forms of spirituality. But this does not mean that the public is supporting religious authorities, church institutions, and established practices in the traditional sense.

Generational comparisons

The last approach that we can use to examine the evidence is generational comparisons, where we break down the cross-sectional data into 10-year birth cohorts. The theory of value change argued here suggests that secular social trends have only a glacial effect on cultural norms, but that, through the socialization process, the experience of the prevailing conditions during the formative years of childhood and early adolescence leave a lasting imprint on people: the religious values held in later life are largely shaped by one's formative experiences. Certain decisive historical events and common experiences also stamp their imprint on a generation. Those growing up during the interwar era in Western nations experienced the dramatic collapse of stocks and savings, mass unemployment and soup kitchens in the

1930s triggered by the Great Depression, followed by the military conflict that engulfed the world at the end of the decade. Given these conditions, the interwar generation in postindustrial societies is likely to prioritize materialist social goals, like the importance of secure and full employment, low inflation, and the underlying conditions for economic growth, as well as traditional views towards religion and support for religious authorities. In contrast the postwar generation in these nations, coming of age during periods of unprecedented affluence, domestic peace, and social stability, are more likely to adhere to secular values and beliefs.

Of course with only cross-sectional survey evidence, rather than numerous waves of cross-sections, or with panel surveys among the same respondents over successive waves, it is impossible to disentangle generational effects from life-cycle effects that may alter attitudes and values as people move from youth to middle age and then retirement¹⁷. As people age they enter different stages of life, and the experience of education, entry into the labor force, the formation of family through marriage and childrearing, and then retirement from the workforce, could each be expected to shape beliefs about religion. Cultural messages conveyed in the mass media, and contact with Church organizations and religious social networks, could also color perceptions about the appropriate norms and practices of religious attitudes and behavior in any community. Significant events could also generate a period effect, exemplified by the impact of the events of 9/11 which the Pew survey estimated boosted churchgoing, at least temporarily, in the United States, or the influence on Catholicism of the Papal encyclical on contraception issued during the 1960s, or deep internal divisions splitting the Anglican church leadership over the ordination of women and homosexuals¹⁸. But there is strong evidence that religious values are learnt early in life, in the family, school and community, as part of the primary socialization process, so that the enduring values of different birth cohorts can be attributed mainly to their formative experiences in childhood and adolescence¹⁹.

[Figure 3.4 about here]

When religious participation is analyzed by birth cohort and by type of society, as illustrated in figure 3.4, the results are clear and consistent. Postindustrial societies show a sharp and steady decline in religiosity from the oldest cohort born in the interwar years down to the postwar cohort, and then a more modest slide down to the sixties generation, before reaching a plateau among the youngest cohort. Among industrial societies there is only a modest slide among the interwar generation, and perhaps a very modest increase detectable among the youngest cohort. And among agrarian societies the pattern across birth cohorts is completely flat plateau and actually shows a slight upwards shift among the sixties cohort. Figure 3.4 makes a crucial point very clear: previous literature (based entirely on data from advanced industrial societies) has found that the young are less religious than the old, which could be interpreted as reflecting an historic decline of religiosity, or which could be interpreted as a life-cycle effect. Critics of secularization prefer the latter interpretation, dismissing any suggestion of historic change and interpreting this finding as reflecting a life cycle effect: "Everyone knows that people naturally

get more religious as they grow older. It's inherent in the life cycle." Figure 3.6 demonstrates that there is *not* any inherent tendency for people to get more religious as they grow older: in agrarian societies, the young are fully as religious as the old. But in postindustrial societies, the young are much less religious than the old-- which seems to reflect historic changes linked with the emergence of high levels of human development, rather than anything inherent in the human life cycle.

As a result of these patterns, a substantial religious gap has developed between societies. If we interpret Figure 3.4 as reflecting a process of intergenerational change, it implies that the most affluent nations have become far more secular over the years, overtaking the (largely ex-communist) industrial societies in this process, and generating a large gap between them and developing societies. The pattern strongly suggests that the religious gap is not due to agrarian societies becoming *more* religious over time, as is often suggested. Their values have remained relatively constant. What has happened instead is that rapid cultural changes in the more affluent societies have shifted their basic values and beliefs in a more secular direction, opening up a growing gulf between them and the less-affluent societies. This phenomenon may sometimes produce a backlash where religious groups and leaders in poorer societies seek to defend their values against the global encroachment of secular values. This phenomenon occurs, we believe, not because the agrarian societies have gradually become more religious over time, but rather because the prevailing values of richer societies have moved apart from traditional norms.

