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The Sense of Being Glared At

What Is It Like to be a Heretic?

In September 1981 the prestigious scientific journal *Nature* carried an unsigned editorial (subsequently acknowledged to be by the journal's senior editor, John Maddox) titled 'A book for burning?' (Maddox, 1981). It reviewed and damned Rupert Sheldrake's then recently published book *A New Science of Life: The Hypothesis of Causative Formation* (Sheldrake, 1981) and raised a storm of controversy whose fall-out is still very much with us.

Up to this time Sheldrake was a well-respected up-and-coming plant physiologist and the recipient of academic honours including a fellowship at his Cambridge college. The furore that grew out of the assault in *Nature* put an end to his academic career and made him *persona non grata* in the scientific community. Over twenty years later this journal still runs the risk of ostracism by publishing his work. What can explain this deep and lasting antagonism?

The Origins of the Controversy

The saga began a week ahead of the book's publication, when Sheldrake had trailed his hypothesis of formative causation in an article in the *New Scientist* magazine. The piece was provocatively headlined: 'Scientific proof that science has got it all wrong'. An editorial introduction admitted that, to modern science, an idea such as Sheldrake's was 'completely scatty', but justified its publication on the grounds that first, 'Sheldrake is an excellent scientist; the proper, imaginative kind that in an earlier age discovered continents and mirrored the world in sonnets,' and secondly, 'the science in his ideas is good. ... This does not mean that it is right but that it is testable'.¹

This was mid-June, and over the summer Sheldrake's ideas were subjected to much discussion in journals and newspapers, and his book was reviewed in a variety of scientific and religious publications. Attitudes were predictably mixed and by no means all negative. Then came the bombshell in *Nature*.

Nowhere did the editorial actually say the book under review ought to be burned. Indeed, it said the exact opposite: 'Books rightly command respect ... even bad

[1] Except where noted otherwise, the source of all direct quotations is the appendix of Sheldrake (1995).

books should not be burned; ... [Dr Sheldrake's] book should not be burned.' But it also contained the comment '[Sheldrake's] book is the best candidate for burning there has been for many years' and — probably the real clincher — there was that headline: 'A book for burning?' Dozens will read a headline who never read the text, and how many of those troubled to note the question mark at the end of the heading? Thus the myth was born: *Nature* says Sheldrake's book should be burned.

What concerns us in this editorial is not Sheldrake's hypothesis,² but Maddox's 'hysterical attack' (as a writer to his own letters page called it a week or two later). Why did the editor of *Nature*, himself a noted secularist, deliberately invoke the language of book-burning, an activity inevitably associated not only with religion, but with forcibly imposed dogmatic teaching? What caused him — in the words of another correspondent — to treat his editorial column as 'a pulpit from which to denounce scientific heresies'? The answer came most clearly in an interview on BBC television many years later, in 1994, when Maddox said:

Sheldrake is putting forward magic instead of science, and that can be condemned in exactly the language that the Pope used to condemn Galileo, and for the same reason. It is heresy.³

This quotation makes absolutely explicit a charge that appeared in more muted form in the original editorial. Here Maddox had written that,

Sheldrake's argument is an exercise in pseudo-science. ... Many readers will be left with the impression that Sheldrake has succeeded in finding a place for magic within scientific discussion — and this, indeed, may have been a part of the objective of writing such a book.

The image of Sheldrake as the opponent of science was also presented in a radio discussion between the two protagonists in the autumn of 1981. In his closing speech, Maddox first spelled out his very conservative approach to new theories:

The conventional scientific view, which I think is entirely proper, is that there is no particular point in inventing theories which in themselves require a tremendous feat of imagination and constitute an assault on what we know about the physical world as it stands, when there is at least a chance, and in this case a good chance, in my opinion, that conventional theories will in due course provide an explanation.

After some further comments on the proper business of 'serious, sober scientists', he ended the programme — I sense more in sorrow than in anger — with this lament:

I am very worried indeed at the way that this will have comforted all kinds of anti-science people.

Several things in these quotations point to why Maddox found religious terminology so appealing in his own defence of science, and they indicate how similar in some respects are the scientific and religious establishments. These

[2] For a discussion of Sheldrake's hypothesis itself, in the context of his work on 'the sense of being stared at', see the commentary section of this special issue.

[3] Quoted from the transcript of a videotape of the interview in Dr Sheldrake's possession.

similarities throw light on the nature of the hostility most mainstream scientists and philosophers continue to show toward Rupert Sheldrake and his research programme.⁴

Heresy in Religion and Science

Sheldrake is accused both of ‘putting forward magic instead of science’ and of ‘finding a place for magic within scientific discussion’. This is noteworthy because the only reference to book-burning in the New Testament is when the magicians of Ephesus, under the influence of St Paul’s preaching, came out on to the streets and publicly burned their books of spells (Acts 19.19). There is an implied contrast here between the openly proclaimed teachings of Christianity and the secret arts of the magicians, and much early Christian polemic praised the transparency of the public orthodox tradition over against the secret knowledge claimed by the Gnostics. Orthodox science is orthodox religion’s true heir in this respect, putting its trust in public replicable experiments rather than spooky unpredictable effects.

