

# Ritual, belief and habituation: Religion and religions from the axial age to the Anthropocene

European Journal of Social Theory  
2017, Vol. 20(1) 132–145

© The Author(s) 2016

Reprints and permission:

sagepub.co.uk/journalsPermissions.nav

DOI: 10.1177/1368431016645355

journals.sagepub.com/home/est



**Bryan S Turner**

*The Graduate Center, CUNY, New York, USA*

## Abstract

It is a common complaint that sociology has little regard for history. One important exception to this standard criticism is the sociology of religion of Robert N. Bellah and his ‘revival’ of Karl Jasper’s notion of the axial age. In this article, Bellah’s evolutionary notions of religion are explored within a debate about historical disjunctions and continuities. A significant challenge to the idea of the continuity of axial-age religions comes from the notion of an Anthropocene. Our relationship to nature has fundamentally changed and the possibilities for ‘improving’ the human body create a significant ontological challenge to the continuity/preservation of embodied practice as the underpinning of axial-age religions. The Anthropocene age presents a turning away from the religious legacies of the past, because biotechnical developments change not only our relationship to nature but they presage a radical change to the human body. Can the axial-age religions as our contemporaries survive the construction of hybrid post-bodies? In conclusion, insofar as there has been a ‘protestantization’ of religions with modernity involving an erosion of habitualized religion, an individualized and dis-embodied religiosity may be compatible with our anthropocenic future, but this possibility represents a discontinuity with the past and not a continuity.

## Keywords

Anthropocene, axial-age religions, Robert N. Bellah, biotechnology, habit, Max Weber

---

## Corresponding author:

Bryan S Turner, City University of New York System, 365 Fifth Ave, New York, NY 10016-4309, USA.

Email: bturner@gc.cuny.edu

## Historical disruptions

The idea of radical turning points in history has been a familiar issue in historical sociology including ‘the industrial society’, ‘the post-industrial society’, and ‘the risk society’. There is now an important consideration in social science about whether various contemporary revolutions in what for convenience I will simply call ‘biotechnology’ have ushered in yet another radical turning point. The human impact on the environment via advanced technologies has created a new phase in the evolution of the planet whereby ‘nature’ in one sense no longer exists. Hence the umbrella concept of ‘the Anthropocene’ in simple terms suggests that we humans have passed into a new phase of development where nature no longer features in human history as an independent and autonomous entity but is subject to human control, including misuse. Global warming is the dominant example of the ways in which industrialization, population growth and urbanization have transformed the natural world in ways that threaten the future of the planet as a whole. This invites us to consider to what extent the anthropogenic transformation of the natural environment has also resulted in a transformation of human existence via the reconstruction of the human body. I have in mind here a range of medical interventions that are opening up radical opportunities to ‘improve’ humans (in alphabetical order): cloning, cryonics, foetal surgery, gene therapy (gene selection, silencing, slicing and splitting), nanotechnological implants, organ transplants (especially bone marrow, heart and kidney), stem cell research and applications (including foetal stem therapy) and more that result in a hybridization of the human. Any human population, like domestic animal populations in general, is a stock that can be cultivated and upgraded. If nature no longer exists, how has the human changed?

If such a radical transition is taking place, it raises important questions about the nature of the human body, the future of human beings and the social forms that might accompany such a transformation of human ontology. What social forms might emerge out of these radical changes? Sociologists have long struggled to offer a satisfactory definition of the social and society (Elliott and Turner, 2012). The forms of life that are being made possible by biotechnology raise this issue to a new level of complexity. While the concept of the Anthropocene encourages us to speculate about the future, it also prompts us to look backwards into the origins and character of human beings on this planet. By taking this long view of history, there is some merit in comparing the recent debate (or revival of a debate) about the axial age which was defined by the eruption of new religio-philosophical conceptions of humans and human society with the contemporary emergence of the Anthropocene.

The axial-age religions initiated an analysis of humanity and the nature of our existence, which has continued into the modern world. How did the axial-age prophets and philosophers understand the human body, religion and transcendence? Did these religious reflections over time lay the foundations of modernity, which, in turn, created the conditions that produced the Anthropocene? The radical question is whether any of this religio-philosophical civilizational formation can survive the changes being brought about by biotechnology.

The axial-age argument has many problems (Boy and Torpey, 2013). However, it has generated an interest in long-term historical transformations, including the notion of

humanitarianism and the idea of the world as a whole as a unity. Two recent works on the Jesuits, globalization and origins of humanitarianism perhaps illustrate this trend (Stamatov, 2013; Banchoff and Casanova, 2016). There is also the argument that Christian values and Christian writers were central to the promotion of human rights ideas and laws (Moyn, 2015). In the Anthropocene age, ideas about universal human rights would be challenged at exactly that moment when the human is brought into question by modern bio-medical science.