Conclusions

None of the evidence considered in this chapter is sufficient by itself, but if we put together the different pieces of the puzzle through triangulation then the cross-sectional comparisons of many different countries, the available time-series data of trends over time, and the generational comparisons all point in a consistent direction. The evidence strongly suggests that the first stage of societal modernization, as countries move from traditional agrarian communities to the industrial phase, is commonly accompanied by a decline in feelings of personal piety, in expressions of spirituality, and in habitual observances at services of worship. Through human development, as lives become more secure and immune to daily risks, the importance of religion gradually fades away. The consistency of the correlation between religiosity and diverse indicators of human development, whether child mortality rates, educational enrollment, access to improved water, or urbanization, all point in a similar direction. Affluence such as per capita GDP is not sufficient by itself, as the distribution of resources and economic equality plays an important role as well. Vulnerable populations experiencing considerable uncertainty and risk in their lives, and in the lives of their family and community, regard religion as far more important, and therefore participate far more keenly in spiritual activities, than those living without such threats. As lives gradually become more comfortable and secure then people in more affluent societies usually grow increasingly indifferent to religious values, more skeptical of supernatural beliefs, and less willing to become actively engaged in religious institutions, beyond a nominal level of formal religious identities, participation in

symbolic ceremonies of birth, marriage and death to mark life's passages, and enjoyment of traditional holidays.

But despite this general picture, there could well be particular factors influencing particular regions or exceptional countries that fail to confirm to this pattern. We still need to explain some important anomalies to secularization among postindustrial societies, notably the case of the United States. Many observers also commonly suggest that a religious revival has occurred in Central and Eastern Europe with the overturn of the Communist state²⁰. Following the events of 9/11, and the subsequent developments in Afghanistan and Iraq, numerous popular commentators have reported a resurgence of fundamentalist parties, extremist religious groups, and ethno-religious conflict within the Muslim world. It is to these issues that we now turn.

Table 3.1: Religiosity by type of society

	Agrarian	Industrial	Postindustrial	Eta	Sig
RELIGIOUS PARTICIPATION					
Attend church at least weekly	44	25	20	.171	**
Pray 'every day'	52	34	26	.255	***
RELIGIOUS VALUES					
Religion 'very important'	64	34	20	.386	***
RELIGIOUS BELIEFS					
Believe in life after death	55	44	49	.229	*
Believe that people have a soul	68	43	32	.169	***
Believe in heaven	63	45	44	.094	*
Believe in hell	59	36	26	.228	***
Believe in God	78	72	69	.016	N/s

Notes: Significance ***=.001 **=.01 *=.05 N/s not significant

Religious participation: "Apart from weddings, funerals and christenings, about how often do you attend religious services these days? More than once a week, once a week, once a month, only on special hold days, once a year, less often, never or practically never." The percentage attending religious services 'more than once a week' or 'once a week'.

Frequency of prayer: Q199: "How often do you pray to God outside of religious services? Would you say...Every day (7), more than once a week (6), once a week (5), at least once a month (4), several times a year (3), less often (2), never (1)." The percentage 'every day'.

Religious values: Q10 "How important is religion in your life? Very important, rather important, not very important, not at all important?" The percentage 'very important'.

Religious beliefs: "Which, if any, of the following do you believe in? Yes/No." The percentage 'yes'.

Source: World Values Survey/European Values Survey pooled 1981-2001

Table 3.2: Human security and religious behavior

Indicators	Religious participation R Sig	Frequency of prayer R Sig	Nations N.
SOCIOECONOMIC DEVELOPMENT			
Human Development Index 2001 (UNDP 2003)	-.530***	-.530***	73
GINI coefficient for income inequality, latest year (WDI 2002)	.426**	.530**	59
Logged per capita GDP (in \$US PPP), 2000 (WDI 2002)	-.469***	-.512***	67
% Urban population, as % of total, 2000 (WDI 2002)	-.451**	-.490**	65
% Rural population, as % of total, 2000 (WDI 2002)	.452**	.493**	65
EDUCATION AND COMMUNICATIONS			
Adult illiteracy rate, 1998 (UNDP 2000)	.406**	.522**	73
Education (Gross enrollment ratio) 1998	-.487***	-.435***	73
Access to mass communications (% TV, radio, telephones, mobile telephones, newspapers, and the Internet).	-.533***	-.468***	59
HEALTH CARE			
AIDS cases (per 100,000 people), 1997	.403***	.375***	67
Infant mortality rate, under 12 months per 1000 live births 2000 (WDI 2002)	.600***	.562***	62
Child mortality rate, under-5 years, per 1000 live births 2000 (WDI 2002)	.604***	.608***	64
Access to an improved water source (% pop) (WDI 2002)	-.481**	-.507*	43
Immunization (against measles, % of children under 12 months) (WDI 2002)	-.583**	-.455**	64
Doctors (per 100,000 people), 1993 (UNDP 2001)	-.582***	-.708***	66
DEMOGRAPHICS			
Population growth (annual %) (WDI 2002)	.548***	.742***	65
Life expectancy at birth, total years, 2000 (WDI 2002)	-.535***	-.454***	64
Population ages 0-14 (% of total) (WDI 2002)	.607***	.722***	64
Population ages 65 and above (% of total) (WDI 2002)	-.557***	-.743***	64

Notes: The figures show the simple correlation (without any controls) and significance. ***=.001 **=.01 *=.05

Religious participation: “*Apart from weddings, funerals and christenings, about how often do you attend religious services these days? More than once a week (7), once a week (6), once a month (5), only on special hold days (4), once a year (3), less often (2), never or practically never (1).*” Scaled 1-7.

