

Concepts and misconceptions in the scientific study of spirituality

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We all seem to be in favour of spirituality these days.
But what are we in favour of? (Chatterjee, 1989, p xvii)

Introduction

In one of her last public interventions at a British Academy symposium on neo-evolutionary views of religion, anthropologist Mary Douglas argued that modern Man was not mentally more complex than 2,000 years ago; he was simply more confused. This thought is well illustrated by the recent history of the term 'spirituality', which is now widely used in an astonishing variety of ways and almost invariably with a positive connotation, although very few people seem to know what they are referring to. Central to the matter is a construction of spirituality as a universal feature of human experience addressing a feeling of a transcendent force or presence, which need not be framed within any particular theological or belief system but can instead rely solely on the individual's experience.

Many academics have embraced the popular understanding of spirituality as distinct from the religious, notwithstanding the very flaky historical grounds on which to base this differentiation. We can think of several reasons why the idea of spirituality has become socially agreeable and detached from that of religion. These include a sense of distrust and disenchantment with institutions, a search for meaning that appeals to our modern 'homeless' minds and sensitivities (Berger et al, 1974), and an awareness of commonalities in the different human cultures, expressed in terms like 'global consciousness' (Chatterjee, 1989). Spirituality is seen as addressing something deep and private within each one of us but which is also envisioned to be potentially shared by the whole humankind beyond racial, national and cultural distinctions.

However, the term elicits ambiguity, subjectivity and is read in a variety of ways within academia. The first part of the chapter discusses the major ways in which spirituality is constructed by academics. After this we move on to discuss the empirical attempts to assess spirituality as a universal experience. Our analysis of the literature, with a special focus on psychological studies, sheds a very different light on our understanding of spirituality. We suggest that the most statistically

reliable measures of spirituality to date are simply assessing a human capacity to experience non-ordinary states of consciousness, a capacity which largely overlaps with partly inheritable personality traits of schizotypy or psychoticism. While not ascribing any pathological meaning to this argument, we suggest that a natural tendency to experience unusual perceptions and ideas should not be considered valuable as such and need not be regarded as a significant common attribute of humanity.

Spirituality concepts

The enigmatic phenomenon of spirituality, first studied in the humanities, has increasingly attracted the attention of social scientists. The different disciplines approach spirituality in a variety of ways, and each has focused on different aspects of the phenomenon. As a result, each line of research has developed its own concept of spirituality. In the following section, we will briefly describe and examine three important concepts in use today.

Universal categories and historical manifestations

Contemporary spirituality research generally distinguishes between (1) spirituality as a universal category and (2) the many specific manifestations of spirituality (see Baier, 2006).

Spirituality as a universal category refers to an experience believed to be common to all human beings, one that lies at the core of the person. In the view of Ewert Cousins, editor of the *World spirituality* series, spirituality encompasses everything that is connected with this shared human experience: 'This spiritual core is the deepest centre of the person. It is here that the person is open to the transcendent dimension: it is here that the person experiences ultimate reality' (Cousins, 1986, p xiii). This understanding of spirituality is mainly intuitive and relies on an emphasis on one's inner experience of the transcendent, rather than an analytical attempt to describe what its characteristics are.

One other view stresses *spirituality as a social and culturally constructed form*. Only by looking at different spiritual traditions, such as Buddhist, Jewish, Christian, Islamic or even non-religious, can we attempt to describe the core experience of a particular tradition. For example, the union with the divine bridegroom (for example, Bernard de Clairvaux and John of the Cross) is a central experience in Christianity; by way of contrast, in the Buddhist tradition, *Śūnyatā* (emptiness) is a focal experience in the Mahāyāna and Zen schools. Under this pluralistic perspective, one can also consider forms of spirituality that are located outside of the established religious spiritualities, such as esoteric and New Age groups (Bochinger, 1995; Hanegraaf, 1996; van Ness, 1996; Faivre, 2000; von Stuckrad, 2004; Heelas et al, 2005). The essays contained in the aforementioned reference work on *World spirituality* provide an overview of the archaic and great spiritual traditions of all continents, including extinct spiritualities like those of the