## **Robert N. Bellah and the axial age**

The work of the late Robert Bellah in the sociology of religion was exceptional in the context of American sociology. His magnum opus was a substantial defence of large-scale, historical, comparative work. Two major publications are of special importance, namely, *Religion in Human Evolution: From the Paleolithic to the Axial Age* (Bellah, 2011) and *The Axial Age and its Consequences* (Bellah and Joas, 2012). These works were directed at issues raised originally by Karl Jaspers in a publication in *Commentary* (Jaspers, 1948) with the sub-title 'A Base for the Unity of Mankind'. However, the principal text is *The Origin and Goal of History* which was published in German in 1949. The moral purpose of the text was a reflection on World War II and the post-war European crisis. His work was also a critique of what we have come to regard as 'Orientalism', namely, the presumption that only western thought is of lasting importance. To correct that presupposition, he explored the ideas of Socrates, the Buddha and Confucius (Jaspers, 1962). By looking at the axial age, he wrote against the legacy of Hegelian notions of history by arguing that criticism, transcendence and humanity were already highly developed in the axial age before the rise of what we conventionally regard as the modern world. According to axial-age theories, 'modernity' has a much longer history than is commonly assumed.

Jaspers's thesis explored the remarkable conjunction of prophets, poets and philosophers in the period 800–200 BCE that came to define what we now regard as 'humanity'. These axial-age figures included the Hebrew Prophets, the Buddha, Socrates, Plato, Zoroaster, Confucius, Lao-Tse, and others. These axial-age ideas offered, in Jaspers's moral vision, a basis for assumptions about the unity of mankind. Jaspers is obviously the principal figure in the concept of an axial-age breakthrough, but Hans Joas (2012: 17) notes that Max Weber has to 'figure prominently' in any discussion of the long history of axiality. Weber's view of prophecy and the world religions anticipated many of the issues in the subsequent debate. Indeed, for Weber, the age of prophets was the critical event in the unfolding of religion and religions in the transition from an enchanted magical world. Through the idea of revelation, the charismatic prophets constructed a vision of a different and superior world beyond immediate empirical reality. Through reason and revelation, these religious figures developed ethical codes of conduct that established norms of virtuous behaviour that constituted a breakthrough in human history. These prophets and philosopher-poets created 'the age of criticism' (Momigliano, 1975: 9). In summary, this development separated the inner spiritual world of self-development from the mundane vocations of kings and warriors through critical world-views that were revolutionary. In so doing, they set up a systemic tension between

the political and the religious, and between earthly constraints and ethical norms. Their critical response to worldliness was based on a profound feeling that empirical reality is deeply unsatisfactory – or *dukkha* in Buddhist teaching. I might add that one fundamental feature of this unsatisfactory existence emerges from our embodiment. We are finite creatures and are subject to disease, disability and ageing. One major aspect of human development is the burial of the dead and the many rituals surrounding the treatment and disposition of dead bodies. Hence the widespread notion in religious systems of a world beyond. More importantly, this world-to-come was in principle available to all human beings. The goal of history was to transform this moral and critical vision into a social reality.

Bellah's *Religion in Human Evolution* falls into two rather different sections. In the first part, his interests and perspective are bound up with Emile Durkheim's approach to the 'elementary forms' of religious life (Durkheim, 2001). The second half of the volume is more clearly indebted to Weber's notions about world-rejecting and world-accepting religions. It is in this second section that the theme of acosmistic love comes into its own as foundational to the axial age. In the following discussion, I am mainly interested in the legacy of Durkheim rather than Weber. While both Durkheim and Weber influenced Bellah's general orientation to the study of religion, his evolutionary approach is dependent on Merlin Donald's *Origins of the Modern Mind* (1991). From Donald, Bellah developed the idea of religion passing through three stages or themes: the mimetic, the mythic and the theoretic. The early formation of religion was associated with play and dance, requiring collective mimetic activities. At a later stage, came the development of a mythological world that can represent mimetic practices. Finally, there is the evolution of a theoretical framework to explain both mime and myth. Because nothing is ever lost in evolution, aspects of the earlier stages of mime and myth survive into the theoretical framework.

