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Religion and Entrepreneurship: a match made in heaven?

There is a very old question in social science about whether religion is favorable or antithetical to economic activity. There have of course been ascetic currents within all of the world's major religions. Right up to the present day, denunciations of the commercial spirit, and more generally of the excesses associated with economic development, can be heard from within virtually all religious traditions. Conversely, there have been prosperous adherents of all the major religions who have argued fervently that their religion was an essential ingredient in their economic success. However, the interesting question is not whether religion can be used to support either a favorable or an unfavorable attitude to economic activity – of course it can do either. It is whether there is something intrinsic either to the religious attitude, or to the cultural presuppositions embedded in some or all of the major religious traditions, which tends on average to favor or to discourage the attitudes appropriate to economic activity. These are attitudes such as saving and investment, desire for consumption of material goods and services, and esteem for those who have achieved material success.

Max Weber's argument that Calvinist Protestantism had induced its adherents to focus on the performance of religious works as a sign of divine election remains a classic and influential example of the claim that religion may encourage economic development (Weber, 1905). Weber's argument now looks much less convincing than it once did: Becker & Woessmann (2009) have provided strong geographical evidence that the influence of protestantism on economic growth operated mainly through the incentives it created for investments in human capital, since literate individuals could read the Bible once it had been translated from Latin (a similar argument is made for China in the 1920s by Chen *et al.*, 2014). But in any case the link was never simple, even in Weber's writings. Weber himself also believed that a parallel set of rational, systematizing and bureaucratic attitudes encouraged by modern economic activity would gradually displace the religious mind-set in the long run. So religion might have been necessary to give an initial impetus to economic growth, but economic development would eventually outgrow its religious origins.

It is only in recent years that scholars trained in economics have begun to pay attention to this fascinating and increasingly important question using the tools of modern statistics and benefiting from the availability of systematic large-scale data. This is not because an interest in religion is foreign to the history of economic thought. Many economists in the 18th century and before had been extremely interested in religion. However, for a variety of reasons, religion more or less dropped off the map of economists in the 19th and 20th centuries. For instance, the subject is not mentioned except very indirectly in Marshall's *Principles of Economic* (1890). Instead, religion became the exclusive domain of sociologists (such as Weber and Émile Durkheim), anthropologists (such as James Frazer) and historians (such as R. H. Tawney)¹. Even when these scholars discussed the economic impact of religious belief and practice they rarely aroused the interest of scholars working within the discipline of economics.

Though these authors differed in many ways, they broadly agreed on a “secularization” hypothesis: religion represented a mid-point between primitive magic and modern science, and was destined to disappear as societies modernized. And for a long time in the 20th century the decline of religion in European societies seemed to bear out the secularization hypothesis. The United States apparently constituted an exception, though many proponents of secularization argued that this exception applied only to the second half of the twentieth century and constituted a local and no doubt temporary reversal of an overall secularizing trend.

That hypothesis now seems clearly mistaken, both in the sense that secularization does not appear to be the general consequence of modernization and prosperity in the world as a whole, and in the sense that the United States has never really conformed to the secularization hypothesis at any period in its history. Roger Finke and Rodney Stark, in an influential book called *The Churching of America*, showed that religious belief and practice have been growing in importance more or less continuously in the United States since the founding of the republic (Finke & Stark, 2005). And the United States seems less of an exception than it once did, as shown by the experience of other major countries where religion has been growing in importance along with economic development more generally – Brazil being one clear example².

Economists have increasingly begun studying two main roles for religion in the modern world (distinct, that is, from whatever direct spiritual benefits it may provide for its adherents):

- To create and reinforce social trust;
- To be a vehicle of identity for people in face of the disruptions due to economic growth.

1. Weber (1905); Durkheim (1912); Frazer (1890); Tawney (1926).

2. See “Religion defies recession in Brazil”, *Financial Times*, 25 June 2015.

These two *rôles* are not entirely distinct: a vehicle of identity may also reinforce social trust, because individuals may be more trusting or more trustworthy towards those who share their identity (the empirical evidence on this is somewhat mixed).

Trust is an essential ingredient of social interaction at all levels of modernization (see Norenzayan, 2013), and in principle religion can play a part in creating social trust in many kinds of context, in rich societies as well as in poor ones. There is some evidence of secularization in certain countries characterized by high levels of generalized trust and a developed welfare state (such as Sweden); in such contexts one might speak of religion's being a substitute for other trust-creating institutions. But it is increasingly recognized that these countries are rather unusual in the modern world, and that there is no reason to expect other poor and middle-income countries to follow their example. Evidence from China, where there has been rapid growth in the number of adherents to both Buddhism and Christianity in recent years at a period of very high economic growth, also reinforces the view that religion and economic development may very much go hand in hand (Vermander, 2009; Seabright, Wang & Zhou, 2016). It may also be that religious belief and practice, when it does not reinforce economic growth directly, may satisfy needs that are felt more keenly when economic growth is strong (some suggestive evidence for this is presented in Campante & Yanagaziwa-Drott, 2015).