Frequency of prayer: Q199: “*How often do you pray to God outside of religious services? Would you say...Every day (7), more than once a week (6), once a week (5), at least once a month (4), several times a year (3), less often (2), never (1).*” Scaled 1-7.

Indicators of human security: United National Development Program. 2003. *World Development Report*. New York: UNDP/Oxford University Press; WDI: *World Development Indicators* World Bank 2002

Table 3.3: Explaining religious behavior

	Religious participation								Frequency of prayer							
	Model A: Security				Model B: Security+values				Model C: Security				Model D: Security+values			
	b	s.e.	Beta	Sig.	B	s.e.	Beta	Sig.	b	s.e.	Beta	Sig.	B	s.e.	Beta	Sig.
SOCIETAL SECURITY																
Level of human development (HDI)	4.27	.85	.28	***	1.23	.86	.16	N/s	4.05	1.3	.44	***	.889	.55	.10	N/s
Levels of economic inequality (GINI coeff.)	.027	.01	.25	*	.000	.01	.01	N/s	.050	.02	.35	**	.005	.01	.03	N/s
RELIGIOUS ORIENTATION																
Religious values (4-point scale)					1.19	.211	.701	***					2.18	.14	1.05	***
Constant	6.23				1.29				5.94				2.34			
Adjusted R²	.464				.667				.42				.925			

Notes: The models use ordinary least squares regression analysis. In Models A and B the dependent variable was the mean frequency of attendance at services of worship, measured on a seven-point scale from 'never' to 'at least weekly', analyzed at macro-level. In Model C and D the dependent variable was the frequency of prayer, measured on a 7-point scale at macro level. The columns represent the unstandardized beta coefficients (b), the standard error (s.e), the standardized betas (B), and the significance of the coefficients. All items were checked to be free from problems of multicollinearity using tolerance statistics.

Human Development Index (HDI): UNDP index 2001 based on longevity, literacy and education, and per capita GDP (in PPP). UNDP *Human Development Report 2003*. New York: UNDP/Oxford University Press.

GINI coefficient: This measures the extent to which the distribution of income among households within a society deviates from a perfectly equal distribution. It ranges from perfect equality (0) to perfect inequality (100). World Bank. *World Development Indicators 2002*.

Religious values: "How important is religion in your life?" Very (4), rather (3), not very (2) or not at all (1).

Religious participation: "Apart from weddings, funerals and christenings, about how often do you attend religious services these days? More than once a week (7), once a week (6), once a month (5), only on special hold days (4), once a year (3), less often (2), never or practically never (1)." Scaled 1-7.

Frequency of prayer: Q199: "How often do you pray to God outside of religious services? Would you say...Every day (7), more than once a week (6), once a week (5), at least once a month (4), several times a year (3), less often (2), never (1)." Scaled 1-7.

Source: World Values Survey pooled 1981-2001

Table 3.4: Social characteristics of religious participation

	Agrarian	Industrial	Postindustrial	All
All	49	25	22	28
Sex				
Women	49	26	26	30
Men	49	22	18	26
Age group				
Younger (Under 30 years old)	49	22	15	26
Middle (30-59 years old)	47	23	21	26
Older (60+ years old)	47	29	35	34
Education				
Low education	55	34	21	36
Medium education	47	23	16	28
High education	48	22	24	28
Employment status				
In paid work	49	29	26	27
Income				
Lowest income deciles	56	30	22	34
Highest income deciles	45	17	22	26
Social Class				
Manager/professional	52	22	23	28
Lower middle	46	22	17	22
Skilled working	42	21	17	23
Unskilled working	52	30	19	31
Marital and family status				
Married	49	24	23	28
With children	48	25	23	29

Note:

Religious participation: “*Apart from weddings, funerals and christenings, about how often do you attend religious services these days? More than once a week, once a week, once a month, only on special hold days, once a year, less often, never or practically never.*” The percentage attending religious services ‘more than once a week’ or ‘once a week’.