Egyptians, Sumerians, Greeks and Romans, and finally the esoteric and secular movements. Since the scholars who contributed to this work studied these many spiritualities from very different perspectives, Ewert Cousins decided not to offer a definition of spirituality, for the 'term "spirituality", or an equivalent, is not found in a number of the traditions' (Cousins, 1986, pp xii–xiii), thereby emphasising a subjective and pluralistic view. This explains the inclusion of nihilistic and atheistic movements in this encyclopaedia, alongside religious traditions.

Spirituality as ethnocategory and social-scientific construct

From a sociological point of view, exemplified in the work of Hubert Knoblauch, spirituality may be approached as an ethnocategory, that is, a category that is used by the subjects of sociological analysis to describe themselves (Knoblauch, 2006). Based on the semantic field associated with the ethnocategory, social scientists may then develop a construct, or an empirically grounded theoretical understanding of spirituality.

Spirituality as *ethnocategory* serves to define the field of study: the actors who apply this category to themselves. According to Knoblauch (2006), these are mainly people who consider themselves part of the 'neo-religious scene'. This refers to experientially oriented Christian movements such as Pentecostals and Charismatics, or to the alternative spirituality movement, which has also been referred to as New Age, esotericism, cultic milieu or invisible religion.

Spirituality as a *construct* that builds on the interpretations of the actors, but incorporates them into a scientific frame of reference, compares the phenomenon of spirituality with other phenomena in the social world. The result of this comparison, in Knoblauch's (2006) understanding, is a communitised form (*Vergemeinschaftung*) of religion that is concerned with an inner experience or experience of transcendence articulated in terms of its contrast with or distance from the major organisational forms of religion. The content of these experiences resists rational communication or intersubjective corroboration. Spiritualities, writes Knoblauch (2006), are profoundly subjective: they lack an institutional and dogmatic core and lead to a generalisation of charismas or spiritual gifts. The view upheld by most social scientists studying spirituality as a construct is that whereas religions are, above all, systems of knowledge, spiritualities must be considered first and foremost systems of experience.

Knoblauch's (2006) framing of spirituality ensures that new spiritual movements inside or outside the established traditions are taken into account. However, his notion of spirituality as either an ethnocategory or a construct could be considered too broad as it allows spirituality to be defined as anything that is characterised as such by the subjects of the phenomenon. At the same time, this notion of spirituality is also too narrow, as it ignores the long history of spirituality that exists – albeit with a different semantic connotation – within the established religions. These classic spiritualities of the established religious traditions, which demand self-critical rationality and intersubjective verifiability of their practitioners, do

not fit into this construct. We will further examine other limitations of this view of spirituality as a subjective and experiential phenomenon below, providing examples from empirical measurements of spirituality.

Theological definitions and theologies of spirituality

Theological discussions of spirituality are concerned with defining spirituality and defining theologies of spirituality. Definitions of spirituality generally encompass both the material object (what is being studied) and the formal object (the point of view from which it is being studied). One of the most influential definitions currently in academic use is surely that of Sandra Schneiders (1998). She describes the material object as 'the experience of conscious involvement in the project of life-integration through self-transcendence towards the ultimate value one perceives' (Schneiders, 1998, p 42). The formal object, on the other hand, refers to the various methodological approaches that should ideally be used in a combined interdisciplinary manner.

The diverse religious or world-view traditions produce different datasets – aesthetic, kinematic, material, social and literary – that are relevant to spirituality studies. Taking Christianity as an example, Schneiders (1998) argues that the theology of spirituality is characteristically hermeneutical in its effort to interpret the experience it studies and make it understandable, without violating its historical reality. In this hermeneutic approach, exegesis and history can be seen as constitutive disciplines, as both are concerned with basic symbols, the religious matrix and the 'meta-story into which each individual and communal Christian story is integrated and by which it is patterned' (Schneiders, 1998, p 43).

