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Work Values and Christian Religiosity

An Ambiguous Multidimensional Relationship

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Abstract

Based on data from World Values Survey, this paper argues that people who accord *a central place to religion and God* are consistently more likely to give work a highly important place in their personal life. This regularity spreads almost equally over Catholic, Protestant, and Orthodox believers, thus indicating that an affirmative attitude to work is deeply intrinsic in the general Christian tradition. By contrast, *belief in afterlife* shows a spectacular negative correlation with work values that pervades all confessions, the majority of Christian countries worldwide, and almost all segments of the population. This conforms with the notion that afterlife beliefs motivate people to shift personal investments (in terms of subjective attention to time, money, personal energy, etc.) from this-worldly to other-worldly concerns.

Affirmative Attitudes Toward Work as a General Ingredient of Biblical Religions

[1] While Max Weber's emphasis on the outspoken this-worldliness of Calvinist Protestantism certainly has its merits, it is also true that Christian (and Jewish) religion in general has a deep intrinsic affinity (and affirmative relationship) to the secular world of work. On the most general level, there is a convergent call to reject selfish, egotistical drives in favor of self-transcendent goals, to subordinate personal motivations to supra-individual obligations and purposes, to interpret life as an active effort that demands sacrifice (e.g., in servicing others), and to fight idleness because it hampers the fulfillment of such unconditional, exogenously given goals. In particular, the collective "service ethic" of certain professions (e.g., law and medicine) can be seen as a secularized institutionalization of universalistic Christian charity and selflessness (which has its roots in much older Jewish traditions).

[2] On the more specific level of Biblical traditions, we find the notion that God has created man as a working subject from the onset, as the Garden Eden was given to him in order "to work it and take care of it" (Genesis 2:15). After the human couple disobeyed God, God condemned Adam and Eve to eat their food "by the sweat of your brow" (Genesis 3:19). While the consequence of hard work was certainly meant as a punishment for disobedience and ingratitude (Rose: 28; Hill), it nevertheless had a positive connotation insofar as it was an obligation emanating from God – thus providing the ground for the later theological conjecture that by working hard enough, humans could fulfill God's will and gain salvation (or at least evade eternal damnation).

[3] In the biblical narrative, God is basically conceived as an artificer: a "potter" who has shaped man from matter by the work of God's own hands. As Benz has pointed out, this conception of God as a craftsman has laid the ground for a very positive evaluation of human work and technological development that does not exist in non-western religions (see also Ovitt). Such considerations have certainly gained momentum since the Renaissance where the old Biblical notion that "God created man according to his own image" began to legitimize or even sanctify human efforts to take active part in Creation (by originating works of art as well as by changing his natural environment by technological interventions).

[4] But even in much earlier times, the Catholic Church evolved as an institution in which positive evaluations of work had a considerable place. Thus, Ovitt observes that the Church Fathers "Saint Basil, Gregory of Nazianus, Saint Ambrose, and Bede all remind their readers that the world as the work of God brings the Worker intimately before the faithful and blesses the idea of labor itself" (487-88). Saint Basil in particular interpreted the curse of Genesis 3:15 in a constructive, affirmative way by stating, "God has given human beings craftsmanship in order to replace the natural powers that have been lost through sin" (490).

[5] Later on, Saint Benedict was the first to extend the sanctification of manual labor to the sphere of regularized and organized work characterized by labor division, daily quotas, strict behavioral discipline (e.g., about keeping time), and managerial supervision. By implementing his rulings, monasteries were transformed into densely regulated communities apt to translate the impact of Christian beliefs on work from an individual level to the level of organized collective behavior (Ovitt: 497). Similarly, they provided the paradigm for modern industrial society by generating sharp boundaries between work hours and residual times free to be dedicated to other (e.g., intellectual or recreational) purposes.

[6] However, all these pre-Protestant developments took place on the basis of a rather undifferentiated notion of work that included manual labor as well as spiritual or charitable endeavors (Benz). In addition, the external aspects of work (directed toward changes in the physical environment) were always competing with purely internal purposes (work as a way of repentance, ascetic self-purification, or as a prayer to God). Thus, "the monastery is pictured as the workshop in which the monk labors to perfect his soul and to know his God" (Ovitt: 498).

On the Controversial Impact of Protestantism and Societal Modernization

[7] According to Jacques Le Goff, the twelfth century was the decisive period when the medieval church no longer regarded human labor just as a penitential endeavor to subjugate

the human self, but also as an activity aiming intentionally to change the physical world (see also Ovitt: 486). This emphasis on the secular, economic aspects of working was certainly increased during the Reformation (and Counter-Reformation) when the Catholic Church as well as the Protestant churches began to stress the essential role of work for personal salvation (Landes 2000).

[8] In contrast to pre-Reformation Christianity, two innovations brought by Protestantism can be discerned: (1) the emphasis on secular this-worldliness in which higher weight and esteem was given to economic labor and economic rationality (instead of privileging charitable and spiritual works), and (2) the focus on "individualization" by which the meaning of work relates completely to the individual, as a way to personal wealth as well as an empirical sign of individual salvation.

[9] Martin Luther provided the basis for a highly affirmative stance toward societal labor division by stating that everybody is called to serve God by practicing one's profession diligently, and that all such "callings" are of equal spiritual dignity – thus negating the traditional high esteem given to aristocrats, clerics, monks, or other incumbents of non-manual (and non-economic) labor (Tilgher; Lipset; Hill).

[10] John Calvin brought the theological arguments much further by teaching that all men (even the rich) must work because it was their duty to serve as God's instruments on earth in order to become a part of the continuing processes of God's creation. Men were not to lust after wealth, possessions, or easy living, but were to reinvest the profits of their labor into financing further ventures. A person who was indifferent and displayed idleness was most certainly one of the damned, but a person who was active, austere, and hard-working gave evidence to himself and to others that he was one of God's chosen ones (Hill).

[11] Max Weber's main contribution was his (rather questionable) conjecture that such theological notions translate readily into central determinants of everyday human behavior and even shape the formation of macrosocial structures, particular within the economic sphere. Specifically, he argued that Protestant societies were disposed to develop a special work ethic which was distinct from non-Protestant societies (1904): a system of norms that facilitated the rise of capitalist enterprises by promoting norms of economic rationality and a moral commitment to work, industriousness, frugality, and strong tendencies to accumulate capital by reinvesting profits instead of spending them for consumption or freezing them into possessions outside monetary circulations. Correlatively, he saw Catholicism as an obstacle of economic development because it failed to develop such norms for the systematic economic endeavor and needs of individual achievement (Kenny).

[12] Similar arguments relate to the Orthodox Church which has been even less decisive in forming secular economic habits and behavior because it puts earthly matters at a distance by emphasizing spirituality and the higher standing of inward, contemplative orientations.

> Orthodoxy does not have a complete notion of a this-worldly Christian life. For example, there is no Christian understanding of a secular work ethic. The monastic way of living continues to be incommensurably more important than a layperson's. Thus in the consciousness of many Orthodox there is a strict dualism between the "spiritual" and "secular," "worldly" and

> "churchly." That is why, according to modern Orthodox understanding about Christian ethics, participation in social life ("this vanity") most likely should be minimized, to say nothing of participation of believers in politics, which is considered to be a trivial "dirty matter" (Novik: 3-4).

Only within the niches of secluded monasteries, Orthodoxy has generated "practical" formats of religious devotion comparable to the Western confessions (Ovitt: 494). As a consequence of this indifference, the Orthodox Church tends to be highly influenced by surrounding secular values and norms (Warren).

[13] Certainly, no current research on the relationship between religion and work can dismiss Weber's influential theory that inspired so much subsequent argumentations and empirical research projects aiming to operational and test out the "Protestant Work Ethic" (PWE) in terms of its different semantic components (e.g., Furnham; Furnham et al.; Banks).

[14] On the micro-level, some of these studies have shown that PWE beliefs are powerful predictors of work-related behavior (Greenberg 1978, 1979), and others have demonstrated that Protestants are indeed somewhat more inclined to see work as an end in itself, while Catholics ranked higher in seeing work as instrumental for success (Arslan). On the macro-level, Horst Feldmann has concluded from his 80-nation study that the employment rate is about 6% higher in Protestant countries than in countries dominated by any other religious tradition. For women, the employment rate difference is 11%. And in his analysis of 100 studies, Arslan could show that research in the period 1960-1995 has produced more results supporting Weber's thesis than findings contradicting his basic theoretical propositions.

[15] Nevertheless, Weber can be criticized to have overstated (1) the impact of religion on work behavior in modern societies, as well as (2) the specific influences emanating from Calvinist Protestantism (in comparison with other strands of Christianity). The first set of criticisms can be arranged under three notions central to all theories that relate to macrosocial modernization: institutionalization, functional differentiation, and secularization.

[16] Max Weber himself was aware that while the beginning phases of capitalism were heavily influenced by subjective religious faith, such correlations were diminishing later on because capitalist behavior was increasingly supported by supra-individual norms, stabilized and transmitted by means of socialization and social control so that all individuals had to take them over, irrespective of their personal religious beliefs:

> . . . the onset of capitalism and rationalism generates an "iron cage" of capitalist competition (including rational bureaucratic constraints on organization) that forces Protestants and non-Protestants alike to conform to the new modes of action. It follows that, as religious fervor attenuates and as non-Protestants become willy-nilly incorporated into the new system, religion becomes less of an explanatory variable in later phases of capitalist development (Delacroix and Nielsen: 515).

[17] The long tradition of "organismic" or "systemic" theories spanning from Herbert Spencer and Emile Durkheim to Talcott Parsons and Niklas Luhmann, recognizes that modern societies derive their cohesion less and less from pervasive (religious) consensus or from the guidance of stratified elites, but increasingly from the complementary interrelations

of functionally specialized subsystems. On the highest level, these subunits are "institutional orders" (e.g., polity, economy, military, education), each of which cultivates its own values, belief systems, organizational structures, and behavioral norms (Parsons: 79; Münch: 443; Luhmann 1997). Religion itself becomes reduced to "a subsystem alongside other subsystems" (Dobbelaere 2000: 24), losing its significance as a unifying center from which all societal actors and activities derive their meaning (Luhmann 1977).

> Religious norms are no longer applicable in secular institutions, the economy and the polity, to wit the so called public, objective world; but, are rather restricted to the "private sphere," the so-called secondary institutions or the subjective world (Dobbelaere 1985: 380).