Source: World Values Survey pooled 1981-2001

Table 3.5: Decline in religious participation, EU 1970-1998

	<i>France</i>	<i>Belgium</i>	<i>Netherlands</i>	<i>Germany</i>	<i>Italy</i>	<i>Lux</i>	<i>Denmark</i>	<i>Ireland</i>	<i>Britain</i>	<i>N. Ireland</i>	<i>Greece</i>	<i>Portugal</i>	<i>Spain</i>
1970	23	52	41	29	56								
1971	27	58	49	39	58								
1973	19	38	33	22	48	48	5	91	16				
1975	22	45	44	26	39	44	6	93	8	59			
1976	23	45	45	30	37	40	6	93	17	60			
1977	22	50	48	26	37	42	5	91	17	56			
1978	18	45	45	23	36	39	5	90	10	64			
1980	14	38	31	21	37	41	5	91	9	69			
1981	13	36	29	20	35	36	7	91	7	59	27		47
1985	12	27	24	19	37	32	6	88	8	58	26		
1988	13	31	36	19	42	30	6	85	7	61	24	39	34
1989	14	29	34	18	44	28	4	83	10	60	21	40	31
1990	13	30	36	21	46	32	4	85	13	62	24	42	35
1991	10	24	35	19	46	28	4	82	13	61	24	39	33
1992	9	22	22	17	43	29	3	79	6	54	26	33	27
1993	12	27	33	15	45	27	4	81	7		25	31	33
1994	11	27	28	16	41	22	3	77	12		24	37	36
1998	5	10	14	15	39	17	4	65	4	46	21	30	20
Beta	-0.620	-1.290	-0.780	-0.589	-0.188	-1.041	-0.099	-0.855	-0.233	-0.371	-0.250	-1.095	-1.303
Sig	0.000	0.000	0.001	0.000	0.316	0.000	0.005	0.000	0.075	0.081	0.067	0.023	0.004
Obs.	18	18	18	18	18	16	16	16	16	13	10	8	9

Note:

Religious participation: Q "Do you attend religious services several times a week, once a week, a few times during the year, once a year or less, or never?" The percentage attending religious services 'several times a week' or 'once a week'.

Source: The Mannheim Eurobarometer Trend File 1970-1999

Table 3.6: Trends in religious participation, 1981-2001

Nation	1981	1990	2001	Change
Ireland	82	81	65	-17
Spain	40	29	26	-15
Belgium	31	27	19	-12
Netherlands	26	20	14	-12
Argentina	31	32	25	-6
Northern Ireland	52	50	46	-6
Canada	31	27	27	-4
France	11	10	8	-4
South Korea	19	21	15	-4
West Germany	19	18	16	-3
Britain	14	14	14	0
Denmark	3	3	3	0
Hungary	11	21	11	0
Norway	5	5	5	0
Finland	4	4	5	+1
Iceland	2	2	3	+1
Japan	3	3	4	+1
Mexico	54	43	55	+1
Sweden	6	4	7	+1
United States	43	44	46	+3
Italy	32	38	40	+8
South Africa	43	56	57	+13

Note:

Religious participation: *“Apart from weddings, funerals and christenings, about how often do you attend religious services these days? More than once a week, once a week, once a month, only on special hold days, once a year, less often, never or practically never.”* The percentage attending religious services ‘*more than once a week*’ or ‘*once a week*’.

Source: World Values Survey 1981-2001.

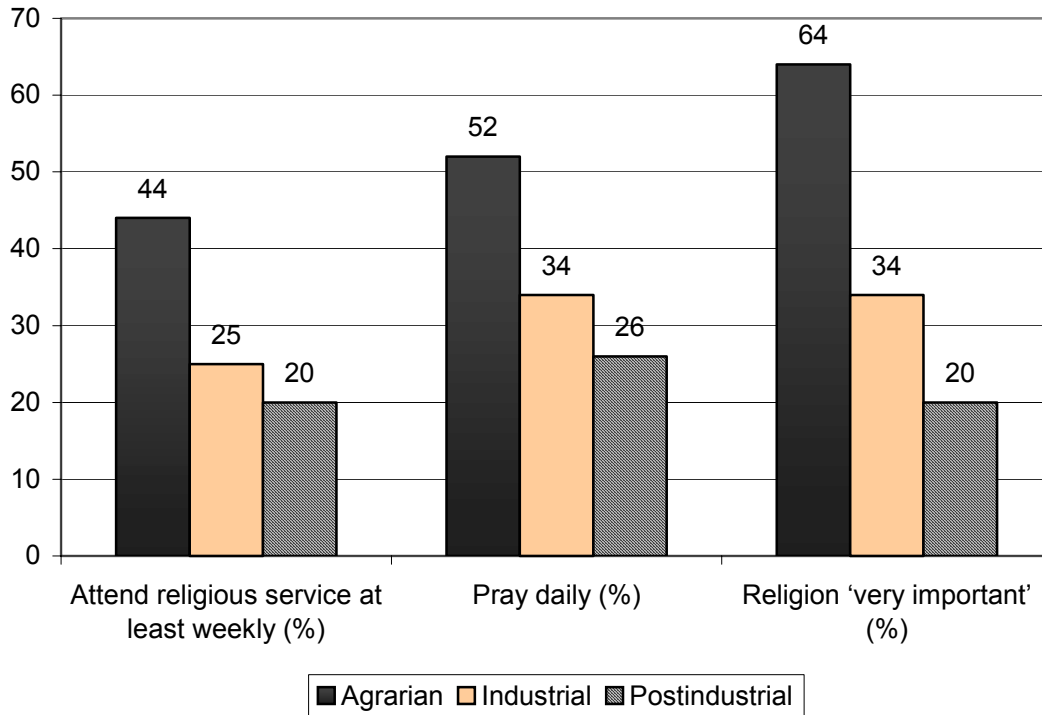
Table 3.7: Growth of thinking about the meaning of life, 1981-2001