What we have described above regarding the theology of Christian spirituality can be applied, *mutatis mutandi*, to other theologies of spirituality. This broad, anthropologically and interreligiously oriented definition of spirituality and a theology specific to a particular spiritual tradition corresponds to the general view that spirituality is a phenomenon common to all human beings, but that it is expressed and interpreted within a variety of hermeneutic horizons. The question of whether spiritual experiences that take place within the context of different religious traditions are comparable poses a special problem. Although contemporary interreligious research does consist of extensive interreligious negotiation, it is not clear to what extent basic symbols, meta-narratives or underlying patterns of spirituality are truly translatable, or whether ultimately they have to be simply presented in juxtaposition.

Measuring spirituality: limitations and misconceptions

After this brief description of three major conceptual perspectives on spirituality, we will now focus on the problems arising from the social scientific study of the concept, with special attention to the construction of measures of spirituality. Thus,

we will attempt to provide an answer to the question: what are social scientists *really* measuring when they construct and use a scale to assess spirituality?

As reviewed above, spirituality can be understood both as a universal category of human experience and as culturally idiosyncratic attempts at creating meaning. This entanglement is central in the scientific assessment of spirituality, where diverse conceptual understandings have been employed (see Cook, 2004). The somewhat ambiguous and indiscriminate use of the term 'spirituality' has been criticised in both religious and non- or anti-religious quarters. For example, the education officer of the British Humanist Association has found the term 'superfluous', 'sentimental' and 'muddy', arguing for its exclusion from the education system (Mason, 2000). Traditional religious sources (for example, the Roman Catholic church) have issued similar criticisms, being particularly concerned about the attempt to empty religion of its existential and spiritual depth.

In popular modern usage religiousness is seen to concern doctrine and the institutional, ritual aspects of a tradition, while spirituality concerns a personal experience of the sacred or transcendent. The religious individualism which gave rise to this division is also reflected in the social sciences, primarily via William James' (1902/1929) highly influential work which focused on religion as a personal emotional experience, but neglected the social and institutional aspects of religious experience. We do not take this division for granted, and we are not alone in this. This split has been addressed as an unfortunate anti-institutional bias (Pargament, 1997), and it does not stand up to close scrutiny: people searching for individual religion or spirituality are influenced and supported by literature, groups and practices which are socially embedded and adapted or inspired from historical religious sources. Furthermore, empirical research on the religion–spirituality division has shown that there is in fact a major overlap between the two (Zinnbauer et al, 1997). Nonetheless, it is this popular understanding, which tends to treat spirituality as a universal – even if personal and subjective – category of human experience, that is used in most empirical studies. Thus, although there is no consensus about what spirituality consists in, there is a tendency to see spirituality as a common core of experiences related to the transcendent. This tendency is particularly prominent in psychology, a discipline with a tradition of studying religious experience (James, 1902/1929) and of discriminating between the extrinsic (institutional) and intrinsic (personal) aspects of religion (Allport, 1951). In what follows, we will first criticise the assumption of a common core experience or the universality of spirituality as a scientific construct. We will then propose an alternative explanation of what the various measures of spirituality tap into.

The heterogeneity and non-universality of spirituality: empirical findings

One of the first empirical studies of how spirituality was understood reported a large overlap in the use of the terms 'religious' and 'spiritual' (Zinnbauer et al, 1997): 74% of participants across several religious and New Age groups ($n=343$) rated

themselves both as religious and spiritual, and only 19% considered themselves to be spiritual but not religious. Similar results were subsequently reported by Marler and Hadaway (2002). Zinnbauer and colleagues (1997) accordingly argued for keeping the study of spirituality *within* a broad understanding of religion.