Thus, we may expect that while people may still take part in religion (e.g., by participating in Sunday services), such commitments become less likely to spill over to work and other spheres of everyday behavior (Wilson 1982: 149; 1996: 16).

[18] The secularization hypothesis refers to the changes of beliefs and values cognitions going on since the end of the middle ages as they are reflected in the progressive views of Voltaire and Condorcet, in the three-stage model of Auguste Comte, or in the rationalization thesis of Max Weber himself. Within this perspective, religious beliefs and magical practices lose ground in all spheres of human activities; they are replaced by rational thinking based on logic and empirical experience and by ethical norms related to this-worldly human concerns, not to the afterlife of an immortal soul. In the sphere of work, this change became manifest during the process of industrialization where the idea of calling was replaced by the notion of social usefulness and work served the purpose to make a living, to realize one's talents, and to lead an orderly, socially accepted life, and in newer developments (since the 1960s) where work values increasingly focus on skill, challenge, autonomy, recognition, social relevance, and the opportunities for personal growth (Walton; Maccoby; Hill; Halman, Pettersson, and Verweij). As several research studies have shown, the impact of religion on work is much weaker than on political behavior or on family life (Lindseth and Listhaug: 94-95; Halman, Pettersson, and Verweij) because in the latter spheres, it is more common that "ultimate values" (instead of just instrumental considerations) are at stake.

[19] Consistent with the secularization hypothesis, there are indications that the impact of Protestantism on work values declines with increasing levels of economic development. Thus, Inglehart and Norris conclude from their comparative survey analyses, ". . . the work ethic is no longer a distinctive aspect of Protestant societies. Any historical legacy, if it did exist in earlier eras, appears to have been dissipated by processes of development" (177).

[20] By comparing 13 cultures, Furnham et al. have shown that populations of rich Western countries have lower PWE scores than those from underdeveloped countries. And on the basis of World Values Survey data, high negative correlations between GDP and various indicators of religiosity have been found (McCleary and Barro; Inglehart and Baker; Grier). These correlations become even more pronounced when the United States (a deviant case combining wealth with high religiosity) is eliminated (McCleary and Barro).

[21] Given the pervasive dominance of secularization perspectives, it is not astonishing that the relationship between work orientation and the degree of individual religiosity has not

been the object of many empirical studies. After Max Weber, in fact, religion has only sporadically been considered as a decisive determinant of individual economic behavior or the development of economic systems (e.g., Landes 1999; Inglehart and Baker).

[22] Max Weber is also criticized for giving too much weight to (Calvinistic) Protestantism and thus neglecting quite similar impacts of other religious belief systems (even outside the Christian and Jewish traditions) on work-related values and behavior. In an early study, Bellah (1963) found evidence for PWE beliefs in traditional Japanese society and hence questioned the "Protestant" exclusivity of the term. Later, various transcultural researchers comparing developed nations with Asian and other non-Western countries have concluded that the PWE is no longer found only in cultures where a Protestant value system is dominant (Furnham; Furnham et al.; Niles 1994, 1999). Even more, Niles observed, "paradoxically there seems to be a stronger commitment to a 'Protestant' work ethic among non-Protestant cultures," and concluded that it is inappropriate to refer to work ethic as the Protestant work ethic since most religions and cultures appear to have a "common concept of work ethic when it is defined as a commitment to hard work and to excellence" (1999: 857, 865). In a similar vein, Ma argued that PWE is a general work ethic or orientation that cuts across all religions (220). In his intercultural comparison of 277 managers, Arslan found that Muslim Turkish managers had a higher work ethic than Catholic Irish and Protestant British managers (especially in their negative attitude toward leisure and hedonistic activities). Similar differences have been found among samples of university students *(*Aygün, Arslan, and Güney). This parallels a study of Chell and Wentworth who found highest values of PWE among respondents with Asian origin.

[23] Similarly, differences between Protestants and Catholics have been called into question. In a US-Canadian study conducted by Ali, Falcone, and Azim, no differences in the PWE levels were found between Catholic and Protestant participants. Moreover, impressionistic evidence suggests that at least within Europe, Catholic settings like Ireland, Flanders, or Bayern have made more economic progress recently than many Protestant regions. In the case of Ireland, Paul Sweeney's study has revealed the degree to which a thoroughly Catholic nation can quite rapidly turn to "Calvinist" values that are supportive of overall economic growth.

[24] By investigating the underlying causes of this spectacular development, Louise Fuller concludes that it did not result from a lessened influence of religion (as the secularization thesis would suggest) but from a major turn in the Catholic Church's general view of the economy and its stance toward work-related goals and motivations:

> . . . examination of the pastoral letters emanating even from the West of Ireland demonstrates that many Catholic bishops and priests had begun to reject the vision of an agricultural and self-sufficient Ireland, for one surprisingly similar to the rest of the capitalist West. This movement culminated in two initiatives, the construction of Knock Airport and the pastoral "Work is the Key," which emphasized foreign investment and the work-ethic. Indeed, from the late 1950s to the late 1990s, the fetishization of the economy by the Catholic bishops matched that of the economists, and through the sermons of the clergy a new attitude to work began to arise.

> Workers now boast of uneaten lunches and long working weeks much as Puritan dedication to the work ethic demonstrated closeness to the divine (quoted in Killeen: 188).

[25] The other side of the coin is that many contemporary Protestant populations show not only average, but extremely low values of PWE. Thus, Inglehart and Norris found lowest levels of subjective work commitment in highly developed Protestant countries (177), and Ferguson observes, "... the countries where the least work is done in Europe turn out to be those that were once predominantly Protestant. While the overwhelmingly Catholic French and Italians work about 15 to 20 percent fewer hours a year than Americans, the more Protestant Germans and Dutch and the wholly Protestant Norwegians work 25 to 30 percent less."

[26] Such findings accord well with the much earlier results of Gerhard Schmidtchen's survey in Germany where Protestants were found to be more leisure-oriented, more attracted to New Social Movements and "alternative" (e.g., Hippie-like) lifestyles, and more supportive of short workdays and early retirement plans (128). As a possible explanation, Schmidtchen expounds a hypothesis neatly conforming to Tracy's later argumentation that Protestants are more sensitive toward various modern values, fashions, and social movements because their Church stresses individual autonomy to a degree that it deprives them of any community setting or collective norm structures that could protect them from such secularizing influences. By contrast, such protection is much better provided through the Catholic Church by its hierarchical structures as well as its highly formalized and explicated beliefs and by its stress on collective responsibility and its focus on a densely knit community life (on the level of families as well as voluntary associations) (225; see also Tracy; Felling, Peters, and Schreuder). A similar argumentation resounds in Ewing's finding that a Catholic education is functional for reaching higher income levels because "it may act as a signal of desirable labor market characteristics such as discipline, honesty, trustworthiness, and high motivation" (419).

"Religiousness" as a Multidimensional Construct

[27] In a most encompassing perspective, religiousness can be defined as "an integrated system of belief, lifestyle, ritual activities, and institutions by which individuals give meaning to (or find meaning in) their lives by orienting them to what is taken to be sacred, holy, or the highest value" (Corbett: 2). Starting with Fukuyama and Lenski, there have been numerous ambitious attempts to grasp religiosity as a multidimensional construct covering cognitive, intellectual, and emotional as well as social, ethical, and behavioral aspects of human existence (Stark and Glock; King; Verbit). As there are sound reasons to suppose that they are correlated quite differently with secular work values, their effects have to be separated neatly by multivariate statistical methods. Fortunately, at least some of these concepts have been operationalized in the World Values Survey so that their differential impact on work orientations can be assessed comparatively in various countries, cultures, and religious confessions.

Subjective Faith

[28] Subjective faith refers to the intensity of psychological commitment to a religious confession, and to the place accorded to spirituality and God within the whole of personal life. It corresponds roughly to the "experiential" dimension defined by Glock as referring to the achievement of direct knowledge of the ultimate reality or to the experience of religious emotions, or to King's "Credal Assent and Personal Commitment." It has been hypothesized that modern forms of religiosity are strongly focused on this subjective aspect to the degree that the significance of religious organizations declines and the practice of traditional collective rituals erodes (Halman, Pettersson, and Verweij). Thus, the impact of religion on society is said to be more than ever mediated by subjective individual beliefs and value orientations, while collective forms of religious behavior have lost their importance (Berger).

[29] On the basis of World Values Survey data from 1981-1997, Guiso, Sapienza, and Zingales found that by controlling personality characteristics like gender, age, education, and income, religiosity had a positive impact on several attitudes relevant to economic behavior: e.g., thriftiness, trust for government, acceptance of legal rules, and positive evaluations of economic markets.

[30] In their comparative study of university students, Aygün, Arslan, and Güney have demonstrated, "Religiosity has a significant effect on PWE regardless of culture, with highly religious individuals reporting more PWE than less religious individuals" (211). Chusmir and Koberg found that nonreligious employees had stronger career aspirations and held higher managerial positions than did their religious colleagues, regardless of their religious affiliation. Incongruity between religious values and need for achievement was also reported by Goshen-Gottestein and Rokeach (1969, 1973). "Most research suggests that religion is largely irrelevant to the work experience" (Davidson and Caddell: 135; cf. Lindseth and Listhaug).

Church Teaching Observance

[31] A second common dimension of religiosity refers to the acceptance of religious doctrines and ethical prescriptions as taught by the churches. It is the "doctrinal orthodoxy" dimension defined by Lenski, the "ethic" dimension identified by Verbit, or Glock's "consequential" aspect of religious commitment as it related to the impact of religious prescriptions on secular attitudes and behavior. There is a widespread agreement that authoritative church teaching on economic matters has diminished in importance, while the Church has maintained a certain salience in more basic moral issues like abortion (Bellah et al.: 231; Inglehart and Pippa: 196). Even within this more restricted sphere, it can be observed, "the orthodox belief systems and moral convictions, preached by the churches and in earlier days (assumedly) acknowledged by the majority of people, who were also church members, are replaced by diversified individual belief systems and socio-moral convictions" (Halman, Pettersson, and Verweij: 146).

[32] We may speculate that to the degree people still cling to church teachings as sources of life guidance, they are sensitive to the differences in the work-related theological and ethical positions of various confessions. As a consequence, their work values should correlate more

tightly with their religious denomination. Barro and McCleary speculate that the negative effects of church attendance on economic growth may be partially explained by the fact that service attendance is a proxy for a negative influence of the church teachings on economic behavior and legislation (e.g., by restricting credit markets or discouraging profit orientations) (772).