The main channels of influence by which religious belief and practice influence economic outcomes, and that have been studied in this growing comparative literature, are as follows (see Norenzayan *et al.*, 2015, for a recent overview). There is historical and ethnographic evidence of the association of religion with attitudes conducive to economic growth and development (Guiso *et al.*, 2003; Barro & McCleary, 2003; McCleary & Barro, 2006; Putnam & Campbell, 2010; Chen *et al.*, 2014), with pro-social behavior more generally (Henrich *et al.*, 2010; Ahmed, 2009), and with the evolution of social and political complexity (Watts *et al.*, 2015). However, this evidence varies by religion and by the type of behavior considered (Benjamin *et al.*, 2010). It is also far from clear what might be the causal mechanisms involved – whether religion favors the development of the appropriate attitudes, or whether the independent presence of these attitudes predisposes people to accept the teachings of various religions.

The literature also reports evidence of the role of religion in building social and economic trust, either by inducing more trustworthy behavior (Norenzayan, 2014; Randolph-Seng & Nielsen, 2007) or by enabling adherents to signal trustworthiness to others (Iannacone, 1994; Irons, 2001; Bulbulia, 2009; Auriol *et al.*, 2016). It may facilitate the cultural transmission of behavioral practices by enhancing the credibility of the utterances of cultural role models in the eyes of those who copy their behavior (Henrich, 2009). I consider these mechanisms in more detail below.

Overall, therefore, there is a growing consensus that religion need not be antithetical to economic development but may even favor it, and also that it does so by contribution to the creation and reinforcement of social trust. But how, exactly, is this contribution to social trust supposed to work?

Trust in the company of strangers

The puzzle of large-scale human cooperation

Adam Smith famously wrote that human beings had a natural propensity to “truck, barter and exchange” that was the foundation of large-scale social cooperation, and other eighteenth century economists and philosophers pointed to parallels with the complex societies of the social insects such as the ants and the bees. In fact, thanks to modern biology we know that human social cooperation is a radical exception to the kind of cooperation found elsewhere in nature, which occurs overwhelmingly among close relatives. Human societies are unique in that we cooperate on a massive scale, not only with non-relatives but also with complete strangers. Prehistoric human societies only rarely saw encounters between strangers and many of these were extremely violent. Trusting complete strangers enough to trade with them was frequently a suicidal thing to do – and this was only a short while ago in evolutionary terms, long after our brains and bodies evolved into something very close to their modern forms. How have such encounters now become so common a feature of daily life that we no longer think of them as in the slightest way problematic?

The answer (as I summarize and develop in Seabright, 2010) consists in a subtle mix of our evolved psychology (both cognitive and emotional) and our modern institutions. Although our prehistoric environment offered relatively few opportunities for interaction with strangers³, the psychology that evolved in this environment has created predispositions for us to trust other unknown individuals and to behave in a trustworthy way towards them, under the right circumstances. Furthermore, our institutions reinforce our cooperative predispositions so that a little cooperative psychology goes a long way. Modern social psychology and behavioural economics have extensively documented that the austere egoism of traditional *homo economicus* is a very poor description of how real human beings think, feel and behave. This is fortunate, because a purely rational egoist approach to human interaction would be incapable of founding cooperation as we know it.

These facts were already well known to Adam Smith, professor of moral philosophy and author not only of *The Wealth of Nations* but also of *The Theory*

3. There is still considerable uncertainty about how rare such encounters were at different stages of prehistory – see Seabright (2012).

of *Moral Sentiments*. Smith understood that human beings have values and emotions as well as wants and beliefs, and these values and emotions are just as central to our economic life as our capacity to reason. However, as Smith's work preceded Darwin's by nearly a century he did not ask the questions that would naturally occur to us about how this is possible. The work of modern biologists and social scientists has now helped us to understand better how natural selection made us that way. As Bowles and Gintis put it in their book *A Cooperative Species*, the challenge for science in explaining human cooperation with strangers on a vastly greater scale than in other species is "not that typically addressed by biologists and economists, namely to explain why people cooperate despite being selfish. [it is]..to explain why we are not purely selfish – why the social preferences that sustain cooperation are so common" (2013, p. 3). Though there is still disagreement in the literature about this, it seems likely that the answer involves three mechanisms. The first is multi-level selection: groups composed of altruists willing to sacrifice themselves for the rest of the group would have out-competed groups composed of selfish individuals (particularly in the group warfare that was common in prehistory), even if egoists had out-competed altruists within groups. The second mechanism is sexual selection: cooperative individuals might have made more attractive partners than selfish ones. The third mechanism is mimicry by strangers of the behavior that tends to distinguish friends⁴. Together these make it much more comprehensible how the rich array of values, emotions and pro-social preferences that distinguish real human beings might have been favored by natural selection in the conditions of prehistory.