Zinnbauer et al (1997) also found that Roman Catholic participants tended to rate themselves as moderately religious and spiritual, while people from the New Age group thought of themselves as highly spiritual but not very religious. Similar findings have been reported in other studies contrasting New Age and Roman Catholic participants (for example, Farias, 2004). These findings suggest that separating the spiritual from the religious is not common practice, and that traditionally religious people find aspects of spiritual fulfilment in their faith.

Before the above-mentioned studies were conducted, some ground-breaking research *unsuccessfully* attempted to construe spirituality as a universal value type. Schwartz (1992) hypothesised that spirituality would emerge as one of a set of universal value types that also included benevolence, universalism, power, tradition, conformity, hedonism, security, self-direction, stimulation and achievement. He saw spirituality as a motivation towards finding meaning and inner harmony through the transcendence of everyday reality and defined it primarily as having a spiritual life, inner harmony, meaning in life and detachment. He also considered unity with nature, accepting one's portion in life, and being devout. Schwartz (1992) used a large cross-cultural sample, consisting mainly of students and school teachers, that included both atheists and adherents of eight religious groups from 20 countries. In this study, a value type was considered universal if it emerged in at least 70% of the samples, in statistical smallest space analysis. Spirituality was the sole hypothesised value type that failed to reach this criterion: a distinct statistical region for spirituality only emerged for 8 of the 40 samples.

In line with these results, Schwartz (1992) argued that although there is a human need to find meaning and transcendence in life, this need may find expression through other value types rather than through spirituality as such. Supporting this argument, the values 'detachment' and 'accepting my portion in life' appeared in the statistical region of the tradition value types. Likewise, the values 'a spiritual life', 'meaning in life', 'unity with nature' and 'inner harmony' tended to lie within the statistical regions of the benevolence and universalism value types. Schwartz (1992) also argued that there may be a number of distinct types of spirituality, each one with its own subset of values.

In the studies just reported, the attempts to empirically establish spirituality as a homogeneous and universal construct have clearly failed. They show that it is dubious to distinguish religion from spirituality, and that spirituality cannot be universally defined as a set of particular values or motivations, in the same way that other value types can. However, despite lacking a consensual definition of spirituality, there are a number of studies which have assessed either a particular kind of spirituality (for example, New Age) or a more abstract type in relation to psychological characteristics. These studies allow us to look at the ways in which people who score high on spirituality scales may be psychologically different

from those scoring lower. We suggest that it is the psychological differences observed in relation to spirituality that will afford us a better understanding of what spirituality scales in fact measure.

Individual differences in spirituality

Are some people innately more spiritually gifted than others? Religious traditions generally accept this may be the case, while offering such divergent explanations for the origin of these individual differences as accumulated experience in previous lives or God's grace. There are many accounts according to which such spiritual giftedness is not present from birth but arises at a certain point in adult life – the lives of the Christian saints, rich in accounts of deep conversion, display this pattern, and the New Age milieu represents an interesting modern example. Many of the New Age's ideas have become culturally mainstream from belief in reincarnation as a positive experience of learning to an understanding of spirituality as a personal inner experience different from institutionalised religion. People interested in the New Age favour an active search for experiences in which everyday senses of self and reality are transformed, and thus tend to employ a great variety of techniques and practices (for example, hypnotherapy, hyperventilation, visualisation) to trigger these experiences.

Recent psychological research on New Age spirituality has found its practices and beliefs to be significantly associated with a particular set of cognitive and personality factors that include magical thinking, cognitive loose associations (for example, seeing patterns in a random display of dots), schizotypy and thin boundaries (Farias et al, 2005). Farias and colleagues (2005) suggest that people drawn to New Age spirituality are psychologically prone to having unusual ideational and perceptual experiences, such as paranormal occurrences and altered states of consciousness, and to be emotionally hypersensitive. They also suggest that the New Age offers these individuals a way of explaining and expanding their experiences. Interestingly, traditional religiosity was found not to be associated with these cognitive and personality factors.

