7 What's Religion For? A Dilemma for the Scientific Investigation of Religion

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When we ask – from the perspective of empirical science in general, and of evolutionary psychology in particular – whether religion is natural, we ask about its functional use within the biological constitution of human beings. Sometimes such a view on religion goes together with a criticism of religion. If religion as a human phenomenon can be 'explained' by the evolution of the human brain and of human behaviour controlled by the laws and requirements of natural selection, then religion is unmasked as nothing but an adaptive behaviour devoid of any relation to super-natural entities. To avoid or even counter such criticism of religion, others claim that an empirical survey of religion as a phenomenon of human behaviour is merely descriptive and cannot question religion in its semantics. I want to question this move, both from within science and from within religion. I will do so in three steps:

1 I will question the label 'natural' and will try to show how it is charged with normative connotations. I want do this by reconstructing the history of the term 'natural'.
2 I will then point to the fact that religion is far too complex a concept to be referred to by mere descriptive means which claim to dispense with semantics.
3 In my concluding remarks I would like to point to a fundamental dilemma of any functional approach to religion.

I. What do we mean by 'natural'? Hidden sub-texts in the Western notion of 'nature'

The term 'natural' in Western philosophical and theological thinking has adopted a whole variety of meanings that share a family-likeness in some respects, but nevertheless are quite distinct in others. With regard to the term nature, the great Scottish philosopher David Hume claimed 'that there is none more ambiguous and equivocal' (Hume 1992b: 249). He distinguished three meanings of nature: as opposed to miracles or the supernatural, as opposed to the rare and unusual (which

according to his observation is the common meaning), and as opposed to artifice. Today, there are even more different contrast classes in regard to which 'natural' denotes one side of the alternative, like natural vs. cultural, natural vs. forced or laboured, natural vs. unnatural (in the sense of inappropriate), and so on.

In some of these pairs of contrasting terms, 'natural' is associated with a normative meaning – positive as well as negative. Etymologically the root of the term 'natural' goes back to the Latin word *natura*, which originally referred to the properties which beings have not acquired but which they possess by birth (*natus* = born). Soon the term *natura* adopted the meaning of essence or substance, thus *natura* came to mean that set of indispensable properties which qualify an entity as an exemplar of a natural kind. Cf. Augustine: 'Nature is nothing other than that thing which is understood to be something.'[1] A natural being is something which has a nature[2] and therefore is a really existing thing of its kind. In the traditional understanding, the nature of a thing or being is described in terms of its inherent and essential qualities or dispositions, which a being exemplifies through its existence. Furthermore, medieval philosophy commonly distinguished between natural beings, as created in their essences by the divine being, and things produced by the created intelligence of human beings, which were products of an art and therefore not natural but artificial (*non naturale sed artificiale*).

Created by God, natural beings do not simply have a nature, but they strive towards actualizing their nature, their natural disposition, which is bestowed on them by the creator. Thus a *natural order* of beings, the order of their dispositions and ambitions, and of the rules they follow in order to realize their existence according to their nature, is established. This realm of striving and moving beings later became the object of empirical science. From the natural order and course of beings a voluntary, *artificial order* designed by human beings was distinguished, as well as a *supernatural order* or course through which the divine being interferes with the natural course of creation by miracles and revelation (which fell into two categories: *contra naturam*, acting against the course of natural beings, and *supra naturam*, bringing about something which is beyond the powers of natural beings). Thus, Thomas Aquinas defined as the purpose of the philosophy of nature the rational consideration and investigation of the *ordo rerum naturalium*. It is worth noting, that in this concept the *living being*, the organism, is the paradigm for what is called natural.[3]

[1] '*Ipsa natura nihil est aliud, quam id quod intelligitur in suo genere aliquid esse.*'

[2] Cf. Thomas Aquinas, Summa contra gentiles (ScG), book IV, ch. 35: '"Natura" est secundum quam res aliqua dicitur res naturalis: It is [its] "nature" by which something is called a natural thing.'