Here I offer a brief exegesis of Bellah's reflections on body, practice and rituals as they unfold in *Religion in Human Evolution*. He starts with a consideration of how the adult individual retains a relationship to body and environment that is inherited from childhood. Thus,

the total bodily relation to reality is never lost. Other modes – symbolic, conceptual – develop later, which for certain purposes take precedence over the enactive. But because human beings remain corporeal, the product of any form of representation is in part a changed bodily state, a gesture. (Bellah, 2011: 19–20)

Another feature of our corporeal existence is that our aesthetic appreciation of the world (that is our taste) is embodied. Our appreciation of music is probably the best example insofar as we unconsciously and possibly unintentionally want to tap our feet and clap our hands to music. Music and religion are heavily interconnected. Bellah comments that 'rhythm is characteristic of bodily life and that early on it gets expressed musically and in dance' (p. 24). The ability to dance in harmony and in step was important not only in the development of collective dance routines but in hunting in a disciplined and organized group. Rituals can be found in non-human animals, but they are genetically fixed and inherited. By contrast, rituals in human groups evolving out of play are 'characterized

precisely by a lack of genetic fixation, by the relatively free form and creativity that are features of mammalian play' (p. 92).

One important feature of human behaviour is expressed in habituation. The obvious example (much favoured by philosophers) is the riding of a bicycle which becomes a habit that is difficult to explain apart from the doing of it. This is an example of 'procedural memory, so embedded in our bodies that we cannot even explain them clearly except by acting them out' (p. 100). Memorizing and performing evensong might, for example, have similar embedded forms of habituation. According to Bellah, in the mimetic stage, it was through play and associated rituals that early humans began to develop religion, but it was only in the axial age that these warm-blooded mammalian creatures became recognizably human through their religious and critical collective conscience.

In giving this account of ritual, I am clearly drawing on Pierre Bourdieu's notion of the logic of practice and the hexis-habitus dimension of practical activity (Bourdieu, 1977). Bourdieu's idea of habitus has been criticized because it is too deterministic or functional or rigid. It appears to rule out any agency (Croce, 2015). However, in the case of religious habituation, there are good grounds for believing that it is resistant to agency. Bellah (2001) was well aware of the importance of habit in human development, and his account of habit is remarkably similar to that developed by Bourdieu. Bellah notes, for example, that, starting with Aristotle, virtue is a habit or hexis or state of character formation that controls our emotions. In short, in any consideration of the history of religion we might start with habitualized behaviour of embodied beings. Myths and theological beliefs come much later.

Bellah's scheme owes something to Durkheim's focus on early rituals in the famous definition – 'a religion is a unified system of beliefs and practices relative to sacred things, that is to say things set apart and forbidden by prohibitions – beliefs and practices that unite its adherents into a single moral community called a Church' (Durkheim, 2001: 46). The immediate background to Durkheim's definition was his exposure to the ethnographic investigations of the Aboriginals of Australia. The idea of 'elementary forms' might suggest an evolutionary framework but the phrase is better understood as meaning foundational forms or elementary structures. Importantly the values and culture of the axial age remain with us as our contemporaries. These two arguments (the elementary and the enduring) are in fact one proposal. We have lost nothing from the axial age and as a result the themes of axiality are present today. Referring to the arguments of both Jaspers and Momigliano, Bellah (2011: 268) observes that 'the figures of the axial age – Confucius, Buddha, the Hebrew Prophets, the Greek philosophers – are alive to us, in a way that no earlier figures are'.

## **Embodiment and ritual habituation**

Another aspect of embodiment in religion concerns recitation and memory. Thus, the importance of 'the spoken word in religious life long after the advent of writing is indicated by the widespread emphasis on memorization and recitation, sometimes involving the body, as in the forward-and-backward rocking of the torso in Hasidic Jewish prayer' (Bellah, 2011: 281). Memory of texts through embodiment and ritual

is obviously not restricted to Judaism. As another example of the embodiment of belief through ritual, let us consider a specific ritual practice in Buddhism. This example is somewhat elaborate but it conveys much of the argument in this section.

*Setsuwa* are the explanatory notes that typically accompany sermons to illustrate Buddhist doctrine. They frequently employ popular tales about the Buddha and his followers as a means of expanding on the original meaning of the *dharma*. These texts were compiled into various literary collections between the ninth and thirteen centuries in Japan and thus they span the period in which Buddhism evolved beyond the court system into every level of Japanese society. This period from the ninth to the thirteenth centuries coincided with the introduction of a written script from China, giving rise to a distinctively Buddhist aesthetic perspective. However, unlike Theravada Buddhism, ‘the Mahayana distinguished itself by establishing cultic centers organized not around *stupas*, but rather around written *sutra* texts that were recited, worshipped, honoured and circumambulated’ (Eubanks, 2011: 21).

While the *setsuwa* and *sutras* were written on scrolls of various sorts, they were designed for recitation, and hence they involved performance. The *setsuwa* literature exists at two interconnected places, namely on the printed page and in the minds of a social community of readers and writers. Furthermore, the text can be housed in a variety of material containers. The linguistic text and the physical container are, as it were, the ‘material text’, that is available to the human senses through the ear and the eye. In fact, the doctrinal text only survives insofar as it is situated in a container such as popular memory or on an external surface of leaves or paper. Mahayana Buddhism understands writing materials (leaves, paper or silk) and the human body as simply material carriers for the inscription of sacred texts. However, these containers are inevitably vulnerable and perishable. This Buddhist tradition underscores the vulnerability of things, texts and bodies. The physical character of body and text points to the ever-present danger that the *dharma* might be lost or corrupted over time. *Sutras* can be destroyed, scrolls can be corrupted, human memory is fallible, and the human body is perishable and finite.