	1981	1990	1995	2001	Change
Argentina	29	57	51	51	22
Sweden	20	24	28	37	17
Mexico	31	40	39	47	16
Canada	37	44		52	15
S. Africa	39	58	51	54	15
Italy	37	48		50	13
South Korea	29	39		41	12
Australia	34		45		9
U.S.	49	49	46	58	9
Netherlands	23	31			8
Ireland	26	34			8
Denmark	29	29		37	8
Finland	32	38	40	40	8
Belgium	22	29			7
Norway	25	31	32		7
Japan	21	21	25	26	5
N Ireland	28	33			5
W Germany	27	30		31	4
France	36	39			3
Hungary	44	45	45		1
Iceland	37	36			-1
Spain	24	27	24	22	-2
Britain	33	36		25	-8

Note: Q: "How often, if at all, do you think about the meaning and purpose of life? Often, sometimes, rarely or never?" The percentage 'often'.

Source: World Values Survey 1981-2001

Figure 3.1: Religiosity by type of society



Notes:

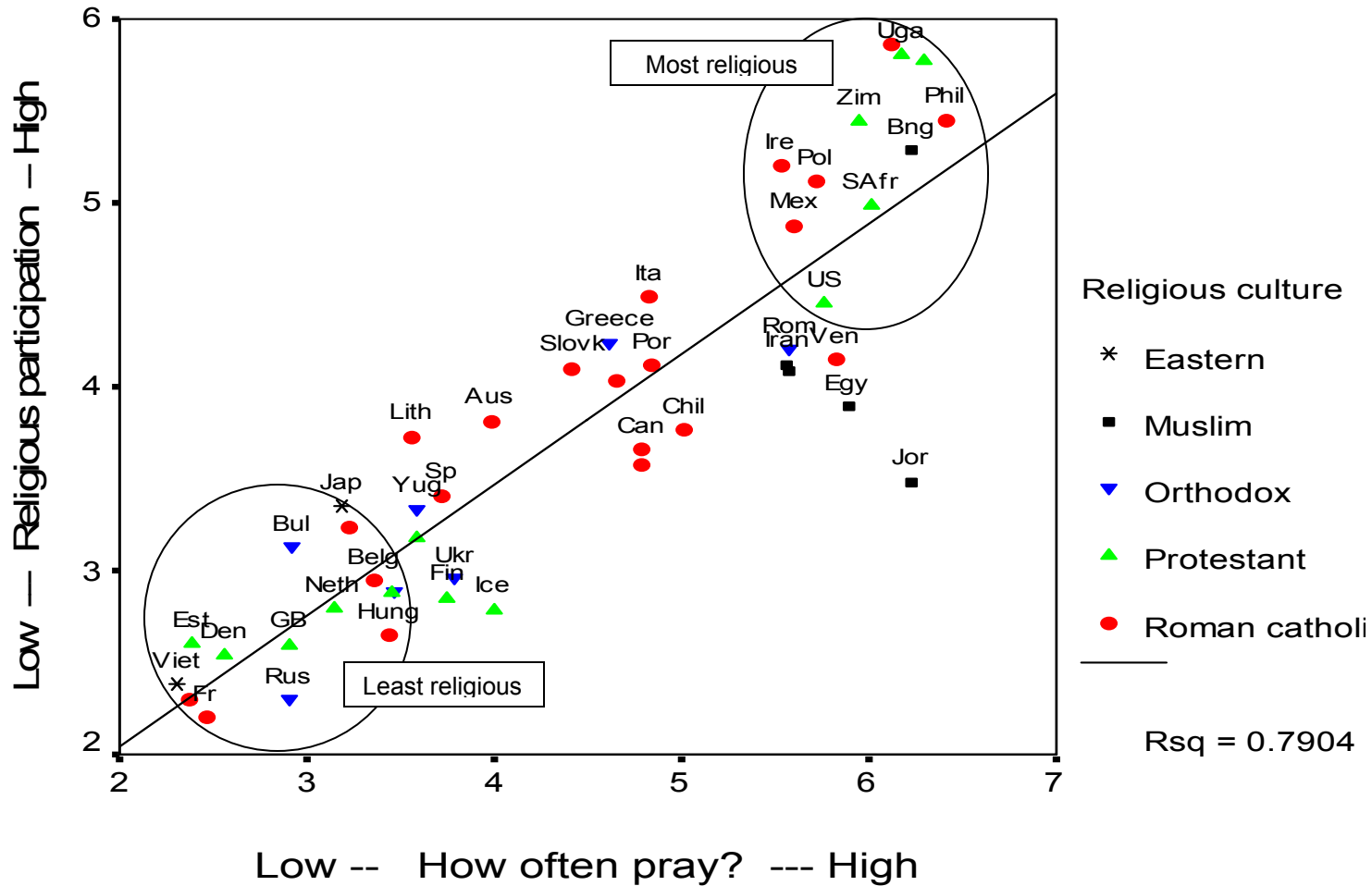
Religious participation: *“Apart from weddings, funerals and christenings, about how often do you attend religious services these days? More than once a week, once a week, once a month, only on special hold days, once a year, less often, never or practically never.”* The percentage attending religious services ‘more than once a week’ or ‘once a week’.