[3] Cf. again Thomas Aquinas, ScG IV, 35: 'The name "nature", moreover, in its first imposition had as meaning the very generation of things being born. Thence it was carried over to meaning the principle of this kind of generation, and then to signifying the principle of motion intrinsic to the moveable thing. And because this kind of principle is matter or form, nature is further called the form or matter of a thing which has in itself a principle of motion. And since form and matter constitute the essence of the natural thing, the name

At the beginning of modernity, the concept of nature underwent severe changes. In the Renaissance with its strong reference to ancient arts, the distinction between the natural and the artificial course of things was transformed into a difference within the concept of nature. The neoplatonic humanist philosopher Marsilio Ficino (1433–99), founder of the Florentine Academy, wrote:

> What is human art? A nature, which deals with a certain matter from the outside. What is nature? It is an intrinsic art forming matter from the inside [...] What is a work of art? The mind of the artist in separate matter. What is a work of nature? The mind of nature in incorporated matter.[4]

Nature now is like an artist, although it does not form a thing from the outside by extrinsic force, but by a force operating from within that thing. What seems to be eliminated is the traditional notion of the supernatural. Miracles become natural in the sense of *mirabiliae naturae*, i.e. novelties of nature, and change their meaning from an extrinsic divine interference with the course of nature to an intrinsic manifestation of hidden potentials of nature: Mother Nature becomes the creator (*creatrix*). This understanding of nature provides the background for natural studies in early modernity, giving priority to the method of induction and to cataloging phenomena, as well as using alchemy, medicine, mechanics and other arts to imitate and even accomplish nature by using its hidden forces.

But the most revolutionary shift in the understanding of nature was the reconstruction of the order of nature through geometry. While Copernicus spoke of the 'prudence or sagacity of nature (*naturae sagacitas*)' (De revolutionibus I, 10) which brings about complex cosmic phenomena by using a few simple geometrical principles, it was Kepler who combined and united celestial and terrestrial mechanics into one order of nature characterized by its geometrical structure and laws. With reference to Plato, Kepler states that the creator is always applying geometry. Nature is a manifestation of geometrical and mathematical principles which exist in the primordial mind of the creator and which we can reconstruct in our mind by finding the mathematics behind the phenomena[5]. Galileo agrees when he states:

> Philosophy is written in that great book which ever lies before our eyes – I mean the universe – but we cannot understand it if we do not first learn the language, and grasp the

was extended to meaning the essence of everything whatsoever which exists in nature. As a result of this, the nature of a thing is called "the essence signified by the definition".

[4] 'Quid est ars humana? Natura quaedam materiam tractans extrinsecus. Quid natura? Ars intrinsecus materiam temperans [...] Quid artificium? Mens artificis in materia separata. Quid naturae opus? Naturae mens in coniuncta materia' (M. Ficino, Platonica Theologia de immortalitate animorum, IV, 1).

[5] Cf. J. Kepler, Harmonia mundi I, Prooemium: 'The figures [of nature] are earlier in the archetypical mind than in [its] works, earlier in the divine mind than in the creatures: Primo autem figurae sunt in Archetypo quam in opere, prius in mente divina quam in creaturis.'

> symbols, in which it is written. This book is written in the mathematical language, and the symbols are triangles, circles and other geometrical figures, without whose help it is impossible to comprehend a single word of it; without which one wanders in vain through a dark labyrinth.[6]

Inspired by the Newtonian concept of laws of nature, Immanuel Kant generalized this notion of nature by defining it as the comprehensive and systematic realm of all experience, and separated it categorically from the noumenal world of morality and freedom. Like Descartes, Kant wanted to salvage freedom from being dissolved into the deterministic net of mechanical cause and effect with which the modern sciences described the natural word, and he did so by exempting human agency from the context of natural causes. The price they both had to pay was the reduction of nature to a machine-like material world, a *machina mundi.*

Others tried to integrate human agency and existence into the concept of nature. For example, David Hume tried to show that the way we understand nature by interpreting it in terms of natural laws and the way we understand human agency and decision-making are essentially the same. Natural and moral evidences rest on the same principles, i.e. experience, custom and habit:

> And indeed, when we consider how aptly *natural* and *moral* evidence link together, and form only one chain of argument, we shall make no scruple to allow that they are of the same nature, and derived from the same principles. (Hume 1992b: 90)

Although Hume was a sceptic with regard to the absolute demonstrative powers of human reasoning, he was also confident that the 'operations of mind' (Hume 1992b: 83) function in the same way as the 'operations of matter' (Hume 1992b: 93) or the 'operations of bodies' (Hume 1992b: 29). Nature is not made in the image of reason (be it divine reason or its human reflection), but nature is using human reasoning as a tool which is helpful as it is 'renouncing all speculations which lie not within the limits of common life and practice' (Hume 1992b: 41). And, insofar as nature as such is already beyond the scope of our understanding, the 'supernatural', that which might be seen as the source and inner meaning of nature, is completely inaccessible to the human mind.