These ritual performances show how the human body is intimately connected with the body of the text. The body and *sutras* are ontologically comparable sites, namely, they exist to disclose the core message of the Buddha on human suffering and impermanence to a community of disciples. The human body is simply the ‘*dharma* vessel’ that carries the Buddha’s teaching. The intrinsic vulnerability of body and text could be managed by ritual, discipline and training in the memorization and recitation of texts. Accepting and holding onto the *sutras* is an embodied performance. The capacity for total recall belongs only to the cyclical manifestations of the Buddha on Earth and to the *bodhisattvas* who dwell with us out of pity for our suffering. These *bodhisattvas* alone have the untrammeled access to the *dharma* that comes only after a lifetime of cultivation.

Through ritual embodiment, religious beliefs and knowledge can become the habits of the body of the believer. Now ritual embodiment and religious habituation are clearly not peculiar to Buddhism. The Eucharist is the principal ritual of Catholic Christianity and through the command ‘Take, eat’, individuals are bound into a moral community. The bodily nature of the Catholic tradition has been much explored in the work of the French philosopher, Jean-Luc Nancy, in *Corpus* (1992) and *Noli Me Tangere* (2003). His philosophical works often draw on religious paintings of the Incarnation of Jesus, the

Annunciation to Mary, Mary's visitation to her cousin Elizabeth, 'doubting' Thomas and the wound of the risen Jesus, and Jesus's response to Mary Magdalen outside the empty tomb – *Noli me tangere* (Do not touch me). The whole of Nancy's philosophy can be said to be a reflection on the body in Christianity and of Christianity as a religion of touch. *Corpus* starts with *Hoc est enim corpus meum* (This is my body). To some extent, Nancy is conducting an argument with Martin Heidegger's notion of being-to-hand and ready-to-hand (*zuhandensein*). Commenting on this argument, Ian James observes:

For Nancy, it is the body of sense itself, the body as the spacing or shaping of the sense, which emerges as the site, or locus of interconnection, of tools or apparatus, and it is this interconnection which is the happening of the body and the spacing and sharing of sense. (2006: 145)

The Reformation and the subsequent 'protestantization' of Christianity gradually eroded or removed the role of ritual practice in the transmission of teaching through the sacraments. The long-term consequence of the Reformation was to make Christianity cerebral rather than corporeal, and individual rather than collective. The role of the laity was to listen and believe rather than practise and ingest. In Protestantism, Holy Communion is a memorial service to recall the Last Supper and the suffering of Jesus. If Catholicism was a religion of touching, Protestantism was a religion of hearing – of receiving the Word but not as Flesh. The Counter-Reformation (or Catholic Reformation) in southern Europe, in its architecture, elaborate interior decoration, and sensual religious iconography, gave further emphasis to the role of the senses as opposed to the rationalism of the Protestant preaching. If the interior decoration of Protestant chapels was minimalist, the Counter-Reformation aesthetic was maximalist. There was thus an affinity between Baroque style and the Counter-Reformation in which the representation of the human body played a major role (Weisbach, 1921).

Returning now to Max Weber, while he did not develop a sociology of Catholicism to match his study of Protestantism, there are many indications that he regarded Catholic ritual practice as magical. He wrote in *The Sociology of Religion* (1965: 188): 'The viewpoint of the Catholic church has oscillated between a relatively magical and a relatively ethical and soteriological orientation.' His theory of modernization rejected cultic or magical practices in favour of religions of personal discipline and piety. Indeed, for Weber, religion starts where magic ends. The defining characteristic of axial-age world religions was focused on prophecy, namely the challenge to 'the world' that comes from prophetic figures whose charismatic message is inevitably a threat to the everyday habituation of religion in ritual practice. Recalling Arnaldo Momigliano's idea in *Alien Wisdom* (1975), the axial age was the beginning of criticism of the unsatisfactory nature of the mundane here-and-now world by reference to another transcendent order of things.