Still, explaining how human beings have come to have values and emotions is a long way from explaining how they have come to have religion. Many religions in fact hold a privileged place among the institutions that transmit and reinforce our values and emotions, but they are not the only institutions to do this, and they do not just do this. They also (at least most of them) also speak to us about invisible spirits they claim to occupy our world, spirits who are like us in many ways, but also not like us in being free of many of material constraints of our daily lives. These are typically spirits who can influence our lives for better or for worse, with whom we are well advised to communicate, and whom we often seek to placate. Belief in the existence of such spirits – I shall call this phenomenon "enchantment" in the remainder of this article – runs radically counter not only to the ordinary evidence of the senses, but also to the conclusions of modern science. This observation raises two questions: first, how have so many human beings come to accept such beliefs, and secondly, what connection do such beliefs have to social trust?

The first question is particularly challenging, and explanations for the evolution of values and emotions via natural selection are not sufficient to explain

4. See Centorrino *et al.* (2015) for one such form of mimicry.

the evolution of religion. Although a great many of the values and emotions that distinguish our behavior from the egoism of *Homo economics* appear to have analogues in other primate species, human beings are the only species in nature as far as we can tell who hold widespread beliefs about the existence of invisible spirits with whom we interact. We are also the only species to have developed a sophisticated scientific world-view in which such spirits seem to have no place. How could these two developments co-occur?

Where not to look for an explanation

It is not enough to argue (like, for example, Lightman, 2015), that science does not cater adequately for our quest for meaning and thereby leaves a gap for religion to fill. This may be true, but even so it does not constitute an explanation of the kind required, for it still needs to be explained why human beings should have evolved to have a need for meaning. Similarly, it has been said that human beings are afraid of death⁵, and so we comfort ourselves with the notion that life goes on in the spirit world. This is not always true – not all religions claim that individuals will join the spirit world when they die. But even when it *is* true, as it often is, it leaves the central mystery unexplained. All animals are afraid of death in the simple sense that they flee predators, but only human beings appear to brood on the fact that death will always catch up with them in the end. How can it have helped us thrive on the African woodland savanna to develop such a melancholy temperament? And once we suffered such an affliction, how can it have helped us to seek comfort in beliefs about invisible spirits? The theory of natural selection has difficulty accounting for the evolution of placebo remedies for *any* self-inflicted ailments, whether physical or psychological.

Human beings, like all mammals, have developed sense organs of extraordinary sophistication that can detect the presence of predators and prey in the environment around them. So it is all the more puzzling that many human beings, uniquely in the animal kingdom, credit to the world around them the existence of invisible spirits, who are like us in having perceptions and intentions, while being free of some of our physical constraints, and whom we are well advised to charm and placate even at considerable material cost to ourselves. Perceiving creatures where none exist is hardly as dangerous as failing to perceive creatures that do exist, but it is still a surprising waste of energy and resources for animals on the margins of survival. Trusting only the evidence of their immediate senses and refusing to multiply ontologies is not just an application of the principle of Occam's razor, but is clearly the most adaptive strategy for almost all animals in almost all circumstances. The only exceptions are where they follow the signals of other individuals about the presence of food or predators – like the honeybees that set out for nectar after observing the dance of returning workers, or the chimpanzees that follow the hunting-calls of other members of their troop.

5. The classic statement of this point of view is Becker (1973).

And even in such cases, these signals of their fellows do not demand great sacrifices – they allow individuals to coordinate their efforts, rather than sacrificing other more immediate food sources in favour of a distant and invisible alternative.