Although 'a human body is a mighty complicated machine', there is 'no proof that the laws of nature are not observed with the greatest regularity in its internal operations and government'. The same applies 'to the actions and volitions of intelligent agents [...] The internal principles and motives may operate in a uniform manner [...]; in the same manner as the winds, rain, cloud, and other variations of the weather are supposed to be governed by steady principles; though not

[6] G. Galilei, Il saggiatore (Galilei 1968: 232): 'La filosofia è scritta in questo grandissimo libro che continuamente ci sta aperto innanzi a gli occhi (io dico l'universo), ma non si può intendere se prima non s'impara a intender la lingua, e conoscer i caratteri, ne' quali è scritto. Egli è scritto in lingua matematica, e i caratteri son triangoli, cerchi, ed altre figure geometriche, senza i quali mezi è impossibile a intenderne umanamente parola; senza questi è un aggirarsi vanamente per un oscuro laberinto.'

easily discoverable by human sagacity and enquiry.' Hume's conclusion is that 'the conjunction between motives and voluntary actions is as regular and uniform as that between the cause and effect in any part of nature' (Hume 1992b: 87s); and this regular conjunction has been acknowledged by common sense throughout human history. Nature as such is beyond our comprehension, but our comprehension is a part of nature: 'Nature, by an absolute and uncontroulable necessity has determin'd us to judge as well as to breathe and feel' (Hume 1992a: 474s).

For Hume nature is everything which is the case, but it is deprived of all normative principles. That becomes clear in a letter to Hutcheson, whom Hume intensively studied while working on the third book of his Treatise:

> I cannot agree to your sense of *Natural*. 'Tis founded on final Causes; which is a Consideration, that appears to me pretty uncertain & unphilosophical. For pray, what is the end of Man? Is he created for Happiness or for Virtue? For this Life or for the next? For himself or for his Maker? Your Definition of *Natural* depends upon solving these Questions, which are endless, & quite wide of my Purpose. (Hume 1932: 33)

As a result, nature loses its function as a norm for moral action, for vices and virtues: "Tis impossible, therefore, that the character of natural and unnatural can ever, in any sense, mark the boundaries of vice and virtue' (Hume 1992b: 251).

This provides the starting-point for Hume's enterprise to reformulate moral concepts in terms of the pleasure and pain with which we react to, and thus evaluate, human actions. They are part of 'the secret springs and principles, by which the human mind is actuated in its operations'. Therefore we can hope that one day, just as Newton revealed the laws and forces by which the planets are governed, we might discover the laws and forces of 'the mental powers and economy' (Hume 1986: 14).

Kant argued that the most fundamental laws of nature, which account for the possibility of natural phenomena as such as well as for the uniformity of our experience, are identical with the *a priori* structure of our mind, so that in a sense everything which is natural is rational. Hume's argument, however, refers to the sceptical assumption that nature is always greater and more powerful than our reasoning (*natura semper maius*, in a way). The human mind is a toolbox for coming to terms with what we experience, and reasoning is only a small part of it. However, both agree on the fact that nature is a closed, self-sufficient system which allows for no super-natural interference from the outside.

However, there was a third alternative to the *rationalist's* and *empiricist's* account, namely the *materialist's* view of the identity of nature and its mechanical laws. In that view, the scientific methods of measuring and quantification are sufficient to understand nature and its course. The primary qualities of material objects such as spatial form, momentum, mass and number, are seen as the inherent and therefore 'real' qualities of nature, while the secondary 'mental' qualities like colour, smell, sounds, etc. are understood to be products of the human mind.