In contemporary mainstream Protestantism, there has been some recognition of the need for greater lay participation through ritual practices. For example, there has been a liturgical revival to give greater prominence and importance to the Eucharistic meal through the creation of the 'dinner church', in which small groups of the laity congregate outside the institutional church to restore the sense of an intimate gathering of the

faithful. With the global spread of Pentecostalism, it can be argued that the body (through traumatic conversions, hand clapping, music, and healing rituals) has been given greater prominence in evangelical Christianity. These developments are important but they are not yet mainstream and they are unlikely to restore what I argue is essential to the continuity of an embodied habituation of belief and practice in the everyday world. The long-term consequences of the Reformation were consistent with Bellah's view of evolution, namely, the dominance of the theoretic over the mimetic and mythic. The idea that, as modern religions evolve, they shed their mythological forms was probably influenced by Rudolf Bultmann, who promoted the idea that the modernization of Christianity required its de-mythologization (Jaspers and Bultmann, 2005).

In recent literature on the globalization of religions, Olivier Roy (2010) has proposed convincingly that religions have become de-territorialized and de-cultured because they have been uprooted from their original spatial and culture origins. We might add that there is also a process of disembodyment as the modernization of religions (often called 'fundamentalism') regards traditional and local practices (or habits in my terms) as alien additions to the pure religious message of the Qur'an, the New Testament, the *dharma*, or the *Analects* of Confucius. The emerging literate, urban, global middle class are the carriers (or *Träger* in Weber's sociology of religion) of a cerebral, individualized and often de-institutionalized religiosity, especially in its internet manifestations. Perhaps an equally telling example is the modernization of Sufism for a new and more globalized audience (Howell, 2015). There is thus evidence then of the global protestantization of religions arising from a set of interconnected social changes: the urbanization of the world's population, the transformation of the family, the decline of fertility rates, rising life expectancy, the entry of women into the formal labour market, and access to basic education. These are mobile forms of religiosity that have an elective affinity, referring to Weber's Protestant Ethic Thesis, with mobile urban singles. With respect to the habits of religion – as an allusion to Bellah et al.'s *Habits of the Heart* (1985) – one criticism of Bellah's sociology of religion is that some things are indeed lost in religious evolution. An intriguing question thus presents itself: does the protestantization of religions prepare for a transition into 'the Anthropocene' involving a discontinuity in evolutionary terms?

## The Anthropocene and religious discontinuity

Books and articles about 'the future of religion' have proliferated in recent times (Stark and Bainbridge, 1985; Unger, 2014; Wernick, 2010; Zabala, 2005). For these authors, religion will survive but in a much altered form as a consequence of the competition between churches for membership, globalization, secularization and the impact of the internet. They speculate, for example, about how the organized Christian churches in the West might be forced to come to terms with the public acceptance of gender equality, homosexuality and same-sex marriage. However, in general, they fail to address the likely impact of biotechnological changes on the human body, on practice and subsequently on religion. In short, they fail to address the most challenging question possible about human historical continuity.

My argument is thus starkly simple. My body in terms of structure and function is no different from the body of Socrates, Confucius and the Buddha. We have the same

organs, in the same skeletal frame, and the same upright forward-looking posture with the same functions and capacities. We share the same vulnerabilities. We know from the Pali Canon that the Buddha, suffering from an acute and bloody diarrhoea, requested his disciple Ananda to take him to a bed between two trees. He died shortly afterwards. Pneumonia, which remains a common cause of death among the elderly, killed René Descartes in 1650. There are some differences. As an infant, I was less prone than my ancestors to the threat of death from infectious illness as a consequence of vaccination and improvements in health care. However, I am more likely to die of the diseases of old age – stroke, heart failure and cancer. Nevertheless, whether we are talking about Socrates, Descartes or we moderns, die we must. But what happens if life is extended more or less indefinitely? What happens to religious habituation and practice if the human body begins to change in dramatic ways as a consequence of biotechnological inventions and applications? Will the legacy of the axial-age religions survive the emergence of the hybrid post-body? I have argued that embodiment-hexis-habitus-practice is the basis of religious life. If the human body is transformed and upgraded conceivably to live a long and pain-free life, what then of the axial-age religions and the *dukkha*-quality of human existence?

## Conclusion: religion and the Anthropocene

Through the history of the planet, human societies have been subject to major changes in the natural environment that has radically changed the development of human societies. One obvious example is the ice age. The debate about the Anthropocene suggests that this relationship between nature and society has been reversed in which humans now largely determine either directly or indirectly what is taking place in nature. Here the obvious example is global warming. These developments clearly have implications for religion. To take one example: Jesus lived in a society where semi-nomadism was still practised in the husbanding of goats and sheep. It is unsurprising that many of the metaphors and analogies in the New Testament reflect that form of agricultural production. Jesus is the Shepherd of the sheep; the Eucharist reflects a simple diet of wine and bread; Jesus works a miracle with fish. The metaphors of our society have long since abandoned such references. We do not live in a pastoral world of sheep but in an urban world of webs and networks and one in which life is being transformed by biotechnology.