Participation at Religious Services

[33] This social aspect of religious commitment coincides with Lenski's "associational" dimension as well as King's "participation in congregational activities," or Glock's "ritualistic" aspects (insofar as it refers to non-private patterns of worship). Representing the social dimension of religious commitment that is objectified in visible outward behavior, the frequency of church attendance lends itself to easy objective assessment – so that it is very often taken as *the* only operational indicator of individual religiousness in many empirical studies. However, its validity is severely hampered by the fact that participation in worship may be determined by mere social obligations (e.g., in traditional Catholic settings), while its absence may still go along with deep religious faith (e.g., in many forms of Protestantism that stress that the personal relationship to God should not be diminished by any intermediary organization).

[34] In sociological research, there is no agreement how the participation at religious services relates to work values and working behavior. On the one hand, Sacerdote and Glaeser and Putnam argue that the networks and interactions fostered by churches can be considered as important elements of "social capital," thus increasing the integration of individuals in the secular society and stimulating the contacts, resources, as well as the motivations that are needed for high economic performance. On the other hand, Azzi and Ehrenberg consider religious participation as a time consuming activity that draws energy from work and other everyday endeavors. Thus, most extensive participation will be found among people with low or no work engagement, such as housewives or older people, and it will be low when people are committed to hard work and when elevated work remunerations cause "opportunity costs" of church attendance to be excessively high (Azzi and Ehrenberg). Similarly, Barro and McCleary argue that frequent church going absorbs resources of time and energy that could potentially be invested in work activities, thus producing a negative causal effect on national economic growth.

[35] In "economist" terminology, religious organizations are seen as enterprises that turn individual efforts (attendance at services) into products (religious beliefs). Thus, they are most "efficient" when they succeed in producing these beliefs with a minimum of such investments:

> . . . we view religious beliefs as an output of the religion sector, and we view church attendance as an input to this sector. Thus, if we hold fixed the beliefs, an increase in church attendance signifies that the religion sector is less productive. That is, more resources in terms of time and goods are being consumed for given outputs (beliefs). Hence, our anticipation is that for given religious beliefs, higher church attendance would show up as a negative influence on economic performance (Barro and McCleary: 772).

From all this, it can be inferred that religiousness exerts maximum effects on economic growth when it is characterized by high "believing without belonging," i.e., when pronounced subjective faith goes along with very low church attendance (Barro and McCleary; McCleary and Barro).

Informal Prayer

[36] Private, personalized forms of religious worship are best grasped by Lenski's concept of "devotionalism," but are also implicated in Glock's "ritualistic" dimension and King's notion of "personal religious experience." Praying outside religious services indicates that religion has a place within everyday life. In traditional settings, informal prayer occurs as a collective ritual, especially within families before or after meals or when putting toddlers to bed. In modern urban settings, such praying is an indicator of strongly motivated faith because it implies that an individual withdraws from everyday activities at least for moments by turning his or her attention to religious matters.

[37] While church attendance may be highly determined by strong collective pressures even in more modern settings, informal prayer testifies to a highly inner-directed religiosity because it usually occurs in unobserved privacy or by voluntarily withdrawing from current roles, in both cases outside the reach of social conformity pressures. Thus, it is not surprising that daily prayer has been found associated with other kinds of behavior where a certain distance toward current environmental influences is needed (e.g., an inclination to have a larger number of kids) (Blume et al.).

[38] The author of this paper is not aware of any empirical studies where work values have been related to the frequency of everyday informal prayer. It may be assumed that similar to religious services, such behavior has a negative impact on work orientation insofar as it indicates a tendency to withdraw periodically from "this-worldly" settings, and insofar it absorbs time that could otherwise be dedicated to secular activities.

Belief in an Afterlife

[39] Contemporary conceptualizations of religiosity typically neglect a dimension that had been very prominent in Max Weber's thinking: the contrast between "this-worldly" vs. "other-worldly" orientations. Because this dichotomy played an important role Weber's ambitious attempt to relate the genesis of modern capitalism to Calvinist and Puritan theology, it cannot be neglected when the aim is to assess religious impacts on attitudes toward work. While beliefs in an immortal personal life after death are deeply ingrained in most folk religions, they have never been the focus of Christian theology and official Church teaching. In the Old Testament, there is little mention of an afterlife, and in the New Testament the afterlife plays only a minor role. As Weber has succinctly seen, it is exactly this lack of otherworldly orientations that acted as a positive stimulus for secular economic endeavors.

> Die [jüdische Religion] hat dagegen den individuellen Unsterblichkeitsglauben erst spät akzeptiert, und ihre eschatologischen Hoffnungen sind diesseitiger Art. Für die Wirtschaftsgesinnung, soweit diese religiös mitbestimmt ist, ist zunächst jene diesseitige Wendung der Heilserwartung, welche – darin dem Puritanismus gleich – den Segen Gottes

> in dem ganz speziell ökonomischen Erfolge der Arbeit des Einzelnen sich bewähren sieht, von sehr großer Bedeutung (1972: 719).

[40] In fact, there is much impressionistic evidence that beliefs in afterlife can result in values and behavioral dispositions that hamper rather than promote secular economic activities. Throughout history, we find such beliefs associated with the habit of freezing economic resources in unproductive ways: e.g., by building hypertrophic tombs, donating wealth to non-economic institutions like churches or monasteries, or by dedicating some of the most precious work products for burial gifts. Most religious systems encourage believers to "buy eternal bliss" by engaging in such sacrificing acts that enjoy a high moral valuation exactly to the degree that they withdraw from everyday economic behavior.

[41] As Max Weber notes, such investments in afterlife were mainly done by economically consumptive upper classes, while the poor lower strata were absorbed sufficiently by securing their this-worldly life:

> Eine gewisse Fürsorge für das eigene Schicksal nach dem Tode taucht, dem "Grenznutzengesetz" entsprechend, meist da auf, wo die notwendigsten diesseitigen Bedürfnisse gedeckt sind, und ist daher zunächst auf die Kreise der Vornehmen und Besitzenden beschränkt. Nur sie, zuweilen nur Häuptlinge und Priester, nicht die Armen, selten die Frauen, können sich die jenseitige Existenz sichern und scheuen dann freilich oft die ungeheuersten Aufwendungen nicht, es zu tun. Vornehmlich ihr Beispiel propagiert die Beschäftigung mit den Jenseitserwartungen (1972: 216).

[42] In Christianity as well as in Islam, Buddhism, and Hinduism, individual salvation can be gained much better by spending than by earning money, especially by giving money away for charitable purposes. On the other hand, work has gained the highest dignity and significance in religions that provide "salvific merits," e.g., in Calvinist Protestantism where individual cannot influence salvation by their volitional conduct because they are predestined to be saved or not (McCleary and Barro). In this case, religion has a complex indirect impact on work motivation insofar as human industry and thrift that result in material success are the clearest possible signals that a person belongs to those who will be saved (Calvin: 194-96).

[43] The Protestant Reformation is singular in cutting the relationship between this-worldly behavior and otherworldly redemption by stressing that virtuous behavior should flow directly from faith and belief, not from any selfish motivation to "buy" God's grace for getting into heaven or for escaping eternal damnation. This contrasts immensely with any earlier other-worldly interpretations derived from the same Scriptures: e.g., Jesus' assertion that rich people will have more difficulty entering the kingdom of heaven (Mathew 19:23), that the meek rather than the assertive will "inherit the earth" (Matthew 5:5), or that "the last will be first, and the first will be last" (Matthew 20:16).

[44] Whoever maintains such activist concepts of a God-agreeable life will not develop much appreciation for such "passivist" notions of an afterlife as they are expressed in tomb inscriptions ("Requiescat in pace") or in the folklore of redeemed souls praising God by harping on heavenly clouds. Evidently, all these considerations are at variance with the

recent finding of Barro and McCleary that beliefs in afterlife, especially in hell, had a slight positive effect on national economic growth:

> The results show that, for given religious beliefs, increases in church attendance tend to reduce economic growth. In contrast, for given church attendance, increases in some religious beliefs – notably in hell, heaven, and an after-life – tend to increase economic growth. There is also some indication that the stick represented by the fear of hell is more potent for growth than the carrot from the prospect of heaven."

However, this macroeconomic analysis is not very relevant for out discussion because it does not help to clarify how religious beliefs are related to *individual* commitments to work.

The Guiding Questions of the Empirical Study

[45] Much research concerning the impact of religion has focused on dependent variables on the societal and national level, e.g., the size of GDP and the amount of economic growth (see, e.g., Barro and McCleary; Inglehart and Pippa; Grier; Feldmann). Such studies can easily be related to Max Weber who considered Protestantism as a culture pervading whole societies. Accordingly, "Protestant nations" show more development because even their Catholic minorities are affected by the norms of thriftiness and diligence that may have been born as individual attitudes in the sixteenth and seventeenth century, but that have become more and more externalized and institutionalized in the course of rising capitalism. In fact, Weber even asserted, "those most filled with the spirit of capitalism tend to be indifferent, if not hostile, to the Church" (1958: 62). In addition, some individual correlates of religiosity (e.g., increased honesty and social trust) may display their economic effects only on a collective level by encouraging, e.g., higher levels of interpersonal trust, productive cooperative relationships, and widespread economic exchange.

[46] However, such analyses on collective levels bring the Protestantism thesis to the brink of non-verifiability. First, spurious relationships due to ecological fallacies can never be excluded, and second, samples shrink to such a small size that the religious factor cannot be sorted out among the manifold of other causal variables. By arguing that present economic growth is caused by a pervasive Protestant ethic somewhere in the distant past, the rich pool of more recent causal factors is neglected that may well neutralize or even revert the impact of such historical conditions. In addition, such hypotheses are theoretically unfounded insofar as we all know that individual work efforts do not translate automatically into collective economic production because so many other decisive variables on the meso- and macro-level (e.g., organizational structures or institutional, legal and political conditions) are intervening. This is vividly illustrated by the fact that work motivations are highest in some perpetually stagnating Muslim countries and lowest in some of the most wealthy and thriving Western countries (Inglehart and Pippa).