Research on New Age spirituality has also uncovered differential patterns in parental attachment when comparing people adhering to the New Age to individuals involved in traditional Christianity. Using standardised questionnaires and interviews with New Age participants in Sweden, this research has shown New Age spirituality to be particularly associated with an insecure pattern of parental attachment, where people find their childhood relationship to one or both parents to lack emotional care and support (Granqvist and Hagekull, 2001; Granqvist et al, 2007).

The research reviewed above suggests that some forms of spirituality, such as the New Age, are associated with cognitive, personality and early environmental factors which may dispose the person to be particularly interested in certain spiritual ideas and practices (see also Farias and Granqvist, 2007). On the other hand, these factors are not associated with religion. A purely descriptive examination

of the type of unusual ideational and perceptual experiences reported by New Age adherents has led some researchers to see in them genuine expressions of self-transcendence achieved by the practice of certain techniques (for example, Rose, 1996). The psychological research, however, suggests otherwise. The type of 'spiritual' experiences reported is more likely to be the result of cognitive, personality and early environmental factors that dispose individuals with such characteristics to perceive events in an unusual way, or to attribute particular significance to them. This means that the reported experiences are not the result of a spiritual transformation willed by the individual, but more likely the outcome of psychological features with deep biological and early environmental roots, of which one is usually unaware and over which one can exert little influence. However, our focus in this chapter is not on a particular type of spirituality, even if it is something as broad as the New Age, but on what we could call mainstream or unaffiliated spirituality. Can we observe similar individual differences as those found for New Age individuals when looking at mainstream spirituality?

The answer is yes. Although the evidence is still patchy, it is nonetheless revealing. A behavioural-genetic study conducted in Australia, with a large sample of monozygotic (identical) and dizygotic (fraternal) Australian twins over 50 years of age ($n=3,116$), is particularly interesting in this respect (Kirk et al, 1999). This study employed measures of personality, psychological well-being, physical health and religiosity, as well as a spiritual self-transcendence scale that was taken from a larger temperament and character inventory (Cloninger et al, 1993). The 15 items of the self-transcendence scale asked about strong spiritual/emotional experiences or an unusual sense of connection (for example, "I often feel a strong spiritual or emotional connection with all the people around me"). No significant association between spirituality and health status was found, but there were small significant associations between spirituality and optimism, extraversion, fatigue, anxiety and depression for both sexes. There was also a small significant association between spirituality and neuroticism for men and between spirituality and psychoticism for women. Interestingly, church attendance emerged as the strongest correlate of spirituality ($r=0.41$ for men and $r=0.30$ for women), showing an overlap between spirituality and religiosity, as in other studies mentioned above. However, when contrasting the results found between monozygotic and dizygotic twins, the outcomes were very different for genetic and environmental influences on spirituality and religiosity. The genetic factor for spirituality was estimated to be approximately 41% in women and 37% in men, while the shared environment factor contributed very little (only about 8%). In contrast, shared and unique environmental factors played a much larger role in determining church attendance (about 50%), while genetic factors were non-significant.

The results of this study indicate that: (1) there is a significant inheritable biological disposition to spirituality (as measured by the particular scale employed in this research), which is stronger for women than for men; (2) the frequency of spiritual experiences is little influenced by social-cultural learning; (3) being a religious churchgoer is mostly determined by what you learn from your family

and social environment; and (4) spirituality is associated with different personality traits for men (neuroticism) and women (psychoticism). In a nutshell, these results suggest that there are highly significant individual differences (including gender) in the occurrence of spirituality, which are partly biologically driven, and associated with particular personality traits. This is just one study, which has not been replicated so far, and it is likely to raise suspicion among religious scholars, including social scientists. However, setting aside the genetic and personality component of the study for the moment, the main results have been observed before: women are more interested in spirituality than men (see Heelas and Woodhead, 2004), including New Age practices and beliefs (Farias et al, 2005); and religious affiliation and practice are known to be primarily influenced by family and educational background (see Hood et al, 1996). If the results regarding the genetic basis of spirituality are more difficult for us to accept, we have to ask ourselves what prevents us from doing so – whether scientific or ideological considerations. In what follows, we would like to further substantiate the biological thesis of spirituality, by addressing the nature of the scales being used to measure this construct, and how they are related to personality and cognitive dispositions.