Biotechnology (or ‘Biotech’) is a general umbrella notion covering diverse activities involving the modification of living organisms for human purposes. Biotech involves the integration of natural science and organisms, cells and molecular analogies for diverse commercial products and services. Biotech is the basis of post-industrial production that is transforming, not simply economic activity, but society as a whole.

Biotech was developed in the twentieth century through artificial selection and hybridization. Various scientific breakthroughs in genetics were associated with Paul Berg’s experiments in gene splicing in the 1970s. However, the commercial breakthrough occurred as a result of a ruling of the US Supreme Court in 1980, recognizing that a genetically modified micro-organism could be patented, thereby establishing the judicial basis for genetics in a range of commercial activities. Further legal decisions in recent

decades have given greater security to intellectual property rights. Obviously the use of genetic science to modify crops and fish remains controversial, and it has become the target of various green movements seeking to prevent the introduction of genetically modified plants in agriculture.

The Human Genome Project, which was completed in 2003, was the most important advance in understanding the genetic basis of human life. The goal of this international project was to determine the sequence of the chemical basis of the genetic pairs that make up human DNA. Specifically, the aim was to create the map of all the genes of the human genome. The map has many applications – one being to monitor inherited diseases in humans. Biotech research and its applications are now the technological foundation of a bio-medical-technological civilization that is transforming social relations and the very foundations of human existence.

Bioinformatics have captured the public debate and the economic interests of both governments and industry. By comparison, investment in research in the social sciences is but a small and declining fraction of investment in Biotech. An emergent neurosociology promises to understand sociality from the perspective of brain sciences. Sociological theory has long resisted the idea that human behaviour can be explained by reference to biology and our genetic inheritance. Consequently much of the speculation about the social consequences of Biotech has been undertaken by philosophers interested in the ideas of transhumanism and posthumanism (Bostrom, 2005, 2014; Fukuyama, 2002). The idea of posthuman existence is one important aspect of the idea of an historical discontinuity in the shape of an Anthropocene age.

Developments in Biotech have a number of radical possibilities. These possibilities form the core of my concluding discussion. The first possibility is to extend human life expectancy more or less indefinitely (the longevity project). The second is to create hybrid humans that improve or go beyond the human (the prospect of posthumanism). The third is radically to change our relationship to nature (the Anthropocene age). These three developments, in changing the body and our relationship to nature, have significant implications for the prospect of any axial-age religious continuity into the future.

Biotech has significant consequences for human ageing and the longevity project, namely, the application of science to radically alter human life expectancy. Three powerful social forces are redefining previous modes of governing and experiencing ageing (Turner and Dumas, 2016). First, there is an anti-ageing rhetoric that is now well integrated into the health, sports and tourism industries and is reshaping the status of old age, along with new models of social relations, justice, welfare and solidarity. Anti-ageing broadly represents those social movement that seek to make people look younger, to feel younger, to challenge the ageing process, to avoid the diseases of old age, and to delay or avoid death (Vincent, 2003, 2006). In a consumer society, to age well is not to be subject to an ageing process at all. The bio-medical promise is thus not only to live for an indefinite period but to live without the health issues that to date have attended the ageing process: strokes, heart disease and cancer. The longevity project also aims at eliminating multiple sclerosis, memory loss, Alzheimer's and the loss of libido. Mental decay and depression can be alleviated through drug therapies that bring us health and happiness. In a market-driven global society, the nation state has a limited capacity to develop a normative and legal framework that will regulate the re-shaping and

reconstruction of ageing, geriatric care and longevity. The neo-liberal emphasis on individual responsibility for managing the ageing process is a key issue in the political economy of longevity.

Biotech is not only reshaping agriculture to produce more efficient animals for human consumption, it is also reshaping human beings with the promise of producing upgraded beings who live healthily and indefinitely. Improving human lives is obviously desirable and has been the official goal of medicine throughout its history. Biotech may also contribute to inequality because the benefits of modern medicine are not available to everyone, but the promise of longevity is a powerful incentive for further scientific developments. Many of these scientific and technical developments, such as cryonics, nanotechnology and genetic engineering, are at an experimental stage and they are often resisted and challenged in the courts. One example is opposition to the endorsement for human consumption of genetically modified salmon by the Food and Drug Administration in November 2015. There is considerable commercial investment in genetically modified chicken to produce disease-resistant varieties to meet the global demand for protein. Resistance to biotechnology is often limited by commercial interests, by the quest for scientific recognition and celebrity, and by the human desire for healthy longevity. One example is Dolly the sheep, the first cloned mammal, by the Roslin Institute in 1996. Despite social movements that resist technological applications to animals and nature, humans are slowly being upgraded by similar processes. With human upgrading, the simple biological division between men and women for reproduction may well disappear, and there will be many new forms of gender identity. Traditional assumptions about masculinity and femininity are challenged and overturned by advances in reproductive medicine. Men as the heroic warriors of national mythology and military history are being replaced by drones.