The nineteenth century also saw a return of a qualitatively rich concept of nature. In the late enlightenment and the rising *romanticism*, nature became the source

of profound aesthetic experience. In political philosophy, as well as in education, a state of nature was assumed in which human beings were essentially innocent, having neither vices nor virtues. While some saw this as the starting point of cultural refinement, others, such as Jean-Jacques Rousseau, pleaded for a 'return to nature'. He saw bad habits as the products of civilization, while the natural represented the unspoiled. Nature became the antonym of society or culture.

Along with this trend in philosophy, a new aesthetic perception of nature developed. Wild nature was not seen anymore as nasty, dangerous, monstrous and hostile to human beings, but as beautiful and sublime. For example, the artificial French garden was superseded by the ideal of the English 'natural' garden, the rough mountains and the stormy sea became the objects of paintings, and the infinite universe, even the still eerie comets, became a matter of awesome reverence and public attention. Of course, this attitude towards nature and the natural was only possible because human beings lived at a certain distance to it and with a certain degree of independence from it. The modern idea of nature as unspoiled and authentic is a concept that in the West only came up when the cultural and technical hegemony over nature was already established.

In German philosophy, it was Friedrich Schelling who put a new qualitative notion of nature as *the* creative force of reality at the centre of his Naturphilosophie, trying to overcome the traditional dichotomy of spirit and nature. The ideal, which is the object of rational thinking and consciousness, develops out of the real; the real cannot be deduced from the ideal. His philosophy had a strong impact on the natural sciences in the nineteenth century, inspiring research into magnetism (e.g. by Hans Christian Ørsted), electricity, chemical action and the chain of organic beings.

We have to stop our historical reflections at this point. Much could be said about the concept of nature in the twentieth century, especially about constructivist and deconstructivist notions of nature and about the dissolution of the natural through virtual reality. But we must refrain from doing so, and list some of the connotations and normative subtexts of the modern concept of nature and the natural. 'Natural' is what:

- is definable as a being of a kind;
- is determined by the order of things;
- is brought about by laws of nature;
- is not intentionally generated, constructed or cultivated by human beings;
- usually is the case;
- does not transcend space, time and matter;
- ...

All notions of 'nature' or 'naturalness' only make sense against the background of a specific contrast (for example, with the non-natural, cultural, supernatural, etc.), and all these contrasts come along with more or less obvious normative meanings. If someone is claiming religion to be 'only' natural, this might be understood as the refutation of the supernatural origins or powers of religion, such as revelation

or miracles. Or it might be understood as the claim that religion is part of the full and sane nature of human beings, and is therefore indispensable. In the form of an appeal to nature, the inference 'Religious behaviour is natural; therefore, religion is morally acceptable' can be regarded as valid, while others can argue for its counterpart 'Religious behaviour is unnatural; therefore, religion is morally unacceptable'. These different options cannot be decided by answering the question whether or not religion is natural, but only by discussing the understanding of nature which is behind the question.

One might try to avoid the inference from what is natural or unnatural to normative concepts like acceptability. But as was shown, the term 'natural' does not refer to properties which can be determined by empirical investigation, but to the methods of empirical investigation as such, so that what is unnatural is outside the accessibility of science. This conviction can come in two versions. One might say that what is outside the accessibility of the scientific method is only virtual, but not really existent. This is the argument of *naturalistic reductionism*: everything of which one cannot give a clear and distinct account, i.e. an account which makes a reproducible difference in reality, is either non-existent or irrelevant for existence (because it makes no regular difference). Or one might say that what is outside the accessibility of the scientific method really exists, but cannot be explained or investigated by empirical, scientific methods. This is the argument of *non-reductionists*, who claim that there really are relevant matters of fact outside the realm of the scientific method. But then the question of whether or not something is natural, in the sense that it can be explained or understood by empirical, scientific methods, becomes irrelevant as soon as it is seen to belong to that realm inaccessible by science. If we see religion as a behaviour that is essentially related to questions of norms and values, and hold the view that norms and values are outside of what we can describe as natural processes, then the question of whether or not religion is natural is irrelevant for religion. Insofar as that which is described by science is natural it cannot be part of religion, while what is essentially religious cannot be described as natural because it is, by its very character, not natural.

To ask whether religion is natural makes sense only if one clarifies which aspects of religion are accessible by scientific methods. The claim that the alleged naturalness of something does not imply a normative concept is itself a normative claim, insofar as it is a normative decision to restrict the natural to what can be described by certain methods. That leads us to our next section: What actually *is* religion – a spontaneous behaviour, a belief system or a cultural entity?