[47] As a consequence, assessing the economic impact of religion is a highly complex endeavor in which the study of relationships between individual religiosity and individual work attitudes represents only the (if absolutely essential) first step. Further steps would involve the analysis of higher-order effects on inter-individual social relations, forms of collective behavior and formal organization, and socio-technical systems – consequences

that may themselves be related to macro-level outcomes like economic stability, efficiency, innovativeness, and growth.

[48] Even when the focus is strictly on individual work attitudes, we have to consider that such subjective variables may not only be conditioned by personal religiosity, but also by the surrounding collective culture. For example, countries high on religiosity may well foster a work oriented value system that is also implanted in individuals with moderate or no religious faith. Symmetrically, highly secularized national cultures may generate a more "hedonistic" value climate that will even diminish the work commitment of ardent believers.

[49] Thus, the empirical analysis below is guided by the following strategic questions:

1. How do the five dimensions of individual religiosity relate to individual attitudes toward work – to the factual place of work accorded in life as well as to the view of work as a moral obligation?
2. How are these intra-individual co-variances strengthened or weakened by country-specific religious culture?
3. To what degree are all these effects conditioned by overall commonalities of Christianity, and to what extend are they shaped by particularities of the three major confessions: Catholic, Protestant, and Orthodox?
4. How pervasive are these religious effects geographically, and to what degree do they vary across countries and regions?
5. Can we observe secularization effects on the national level, e.g., in the sense that religious impacts vanish with increasing levels of modernity and economic development?
6. Are there secularization effects on the individual level, e.g., in the sense that religious influences lose strength among urbanized strata and respondents that are high on income and/or education?

Data and Methods

Characteristics of the Sample

[50] The data are drawn from the latest available World Values Surveys conducted in 57 nations between 1999 and 2003. Among them, there are 48 countries with more than 200 respondents of Christian faith, resulting in a pool of 21067 members of the Catholic Church, 7679 members of Protestant churches, and 7507 respondents belonging to Orthodox churches. Any adherents of more particular Christian denominations, sects, or movements have been excluded. While Catholics and Protestants are spread over the whole globe, 98% of all Orthodox believers are concentrated in 14 countries located in Eastern and Southeastern Europe and some central Asian regions. As a consequence, it will be difficult to identify "pure religious effects" not amalgamated with such regional cultures.

The Independent Variables

[51] "Subjective Faith" was measured by combining the answers to the following two questions: "How important is religion in your life?" (a006) and "How important is God in

your life?" (f063). As seen from Table 1, Catholics range highest in the percentage of firm believers and Protestants highest on absolute nonbelievers, while Orthodox respondents fall in-between (but are much nearer to the Protestant than the Catholic means).

[52] The "Importance of Church Teaching" was assessed by counting the number "yes"-answers given to four questions on whether the church had something significant to say about private or social problems (f035-f038). Not unexpectedly, the guiding role of the church is most acknowledged in spiritual matters, while its relevance for social problems is lowest, especially in the orthodox sphere. This accords well with the impressionistic evidence that Orthodox churches give little attention to teachings about socio-economic concerns (Novik).

Table 1. Subjective Faith: Frequency Distributions According to Confession

How important is religion in your life?	**Catholics**	**Protestants**	**Orthodox**
Very important	8660 (41.4%)	2866 (37.5%)	2223 (30.1%)
Rather important	7241 (34.6%)	2018 (26.4%)	3016 (40.8%)
Not very important	3872 (18.5%)	1929 (25.3%)	1677 (22.7%)
Not at all important	1150 (5.5%)	824 (10.8%)	472 (6.4%)
How important is God in your Life? (f063) (Scale 1-10; arithmetic averages)	7.94	7.07	7.19
Total index of subjective religiosity* (Scale 1-20; arithmetic averages)	15.32	13.81	14.07

*Sum of a006 and f063, where a006 has been recoded: "very important"=10; "rather important"=7; "not very important"=4; "not at all important"=0.

Table 2. Importance of Church Teaching: Frequency Distributions According to Confession

Percentage who say "yes" to the statement: "Church gives answer to . . ."	**Catholics**	**Protestants**	**Orthodox**
Moral problems	62.1	57.7	62.7
Problems of family life	59.1	55.6	50.2
People's spiritual needs	78.5	75.3	78.7
Social problems	46.3	41.6	31.1
Total index of church teaching * (Scale 0-4; arithmetic averages)	2.44	2.30	2.16
(*N* =)	16929	5725	5429

*Sum total of the four items (each weighted by 1).

[53] The social-participatory dimension of individual religiosity is tapped by question f028: "How often do you attend religious services?" Table 3 reveals that about 43% of all Catholic and ca. 32% of Protestant respondents are regular church-goers by visiting at least Sunday mass, while most Orthodox believers participate only on special occasions.

Table 3. Participation at Religious Services: Frequency Distributions According to Confession

How often do you attend religious services?	**Catholics**	**Protestants**	**Orthodox**
More than once a week	2314 (11.0%)	983 (12.8%)	226 (3.0%)
Once a week	6826 (32.5%)	1560 (20.4%)	697 (9.3%)
Once a month	3288 (15.7%)	910 (12.0%)	1170 (15.7%)
Only on special holidays	2624 (12.5%)	1036 (13.5%)	2846 (38.1%)
Other specific holidays	1018 (4.9%)	249 (3.2%)	483 (6.5%)
Once an year	1131 (5.4%)	737 (9.6%)	775 (10.4%)
Less often	1536 (7.5%)	765 (10.0%)	550 (7.4%)

[54] The habit of praying informally in everyday life is operationalized by question f058: "How often do you pray outside religious services?" Contrary to conventional generalizations, Catholics and Protestants are almost equally prone to give religion a space in their daily existence: over 50% saying that they would normally pray more than once per week. The lower figures among Orthodox adherents again illustrate the tendency of Orthodox religion to withdraw from the secular sphere.

Table 4. Frequency of Informal Prayer: Frequency Distributions According to Confession

How often do you pray to God outside religious services?	**Catholics**	**Protestants**	**Orthodox**
Every day	8559 (42.6%)	2842 (40.8%)	2082 (29.1%)
More than once a week	3150 (15.7%)	1150 (13.6%)	970 (13.2%)
Once a week	1895 (9.4%)	528 (6.5%)	572 (8.0%)
At least once a month	1381 (6.9%)	458 (5.6%)	644 (9.0%)
Several times an year	1382 (6.9%)	603 (8.0%)	832 (11.6%)
Less often	1797 (8.9%)	740 (9.7%)	836 (11.7%)
Never	1945 (9.7%)	1164 (15.8%)	1224 (17.1%)

[55] The question "Do you believe in a life after death?" (f051) was answered negatively by a considerable percentage of all respondents, particularly by members of the Orthodox Church (Table 5). This corroborates the arguments that such other-worldy orientations are not an inseparable ingredient of Christian belief systems, because they have only a weak biblical support. Thus, it is justified to treat this variable as a fifth independent dimension of individual religious faith.

Table 5. Belief in an Afterlife: Frequency Distributions According to Confession

Do you believe in a life after death?	Catholics	Protestants	Orthodox
Yes	13060 (71.6%)	4402 (68.1%)	2725 (47.2%)
N o	5171 (28.4%)	2063 (31.9%)	3047 (52.8%)

[56] In a more general sense, Table 6 shows that while all intercorrelations between the five dimensions are positive, they are sufficiently low to treat all of them as mutually independent causal factors (e.g., by including them as predictor variables in linear multivariate regressions).

*Table 6. Intercorrelations between Five Dimensions of Religiosity, According to Confession (Catholic/Protestant/Orthodox)**

	Subjective Faith	Church Teaching	Religious Services	Informal Prayer	Belief in Afterlife
Subjective Faith	–	.43**/.46**/.33*	.61**/.62**/.54**	.70**/.76**/.72**	.43**/.48**/.42**
Church Teaching	.24**/.23**/.51**	–	.39**/.39**/.22	.37**/.40**/.28*	.24**/.25**/.30*
Religious Services	.33**/.39**/.47**	.23**/.13**/.36**	–	.60**/.58**/.55**	.35**/.29**/.30*
Informal Prayer	.49**/.47**/.63**	.21**/.30**/.47**	.44**/.50**/.44**	–	.42**/.47**/.20**
Belief in Afterlife	.28**/.14**/.41**	.18**/.12**/.38**	.21**/.18**/.31**	.21**/.10**/.42**	–

*****Above the diagonal: rich countries with GDP higher than $25000; below diagonal: poor countries with GDP lower than $4000.

[57] As to be expected, subjective faith appears as the most pivotal variable that is most tightly associated with all others, especially with the frequency of informal prayer. On the other hand, belief in afterlife seems to represent the most isolated dimension that is particularly unaffected by the relevance of church teaching. Especially, pastoral church doctrines are drastically unrelated to this very existential aspect of religious concerns.

[58] Catholic as well as Protestant religiosity seems to become less multidimensional with increasing level of socio-economic development, as practically all intercorrelations are much higher in the richest than in the poorest countries. There is a greatly increased tendency of subjective faith to translate into religious behavior in terms of social participation at services as well as informal private prayer. While such patterns seem to be less pronounced in the case of Orthodox believers, no reliable conclusions can be drawn because the Orthodox sample living in highly developed nations is very small (70).

The Dependent Variables

[59] The index of "work orientation values" has been constructed by combining five ordinal scale variables that tap the individual commitment to work and the view that hard work is a

moral human obligation, a duty to be fulfilled for oneself as well as for society. By inspecting Tables 7 and 8, it is evident that all items have a heavy bias in the affirmative direction, particularly the notion that "work is very important in my life." Nevertheless, the resulting index approaches somewhat a normal distribution when the (completely empty) left tail (values between -3 and -1) is cut off, with modal values between 7 and 10.

Table 7. Values Related to Work

	Very important (6)*	**Rather important (3)***	**Not very important (0)***	**Not at all important (-3)***
How important is work in your life? (a005)	25614 (67.8%)	10201 (27.0%)	1448 (3.8%)	491 (1.3%)

	Strongly agree (+2)*	**Agree (+1)***	**Neither agree nor disagree (0)***	**Disagree (-1)***	**Strongly disagree (-1)***
Work should come first even if it means less spare time (c041)	8155 (21.6%)	14206 (37.6%)	6744 (17.9%)	7386 (19.6%)	1263 (3.3%)
Work is a duty toward society (c039)	9533 (25.3%)	17867 (47.3%)	6007 (15.9%)	3777 (10.0%)	570 (1.5%)
It's humiliating to receive money without having to work for it (c037)	9153 (24.2%)	13.786 (36.5%)	6819 (18.1%)	6440 (17.1%)	1556 (4.1%)
People who don't work turn lazy (c036)	10963 (29.0%)	15406 (40.8%)	5275 (14.0%)	5168 (13.7%)	942 (2.5%)

* Values given in the total work orientation index.