Frequency of prayer: Q199: *“How often do you pray to God outside of religious services? Would you say...Every day (7), more than once a week (6), once a week (5), at least once a month (4), several times a year (3), less often (2), never (1).”* Percentage ‘every day’.

Religious values: Q10 *“How important is religion in your life? Very important, rather important, not very important, not at all important?”* Percentage ‘Very important’.

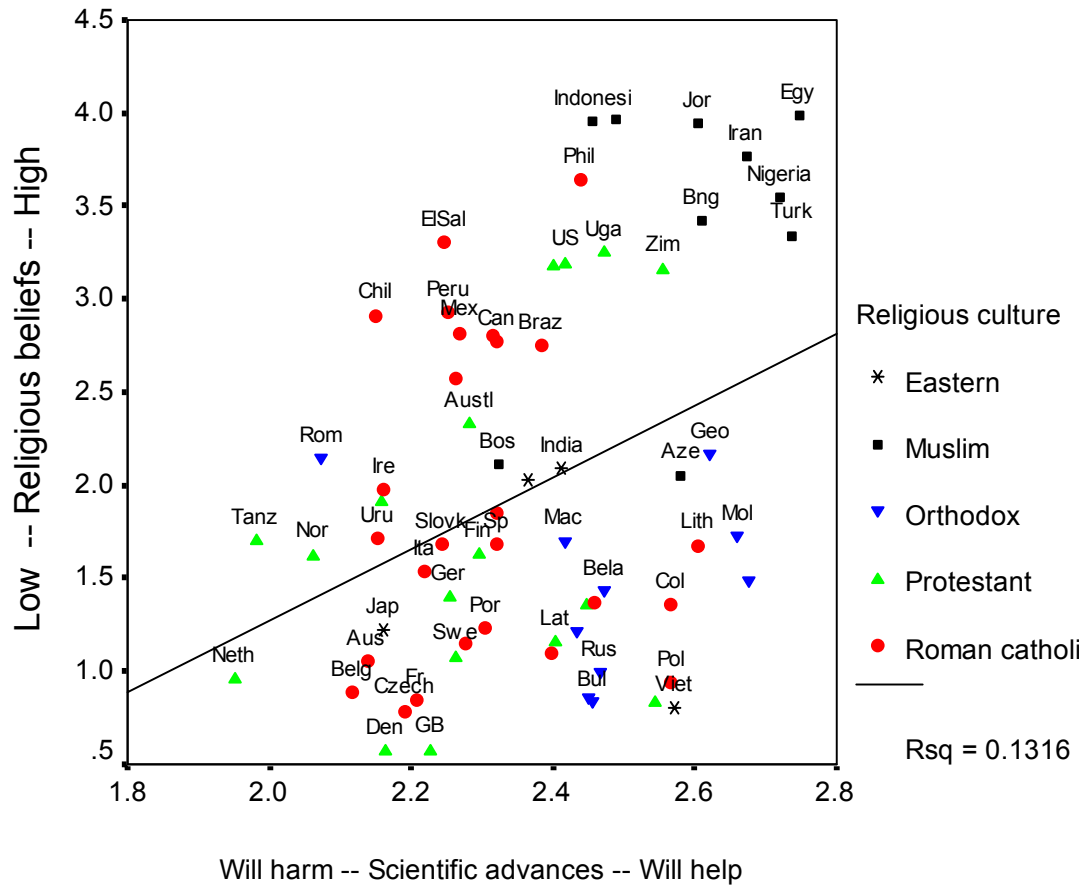
Source: World Values Survey pooled surveys, 1981-2001

Figure 3.2: Religious behavior in 76 societies



Notes: Religious participation: Q185 “Apart from weddings, funerals and christenings, about how often do you attend religious services these days? More than once a week (7), once a week (6), once a month (5), only on special holy days (4), once a year (3), less often (2), never or practically never (1).” Mean frequency of participation per society. How often pray? Q199: “How often do you pray to God outside of religious services? Would you say...Every day (7), more than once a week (6), once a week (5), at least once a month (4), several times a year (3), less often (2), never (1).” Mean frequency per society. Source: World Values Survey pooled 1981-2001