II. What is religion?

One can distinguish between two main trends within scientific descriptions of religion, a *substantial* one that defines religion with regard to certain beliefs which are qualified as religious, and a *functional-empirical* one that focuses on certain forms of behaviour and refrains from all substantial descriptions (Kehrer 1998: 422). Substantial definitions of the general term 'religion' usually

distinguish religious sets of belief from other beliefs and convictions by their relation to some kind of supernatural agency, and see religious sets of belief as formative for devotional and ritual observances as well as for the moral codes governing the conduct of the respective religious communities. A classic example of such a definition of 'religion' by referring to the specific differences of its beliefs is that of Lord Herbert of Cherbury who, in his major work *De veritate* (1624), formulated five fundamental principles of all religions, namely: (1) there is a supreme God, (2) God has to be worshipped, (3) virtue and piety are the most important parts of religious practice, (4) there is an obligation for humans to repent of wickedness, and, (5) there is reward or punishment after this life (Harrison 2002: 67–9). These five essentials (the so-called "Five Articles" of the English Deists) constitute the nucleus of all religions and of Christianity in its 'natural', uncorrupted form. Natural religion, in this early enlightenment sense, is an anthropological constant.

Only with such a general definition can the term 'religion' be used in the singular, claiming that there is a natural kind of which all historical religions are exemplifications. With the notion of a core concept of 'natural religion' in the enlightenment, religion was conceptualized for the first time in history as a universal, as a natural kind which comes in variations. Immanuel Kant wrote:

> *Difference of religion*: a strange expression! as if one were to speak of different kinds of *morality*. There may indeed be different historical *forms of belief*, – that is to say, the various means which have been used in the course of time to promote religion, – [...] but there is only one *religion* binding for all men and for all times. (Kant 1923: 367)

Schleiermacher's 'sense and taste for infinity (*Sinn und Geschmack fürs Unendliche*)' (Schleiermacher 1984: 212), Rudolf Otto's sense of the holy and numinous or William James's religious genius are all successors of this kind of approach, which remained pre-dominant until the twentieth century: a substantial essence of religion is defined, and then the different historical religions are reconstructed as various exemplifications of this essential idea.

In the twentieth century, however, it became obvious that such a substantial definition of religion faces major difficulties: religion is too complex a phenomenon, and a substantial definition cannot be easily operationalized for empirical studies. Since 1912, when James Leuba extracted 48 different definitions of religion from the literature of his time (Leuba 1912: Appendix) which he categorized in three main groups, namely 'intellectualistic', 'affectivistic' and 'voluntaristic' views of religion, religious studies have more and more renounced the possibility of a commonly acceptable definition of religion. Wilfred Cantwell Smith and others have even argued that we should give up the use of the term religion for scientific or theological theories, because when we define religion by means of a reference to a supreme being or any other set of certain beliefs, we usually exclude some historical religions on that basis. On the other hand, more formal and broad definitions are not selective enough and cannot identify religion as a distinctive phenomenon in

contrast to non-religious systems, such as superstition, magic, ideology, sports,[7] theatre or media.

However, not many are ready to follow this suggestion, because we have reliable intuitions about what we regard as religious, although we may not be able to define the phenomenon clearly and distinctively. Thus, although they use the term 'religion', most scientists nowadays agree that a universally valid definition of 'religion' in the singular is impossible. No definition was able to integrate all historical religions and at the same time to distinguish distinctively between religious and non-religious phenomena. What we call 'religion' is a human phenomenon that is by far too complex, and too intensely connected to other phenomena, to be isolated and captured into a simple notion or general term by assessing its semantics. The question whether or not religion is natural as such is meaningless as long as it applies a normatively charged, dubious property to an artificial, historically contingent and phenomenologically inadequate concept. Any answer to this general form of question will reveal more about the inquirer than about the object of investigation.