One theory that has received widespread support among researchers is the idea that enchantment involved an optimal trade-off among type-1 and type-2 perceptual errors in the prehistoric human environment. This is sometimes known as the “seeing faces in the clouds” theory, and asserts that natural selection produces a tendency to err in the direction of seeing too much evidence of intention in nature (it’s less dangerous to see predators when none exist, than to see none when they do exist)⁶. It is certainly true that such phenomena (which even have their own scientific name – *pareidolia* – and an associated Wikipedia page) can be claimed as inspiration by various religious traditions. However, like a number of other “meme” theories which imply that religious ideas have evolved by imitation, in brains that were not specifically adapted to host them, the “faces in the clouds” theory has a major gap: it doesn’t explain why the perception of enchantment survives reflective criticism. We don’t think that faces in the clouds are real faces – once we start to reflect on what we see, we quickly and easily correct the errors in our first impressions. But believers think spirits are real beings, and the belief that they are seems to be reinforced, not undermined, by introspection, reflection and discussion. This suggests we need to see the processes of introspection, reflection and discussion as an intrinsic part of how religions develop, not as a hostile environment which ought to extinguish our religious sympathies but to which many religions remain unaccountably immune.

Indeed, introspection and reflection are the key to human beings’ capacity to cooperate by representing future rewards and dangers to themselves and to others. This suggests that an answer to our puzzle may lie in the basic trust mechanisms that have helped humans build complex societies. In particular, those trust mechanisms, once established, also encourage the tendency to believe in, or at least to suspend judgment about the initial implausibility of, absent or invisible beings and the promises they make. The notions of trustworthiness, honour and credibility help us to decide with whom we can afford to cooperate.

Enchantment as an adaptive, pro-cooperative feature of our prehistoric brains

In Seabright (2017) I develop the hypothesis that the explosive growth in our brains during our evolution from the apes did more than just give us the capacity to solve increasingly complex social and environmental problems. It

6. This theory is central to Boyer (2001) but was earlier developed by Guthrie (1993).

also turned our brains into a marketplace for competing ideas about ourselves and our place in the world. In that marketplace, just as in the real marketplace where human beings had begun to develop complex systems of trade and cooperation, the key to success lay in the creative suspension of disbelief about the everyday evidence of our senses. What sets human beings apart from other animals is that we have established elaborate networks of cooperation with other individuals, many or most of whom are genetically unrelated to us. This has required the ability to override the evidence of our immediate senses on a daily basis in the interests of distant and invisible objectives. We have to work out when we can afford to trust someone who has no intrinsic reason to help us, and who offers us nothing we can immediately use.

It is worth emphasizing that this capacity is much more sophisticated than just the ability to exchange items of value. Monkeys and apes trade with each other on the basis of immediate advantages – but human beings are prepared to exchange on the basis of promises of future rewards they cannot see, taste or touch. This ability to suspend ordinary disbelief – in a structured rather than a purely whimsical fashion – is what enabled *Homo sapiens sapiens* to survive in the harsh conditions of the Upper Palaeolithic, spreading out from Africa to colonize a range of habitats quite different from those in which he first evolved. It then enabled him to adopt agriculture, settled in towns and cities, and found large and complex civilizations. It also meant he would be forever solicited by entrepreneurs with projects, secular or spiritual, that appeal to rewards beyond the perceptible horizon. This ability to override ordinary sensual evidence is an intrinsic function of the healthy human brain, but it is also one that other human beings have learned to influence and manipulate, for good ends and bad.

This answer to the first question (“how did human beings come to believe in the existence of invisible spirits?”) also provides the ingredients for an answer to the second (“how did this contribute to social trust?”), since social trust involves a very similar process of suspending disbelief in the evidence of the senses. The point about a facility for suspending disbelief is that it cannot be calibrated in advance to ensure it operates only in instances that deserve it. It will operate in response to cues, cues that can in principle be imitated and manipulated by others. Thus a willing suspender of disbelief will be both a readier collaborator in various economic projects, and a more frequent subscriber to extravagant cosmologies, if there are others around to propose them. A skeptic who wields Occam’s razor at every opportunity will rarely trust anybody, since the hypothesis that the world is full of thieves and charlatans is so much simpler and more elegant than the alternative that someone who has nothing to show you may nevertheless be someone you should trust.

Many details remain to be sketched out in this account of how human beings, the most sophisticated thinkers in the natural world, came to people their universe with so many invisible spirits, as part of the same process that led them

to become more trusting of others. I focus below on three questions that would naturally occur to many readers on the basis of the argument so far. First, is an evolutionary explanation really necessary at all? Secondly, what kinds of psychological mechanisms might have been involved in the process? Thirdly, why did the evolution of a greater willingness to suspend disbelief not automatically lead to exploitation by others?