Another motif in the Ephesus incident is the idea that written words have an inherent power, so that false words need to be physically destroyed (burned).⁵ In the debate over Sheldrake, this has its parallel in the view — expressed privately by a number of members of the *JCS* editorial advisory board, and in this volume by Christof Koch (this page) and Susan Blackmore (p. 64) — that his work should not be published in a reputable journal because ‘bad ideas’ will persist despite refutation. I discuss this proposition and explain the reasoning behind the publication of this symposium, in the following section.

[4] As illustrated by the following response from neurophysiologist Christof Koch to my invitation to join this symposium: ‘I’ll not comment on Sheldrake’s papers because I think it is a waste of time. I would like to see hard physical, empirical evidence — and not just appeal to what Nobel laureate Murray Gell-Mann called quantum flapdoodle — for such a non-local mental “field” that would carry information from a subject in one room, observed via a video camera, to an observer at a remote location. Of course, this information would not have to interact specifically with any other subject who would then also claim to be stared at.

‘Sheldrake has no understanding of modern neurobiology or modern theories of vision, confusing metaphors and museum exhibits with the ideas themselves — his characterization of how vision occurs in the brain is cartoonish.

‘The morphogenetic fields postulated by Sheldrake to be necessary to explain developmental processes have proven to be equally elusive and molecular biology, coupled with the physical diffusion of various chemicals, has proven to be far more successful in explaining, in a predictive manner, how organisms develop from a single cell. Nor are such fields needed to explain animal communication in non-vocal species. See, for example, the recent article by Couzin *et al.* (*Nature*, **433**, pp. 513–16, 2005) on how local mechanisms can explain rapid group decisions in animal collectives on the move (e.g. school of fish). No need for any spooky substances.

‘Finally, I don’t see how appealing to the beliefs of people makes a theory more or less true. In the US, far more people believe in ghosts, astrology, the literal truth of the bible and so on than in natural selection by evolution. That is a sociological but not an ontological observation.

‘As a member of this journal’s advisory board I’m surprised that *JCS* would give a platform to these sorts of ideas. It makes the job of those of us that seek to identify and study consciousness as a natural phenomenon, subject to known physical and biophysical principles, so much more difficult.’ (Text of an email from Christof Koch to Anthony Freeman, February 10, 2005, reproduced here with the writer’s permission.)

[5] Cf. Jeremiah 36, where the King burns the doom-laden prophecies of Jeremiah in an effort to prevent their fulfilment. The prophet responds by commanding his scribe to write them all out again.

A further point of interest is the choice of the term heresy. In a religious context, heresy is not simply false belief, it is a betrayal of true belief. An outsider may be in error, but only an insider can be a heretic. For early Christians, Judas was the father of heretics, because he was the follower of Christ who turned traitor. This sense of betrayal explains the vituperation that characterized writings against heresy, that was lacking in works directed at total non-believers (Wiles, 1967, pp. 29–30). Maddox regards Sheldrake as a heretic because he presents as science that which (in Maddox's eyes) is non-science, is magic. John Searle recently wrote 'that science does not name an ontological domain; it names rather a set of methods for finding out about anything at all that admits of systematic investigation' (Searle, 2004, p. 302). Sheldrake would agree with this and is trying to extend science as understood by Searle into realms it has hitherto eschewed. So anyone holding, *pace* Searle, that science is limited to a physical ontology will see Sheldrake as a traitor, and the stage had already been set for this by the *New Scientist* headline about 'scientific proof' that science was wrong.

I have personal experience of writing a religious book deemed to be heretical (Freeman, 1993/2001). It was not publicly burned, but did lead directly my dismissal by the Church of England and a hostile attitude from many former colleagues. Now, by associating with Sheldrake, I find myself experiencing again the kind of antagonism more familiar in the world of religion than science. The feeling in both cases is much the same — in parallel with Sheldrake's title *The Sense of Being Stared At*, we might call it the sense of being glared⁶ at — and this has strengthened my view of the similarity between the two arenas.

Another clue to Maddox's motivation is his phrase 'anti-science people', which exemplifies the tendency to slice the world into 'goodies' and 'baddies', orthodox and heretic, pro-science and anti-science, 'us' and 'them'. This attitude grew out of a world view in which cosmic good and transcendental evil are in mortal combat at every level. Originating in the religion of ancient Mesopotamia and energized by Zoroastrian influences from the sixth century BC, it entered the mythologies of Judaism, Christianity and Islam and so became the 'master story' of western culture. We see it in all aspects of life from hero-touting movies, through popular literature, to the war against terror. But psychologist and theologian Harold Ellens shows in his introduction to *The Destructive Power of Religion* (2004) that this 'primal archetype of our understanding' is a huge mistake.