The implications of the biotechnological revolution have been recognized by political philosophers, such as Francis Fukuyama in *Our Posthuman Future* (2002), and by advocates such as Eric Drexler (1992) in *Nanosystems*. It is somewhat remarkable that in religious studies and in the sociology of religion there has been very little discussion about how the promise of the removal of sickness and disease and the postponement of death by biotechnological medicine might undercut religious presuppositions. It is easy to argue that the quest to improve human lives and promote longevity has a utopian dimension, making unrealistic promises about immortality. There is an existing critical literature that rejects the extravagant claims made about living indefinitely with improved minds and enhanced bodies (Kirkwood, 1999). However, advances in nanotechnology and genetics in the last decade have radically changed the prospects of human longevity well beyond current life expectancy. Japan, with its rapidly ageing population, low fertility rates, deserted villages, empty homes, shrinking population and disappearing workforce is the demographic present rather than some distant future.

The transition of the world population into the Anthropocenic future will be uneven. In central Africa, life expectancy is declining and is not easily reversed. In many failed states, human life will be unspeakably miserable. But for the successful affluent societies of the northern hemisphere, there will be deeply aged humans living alongside a workforce of intelligent computers and hybrid humans augmented by nanotechnological inserts (Freitas, 1999). For those regions of the world that remain underdeveloped,

impoverished and subject to epidemics, the religions of the axial age, which recognized the unsatisfactory nature of human existence, will continue to have relevance. For those regions with hybridized and improved populations, new forms of drug-enhanced spirituality and religious consciousness may flourish. These developments were anticipated by the use of psychedelic drugs and syncretic religiosity among affluent, small and marginal communities in California in the 1960s and 1970s. The Esalen Institute that combined ideas about human potential, counter-cultural norms, the promotion of enhancement drugs, sexual liberation, youth cultures and the religions of Asia is an obvious example (Goldman, 2012).

The end of unsatisfactory life conditions, the management of physical suffering and the gift of infinite existence must radically change the nature and role of religion in any future society. In a previous publication, I suggested that one important change will be a transition from a theology of unhappiness in which life is seen to be nasty, brutish and short to a theology of happiness in which life is primarily about individual fulfilment through consumption and bodily enhancement (Turner, 2009). In traditional theologies, human life exists in a context of scarcity with the goal of salvation and entry into another world. These ideas were the legacy of the axial age in which this world is unsatisfactory because humans are creatures with a vivid consciousness of their inevitable finitude. In an Anthropocenic theology, death and suffering would be eventually overcome by the applications of biotechnology and gerontological science. There is now a large industry promoting happiness (Ferguson, 1992), but this condition is not the eudaimonia of Aristotle's *Nicomachean Ethics* (2012). Rather, happiness has become individualized, consumer-oriented and immediate. Despite variations in terms of regions of the globe, the religions of the Anthropocene will be discontinuous with any axial-age foundations and consequently things are lost in the process of human evolution. Contra Bellah, the axial-age religions will no longer be our contemporaries.

### **Declaration of Conflicting Interests**

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author received no financial support for the research, authorship, and/or publication of this article.

### **References**

- Aristotle (2012) *Nicomachean Ethics*. Chicago: University of Chicago Press.
- Banchoff T and Casanova J (eds) (2016) *The Jesuits and Globalization: Historical Legacies and Contemporary Challenges*. Washington, DC: Georgetown University Press.
- Bellah R N (2001) Habit and history. *Ethical Perspectives* 8(3): 156–67.
- Bellah R N (2011) *Religion in Human Evolution: From the Paleolithic to the Axial Age*. Cambridge, MA: Belknap Press of Harvard University Press.
- Bellah R N and Joas H (eds) (2012) *The Axial Age and its Consequences*. Cambridge, MA: Belknap Press of Harvard University Press.