The necessity of an evolutionary explanation

So why is an evolutionary explanation necessary? Why should a sense of enchantment be adaptive at all for human beings? Perhaps it is one of those features of our social lives that just have no adaptive consequences, like the rules of baseball or the fact that most countries drive on the right instead of the left, or the fact that you can make somebody's leg jerk upwards by tapping their knee lightly with a hammer. On reflection, however, this suggestion won't do: unlike the rules of baseball or the rule of the road or the knee-jerk reflex, our sense of enchantment costs us a lot. Individually and collectively, we spend real resources satisfying our hunger for enchantment; we listen to guidance from the spirit world, and we are prepared to sacrifice and sometimes to die in response to its commands. If such devotion were merely a matter of throwing scarce resources away for nothing in return, those among our ancestors who were unfortunate enough to develop such a predilection would very probably have been ruined by it, and in the harsh environment of the Palaeolithic would have failed to leave descendants, let alone to spread their predilection among all the societies of the modern world. Enchantment must have had some kind of adaptive benefit, if only because its adaptive costs are so obvious and so large.

The psychological mechanisms

What kinds of psychological mechanisms might have been responsible for our willingness to suspend disbelief? Our sense of enchantment bears a family resemblance to two other psychological capacities that have come a long way in the human species from their rudimentary equivalents in other apes. The first is language. Language allows us to refer to absent objects and people, to past and future events, and thereby to conceive shared hopes and fears, including the very human preoccupation with our own future death. At first sight the world's languages look so diverse that there is nothing they could possibly be said to have in common. But the work of Noam Chomsky, confirmed by a great detail of subsequent research⁷, has shown beyond reasonable doubt that existing languages share many structural features, and that the ability to understand and use this features is hard-wired into the human brain. Varied as they are, human

7. Pinker (1994) summarizes this research.

languages are nothing like as varied as they logically could be. Though questions of language origin remain controversial⁸, it makes sense to suppose that the brain contains something like a “language module” – which evolved because it spectacularly enhanced our ancestors’ capacity for social coordination, enabling them to hunt better, forage better, and defend themselves more effectively. It would have evolved in spite of its significant costs – the costs of the protein to build and the energy to maintain a much larger brain, and the dangers of choking caused by the repositioning of the larynx that equipped us to articulate the sounds of a complex language.

Our sense of enchantment has something in common with our capacity for language, though the differences are as instructive as the similarities. The world’s systems of religious belief look at first sight much too diverse to have anything important in common. But some anthropologists, notably Pascal Boyer (2001) and Scott Atran (2002), have brought together the ethnographic evidence from hundreds of earlier studies, as well as from their own fieldwork, to show that systems of religious belief have a structure. They are supernatural but not randomly or extravagantly so – they depart from everyday common sense in predictable directions and to a limited extent. For instance, spirits may be invisible but they have a continuous existence in time – they may transform themselves from one shape into another but they do not stop existing in between. Spirits may know things about human social interactions that are hidden from others, but they are not literally omniscient. Their knowledge is of social information – unlike us, they know the full plot of the soap opera. Spirits may be able to see through walls but normally not through women’s clothes, except when medically necessary. They may answer people’s prayers but only after the prayers have been uttered – they do not act in anticipation of prayers that will be uttered in the future. They do not undertake difficult but pointless miracles, such as making rivers flow upstream. And so on. In short, beliefs about spirits have a structure. This structure is built on the assumption that spirits are intentional agents just as we are, except that they are freed from a limited number of our physical constraints. Not all implausible beliefs could ever make sense as components of a religious creed.

This evidence of “deep structure” suggests that religious beliefs take the shape they do in part because human brains have a certain structure. So learning more about this structure may help us to understand how those brains evolved to be that way. But this doesn’t mean that the brain structure we are seeking is like the structure involved in language, let alone that human brains have evolved an “enchantment module” just as they evolved a language module. For one thing, all human beings except those who are brain damaged or traumatised can use

8. See Ian Tattersall’s review in the *New York Review of Books*, August 18th 2016, of Berwick & Chomsky (2016).

language. But not all human beings perceive spirits in the world around them, and many people can live and function quite happily with no sense of the supernatural at all. People are also very different in how they respond to the enchanted world – for some it is an immediate sensation, for others a vague background presence; for some it can induce trances and violent episodes of possession, while the behaviour of others barely changes at all. Religious sensibility appears at very different ages in different people. Unlike language, which uses certain dedicated areas of the brain (notably Broca's area), the perception of enchantment appears to draw on elements across the range of "normal" brain functions. The sense of enchantment emerges from the coordination of a number of psychological capacities that almost certainly evolved to perform quite different functions. Religion, like the fear of death that it so often accompanies and to which it ministers, seems to have hitched a ride on the very secular evolutionary journey of the human brain.