Table 8. Frequency Distribution of Work Orientation Values

Values:	-0	1-2	3-4	5-6	7-8	9-10	11-12	13-14
Percentages:	1.3	6.5	12.3	16.9	21.1	20.0	12.6	8.3

Empirical Results

[60] Given the key role of subjective faith among all dimensions of religiousness, we ask in what way it relates to the work value index in the three major Christian confessions. This large impact can be clearly seen from Figures 1 and 2 where the frequency distributions of this index is presented for the two most contrasting subgroups: nonbelievers on the one hand (Figure 1) and very strong believers (Figure 2) on the other. While zero values are very infrequent under both conditions, highly religious respondents are far more likely to report values above eight, while nonbelievers are more concentrated on the left section of the scale (values 1-6). Evidently, this correlation is most tight among Protestants where nonbelievers stand out with extremely low index values, while Orthodox Church members are most likely to maintain high work commitments under low religiosity conditions.

Figure 1: Frequency distribution of total work orientation index values: according to confession (respondents with very low religiosity)

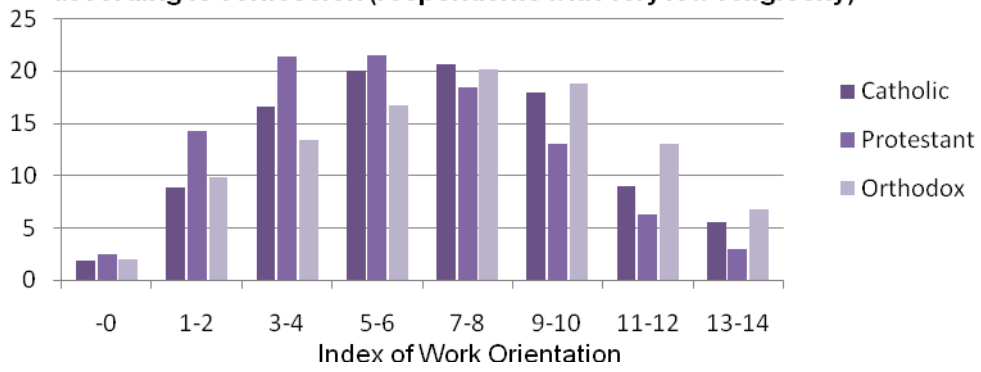


Figure 2: Frequency distribution of total work orientation index values: according to confession (respondents with very high religiosity)



[61] All these trends contribute to the overall regularity that there is much more inter-confessional convergence among strong believers than among nonbelievers. This supports the conjecture that the three confessions tend to socialize their brethren into a common Christian "work culture" – not into a culture distinctive to their particular traditions and theological creeds. On the other hand, it appears paradoxical that inter-confessional divergences become even more pronounced under highly secularized conditions. In particular, there is a need for explaining why Protestants are more disposed than Catholics to diminish their work orientation when they withdraw from their religious faith. Following Gerhard Schmidtchen or David Tracy, it could be speculated that regardless of their subjective religiosity, Protestants are characterized by an "individualistic mentality" cultivated through centuries, a generalized life condition that makes them prone to succumb to various current social movements and fashions and to adopt the "hedonistic" values of modern society. By contrast, secularizing Catholics may remain within (even older) communalistic "milieus" that continue to transmit traditional values even when explicit religiosity has evaporated.

[62] As argued above in our theoretical exposition, individual work values may not only be conditioned by *individual* religiosity, but also by the religious character of the *environmental cultural setting*. For tapping this collective influence, we construct an additional variable that cumulates the arithmetic mean on two variables generated by all respondents of a specific country: the degree of subjective faith and the importance given to church teachings. While we know that different population strata participate unequally in the definition of cultural value systems, we still assume that such averages reflect at least partially the religious impregnation of national cultures.

[63] As seen from Table 9, such cultural impacts are highly significant in all three confessions and on all levels of personal subjective faith. Consistently, highest work commitment levels are achieved by highly religious individuals in the most religious countries, while lowest values are maintained by nonbelievers in secularized nations. In all cases, nonbelievers are somewhat less affected contextual culture than intensive believers, especially among Protestants where cultural impacts remain below significance levels. This confirms the hypotheses that because of its individualistic character, Protestantism does not give rise to a pronounced religious culture that could still preserve a certain religious impact on work value systems when individual religiosity declines.

Table 9. Average Values of the Work Orientation Index under Different Conditions of Personal Subjective Faith and Mean Religiosity of the National Population

Mean national index of subjective faith and church teaching)	**Catholics**				**Protestants**				**Orthodox**			
	Personal subj. faith			F-Test Sign.	Personal subj. faith			F-Test Sign.	Personal subj. faith			F-Test Sign.
	low	med	high		low	med	high		low	med	high	
< 18	6.8	7.4	8.3	.000	5.9	6.4	7.0	.026	7.4	7.8	8.7	.000
18-21	6.6	7.2	7.9	.000	5.8	6.9	7.2	.000	6.8	6.9	7.4	.000
> 21	7.5	8.2	9.1	.000	6.5	7.8	8.6	.000	8.2	8.7	10.3	.000
F-Test (sign.)	.000	.000	.000		.386	.000	.000		.000	.000	.000	

[64] In a second step of analysis, we ask:

- Whether these effects of subjective religiosity are globally pervasive or restricted to specific national or regional cultures;
- To what degree such impacts are paralleled or counteracted by influences stemming from the other four religiosity dimensions.

Given the planetary extension of the World Values Survey, these questions can be separately answered for 47 nations (with a predominantly or at least considerable Christian population) that have participated in the fourth wave (1999-2004).

[65] An inspection of Table 10 leaves no doubt that the impact of subjective religiosity on work commitment is of a pervasive transcultural nature. Not less than 38 of all 47 nations show significant positive correlations, while no country shows a negative coefficient (even insignificant). However, the old Anglo-Saxon countries (Great Britain and Northern Ireland) as well two of their former colonies (Uganda and Zimbabwe) stand out as notable

exceptions – together with some Eastern European nations (Albania, Bielorus, Czech Republic, and Ukraine).

[66] When the level of subjective faith is controlled, the *importance given to church teaching* seems to exert a limited independent effect in the same direction. Among all 47 countries, 32 show positive partial coefficients, and only one negative correlation (compared with 12 positive coefficients) surpasses the level of statistical significance. This contrasts sharply with the variable "participation at religious services" where 32 correlations point in the negative direction (12 of them above significance), while Moldavia and Romania are the only countries where a strong contrary tendency can be observed. It is remarkable that this regularity also holds for the United Kingdom, so that the combined net effect of religiosity on work values is negative exactly for this country where Puritanism has played such a considerable role.

[67] While almost no noticeable effects are associated with the habits of *informal prayer*, the *belief in afterlife* stands out as a factor that seems to exert a pervasive negative impact on work related values and commitments. Among the 46 coefficients (the variable was not measured in South Korea), 36 point in the negative direction, 23 of them on a statistically significant level. Thus, while Barro and McCleary's arguments about the labor-diverting effects of religious services seem to hold, their claims related to the positive impact on otherworldly beliefs (especially in hell) seem to be clearly refuted. However, more sophisticated multivariate methods (which again take into account confessional particularities) are needed for drawing more convincing conclusions.

Table 10. Correlations Between Work Values and Five Dimensions of Individual Religiosity in 46 Countries Participating in WVS 1999-2003: Bivariate and Partialized Coefficients

	Subjective faith	**Church teaching (subj. faith controlled)**	**Religious services (subj. faith controlled)**	**Informal prayer (subj. faith controlled)**	**Belief in life after death (subj. faith controlled)**
Albania	.01	-.18*	-.07	.05	-.14*
Argentina	.27**	.01	-.03	-.01	-.04
Belgium	.17*	.11**	-.07*	+.02	-.11**
Bosnia/Herzegovina	.15**	-.10	-.12*	-.07	-.17**
Bulgaria	.17**	-.01	-.14**	-.05	-.20**
Belarus	.08	.01	-.02	-.10*	-.14**
Canada	.09**	.03	-.08**	-.05	-.08**
Chile	.10**	.02	-.04	.01	.03
Croatia	.15**	.06	-.08*	-.02	-.07*
Czech Republic	.04	.03	-.09*	.04	.02
Denmark	.09**	.06	-.02	-.02	-.12**
Finland	.14**	.02	-.02	.01	-.01
France	.16**	.01	-.01	.02	-.12**
Germany	.07*	-.04	-.03	-.07	-.15**
Greece	.25**	.11*	-.00	.01	-.06*
Hungary	.05	-.01	-.05	.01	-.11**
Iceland	.11**	.20**	.04	-.03	-.05

Ireland	.11*	-.06	-.00	-.01	.00
Italy	.14**	.05	-.06*	-.08*	-.17**
Korea South	.11**	.05	-.10*	-.04	–
Latvia	.10*	.18**	-.04	-.04	-.09
Lithuania	.13**	.05	-.10**	-.10*	-.10*
Luxemburg	.19**	.08	.03	.00	-.03
Macedonia	.11**	.02	-.01	-.04	-.01
Malta	.06*	.10**	-.01	.01	.03
Mexico	.18**	-.02	-.02	.02	-.01
Rep of Moldova	.18**	-.01	.07*	-.04	-.00
Netherlands	.14*	.16**	-.09	-.10*	-.06
Northern Ireland	.05	-.02	-.01	-.02	-.04
Peru	.16**	-.03	-.03	-.01	.01
Philippines	.12**	.07*	.02	.02	.11**
Poland	.13**	.08*	.02	-.04	-.09*
Portugal	.20**	-.01	-.02	-.06	.03
Romania	.17**	.06	.13**	.11*	-.06
Russia	.10**	-.01	-.04	-.06	-.09*
Serbia/Montenegro	.13**	-.04	-.11*	-.02	-.07*
Slovakia	.12**	.06	.02	.04	-.11**
Slovenia	.12**	.01	.02	.02	-.12**
South Africa	.20**	.10**	-.05*	-.02	-.01
Spain	.17**	.08**	-.02	-.06	-.07*
Sweden	.13**	.08	-.05	.10	-.05
Tanzania	.15**	-.01	.00	.02	.14**
Uganda	.00	.00	.00	-.03	-.07*
Ukraine	.07	.12*	-.08	-.05	-.10*
United Kingdom	.00	-.06	-.11*	.06	-.03
United States	.10*	.08	-.02	.00	-.08*
Zimbabwe	.05	.14**	.02	-.03	-.06