The consequences of this mistake are severe. There is no place in this narrative for ambiguous shades of grey, for the idea that humans are bound together by our common ignorance, seeking complementary paths to achieve our common goals. Instead there reigns a divisive moral dualism that breeds an assuredness of one's own correctness and the error of any who think otherwise. This leads inevitably to the heresy hunter's favourite dictum, that 'error has no rights'. Historically this has justified the burning not only of books deemed to be erroneous, but of their authors and readers as well. It is the same temper of mind that underlies

[6] The *Shorter Oxford English Dictionary* defines glaring (of the eyes) as 'staring fiercely and wildly'.

both John Maddox's assault on Rupert Sheldrake, with its allusion to book burning, and also the still apparent resistance to openly debating Sheldrake's ideas.

Controversies in Science and the Humanities

Given the situation described in the previous few pages, it was clear to me before I even read Rupert Sheldrake's submission that if I submitted it to peer review under the usual conditions, it would be rejected. Unless I deliberately picked unrepresentative referees (which would defeat the object of the exercise) some reviewer was bound to oppose publication on grounds that its whole approach undermined science (cf. Maddox's fear of giving comfort to 'anti-science people' and Koch's view that 'these sorts of ideas' should not be published because they impede the task of studying consciousness 'as a natural phenomenon, subject to known physical and biophysical principles'). To arrange for the submission to be rejected would have been the easy option, but would it have been appropriate for a journal that claims to publish 'controversies in science and the humanities'? I thought not.

An aspect of heresy (in its religious version) not so far mentioned is its association with what we now call 'paradigm shift'. St Thomas Aquinas, the greatest of mediaeval scholars and for centuries past the touchstone of Catholic orthodoxy, came in his lifetime within a whisker of being condemned for heresy (Chesterton, 1933). This was because the main thrust of his work was to reinterpret Christian doctrine into the then recently rediscovered philosophy of Aristotle. This shift from the neoplatonism in which the early Christians had forged their beliefs into new-fangled Aristotelian categories looked to many like the betrayal and destruction of the whole enterprise. At a level that is trivial by comparison, my own presentation of Christian teaching in the 'non-realist' or 'postmodern' categories was deemed by the Church authorities to constitute a betrayal and denial, rather than a translation, of traditional faith.

One way of looking at what Sheldrake is attempting is to treat it as a change of paradigm, from a science based in physicalism to an enterprise no less scientific that is open to a non-physical dimension. Maddox called this magic, and deemed it heresy, but there are less pejorative ways of describing it and many in the scientific consciousness community doubt that the physicalist paradigm will ever yield the full story. If the charge of heresy results from pushing at the boundaries, from seeking to enlarge the range of the investigation, then to suppress the work concerned seems at odds with the ideals of open public experimental science.

It was somewhat like the situation facing the editors some years ago over submissions to the parapsychology special issue of *JCS*. Had we held them to the same standards that apply in mainstream science, they would all have been rejected. Since the object of the exercise was to expose readers equally to parapsychologists' and sceptics' views of the field, and let them judge the merits of each side, such a result would have been self-defeating. So we agreed, on that one occasion, to allow certain assumptions and claims to stand that most in the scientific community would not accept, with the proviso that the parapsychologists were representing 'the mainstream views of their community reasonably

well'. Critiques by other parapsychologists served as an appropriate form of quality control, in the circumstances. (See Freeman, 2003, for fuller discussion.)

In the present case I could not apply quite the same solution, because Rupert Sheldrake is a one-off and represents only himself. So the only alternative to outright rejection was to publish his work with open peer commentary to provide balance and criticism.⁷ Such a procedure will never win the approval of those like Maddox and Koch, who in passages quoted above make clear not only their commitment to the existing paradigm but their opposition to exploring any alternative. But their viewpoint is not the only one found among the readers and editors of this journal. *JCS* exists to provide a meeting place for consciousness researchers with a wide range of backgrounds and working assumptions, as shown by the presence — from the very start — of names such as Huston Smith and Roger Walsh alongside those of Daniel Dennett and Bernard Baars on our editorial advisory board. The editors value and need this breadth of support in order to carry out the journal's unique role. The decision to proceed with this special issue was made in the knowledge that Sheldrake's work interests many of our readers and it reflects our commitment to open debate. It does not imply an endorsement of his ideas by the journal or any of its advisers.

The sense of being glared at — the awareness that one is the subject of distant and hostile attention — is undoubtedly an integral part of what it is like to be a 'heretic' whether in science or religion. It is an element in a wider and destructive sense of isolation, an isolation increased by the heretic's knowledge that he is 'dangerous to know' and therefore ought to discourage such friends as he does have from too open an association with him, for their own sakes. Believing as I am bound to do that those branded heretic are not always deserving of such treatment, I would like to see their isolating sense of being glared at transformed into a sense of being engaged with. Engagement, even in battle, holds the possibility of creative encounter, a positive outcome with potential value not only to the individuals but to the religious and scientific communities to which they belong.

The willingness of fourteen respected commentators to join this discussion of Rupert Sheldrake's papers and offer a variety of reflections — most of them a robust mixture of criticism and encouragement — leads me to hope that this is not an idle dream.

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[7] It has been pointed out to me that in *Behavioral and Brain Sciences*, which similarly publishes simultaneous commentaries, the target papers are still required to pass peer review first. I accept this, but for the reasons given, making successful blind peer review a condition of publication would in this case have killed the project at the outset.