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Essay Review

NOT THINKING ABOUT SCIENCE AND RELIGION

Willem B. Drees, *Religion, Science and Naturalism* (Cambridge: Cambridge University Press, 1996), xvi + 314 pp.

It is often an illuminating, if sobering, experience to see one's work through the eyes of another discipline. Theologian Willem Drees gives historians researching the interactions of science and religion just such an experience. The thrust of Drees's project is to argue for the application of a form of ontological naturalism to religion (or, more specifically, to Christianity) and to consider what remains of religion when this has been done. In developing this project, however, he devotes interesting chapters to modern discussions of science and religion, and to 'histories of relationships between science and religion'. His assessment raises questions that historians would do well to consider.

Drees's account follows the predominant theme in the recent historical literature on science and religion, given canonical form by John Brooke's magisterial *Science and Religion: Some Historical Perspectives* (Cambridge University Press, 1991). First, he points to the inadequacy of accounts which describe 'the history of the interactions of science and religion ... stereotypically as a warfare between two contending powers', observing that more sensitive studies reveal that historical confrontations were often 'about the natures of science and of religion' (p. 54). Second, he points to the inadequacy of histories that claim that Christianity was 'essential to the rise of modern science', arguing that this, too, relies on an essentialist and context-independent view of both science and religion. These claims are substantiated by surveys of modern scholarship on the 'Galileo affair', the 'post-Darwinian conflicts', and on 'Christianity as the matrix in which science arose'. Drawing upon the contextually sensitive histories written in recent decades, which highlight both the constantly shifting boundaries of 'science' and 'religion' and the social construction of scientific knowledge, Drees follows John Brooke in concluding that 'The real lesson [of history] turns out to be the complexity' (p. 89).

So far, so good: these are important points, and it is pleasing to see them gain wider currency. What is striking about Drees's account, however, is what it does not include. In his introductory chapter, Drees discusses at length different possible views of religion. In particular, he follows theologian George Lindbeck's categorization of three views of religion, namely, a propositional-cognitivist view (which sees religion, and especially theology, as 'an attempt to grasp the true, ultimate nature of reality'); an experiential-expressivist view (which 'interprets doctrines as noninformative and nondiscursive symbols of inner feelings, attitudes, or existential orientations'); and a cultural-linguistic view (which 'understands religions as traditions by which people live, which shape their lives, both individually and communally') (p. 31).

Yet, in discussing histories of science and religion, Drees's account focuses almost exclusively upon this cognitive view, albeit within the wider frame of modern social historiography. Reviewing work in this area he notes that 'arguments about conflicts or affinities between Christian religion and science ... are mostly based on a cognitive view of religion in line with the understanding of the natural sciences' (p. 88). The major exception to this, in Drees's account, is a form of history, developed by theological writers Michael J. Buckley and John Dillenberger, which Drees calls 'non-apologetical apologetics'. In these histories, the scientization of Christian apologetics, from the seventeenth century onwards, is seen as denaturing Christianity by undermining the significance of personal religious experience. Drees

contrasts the experiential view of religion adopted by these historians with the cognitive view commonly taken in other accounts, although in Drees's theological project, both are subject to naturalistic explanation.

It is questionable to what extent Drees's survey does justice to recent historical studies that emphasize the non-cognitive elements of religion. Certainly, his own view is heavily weighted in favour of the cognitive, and this has undoubtedly shaped his account. Yet, reading his introductory chapter, with its far more broadly based discussion of the nature of religion, it is striking how rarely the non-cognitive elements of religion have been discussed by historians of science. Having laboured hard to repudiate the master narratives of conflict and harmony, it is arguable that historians have taken the impress of such narratives in their continued emphasis on the cognitive aspects of religion.

Of course, the fact that the various forms of the conflict thesis were themselves products of the histories of science and religion in the nineteenth century should alert us to the pivotal importance of the cognitive aspects of religion in these histories. Indeed, it is the argument of social anthropologist, Malcolm Ruel, that Christianity has been historically unique in the great importance it has given to belief, and that approaching other religions from within Christian or post-Christian cultures is fraught with the danger of importing a profoundly foreign concept.¹ Clearly, this insight is of great importance to those concerned with the history of science in, for example, Islamic and Jewish contexts. I would suggest, however, that the insight is equally relevant to those concerned with the history of science in Christian contexts. For, an appreciation of the historical and cultural specificity of the Christian emphasis on belief alerts the historian to the fact that this emphasis is not an essential element of religion, but rather a phenomenon requiring explanation.