* $p < .05$ ** $p < .01$ (one-tailed)

[68] First of all, it is essential to separate the independent causal effects of all dimensions of religiosity by entering them as predictors in a multivariate regression model. Table 11 reveals basic similarities between the three confessions in the sense that in all of them subjective faith has a consistently positive, and belief in afterlife a negative, impact on work orientations. However, otherworldly beliefs seem least consequential in Catholic settings while exerting most influence on Orthodox believers. As to be expected, church teaching is irrelevant in the Orthodox sphere, while it is most influential for Protestants – driving the explanation power of the multivariate model up to over ten percent of the variance. This supports the Weberian notion that by their theological doctrines, Protestant churches may be able to instill work-affirmative attitudes and behavioral dispositions. Negative effects stemming from frequent participation at services are very small and completely limited to the Catholic setting. In fact, it may be argued that the respective correlations presented in Table 10 are spurious and will vanish when all other religious aspects are simultaneously controlled. Finally, Table 11 confirms that apart from all individual variables, national culture exerts a considerable influence on work values in Catholic as well as Protestant settings. Its complete

irrelevance in the Orthodox sphere is unexpected because it contrasts with the highly significant correlations found in Table 9.

Table 11. Causal Effects of Five Dimensions of Religiosity on Work Orientation: According to Confession (Multivariate Regression Equations: BETA-Coefficients)

	All	**Catholics**	**Protestants**	**Orthodox**
Subjective faith	+.18**	+.17**	+.15**	+.19*
Church teaching	+.05**	+.06**	+.09**	+.01
Religious services	-.03*	-.05**	-.02	-.00
Informal prayer	-.05**	-.03**	-.05*	-.03
Belief in afterlife	-.09**	-.06**	-.09**	-.13**
National mean in subjective faith and church teaching	+.16**	+.16**	+.23**	+.03
Corr. R2	.069	.068	.107	.031
(N =)	(24362)	(14357)	(4615)	(4236)

* p < .05 ** p < .01

[69] In order to explore possible interactive relationships between different predictors, it is analyzed how the effects of the remaining four factors vary under different levels of subjective religiosity. As a most conspicuous regularity, Table 12 shows that in all confessions, belief in afterlife has most significance when subjective faith is low. Particularly in Catholic settings, its impact is zero among strong believers. From this, we may tentatively conclude that this impact will continue (or even strengthen) when religious faith diminishes in the course of secularization.

[70] On the other hand, the positive effects of church teachings on Protestants are most pronounced among the most highly committed believers – again supporting the notion that work values are intrinsically related to the Protestant faith. Finally, Table 12 confirms the impression that neither formal participation at services nor informal praying behavior is consistently related to the significance of work. As to be expected from the results of Table 9, intensive believers are most "vulnerable" to influences stemming from national culture, particularly in the orthodox setting where even moderate believers remain totally unaffected.

Table 12. Causal Effects of Four Dimensions of Religiosity on Work Orientation: According to Confession and Level of Subjective Religiosity (Multivariate Regression Equations: BETA-Coefficients)

	Catholics			**Protestants**			**Orthodox**		
	Subjective faith			Subjective faith			Subjective faith		
	low	med	high	low	med	high	low	med	high
Church teaching	.05*	.08**	.05*	.04	.09**	.13**	.04	.02	.01
Religious services	-.04	-.04*	-.03*	-.06	.02	-.03	-.02	.03	.00
Informal prayer	.01	-.01	.01	-.04	.02	-.05*	.01	-.05	.04
Belief in afterlife	-.11**	-.06**	-.01	-.10**	-.11**	-.04	-.13**	-.14**	-.06
National mean in subjective faith and church teaching	.11*	.14**	.17**	.02	.20**	.25*	.05	.01	.09**
Corr. R2	.021	.028	.032	.008	.059	.080	.015	.024	.009
(N =)	2127	6579	5648	1077	1682	1854	955	2265	1014

* p < .05 ** p < .01

[71] How weighty are these religious influences in comparison with effects stemming from socio-economic sources? The three multivariate regression models shown in Table 13 provide insight into the explanatory power of religious and socio-economic variables separately and combined.

Table 13. Causal Effects of Three Dimensions of Religiosity and of Socio-Economic Determinants on Work Orientation: According to Confession (Multivariate Regression Equations: BETA-Coefficients)

	Catholics			**Protestants**			**Orthodox**		
	Regression model			Regression model			Regression model		
	I	II	III	I	II	III	I	II	III
Subjective faith	+.12**		+.11**	+.10**	–	+.11**	+.18**	–	+.19**
Church teaching	+.06**		+.04**	+.10**	–	+.06*	-.01	–	-.03
Belief in afterlife	-.08**		-.07**	-.11**	–	-.10**	-.14**	–	-.12**
National mean in religious faith and church teaching	+.14**		+.09**	+.07**		-.02	+.01		-.02
GDP/capita	–	-.18**	-.10**	–	-.23**	-.21**	–	-.09**	-.08**
Size of city		-.01	+.01		-.05**	-.05**		-.02	-.01
Income level		-.06**	-.05**		-.03	-.01		+.07**	+.08**
Education		-.07**	-.06**		-.07**	-.07**		-.06**	-.05**

Corr. R2	.052	.045	.067	.034	.061	.074	.030	.013	.042
(N =)	(9496)			(2628)			(3892)		

* p < .05 ** p < .01

[72] As a most conspicuous result, both sets of variables together explain a larger share of total variance than either set alone in all three confessions, and the influence emanating from the three individual variables is almost unaffected when GDP per capita and the respondent's level of urbanization, income, and education area are controlled. The same is evidently not true for the impact of national culture, which persists only in Catholic settings under such statistical controls. In Protestant and Orthodox spheres, such correlations (found in Tables 9, 11 and 12) may be considered as artifacts, camouflaging the more "genuine" negative association of work values with national GDP per capita. In fact, the level of national economic development is evidently the most relevant structural factor, far more powerful than the three aspects of individual status. Education shows a consistent negative relationship in all confessions, while the expected impact of city size appears only in Protestant settings, and income is even positively related to work commitment in Orthodox settings.

[73] Thus, we may tentatively conclude:

- The positive effects of personal faith and the negative impact of afterlife beliefs cannot be explained away as artifacts arising from any of the usually most relevant socio-economic conditions;
- Strong secularization effects are associated with higher macroeconomic development, but much weaker and less consistent effects are associated with the status positions of individuals within these respective societies.

[74] Following the secularization thesis one step further, we may hypothesize that religious influences will fade off under conditions of high economic development, because work values are more determined by "this-worldly" considerations like personal identity, career success, or professional self-actualization. Adding the theory of functional differentiation, we may expect even committed believers to be less affected, because they tend to keep their religious faith separated from work and other nonreligious concerns. Looking at Table 14, we find indeed that national cultures lose their impact on higher development levels, while in all other respects, there is very little support for such theoretical expectations. Among Catholics and Protestants, the impact of subjective religiosity remains significant in wealthier countries, and the positive effect of church teaching as well as the negative influence associated with afterlife beliefs become even more pronounced. In Orthodox settings, similar trends can be observed by comparing poorer and middle-level countries (while the sample in rich countries is too small for providing reliable results).

Table 14. Causal Effects of Five Dimensions of Religiosity on Work Orientation: According to Confession and GDP per Capita of Country (Multivariate Regression Equations: BETA-Coefficients)

	Catholics			**Protestants**			**Orthodox**		
	GDP per capita			GDP per capita			GDP per capita		
	<4000	4 -25000	>25000	<4000	4 -25000	>25000	<4000	4 -25000	>25000
Subjective faith	.17**	.15**	.18**	.03	.23**	.13**	.18**	.19**	–
Church teaching	.01	.05**	.08**	.05	.10**	.06**	-.03	.09*	–
Religious services	-.02	-.04**	-.05**	.03	-.08*	-.02	-.01	.01	–
Informal prayer	.00	-.01	-.05*	-.10*	-.09*	.03	-.04	.01	–
Belief in afterlife	-.01	-.04**	-.08**	-.03	-.04	-.11**	-.10**	-.13**	–
National mean in religious faith and church teaching	.16**	.05**	-.01	.12**	-.03	-.05	.04	.01	–
Corr. R2	.067	.026	.024	.015	.031	.018	.022	.045	.022
(N =)	2743	6146	5465	784	1397	2432	3045	1138	51

* p < .05 ** p < .01

[75] It might be argued that while contextual variables like GDP per capita may condition the macrosocietal relationship between religion and the economic sphere, they are not adequate to tap this same relationship on the microscopic intra-individual level. Instead, individual status characteristics like income, education, or urbanization may decide to what degree religion spills over into the world of work. In fact, we may expect that poor, uneducated, and rural populations are (still) more affected by religion than wealthier, highly educated, urban strata, particularly in the Catholic sphere where traditional settings are often characterized by an intensive, church-guided communalistic life.

[76] Looking first at urbanization, we indeed find the highest impact of subjective faith among nonurban populations in poorer countries – while non GDP-related differences can be detected among inhabitants of middle-sized and larger cities. This contrasts with the impact of culture that is surprisingly persistent (or even becoming more pronounced) in urban settings. On the other hand, these same poor rural dwellers are least affected by church teachings, and the effect of afterlife beliefs also remains below significance levels. On intermediate levels of socio-economic development, such other-worldly orientations seem to be relevant only for metropolitan populations while in the richer countries, these impacts are pervasive regardless of city size (Table 15).