As a consequence, a *functional* approach to the study of religions was established in the twentieth century in order to avoid discussions about the 'essence' of religious beliefs or the semantics of its practices. Emile Durkheim is usually considered one of the first to have taken a step in this direction with his theory of religion. He saw the elementary function of religion to be an indispensable contribution to the maintenance of social order and social identity. Religion is an expression of social cohesion by distinguishing between the profane and the sacred, and it does so by setting free disciplinary, cohesive, vitalizing and euphoric energies. This elementary form and function of religion allows for a variety of realizations, and Durkheim was of the opinion that though the function which religion serves is indispensible, its concrete form can be substituted by secular equivalents of civic morality.

The functional approach to the study of religion also opened ways for an empirical assessment of religion in a scientific perspective. In the view of a scientist, religion is a form of observable human behaviour and it is distinguished from other forms of behaviour by the specific function it serves. The question of its nature or essence is empirically irrelevant and undecidable by empirical means. Within the framework of evolutionary biology religion as a cultural phenomenon is seen as natural if its functionality is brought about by biologically basic forms of human behaviour and cognitive human faculties, and if its functionality enhances the biological fitness of the respective individuals and communities. In a biological perspective religion is a function of the relation between the environment of human beings and their individual and social needs. Religious behaviour is generated in response to certain constellations of outer demands and inner conditions of socially living human beings. We explain how religion can be natural when we understand the demands and needs to which it is an answer. However, even this concept of naturalness has

[7] In an interview, the successor of Richard Dawkins on *The Simonyi Professorship Chair for the Public Understanding of Science* at the University of Oxford, the mathematician Marcus du Sautoy, described his religion as 'Arsenal – football'.

its normative aspects, although it is reduced to a quantitative notion of adequacy: That is natural, which usually is the case and which either serves a relevant function or is a by-product of it (no. 5 in our list of meanings of 'natural').

This methodology has two consequences:

1 Religious semantics are relevant for such an analysis only to the degree that they contribute to the functionality of religion. Insofar as scientific methods rest on methodological atheism, science can investigate only the way in which beliefs function for the well-being of individuals or groups: it cannot assess the beliefs themselves when they refer to super-natural categories.

2 Since historical religions have so many aspects (doxastic dispositions, belief systems, rituals, social norms, etc.) and are so multi-functional, the functional approach to religions must reduce their complexity to a convenient set of separate functions and assign them to a variety of faculties (cf. the so-called 'Swiss army knife' approach in evolutionary psychology). Eckart Voland, a leading German researcher in the field of the evolutionary study of religion, identifies six aspects of religious behaviour which refer to six core components of the mental ability to be religious, which he calls religiosity. Religiosity consists of a cognitive, a spiritual, a socially binding, an identity-forming, a communicative and a moral component (Voland 2009: 11–21). In five of these domains, religious behaviour can be explained as a functional adaptation. Interestingly enough, it is the first domain, the cognitive side of religion, which Voland regards as a non-functional by-product of evolution, while for a religious believer this is at the centre of his or her belief. But for all other elements of religiosity Voland claims that they are 'biologically functional on average. That is why religiosity can be regarded as an evolutionary adaptation which belongs to universal human nature as a genetically fixed component' (Voland 2009: 21).[8] What qualifies all these functional adaptations as 'religious' Voland does not say. But he seems to suggest that in our societies the same adaptations which bring about the traditional religions can also manifest forms of 'religious' behaviour which are very different from what we usually call religious.

In my view, the example of Voland points to a fundamental issue of any scientific description of religion: Science must reduce nature to functionality with regard to observable factors in order to be able to describe it by empirical methods. But any function can be dissociated from the form of its realization as long as its functionality is maintained. With regard to religion this was the approach developed by Durkheim: the function of religion is creating social identity by establishing and processing the difference between the holy and the profane. But different religions fulfil this function by using very different concepts. If functionality is the point of reference for the scientific study of religion, then religious semantics is of interest

[8] For Voland human 'nature' is the sum total of all genetically fixed adaptations, cf. Voland (2009: 19): 'the adaptations of *Homo sapiens* overall form what is called "human nature"'.

only insofar it contributes to this functionality and mediates between observable factors. In the self-perception of religion it is the other way around: at the centre of religion are semantics and content, while its functionality with regard to the group's coherence or the individual's wellbeing is a secondary side-effect. Religions seek to relate their followers to that which transcends experience and to what is, by definition, not observable or quantifiable; and exactly that makes a non-functional difference in reality. It will have measurable side-effect in empirical reality, but precisely these side-effects allow for no inference to the reality which religion sees behind them. If functionality is the point of reference of science, science will systematically miss the point of religion – at least in the view of religion itself.