What do spirituality scales measure?

There is little doubt about what the majority of spirituality scales are looking at. One needs only notice the description of items which generally portray experiences of *feeling* connected with the sacred or the world, *experiencing* altered states of consciousness or unusual perceptions – very much what Maslow (1964) called peak experiences. The measures also assess paranormal experiences such as clairvoyance (for example, “I seem to have a sixth sense that sometimes allows me to know what is going to happen”) and telepathy. There is indeed evidence that belief in the paranormal is an aspect of spirituality and that the type of experiences described by New Age spirituality overlap with unaffiliated contemporary spirituality (Nasel and Haynes, 2005). Thus, the universal and innate aspect that spirituality scales are tapping into, we suggest, is a particular capacity to enter altered or non-ordinary states of mind and to be highly susceptible to interpreting physiological and environmental cues in an unusual way.

As described above, spirituality has been found to be associated with personality traits, particularly with schizotypy or psychoticism. People with such personality characteristics tend to report more unusual ideas and perceptions (including magical and paranormal) than others (see Claridge, 1997, 2001). In recent years, our knowledge of the cognitive and neural underpinnings of schizotypy has grown immensely. There have been studies reporting positive correlations between this personality trait and left temporal lobe dysfunction (Mohr et al, 2001), a loosening or disinhibition of semantic network functioning (Pizzagalli et al, 2001), and an overactivation of the right hemisphere (Pizzagalli et al, 2000). These correlations – which are not an indication of pathology but of a distinct cognitive and neural

functioning – are evidence of what may underlie experiences of unusual ideas and perceptions, like those described in spirituality scales.

Psychologists have sometimes used more neutral expressions, such as *transliminality*, to describe individual differences in the extent to which ideas and affects are able to cross the threshold of conscious awareness. *Transliminality* is associated with reports of paranormal and spiritual experiences and better dream recall (Thalbourne and Delin, 1999). Other recent studies have shown spirituality scales to be correlated with personality and cognitive dispositions that fall under the general cluster of *schizotypy*. One study ($n=169$) has shown that a measure of spirituality which accounts for three different dimensions, including connectedness, universality and prayer fulfilment (Piedmont, 1999), was significantly correlated with a scale of delusional beliefs, while traditional religiousness was not (Rawlings et al, submitted). Another study ($n=217$) has shown that spirituality was significantly associated with suggestibility and absorption, magical thinking and experiences, and thin boundaries (including reports of paranormal experiences; see Farias et al, 2006). Both studies found a relationship between personality traits associated with reports of unusual experiences and spirituality, but no association between these personality factors and religiosity. We have already addressed our scepticism in separating religion from spirituality. The fact that the cited studies empirically differentiate between them only lends more weight to our argument: religion not only addresses the experience of non-ordinary states of mind which are reported in all traditions, but also includes daily worship, social service and communal relationships. Spirituality, on the other hand, is constructed as an individual and abstract experience that is emptied of its social-historical grounding.

In summary we believe that spirituality scales are measuring a susceptibility to experiencing unusual perceptions and ideas or non-ordinary states of mind – a susceptibility which varies considerably according to biological and early environmental influences, and that is addressed in the psychological literature in connection with personality traits like *schizotypy* or *psychoticism*. It is unlikely that these scales would be able to differentiate a holy or saintly figure, often described in various religious traditions as attaining ‘elevated’ states of mind, from a highly imaginative character prone to experience unusual states of consciousness.