Robustness against exploitation

Finally, why did the greater trustingness implied by human beings' sophisticated capacity for suspending disbelief not automatically lead to exploitation by others, and therefore to more trusting individuals being selected against in favor of less trusting ones? The literature has explored in considerable detail two main mechanisms by which such exploitation could have been avoided, both based on the idea that religious belief and practice have come to be associated, on average, with greater trustworthiness as well as with greater willingness to trust at least some others. This greater trustworthiness on the part of the religious would lead, on average, to their associating in turn with more trustworthy individuals, and therefore to higher levels of cooperation experienced by the religious even if they still tended to be exploited in their interactions with the irreligious. The two mechanisms are *monitoring*, whereby religious belief and practice change the behavior of the individuals concerned so that they become more trustworthy, and *selection*, whereby individuals who are intrinsically more trustworthy tend to be attracted by religious belief and practice, even if that practice does nothing to modify their behavior.

It's important to emphasize that these mechanisms are in principle quite distinct even though much of the existing evidence of the association of religious behavior with trustworthiness does not make it possible to distinguish between the two. There is rather little evidence as to what extent religious membership primarily signals the reliable *character* of adherents, as opposed to a reliable *situation* in which to interact with adherents. In addition, there is little evidence as to whom such a signal is primarily addressed – is it mainly to fellow adherents or mainly to the general population?

The emerging consensus among evolutionary anthropologists of religion (Norenzayan, 2013; Norenzayan *et al.*, 2015) leans towards the former, monitoring view, claiming specifically that religious belief and practice can help to build social trust because:

1) Adherence to religions with “Big Gods” who observe human behavior and punish norm-violation is associated with more pro-social behavior on the part of adherents than of non-adherents;

2) The causal explanation for this statistical association is that adherence works primarily by changing the behavior of adherents and not by signaling their more reliable intrinsic character. This causal effect is demonstrated via “priming” studies where subjects behave more pro-socially in the presence of a prime such as a religious text or image from the denomination to which they adhere (Norenzayan, 2014; Randolph-Seng & Nielsen, 2007). However, sorting by preference may also occur (Aimone *et al.*, 2013).

3) Their behavior becomes more cooperative towards co-religionists and may or may not become more hostile towards outsiders – adherence is a club good (Berman & Laitin, 2008; Choi & Bowles, 2007);

4) Costly religious group membership distinguishes genuine adherence from cheap talk.

The claim that individuals who believe in invisible spirits will fear the consequences of cheating others, and will thus become more trustworthy at the same time as they become more trusting, is clearly descriptive of some, or even of many religious traditions. And the idea that religion involves beliefs as well as preferences (theology as well as ethics), makes sense from both a historical and an evolutionary perspective. Many believers really do believe in the existence of spirits that intervene in the world, and adjust their behavior accordingly in ways that would not make sense if religious affiliation were just about having more pro-social behavior (see Auriol *et al.*, 2016). Nevertheless, this claim exaggerates the extent to which all religions involve the policing of cooperative behavior. Some (including many pentecostalist churches that preach the “prosperity gospel”) can say much less about sin than they do about the promise of miracles (see Gifford, 2004). And even if the claim were true it would not completely explain why cynical free-riders – who were less trusting as well as less trustworthy – did not drive out the co-operators in the population by cooperating only when observed by human agents (I discuss this problem in greater detail in Seabright, 2017). It relies, in effect, on the impossibility of cynical free-riders’ being able to hide their cynicism from the rest of the population.

There is also a growing body of evidence that many religions attract into their membership individuals who would in any case be more pro-social even without the influence of religion. Although difficult to test directly, this hypothesis is broadly corroborated by studies that demonstrate, in certain contexts,

degrees of pro-social behavior that vary with degrees of religious commitment even in wholly secular contexts. For instance, Auriol *et al.* (2016) report an experimental study in Haiti in which subjects who would later demonstrate a consistent willingness to pay for religious images behaved in a more trustworthy way than others who would not later demonstrate such willingness (even though their trustworthiness was tested before religion was even mentioned to the subjects).

The idea that religious commitment involves a degree of mutual sorting by certain kinds of particularly pro-social individual is no less central to many religious traditions than is the idea that individuals become more trustworthy as a result of their religious commitment. Indeed, the two may reinforce each other – if you want to become more trustworthy and are afraid of not being able to maintain such high standards, surrounding yourself with trustworthy people may be a good way to reinforce your determination to do so. Still, it is clear that different religious traditions emphasize these mechanisms to different degrees.

What does all this mean for the particular question whether religion contributes to entrepreneurship? What are religious entrepreneurs, and what do they teach us about the place of religion in a rational modern economy characterized by exchange among strangers?