Once the historical contingency of the emphasis on belief in religion is acknowledged, it becomes increasingly apparent, as Malcolm Ruel has shown, that such an emphasis has a history. For historians of science, one of the most important periods in this history is the latter part of the nineteenth century, when those who sought to create a secular context for the pursuit of scientific knowledge by employing various forms of conflict thesis, did so to a considerable extent by restricting their view of religion to one of propositional belief, underpinned by ecclesiastical authority. In moving beyond these narratives of conflict, historians have not only to acknowledge the contextual specificity of the views of religion which they embody, but also to develop a wider analytical framework that embodies a diversity of views of religion.

So where might we begin? An obvious counterpart to religious belief, and particularly to the cognitive–propositional content of belief, is religious practice.² Moreover, this categorization has the particular advantage that it resonates with recent historical interest in scientific practice.³ Given that historians have long since departed from the idea that science is quintessentially a theoretical entity, untouched by and independent of the experimental, observational, or representational practices of scientists, it should not be hard to make the case that religion is more than theology, and that the practice of religion is also of critical importance. Even the different traditions in Christianity, heavily dependent upon belief as a central concept, are most obviously characterized by their more or less elaborate ritual observances

¹ Malcolm Ruel, 'Christians as Believers', in *Belief, Ritual and the Securing of Life: Reflexive Essays on a Bantu Religion* (Leiden: E.J. Brill, 1997), 36-59.

² On this, see James R. Moore, 'Speaking of "Science and Religion" – Then and Now', *History of Science*, 30 (1992), 311–323.

³ See, for example, Jan Golinski, 'The Theory of Practice and the Practice of Theory: Sociological Approaches in the History of Science', *Isis*, 81 (1990), 492-505.

and by clearly defined sets of practical duties. Nevertheless, little attention has focused on the practice of religion in historical narratives relating to science.

Perhaps the religious practice to have received most attention from historians in regard to science is that of apologetics. Yet even here the interest has been directed more to the cognitive content of apologetic accounts, than to the practices of apologetics themselves. To read apologetic writings as if they were exercises in dogmatic or systematic theology is critically to miss the point. Apologetic performances, whether verbal or written, must be read as rhetorical exercises with radically different purposes from theological exposition. Of course, this applies not only to apologetic writings and utterances, but also to devotional and homiletic ones. As John Brooke and Geoffrey Cantor have recently shown, for instance, it is impoverishing simply to dismiss the argument from design as ‘wrong or trivial and easily undermined by the philosophically sophisticated’. The object of the genre of natural theology was quite distinct from the elaboration of a systematic theology or the conversion of atheists; indeed, according to Brooke and Cantor, its object was primarily to ‘rescue waverers and bring them back into the Christian fold’.⁴ This was to be achieved, they show, by rhetoric, which was understood as appealing ‘to the imagination and the emotions as well as to the faculty of reason.’⁵

Many of Brooke and Cantor’s examples date from early nineteenth-century Britain, where, with burgeoning literacy and an expanding book trade, devout Christians increasingly encountered science primarily through the medium of print. The new religious magazines of the period sought to show readers how to incorporate scientific reading into the practice of Christian piety. The primary concern of such magazines was to preserve or engender correct religious sentiments and sensibility in the context of scientific reading. Such findings represent a radical departure from most historical accounts we have of early nineteenth-century religious responses to science, which focus on theological debates about science conducted largely by theological specialists. By focusing upon religious practice, rather than upon the cognitive content of formal theologies, the historian is thus confronted both with a far larger cast of historical actors, and often with very different interests in regard to science.

The focus upon religious practice is, of course, as relevant to those actively involved in the public world of science as to ordinary pew-sitters. In his biography of Michael Faraday, Geoffrey Cantor has demonstrated the importance of analysing how the religious practices, as well as the religious beliefs of scientists, influenced their scientific beliefs and practices. In particular, Cantor has argued that the life of rigorous discipline and strict morality of the small Protestant sect to which Faraday belonged was carried over to his practice as a scientist; that Faraday ‘transferred the Sandemanian social philosophy to science.’⁶ More generally in the last decade, scientific practitioners have increasingly been viewed not only as believers of religious doctrines, but also as practitioners of religion involved in public worship and personal devotion, in preaching and in evangelism, and in religious community. As John Brooke has shown, reading William Whewell’s manuscript sermons – that is, considering the ‘omniscient’ master of Trinity as ‘apologist and priest’ as well as theologian and scientist – provides a radically different perspective on both his religion and science.⁷

⁴ John Brooke and Geoffrey Cantor, *Reconstructing Nature: The Engagement of Science and Religion* (Edinburgh: T & T Clark, 1998), 200.