III. Conclusion

If this is correct, then a gap opens between the convictions of believers and the functional role of religion, with two consequences: religion can play a functional role without the individual religious follower knowing about it, and the functional role of religious behaviour allows for functional equivalents which semantically might not have much in common with traditional religion. The first consequence of a strictly functional approach can be easily illustrated: for example, celibacy is seen as a 'functional' behaviour because it strengthens group fitness, but it does so without intending it. The second consequence may need a little more clarification, because it is closely connected to recent social developments.

In modern societies the personal identity of an individual is disconnected from the individual's functional role within the different contexts of society. For example, in pre-modern societies marriages were not only personal options, but also part of the political, economic and religious order. The development of modernity is the differentiation and decoupling of these sub-systems according to their specific functionality. Economics functions on the basis of money and markets, marriage and love relationships function on the basis of love and affection, while politics functions on the basis of governance and formal regulation. The process of differentiation is still going on. At present, love relationships are beginning to dissociate from family relationships.

But what is important for our subject is the fact that basic universal contexts in modern societies, like politics, education, economics, law, etc., function independently of the individual's personal convictions, while religion, like the arts, has become a matter of private opinion, irrelevant for the functional coherence of society. While no individual can refrain from participating in economical, juridical and educational contexts, and can even be forced to participate in them, individuals can ignore religion, the arts, etc. An individual in a Western society can be born, can live and can die ignoring religion. It is part and parcel of modern societies that medical aid, marriage, law, money, economical transactions, etc. function independently of religion and according to their own rationale, while the functional roles of traditional religion can be substituted by a variety of equivalents which include art, sports and even science itself in the form of 'scientism'. In any case, the option

of a life devoid of institutional religion as well as religious semantics is an empirical fact. In modern societies religion does not solve the necessary problems of society, especially when societies differ more and more in their individual forms. What is left in some societies is a rudimentary form of so called 'civil religion' (Bellah 1967), by which politics is decorated with a certain ceremonial reference to religious notions while at the same time secular practices like singing the National Anthem acquire a quasi-religious status.

The often claimed renaissance of religion seems to me to be an effect of the functional independence of religion connected with its irrelevance for other functional systems within modern societies. Religion can now be designed according to specific needs, both social and individual, and according to specific individual receptiveness with regard to certain religious practices with no immediate consequences for the individual's functionality in other contexts of society. Once religion is deprived of its political, juridical and social role, it might even be converted into a kind of psycho-sanitary technique (or an anthropo-technical exercise, as the German philosopher Peter Sloterdijk 2009 puts it). For others it might turn into a marker of identity, a kind of folklore, consisting mainly in rites, festivals, music, certain dresses for certain occasions, etc., which help forming, expressing and securing cultural identity.

Where does this lead us to? Apparently we are in a dilemma. Either we ask whether religion is fulfilling an indispensable functional role in a scientifically meaningful way, in which case we miss the point of religion, at least of traditional religious semantics.[9] Or we ask what is at stake in religious semantics. Then we enter into hermeneutical and theological categories which are not accessible by empirical research, but which are, so to speak, always behind the back of the observer. One has to give up observing and must suspend the empirical approach in order to discuss matters of religion in a religiously meaningful way, and this cannot be done without getting involved on a personal level. Concepts that claim to have overcome this dilemma covertly (and usually unconsciously) introduce hidden normative sub-texts with their notion of the natural, thus stating either that religion is good because it is healthy or that it is an illusion because, insofar it makes a difference in reality, it can be cut off from its semantics and substituted by functional, non-religious equivalents. At present, I do not see how we can reconcile science and religion by bridging this gap.

[9] Cf. Augustine in his *De doctrina christiana* book I, chs 3–5, who distinguished between a being that is to be enjoyed (*res quibus fruendum est*) and a being that can be used (*res quibus utendum est*). To enjoy something means to adhere to it in love for its own sake, while to use something means to make use of it in order to reach that what is to be enjoyed. God is the highest good, which is only to be enjoyed but which cannot and must not be used in order to achieve something else.

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