Two approaches to religion and entrepreneurship

In principle there would seem to be two main ways in which religion and entrepreneurship might be associated, in traditions that can be traced back respectively to Adam Smith and to Max Weber. The first approach considers religious leaders as entrepreneurs just like entrepreneurs in other fields, and considers the business models of religious leaders in ways similar to those in which the business models of secular entrepreneurs can be analyzed, while making due allowance for the particular challenges of the services that religious leaders are trying to market. The link between religion and secular entrepreneurship, on this view, is one of analogy. In a remarkable passage in Smith's *Wealth of Nations*, Smith attributed the greater success of nonconformist churches in attracting adherents in his own day (compared to the relative stagnation of the Church of England) to the more effective incentive systems instituted by the former (Smith, 1776: book 5, chapter 1):

The [clergy] may either depend altogether for their subsistence upon the voluntary contributions of their hearers; or they may derive it from some other fund to which the law of their country may entitle them; such as a landed estate, a tythe or land tax, an established salary or stipend. Their exertion, their zeal and industry, are likely to be much greater in the former situation than in the latter. In this respect the teachers of new religions have always had a considerable advantage in attacking those ancient and established systems of which the clergy, reposing themselves upon their benefices,

had neglected to keep up the fervour of faith and devotion in the great body of the people; and having given themselves up to indolence, were become altogether incapable of making any vigorous exertion in defence even of their own establishment. The clergy of an established and well-endowed religion frequently become men of learning and elegance, who possess all the virtues of gentlemen, or which can recommend them to the esteem of gentlemen; but they are apt gradually to lose the qualities, both good and bad, which gave them authority and influence with the inferior ranks of people, and which had perhaps been the original causes of the success and establishment of their religion.

Two features of this passage are particularly worth noting. First, Smith attributes the different success of established and non-conformist religion not to any difference in theology but purely to a difference in organization. Secondly, he is absolutely non-judgmental about the reasons why worshippers might prefer one religious approach rather than another – in just the same way as a management consultant might not presume to judge why consumers have the tastes they do, but comment simply on the different ways in which one firm differs from another in its capacity to ascertain and respond to those tastes. For Smith, the non-conformist churches have found a more winning formula because their managers (priests and ministers) are more efficiently motivated to do so.

The second, broadly Weberian approach is to consider religious beliefs and values as contributing to the way in which ordinary entrepreneurs carry out their business, without their necessarily being anything specifically religious about the goods or services they sell. In this view the link between religion and secular entrepreneurship is one of complementarity rather than analogy. That entrepreneurs might be able to signal, through their (actual or claimed) religious convictions, a greater trustworthiness to customers, business partners and others, has been central to the research cited above on signaling, and there is now a substantial body of evidence in favor of this channel of influence between religion and economic development.

In principle these two approaches seem fairly distinct, but in practice the distinction between them has been eroded from both directions. On the Weberian side, there exist many firms that sell religious services as a part of a portfolio of other goods and services, and on the Smithian side, churches and other religious institutions often package other services alongside the more traditional activities of prayer and celebratory worship. The former case includes firms that offer charia-compliant or otherwise religiously-approved versions of ordinary goods and services, while the latter has become a feature of some of the mega-churches that operate in growing cities in many parts of the developed and developing world. This is well illustrated by the following quotation attributed to the Reverend Jerry Falwell, explaining the choice of his church to offer a large package of social and leisure services to its worshippers:

Business is usually on the cutting edge of innovation and change because of its quest for finances. Therefore the church would be wise to look at business for a prediction

of future innovation. The greatest innovation in the last twenty years is the development of the giant shopping centers. Here is the synergetic principle of placing at least two or more services at one location to attract the customers. A combination of services of two large customers with small supporting stores has been the secret of the success of shopping centers (cited in Harding, 2000: 16).

Other evidence from the United States reinforces the idea that, where competition between religious organizations to attract members is reasonably vigorous, the strategic considerations underlying the management of religious organizations has much in common with that of other businesses. For instance, Venkatesh (2009) shows how many pastors on the south side of Chicago have a prior history of undertaking business ventures in other, secular fields.

Outside the United States, the papers in this volume illustrate well the broad spectrum of cases lying between the purely Smithian and the purely Weberian types. At the Smithian end of the spectrum is the study by Bernard S  n  cal on the Venerable Chigwang, the founder of a highly successful Buddhist centre in Seoul. Here we see a fascinating analysis of the factors that have made Chigwang successful in a domain left open to innovation by the previous banishment of Buddhist temples to the countryside. S  n  cal points out the flexibility and adaptability of Chigwang's message – for instance his willingness to mix Buddhist and Christian language to meet the expectations of an audience used to Christian language – as well as his use of modern marketing methods such as websites and audiovisual recordings. Chigwang has developed a business that happens to sell religious services (and only religious services), and S  n  cal analyzes its business model in a perceptive and persuasive way.