Table 15. Causal Effects of Five Dimensions of Religiosity on Work Orientation: According to Confession National GDP per Capita and Size of City Where Respondent Lives (Multivariate Regression Equations: BETA-Coefficients)

	GDP < 4000			**GDP 4000–25000**			**GDP > 25000**		
	Size of city			Size of city			Size of city		
	<5000	5-50000	< 50000	<5000	5-50000	< 50000	<5000	5-50000	< 50000
Subjective faith	.29**	.16**	.12**	.13**	.11**	.15**	.17**	.16**	.17**
Church teaching	.01	.00	.02	.04	.10**	.06**	.06*	.09**	.05*
Religious services	-.07	.03	.03	-.04	-.04	-.01	.01	-.02	-.06*
Informal prayer	-.13**	.01	-.03	-.05	.00	.03	-.06	-.06*	-.02
Belief in afterlife	-.05	-.15**	-.08*	-.04	-.01	-.08**	-.11**	-.09**	-.08**
National mean in religious faith and church teaching	-.09**	.17**	.14**	.09**	.08**	.12**	.01	.07**	.00
Corr. R2	.054	.061	.040	.022	.031	.057	.025	.033	.018
(N =)	1058	1150	2101	2074	2020	2771	1764	2998	3369

* p < .05 ** p < .01

[77] Similar inconsistencies turn out when different social class levels are compared. Conforming to our hypotheses, it is found that least total variance is explained in the case of high-income respondents from richer countries, because a low impact of subjective religiosity combines with zero effects of church teachings and afterlife beliefs (Table 16). Similarly, the expectation is borne out that cultural effects vanish among higher income strata in countries of all development levels. On the other hand, it is surprising to what extent the individual predictors explain the work values of high-income incumbents in middle-level countries (where church teachings unfold their maximum positive effects). Poor and rich countries have in common that rising income diminishes the impact of subjective faith, but they sharply diverge in the moderating influence of income on the correlation with afterlife beliefs (which becomes even more pronounced in poorer world regions).

Table 16. Causal Effects of Five Dimensions of Religiosity on Work Orientation: According to Confession and Level of Individual Income and National GDP per Capita (Multivariate Regression Equations: BETA-Coefficients)

	GDP < 4000			**GDP 4000–25000**			**GDP > 25000**		
	Income level			Income level			Income level		
	low	med	high	low	med	high	low	med	high
Subjective faith	.19**	.20**	.11*	.15**	.13**	.21**	.20**	.11**	.13**
Church teaching	-.07**	.02	.03	.02	.06**	.09**	.07**	.05*	.04
Religious services	.03	-.03	.02	-.01	-.07**	-.03	-.01	.01	-.06
Informal prayer	-.07**	.05	.04	-.04*	-.01	.01	-.07**	-.06	-.01

Belief in afterlife	-.03	-.06**	-.13**	-.04*	-.07**	-.07**	-.10**	-.04	-.04
National mean in religious faith and church teaching	.14**	.19**	.03	.07**	.13**	-.05	.06*	.04	-.02
Corr. R2	.052	.079	.020	.032	.039	.043	.036	.013	.009
(N =)	2628	2504	1265	2943	2830	1970	2127	2697	1977

* p < .05 ** p < .01

Table 17. Causal Effects of Five Dimensions of Religiosity on Work Orientation: According to Confession and Level of Individual Education and National GDP per Capita (Multivariate Regression Equations: BETA-Coefficients)

	GDP < 4000			**GDP 4000–25000**			**GDP > 25000**		
	Education			Education			Education		
	low	med	high	low	med	high	low	med	high
Subjective faith	.18**	.20**	.13**	.16**	.13**	.18**	.16**	.17**	.15**
Church teaching	-.06*	.01	.03	-.02	.10**	.07*	.05*	.05*	.08**
Religious services	.02	.01	.06*	-.02	-.04	-.03	.01	-.02	-.04
Informal prayer	-.04	-.02	-.06	-.04*	-.01	-.01	-.06*	-.05	-.02
Belief in afterlife	-.04	-.05**	-.09**	-.02	-.04*	-.05	-.10**	-.06**	-.08**
National mean in religious faith and church teaching	.16**	.10**	.16***	.08**	.05*	.06*	.08**	.03	-.05
Corr. R2	.050	.040	.050	.027	.034	.047	.029	.020	.015
(N =)	1906	3440	1584	3488	4019	1623	3510	3103	1671

* p < .05 ** p < .01

[78] Turning to education finally, the results corroborate the general impression that in accordance with the secularization thesis, overall religious influences on work values are weakest among higher strata in rich countries, particularly because cultural influences have shrunk to zero levels. On the other hand, the positive impact of personal subjective faith remains on the same level, indicating that this effect is highly pervasive, spreading equally across populations of different confessions, world regions, national development levels, and social strata (Table 17). By contrast, the positive influence emanating from church teachings and the work-diverting implications of otherworldly orientation seem to be more limited to populations with middle or higher education and/or located in higher developed countries. Even among highest educational strata in wealthier countries, these two effects remain on a significant level – adding to the relevance of personal religiosity that has gained ground to the cost of collective cultural factors.

Conclusions

[79] Our extensive international study has provided a manifold of findings that are apt to clarify several long-discussed questions concerning the causal impact of Biblical religion on the sphere of work values and work commitment.

[80] As a major result, it has been found that people who accord a central place to religion and God are consistently more likely to maintain that work is a duty to society and a highly important part of their personal life. This regularity spreads almost equally over all three major confessions (Catholics, Protestants, and Orthodox), thus supporting the initial contention that an affirmative attitude to work is deeply intrinsic in biblical religion as a whole, not just in some of their special temporary interpretations (e.g., Protestant Puritanism). As the same positive correlations appear over a very broad sample of nations on various continents, we may also conclude that it is not likely to be overridden by any ethnic, national, or regional culture. And given its persistence through almost all statistical controls of socio-economic factors (national GDP per capita as well as individual urbanization, income, and education), it seems evident that it is only marginally affected by the main forces to which the decline of religion is usually attributed: institutionalization, functional differentiation, and secularization.

[81] On a much lower level, the same positive impact is found for a second dimension of individual religiosity: the importance accorded to moral teachings of the church. However, this factor is irrelevant in the case of Orthodoxy, thus supporting the hypothesis that the Eastern churches are least disposed to provide ethical standards for this-worldly behavior. In contrast to subjective faith, church teaching has least impact among poorest nations, indicating that it is a more "intellectual" aspect that presupposes skills of reading and verbal discussions. As one the few results that support the Weberian thesis, it is found that it is among Protestants where church teaching unfolds the most positive work-related effects.

[82] Apart from these subjective religious dispositions, individual work values are also heavily affected by the surrounding (religious or secular) culture. This is manifested in the regularity that a strong additional causal impact is emanating from the contextual variable "national mean of religious faith and church teaching." Such cultural effects have a considerably larger impact on believers than nonbelievers so that they are more efficient to boost work values of the religious than to accelerate their decline in the case of secularized respondents.

[83] Thus, the contention seems reasonable that religion is affecting individual work values in two complementary ways: directly by motivating religious individuals to accept work as a duty and central concern of life; and indirectly by promoting a "work-oriented" culture that is instilled in all individuals by socialization, regardless of their individual religious faith. In strong accordance with conventional theories of secularization and individualization, it is found that such collective influences lose ground in more developed countries and among higher economic strata, so that work values become more and more based on purely intra-individual factors.

[84] Inspecting the participation at religious services as a third (behavioral) dimension of individual religiousness, there is only very limited support for the Barro and McCleary thesis

that it affects economic production negatively by drawing time and energy away from secular concerns into "unproductive" channels. While it is true that the correlation coefficients across the countries tend to the negative and that there is a (small) significant negative relationship among moderate and high Catholic believers, the correlation vanishes in most cases when socio-economic variables are controlled.

[85] While the fourth religious dimension (informal prayer) is only conspicuous by the complete absence of any consistent relationships, the fifth (belief in afterlife) shows a spectacular negative correlation with work values that pervades all confessions, the majority of Christian countries worldwide, and almost all segments of the population (except lower strata in very poor countries). While these results certainly clash with the Barro and McCleary findings that widespread beliefs in hell are promoting economic growth, they fit well into many other – historically better founded – arguments which stress the notion that afterlife beliefs motivate people to shift personal investments (in terms of subjective attention time, money, personal energy, etc.) from this-worldly to other-worldly concerns. The surprising pervasiveness of this relationship indicates that similar to subjective religiosity, it taps a dimension that is not much affected by specific confessional interpretations. Beliefs concerning life after death (or the immortality of the soul) may even transcend the boundaries of biblical religions, because they have also been salient in other (pagan) religions and because they are more associated with popular religious folklore than with sophisticated theological thinking.

[86] Contrasting with this "intra-confessional" character of afterlife notions, the core relationship to God (operationalized in the variable "subjective faith") may well tap a "supra-confessional" dimension equally indifferent to any denominational or sectarian strifes.

[87] A synopsis of the results presented above allows two additional tentative generalizations that may provide the ground for more detailed future research:

1. While Orthodoxy stands out in several important ways, the differences between Catholic and Protestant believers are in general surprisingly small. This supports our manifold introductory arguments that Max Weber has overstated the case of Protestantism, while neglecting the deeper communalities pervading all biblical religions.
2. While many expectations concerning secularization effects have not been borne out, it is nevertheless remarkable that the explanatory power of religious predictors is lowest within urbanized, wealthier, and well-educated strata in highly developed countries. However, at least the positive impact of subjective faith on work orientation is not much diminished even under these very "modernized" conditions.

Bibliography

Ali, Abbas J., Thomas Falcone, and Azim Ahmed

1995 "Work ethic in the USA and Canada." *Journal of Management* 14, 6: 26-34.

Arslan, M.

2001 "The Work Ethic Values of Protestant British, Catholic Irish and Muslim Turkish." *Journal of Business Ethics* 31, 4: 321-39.

Banks, R.

1998 "The Protestant Work Ethic." *Faith in Business Quarterly* 2, 2: 5-7.

Aygün, Zahide Karakitapoglu, Mahmut Arslan, and Güney Salih

2007 "Work values of Turkish and American Students." *Journal of Business Ethics* 80, 2: 205-23.

Azzi, Corry, and Ronald Ehrenberg

1975 "Household Allocation of Time and Church Attendance." *Journal of Political Economy* 83, 1: 27-56.

Barro, Robert J., and Rachel M. McCleary

2003 "Religion and Economic Growth Across Countries." *American Sociological Review* 68, Oct.: 760-81.

Bellah, Robert N.

1963 "Some Reflections on the Protestant Ethic Analogy in Asia." *Journal of Social Issues* 19, 1: 52-60.

Bellah, Robert N. et al.