Figure 3.3: Faith in science and religion



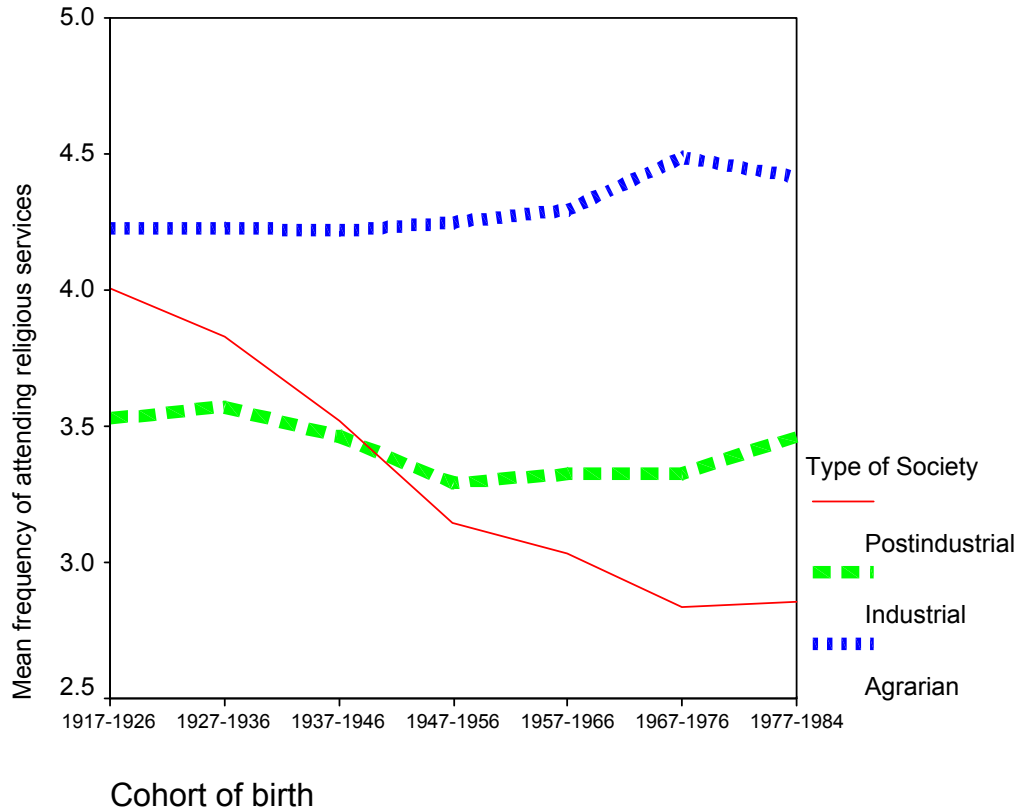
Note:

Attitudes towards science: Q: 132: "In the long run, do you think the scientific advances we are making will help or harm mankind?" 1 Will harm, 2 'Some of each' 3 'Will help.'

Religious beliefs: Summary 4-point scale composed of whether respondents expressed belief in heaven, in hell, in life after death, and in whether people have a soul.

Source: World Values Survey pooled 1981-2001

Figure 3.4: Religious participation by birth cohort



Note: Religious participation: Q185 “Apart from weddings, funerals and christenings, about how often do you attend religious services these days? More than once a week, once a week, once a month, only on special hold days, once a year, less often, never or practically never.” The proportion who attended ‘Once a week or more.’

Sources: World Values Survey pooled 1981-2001

¹ Clearly it could be argued that the process of societal modernization is itself contingent on the predominant religious culture, as exemplified by Weber's claims that the Protestant ethic led towards the rise of a capitalist economy in the West. Hence we acknowledge that there could well be an interaction effect between the two. See Chapter 7 for further discussion on this point.

² For details see Gallup International. '*Religion in the world at the end of the millennium.*' www.gallup-international.com/survey15.htm

³ See Bradley K. Hawkins. 2002. *Asian religions*. New York: Seven Bridges; Donald S. Lopez. 1999. *Asian religions in practice: An introduction*. Princeton New Jersey: Princeton University Press; C. Scott Littleton. Ed. 1996. *The Sacred East*. London: Macmillan.

⁴ Stephen Sharot. 2002. 'Beyond Christianity: A critique of the rational choice theory of religion from a Weberian and comparative religions perspective.' *Sociology of Religion* 63 (4): 427-454.

⁵ Robert J. Kisala. 2003. 'Japanese religiosity and morals.' In *Religion in a Secularizing Society*. Eds. Loek Halman and Ole Riis. Leiden: Brill.

⁶ In the pooled WVS, the correlations between religious participation (the frequency of attending religious services) and the frequency of prayer (all proving significant at the .01 levels) for adherents of different faiths at individual-level were as follows: Roman Catholic .568, Protestant .663, Orthodox .454, Jewish .443, Muslim .344, Hindu .251, Buddhist .336, other religion .249, none .441.