- Bellah R N, Marsden R, Sullivan W H, Swidler A and Tipton S M (1985) *Habits of the Heart: Individualism and Commitment in American Life*. Berkeley: University of California Press.
- Bostrom N (2005) In defence of posthuman dignity. *Bioethics* 19(3): 202–14.
- Bostrom N (2014) *Superintelligence: Paths, Dangers, Strategies*. New York: Oxford University Press.
- Bourdieu P (1977) *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Boy J D and Torpey J (2013) Inventing the axial age: the origins and uses of a historical concept. *Theory and Society* 42(3): 241–59.
- Croce M (2015) The *habitus* and the critique of the present: a Wittgensteinian reading of Bourdieu's social theory. *Sociological Theory* 33(4): 327–46.
- Donald M (1991) *Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition*. Cambridge, MA: Harvard University Press.
- Drexler E (1992) *Nanosystems: Molecular Machinery, Manufacturing and Computation*. New York: John Wiley & Sons.
- Durkheim E (2001) *The Elementary Forms of Religious Life*. Oxford: Oxford University Press.
- Elliott A and Turner B S (2012) *On Society*. Cambridge: Polity Press.
- Eubanks C (2011) *Miracles of Book and Body: Buddhist Textual Culture and Medieval Japan*. Berkeley: University of California Press.
- Ferguson H (1992) *Religious Transformation in Western Society: The End of Happiness*. London: Routledge.
- Freitas R A (1999) *Nanomedicine*, vol. 1: *Basic Capabilities*. Georgetown, TX: Landes Bioscience.
- Fukuyama F (2002) *Our Posthuman Future: Consequences of the Biotechnological Revolution*. New York: Farrar, Straus and Giroux.
- Goldman M (2012) *The American Soul Rush: Esalen and the Rise of Spiritual Privilege*. New York: New York University Press.
- Howell J D (2015) Revitalised Sufism and the new piety movements in Islamic Southeast Asia. In: Turner B S and Salemin O (eds) *Routledge Handbook of Religions in Asia*. New York: Routledge, pp. 276–92.
- James I (2006) *The Fragmentary Demand: An Introduction to the Philosophy of Jean-Luc Nancy*. Stanford, CA: Stanford University Press.
- Jaspers K (1948) The axial age of human history: a base for the unity of mankind. *Commentary* 6: 430–5.
- Jaspers K ([1949] 1953) *The Origin and Goal of History*. London: Routledge and Kegan Paul.
- Jaspers K (1962) *Socrates, Buddha, Confucius, Jesus*. New York: Houghton Mifflin Harcourt.
- Jaspers K and Bultmann R (2005) *Myth and Christianity: An Inquiry into the Possibility of Religion without Myth*. New York: Prometheus Books.
- Joas H (2012) The axial age debate as religious discourse. In: Bellah R N and Joas H (eds) *The Axial Age and its Consequences*. Cambridge, MA: Belknap Press of Harvard University Press, pp. 9–29.
- Kirkwood T (1999) *Time of Our Lives: The Science of Human Aging*. Oxford: Oxford University Press.
- Momigliano A (1975) *Alien Wisdom: The Limits of Hellenization*. Cambridge: Cambridge University Press.
- Moyn S (2015) *Christian Human Rights*. University Park, PA: University of Pennsylvania Press.

- Nancy J-L (1992) *Corpus*. Paris: Metaile.
- Nancy J-L (2003) *Noli Me Tangere*. Paris: Bayard.
- Roy O (2010) *Holy Ignorance: When Religion and Culture Part Ways*. New York: Columbia University Press.
- Stamatov P (2013) *The Origins of Global Humanitarianism: Religion, Empires and Advocacy*. Cambridge: Cambridge University Press.
- Stark R and Bainbridge W S (1985) *The Future of Religion: Secularization, Revival and Cult Formation*. Berkeley: University of California Press.
- Turner B S (2009) Goods not gods: new spiritualities, consumerism and religious markets. In: Rees Jones I, Higgs P and Ekerdt D J (eds) *Consumption and Generational Change: The Rise of Consumer Lifestyles*. New Brunswick, NJ: Transaction Publishers, pp. 37–62.
- Turner B S and Dumas A (2016) *L'antivieillissement. La construction sociale du corps âgé*. Quebec: Les Presses de l'Université Laval.
- Unger R M (2014) *The Future of Religion*. Cambridge, MA: Harvard University Press.
- Vincent J (2003) What is at stake in the ‘war on anti-ageing medicine’? *Ageing and Society* 23: 675–84.
- Vincent J (2006) Ageing contested: anti-ageing science and the cultural construction of old age. *Sociology* 40(4): 681–98.
- Weber M (1965) *The Sociology of Religion*. London: Methuen.
- Weisbach W (1921) *Der Barock als Kunst der Gegenreformation*. Berlin: P. Cassirer.
- Wernick A (2010) The future of religion. In: Turner B S (ed.) *The New Blackwell Companion to the Sociology of Religion*. Chichester: Wiley-Blackwell, pp. 629–48.
- Zabala S (ed.) (2005) *The Future of Religion*. New York: Columbia University Press.

## Author biography

**Bryan S Turner** is the Presidential Professor of Sociology and Director of the Committee for the Study of Religion, The Graduate Center, The City University of New York, New York, USA; Professor of the Sociology of Religion in the Institute for Religion, Society and Politics at the Australian Catholic University, Melbourne; and Guest Professor at Potsdam University, Germany. He was the Max Planck Award recipient in 2015. His most recent publication was *The Religious and the Political* (Cambridge, 2013).