⁵ *Ibid.*, 182.

⁶ Geoffrey Cantor, *Michael Faraday: Sandemanian and Scientist* (London: Macmillan, 1991), 295.

⁷ John Hedley Brooke, ‘Indications of a Creator: Whewell as Apologist and Priest’, in Menachem Fisch and Simon Schaffer (eds.), *William Whewell: A Composite Portrait* (Oxford:

It is clear, then, that a focus upon religious practice brings new insights to bear on the history of science. Moreover, such a focus opens up many new sources to historical scrutiny. It now becomes relevant, for example, to consider hymnody and liturgy in relation to science. Apologetic, homiletic, or devotional texts are no longer merely to be dismissed as bad theology. Instead, they gain their own significance in relation to the practices of apologetics, preaching, or piety, in which the stirring of the passions was often more important than the convincing of the intellect. The social practices of churches, mosques, synagogues, and other religious bodies also become relevant, with the nature of community and ecclesiastical authority often belying explicit theologies.

However, the significance of practice goes even deeper. In Drees' survey of histories of science and religion, the only extended study (other than those he describes as 'non-apologetical apologetics') which is not primarily concerned with the cognitive content of religion, is Robert K. Merton's 'Science, Technology and Society in Seventeenth-Century England' (*Osiris* 4 (1938): 360–632). Of course, the 'Merton thesis' has been debated at great length. What is relevant is the way in which its sociological framework serves to put religious practice into a wider context. As Steven Shapin has shown, Merton drew eclectically on the sociological theories of Vilfredo Pareto in positing non-rational and unconscious 'sentiments' as being the 'wellsprings of the social actions involved in sanctioning and pursuing science in seventeenth-century England.'⁸ According to Merton, both ideologies and actions are 'the product of common sentiments and values which motivate conduct'.⁹

A related view of the relationship between non-rational and unconscious values and social action is found in the work of French sociologist Pierre Bourdieu, in whose work historians of science have taken increasing interest.¹⁰ Seeking, like Merton, a middle way between idealist and materialist accounts of culture, Bourdieu has constructed a theory in which practices result from dispositions embodied during socialization, especially childhood socialization (the *habitus*).¹¹ Given the chequered history of the 'Merton thesis', there is perhaps little encouragement to move beyond religious practices to consider the 'sentiments' and 'dispositions' which they embody. However, such an approach promises much to the historian of science interested to move beyond the merely cognitive view of religion.

I began by observing that historians should reflect on the disparity between Drees's account of the complexity of religion as a social, cultural and psychological phenomenon, and his account of the largely cognitive histories of science and religion. While the recent historiographical emphasis on scientific practice has gone some way to alerting historians to the importance of religious practice, there remains much ground to cover in this area. In particular, more historical attention should be paid to the underlying dispositions characteristic of different religious traditions, which give religious practitioners a 'feel for the game' – a non-rational, unconscious and practical sense of how to live the religious life.

In his concluding chapter, having identified many aspects of religion as being inconsistent with ontological naturalism, Drees is left accepting a religion that is 'a particular human articulation of a way of life, an articulation which is qualified and

Clarendon Press, 1991), 149–173.

⁸ Steven Shapin, 'Understanding the Merton Thesis', *Isis*, 79 (1988), 594–605, on 601.

⁹ Quoted in *ibid.*, 603.

¹⁰ See, for example, Anne Secord, 'Science in the Pub: Artisan Botanists in Early Nineteenth-century Lancashire', *History of Science*, 32 (1994), 269–315.

¹¹ Pierre Bourdieu, *Outline of a Theory of Practice*, (Cambridge: Cambridge University Press, 1977), and Pierre Bourdieu, *The Logic of Practice* (Cambridge: Polity Press, 1990).

relativized by a sense of transcendence which may be nourished by reflections on limit-questions' (p. 237). After so much consideration of Christian belief, it is particularly apposite that Drees's last word on religion should be aimed so pointedly towards practice.

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