⁷ In the pooled WVS, the correlations between religious participation and the 10-point scale concerning the importance of God were all significant for adherents of different faiths at individual-level in every group except Buddhists and Others, as follows: Roman Catholic .357, Protestant .467, Orthodox .411, Jewish .407, Muslim .181, Hindu .238, Buddhist .107, other .012, none .389.

⁸ This pattern was also found by Robert A. Campbell and James E. Curtis. 1994. 'Religious involvement across societies: Analysis for alternative measures in national surveys.' *Journal for the Scientific Study of Religion*. 33(3): 215-229.

⁹ The Pew Research Center for the People and the Press. December 19 2002. Survey Report: 'Among wealthy nations, U.S. stands alone in its embrace of religion.' <http://people-press.org/reports/display.php3?ReportID=167>.

¹⁰ This pattern was also confirmed in the comparison of churchgoing in the Gallup International Millennium Survey, where 82% of Africans reported attending religious services at least weekly. For details see Gallup International. '*Religion in the world at the end of the millennium.*' www.gallup-international.com/survey15.htm.

¹¹ The WVS estimated that about 44% of Americans attend church weekly. For comparison, it should be noted that similar estimates are produced by regular Gallup polls in the United States. For example, the

March 14, 2003. Gallup-C.N.N./U.S.A. *Today* Poll asked: “How often do you attend church or synagogue?” The results were at least once a week (31%), almost every week (9%), about once a month (16%), seldom (28%), or never (16%). Yet as discussed further in chapter 4, the measures used by Gallup may produce a systematic bias. Gallup’s procedures may systematically exaggerate attendance due to a lack of social desirability filters in the measurement of churchgoing (thereby unintentionally ‘cueing’ respondents) and also unrepresentative sample completion rates based on a limited number of random digit dialing callbacks and respondent substitution. See R.D. Woodberry. 1998. ‘When surveys lie and people tell the truth: How surveys over-sample church attenders.’ *American Sociological Review* 63 (1): 119-122.

¹² For the long-term Scandinavian trends see G. Gustafsson. 1994. ‘Religious change in the five Scandinavian countries, 1930-1980’ and also Ole Riis. ‘Patterns of secularization in Sandinavia.’ Both in *Scandinavian Values: Religion and Morality in the Nordic Countries*. Eds. Thorleif Pettersson and Ole Riis. Uppsala: Acta Universitatis Upsaliensis.

¹³ Irena Borowik. 2002. ‘Between orthodoxy and eclecticism: On the religious transformations of Russia, Belarus and Ukraine.’ *Social Compass*. 49(4): 497-508; Andrew M. Greeley. 2003. *Religion in Europe at the End of the Second Millennium*. New Brunswick, NJ: Transaction Publishers. Chapter 6 ‘Russia: The biggest revival ever?’

¹⁴ For a fuller discussion see R. Grier. 1997. ‘The effects of religion on economic development: a cross-national study of 63 former colonies.’ *Kyklos* 50(1): 47-62; Robert J. Barro and Rachel M. McCleary. 2003. ‘Religion and economic growth’. Unpublished paper.
<http://post.economics.harvard.edu/faculty/barro/papers>

¹⁵ Many studies have found similar gender differences in religiosity, see, for example, David A. de Vaus, and Ian McAllister. 1987. ‘Gender Differences in Religion: A Test of the Structural Location Theory.’ *American Sociological Review* 52:472–81; Alan S. Miller and Rodney Stark. 2002. ‘Gender and religiousness: Can socialization explanations be saved?’ *American Journal of Sociology* 107 (6): 1399-1423.

¹⁶ For comparison, see B.C. Hayes. 2000. ‘Religious independents within Western industrialized nations: A socio-demographic profile.’ *Sociology of Religion* 61 (2): 191-207.

¹⁷ See J. Kelley and N. D. De Graaf. 1997. ‘National context, parental socialization, and religious belief: Results from 15 nations.’ *American Sociological Review* 62 (4): 639-659; A. Argue, D.R. Johnson, and L.K. White. 1999. ‘Age and religiosity: Evidence from a three-wave panel analysis.’ *Journal for the Scientific Study Of Religion* 38 (3): 423-435.

¹⁸ For this approach, see N. D. De Graaf. 1999. ‘Event history data and making a history out of cross-sectional data - How to answer the question ‘Why cohorts differ?’” *Quality & Quantity* 33 (3): 261-276.

¹⁹ For example, a study using cross-sectional and panel survey data in Britain, drawing upon the series of British Election Studies and the British Household Panel Study, concluded that generational differences, not family formation factors such as marriage and childrearing, were responsible for age differences in church attendance. See J.R. Tilley. 2003. 'Secularization and aging in Britain: Does family formation cause greater religiosity?' *Journal for the Scientific Study of Religion* 42 (2): 269-278.

²⁰ Andrew M. Greeley. 1994. 'A religious revival in Russia?' *Journal for the Scientific Study of Religion*. 33(3): 253-72.