In a similar vein the studies by Nathalie Luca and by Emmanuele Fantini show how pentecostalism – often caricatured as offering a standard “prosperity gospel” in places as different as Ghana and the United States – has in fact adapted its message to the very different circumstances of Haiti and Ethiopia. In Haiti the adaptation was made necessary by the desperate economic conditions of the country, particularly after the 2010 earthquake, which would have undermined the credibility of a simple prosperity gospel. In Ethiopia it was due more to the particular ideology of the developmental state with which a simple free-markets message would have been in some conflict. Both of these intriguing cases show how flexibly pentecostalism has adapted to its market while still maintaining an essentially religious focus.

The paper by Emir Mahieddin illustrates very well this adaptative capacity of Pentecostalism, in this case to the more sober ethic (and aesthetic) of Swedish protestantism. Here there is no question of a prosperity gospel in the simple form in which it has flourished in parts of the United States and in sub-Saharan Africa. People – at least those whom Mahieddin has interviewed – do not do the Lord's work in order to prosper in their own business affairs. Rather, they conceive a continuity between their work in business and in other activities as

a form of “producing God’s Capital” – one of Mahieddin’s subjects is a builder who constructs both churches and centres for orphaned children, so it would be hard to drive a wedge between his life as a businessman and his work as a member of his church. Success in this context appears to be measured by the coherence of the overall project with a vision of the duty of a committed Christian in a fallen world, and certainly by nothing so simple as a purely financial criterion of revenues or profits.

At the other, Weberian end of the spectrum is the study by Nicolas Lyon-Caen on the way in which eighteenth century French merchants navigated the difficult waters of the conflict between Jansenists and Jesuits. Here the issue is to what extent a religious affiliation is important to those who are ordinary entrepreneurs in secular society. In eighteenth century France this was a question of great delicacy and even danger – given the bloody nature of religious conflicts one might have expected merchants and traders to steer clear of religious affiliations altogether, but although Lyon-Caen shows that many traders could change their affiliations in quite opportunistic ways, some affiliation was usually better than none, for reasons of trust among the communities with which they traded.

The three remaining studies in this volume show how difficult it is nevertheless to maintain the separation between the Smithian and the Weberian perspectives. The papers by Rémy Madinier on the growth of Islamic property development in Indonesia and by Marie-Liesse De Luxembourg on Islamic finance document classic instances of business that sell ordinary goods and services, but seek to do so with a religious twist. In the case of property development, the twist is to sell apartments that are in religious communities – complete with mosques and restrictions on behavior by residents. As Madinier shows, such restrictions can backfire if they are too strict since they may over-estimate the size of the market for the most demanding behavioral restrictions. This is reminiscent of the work of Iannacone (1994), which showed that strict lifestyles could be an important selling point for a religious organization but that this would necessarily limit the number of adepts it could reasonably hope to attract. De Luxembourg’s work on Islamic finance makes a similar point – Islamic finance may have its own economic rationale, but if the restrictions on the financial options available are too tight, Islamic finance will only appeal to those who wish to adopt an Islamic lifestyle considered as a whole and are prepared to pay the sometimes considerable social costs.

Finally, Gwenaël Njoto-Feillard’s study of multi-level marketing, also in Indonesia (which recalls Nathalie Luca’s own earlier work on multi-level marketing in Korea), shows just how difficult it is to know whether to categorize the entrepreneurs concerned as religious or secular. In fact they are both – they sell secular products by creating religious fervor, and religious products by creating a very secular enthusiasm for business success. In a sense, therefore, this reminds us that in a world where the desire for consumption and business success tap

into a very real hunger for meaning and purpose on the part of populations whose lives are undergoing transformations unimaginable to their parents and grandparents, the secularization hypothesis, at least in its mainstream version, has lost all plausibility. Religion – or something very like it whatever it happens to be called – will continue to be a vivid presence in the world for the foreseeable future.

In conclusion, comparing religion and entrepreneurship is a very natural thing to do. Religious leadership is a form of entrepreneurship, and successful entrepreneurship in many secular fields typically involves qualities that are very important in religious communities – qualities such as passion, commitment, and often a degree of unreasonable optimism that things will turn out well. Both secular and religious entrepreneurship take a variety of different forms, and exploring the links between them will be of great importance in understanding the way in which religion will continue to shape the world in the 21st century.

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