1986 *Habits of the Heart*. New York: Harper and Row.

Benz, Ernst

1964 "I fondamenti cristiani della tecnica occidentale." Pp. 214-63 in *Tecnica e casistica*. Edited by E. Castelli. Rome.

Berger, Peter L.

1969 *The Sacred Canopy: Elements of a Sociological Theory of Religion*. Garden City: Doubleday.

Blume, Michael et al.

2006 "Religiosität als demographischer Faktor." *Marburg Journal of Religion* 11, 1: 1-22. Available online at http://www.uni-marburg.de/fb03/ivk/mjr/pdfs/2006/articles/blume2006.pdf.

Calvin, John

1585 *An Abridgement of the Institution of Christian Religion*. Edinburgh: Thomas Vautrollier.

Chell, Robert M., and Diane K. Wentworth

1997 "American College Students and the Protestant Work Ethic." *The Journal of Social Psychology* 137, 3: 284-96.

Chusmir, L. H., and C. S. Koberg

1988 "Religion and Attitudes toward Work: a new Look at an old Question." *Journal of Organizational Behavior* 9, 3: 251-62.

Corbett, J. M.

1990 *Religion in America*. Englewood Cliffs: Prentice Hall.

Davidson, J. C., and D. P. Caddell

1994 "Religion and the Meaning of Work." *Journal for the Scientific Study of Religion* 33, 1: 135-47.

Delacroix, Jacques, and François Nielsen

2001 "The Beloved Myth: Protestantism and the Rise of Industrial Capitalism in Nineteenth-Century Europe." *Social Forces* 80, 2: 509-53.

Dobbelaere, K.

1985 "Secularization Theories and Sociological Paradigms: A Reformulation of the Private-Public Dichotomy and the Problem of Societal Integration." *Sociological Analysis* 46, 4: 377-87.

2000 "Church Involvement and Secularization: Making Sense of the European Case." Pp. 19-36 in *Secularization, Rationalism and Sectarianism*. Edited by E. Barker, J. A. Peters, and K. Dobbalaere. Oxford: Clarendon.

Ewing, Bradley T.

2000 "The Wage Effect of Being raised in the Catholic Religion." *The American Journal of Economics and Sociology* 59, 3: 419-32.

Feldmann, Horst

2007 "Protestantism, Labor Force Participation and Employment across Countries." *American Journal of Economics and Sociology* 66, 4: 795-816.

Felling, Albert, Jan Peters, and Osmund Schreuder

1987 *Religion im Vergleich: Bundesrepublik Deutschland und Niederlande*. Frankfurt am Main: Peter Lang.

Ferguson, Niall

2003 "Why America Outpaces Europe (Clue: The God Factor)." *The New York Times* (June 8).

Fukuyama, Y.

1960 "The Major Dimensions of Church Membership." *Review of Religious Research* 2, 1: 154-61.

Fuller, Louise

2002 *Irish Catholicism Since 1950: The Undoing of a Culture*. Dublin: Gill and Macmillan.

Furnham, A.

1990 "The Protestant Work Ethic and Type A Behaviour." *Psychological Records* 66, 1: 323-28.

Furnham, A., M. Bond, P. Heaven, and D. Hilton

1993 "A Comparison of Protestant Work Ethic Beliefs in Thirteen Nations." *Journal of Social Psychology* 133: 185-97.

Glock, C. Y.

1972 "On the Study of Religious Commitment." Pp. 38-56 in *Religion's Influence in Contemporary Society: Readings in the Sociology of Religion*. Edited by J. E. Faulkner. Columbus: Charles E. Merril.

Goshen-Gottestein, E. R.

1984 "Growing Up in 'Geula': Socialization and Family Living in an Ultra-Orthodox Jewish Subculture." *Israeli Journal of Psychiatry and Related Sciences* 21, 1: 37-56.

Greenberg, J.

1978 "Equity, Equality and the Protestant Ethic. Allocating Rewards Following Fair and Unfair Competition." *Journal of Experimental Social Psychology* 14: 217-26.

1979 "Protestant Ethic Endorsement and the Fairness of Equity Inputs." *Journal of Research in Personality* 13, 1: 81-90.

Grier. Robin

199 "The Effect of Religion on Economic Development: A Cross National Study of 63 Former Colonies." *Kyklo*s 50 (February): 47-62.

Guiso Luigi, Paola Sapienza, and Luigi Zingales

2003 "People's Opium? Religion and Economic Attitudes." *Journal of Monetary Economics* 50, 1: 225-82.

Halman, Loek, Thorleif Pettersson, and Johan Verweij

1999 "The Religious Factor in Contemporary Society." *International Journal of Comparative Sociology* 40, 1: 141-60.

Hill, Roger B.

1992 *History of the Work Ethic*. Athens: University of Georgia Press.

Inglehart, Ronald, and Wayne E. Baker

2000 "Modernization, Cultural Change, and the Persistence of Traditional Values." *American Sociological Review* 65,1, 19-51.

Inglehart, Ronald, and Pippa Norris

2004 *Sacred and Secular Religion and Politics Worldwide*. Cambridge: Cambridge University Press.

Kenny, M.

1997 *Goodbye to Catholic Ireland*. London: Sinclair and Stevenson.

Killeen Jarlath

2004 "Louise Fuller: Irish Catholicism Since 1950: the Undoing of a Culture." *Irish University Review: S Journal of Irish Studies* 34 (March 22): 186-91.

King, Morton

1967 "Measuring the Religious Variable: Nine Proposed Dimensions." *Journal for the Scientific Study of Religion* 6 (Fall): 173-90.

Landes, David S.

1999 *The Wealth and Poverty of Nations*. London: Abacus.

2000 *Revolution in Time: Clocks and the Making of the Modern World*. Cambridge: Harvard University Press.

Le Goff, Jacques

1980 *Time, Work, and Culture in the Middle Ages*. Translated by Arthur Goldhammer. Chicago: University of Chicago Press.

Lenski, Gerhard

1961 *The Religious Factor*. Garden City: Doubleday.

Lindseth O. H., and G. O. Listhau

1994 "Religion and Work Values in the 1990s: A Comparative Study of Western Europe and North America." Pp. 85-98 in *Scandinavian Values. Religion and Morality in the Nordic Countries*. Edited by T. Pettersson and O. Riis. Upsala: Acta Universitatis Upsaliensis.

Lipset, Seymour M.

1990 "The Work Ethic - Then and Now." *Public Interest* 98: 61-69.

Luhmann, Niklas

1977 *Funktion der Religion*. Frankfurt: Suhrkamp.

1997 *Soziale Differenzierung: Zur Geschichte einer Idee*. Wiesbaden: VS Verlag für Sozialwissenschaften.

Ma, L.

1986 "The Protestant Ethic among Taiwanese College Students." *The Journal of Psychology* 120: 219-24.

Maccoby, M.

1988 *Why Work*. New York: Simon and Schuster.

McCleary, Rachel M., and Robert J. Barro

2006 "Religion and Economy." *Journal of Economic Perspectives* 20, 2: 49-72.

Münch, Richard

1990 "Differentiation, Rationalization, Interpretation: the Emergence of Modem Society." Pp. 441-64 in *Differentiation Theory and Social Change*. Edited by J. F. Alexander and P. Colony. New York: Columbia University Press.

Niles, F. S.

1994 "The Work Ethic in Australia and Sri-Lanka." *Journal of Social Psychology* 134,1: 55-59.

1999 "Toward a Cross-Cultural Understanding of Work-Related Belief." *Human Relations* 52, 7: 855-67.

Novik, Benjamin

2000 *Analysis of the Fundamentals of Social Conception of the Russian-Orthodox Church*. Moscow.

Ovitt, George Jr.

1986 "The Cultural Context of Western Technology: Early Christian attitudes toward Manual Labor." *Technology and Culture* 27, 3: 477-500.

Parsons, Talcott

1973 "A Functional Theory of Change." Pp. 72-86 in *Social Change*. Edited by E. Etzioni-Halevy and A. Etzioni. New York: Basic Books.

Putnam, R.

2000 *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.

Rokeach, Milton

1969 "Value Systems in Religion (Part I)." *Review of Religious Research* 2: 3-23.

1973 *The Nature of Human Values*. New York: The Free Press.

Rose, M.

1985 *Reworking the Work Ethic: Economic Values and Socio-Cultural Politics*. London: Schocken.

Sacerdote, B., and E.L. Glaeser

2001 *Education and Religion.* National Bureau of Economic Research, working paper No. 8080 (January).

Schmidtchen, Gerhard

1973 P*rotestanten und Katholiken: Soziologische Analyse konfessioneller Kultur.* Bern/München: Francke.

Stark, R., and C. Y. Glock

1968 *American Piety: The Nature of Religious Commitment.* Berkeley: University of California Press.

Sweeney, Paul

1998 *The Celtic Tiger: Ireland's Economic Miracle Explained.* Dublin: Oak Tree.

Tilgher, A.

1930 *Homo Faber: Work Through the Ages*. Translated by D. C. Fisher. New York: Harcourt Brace.

Tracy, David

1981 *The Analogical Imagination.* New York: Crossroad.

Verbit, M. F.

1970 "The Components and Dimensions of Religious Behavior: Toward a Reconceptualization of Religiosity." Pp. 24-39 in *American Mosaic, Social Patterns of Religion in the United States*. Edited by Philip E. Hammond and Benton Johnson. New York: Random House.

Walton, R. E.

1974 "Alienation and innovation in the workplace." Pp. 227-45 in *Work and the Quality of Life*. Edited by J. O'Toole. Cambridge: MIT Press.

Warren, Marcus

2001 "Orthodox Church Succumbs to Worldly Temptation." *Electronic Telegraph* (June 19).

Weber, Max

1904 *Die Protestantische Ethik und der Geist des Kapitalismus*. Gütersloh: Gütersloher Verlagshaus Mohn.

1958 *The Protestant Ethic and the Spirit of Capitalism.* New York: Scribner's.

1972 *Wirtschaft und Gesellschaft*. Tübingen: J. C. B. Mohr (Paul Siebeck).

Wilson B.

1982 *Religion in Sociological Perspective.* Oxford: Oxford University Press.

1996 "Religious Toleration, Pluralism and Privatization." Pp. 11-34 in *Religion and Modernity Modes of Co-Existence*. Edited by P. Repstad. Oslo: Scandinavian University Press.