Conclusion

Although, to our knowledge, no one had yet sought to provide a connection between empirical research on spirituality and the capacity to experience non-ordinary states of mind, this association had been made before at a conceptual level. In her work on spirituality concepts, Chatterjee (1989) notices the disembodied and individualistic character of our idea of spirituality and how it is often described in association with the occurrence of unusual experiences. She goes on to comment: ‘That some people are able to attain unusual states of consciousness tells us something about human capacities, but is there any merit in

such attainment per se? I have yet to be convinced that there is' (Chatterjee, 1986, p 101). It is well known that, from the viewpoint of some religious traditions, taking unusual experiences at face value can be misleading. The questioning and testing of such experiences is necessary and so-called spiritual experiences are not to be taken as absolute. The critical attitude displayed by John of the Cross (2000) is a good example:

And I am appalled at what happens in these days – namely, when some soul with the very smallest experience of meditation, if it be conscious of certain locutions of this kind in some state of recollection, at once christens them all as coming from God, and assumes this is the case, saying: “God said to me...”; “God answered me...”; whereas it is not so at all, but, as we have said, it is for the most part they who are saying these things to themselves. (II, 29, 4)

In this chapter, we have argued that scientific constructs and measurements of spirituality should also not be taken uncritically. Conceptual and empirical attempts to define spirituality as a universal experience seem to be tapping into a natural capacity to experience unusual states of mind that varies across individuals, but are not necessarily addressing an 'elevated', deep or meaningful core of humanity. Our analysis has been generally based on psychological grounds, but this can be tackled at a sociological and cultural level as well. The erosion of religious traditions, with its elaborate systems of spiritual guidance and discernment, are being replaced with a vague sense of 'something out there', and an appetite to experiment with techniques that change our everyday sense of self. Underlying this is the social-historical context that praises the individual self and experience (Lukes, 1973), rather than collectively held goals. Within this social setting, it is not altogether surprising that a concept of spirituality that focuses on subjective individual experiences – while rejecting the historical and conceptual body of religious traditions – can flourish. The rise of our modern understanding of spirituality, as a collection of unusual experiences, manifests an impoverishment of the richness and density of the ways in which the spiritual life has been portrayed by the various religious traditions. Luckmann (1990) has spoken of this impoverishment in relation to the 'radically shrunken span of transcendence' (p 135) in modern religious consciousness. He suggests that in opposition to the great 'other-worldly' transcendences of religious traditions, with its focus on salvation and the after-life, today these are being replaced by small or minimal transcendences that speak to us of 'self-realisation', 'personal autonomy' and 'self-expression'. These are individual efforts that can hardly reach beyond oneself and lead towards solidarity, a sense of shared identity and community and the building of a meaningful structure that describes the nature and ways of approaching the transcendent.

We have spoken critically of the attempts to study spirituality. But can we think of ways of engaging in a study of religion and spirituality that is both conceptually grounded and empirically rigorous? We suggest two possible venues.

Firstly, empirical research should draw on a specific understanding of spirituality in the different traditions and not on vague generalisations or abstractions of putatively essential or common elements (see Hense, 2006). This is not to say that there are no commonalities between the experiences described in the various traditions, for we are bound to find similar emotive and cognitive expressions, as well as overlap between physiological and neural processes in diverse spiritual systems and phenomena (see d'Aquili and Newberg, 1999). However, if we are interested in scientifically understanding how an interest in spiritual ideas and practices makes a difference, our studies will profit from having clear groups of adherents, with a set of beliefs and practices that we can control for. Secondly, we urge the need for a systematic and wide-ranging phenomenological analysis of spirituality which includes not just non-ordinary states of mind but addresses changes in belief, affect, behaviours, as well as the universe of social relations which are intertwined in this process (for example, the religious community, a spiritual director, a fellow believer). Religious or spiritual experiences do not happen in a vacuum, and trying to strip out the inner subjective element from the whole may lead us further away from that which we are seeking to study, while giving us the illusion that we are nearing it.

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