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# Purity, conversion and the evidence based movements

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**ABSTRACT** This article explores parallels between some aspects of the history of Judaeo Christianity and recent writing promoting evidence based medicine (EBM). Taking as a starting point Kristeva's and Douglas' investigations of Old Testament dietary regulation, it proposes that rigorous attention to research intake fulfils a similar symbolic function within these EBM texts as the strict dietary laws of Leviticus. It is noted that EBM texts also feature accounts of personal conversion central to evangelical religious discourse. The article examines two texts that promote EBM, published in 1991 and 1996, adopting a discourse analytic approach to identify the fundamental themes upon which these texts rely. While the earlier text features a harsh separation between wisdom and superstition, it is asked to what extent the more recent account of EBM, which appears to set up a new relationship between 'external' evidence and the realm of individual (professional) judgement, reflects one aspect of the new dispensation of the Christian New Testament and a movement away from strict dietary laws. It concludes that such parallels are only partial.

**KEYWORDS** *biblical studies; discourse analysis; evidence based medicine*

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## Purity, diet and evidence

The Lord said to Moses and Aaron, 'Say to the Israelites: "Of all the animals that live on land, these are the ones you may eat: You may eat any animal that has a split hoof completely divided and that chews the cud.

' "There are some that only chew the cud or only have a split hoof, but you must not eat them. The camel, though it chews the cud does not have a split hoof; it is ceremonially unclean for you." ' (Leviticus 11: 1-4 New International Version)

... are the health professionals and patients described typical?), data collection

(is the sample unbiased?), data analysis (were all potential subjects included in the denominator or otherwise accounted for, and was assessment 'blind?'), validity (were appropriate criteria used to classify subjects, and were these criteria applied rigorously?), comprehensiveness . . . (Greenhalgh, 1996: 958)

Holiness means keeping distinct the categories of creation. It therefore involves correct definition, discrimination and order. (Douglas, 1984: 54)

This article explores parallels between texts on evidence based medicine (EBM) and key biblical features: the first is a system of categorization spelled out chiefly in the Old Testament book of Leviticus and the second concerns the creation and awakening of the individual conscience found in New Testament narratives and which has become a cornerstone of evangelical Christian movements. Starting from biblical analysis I argue that there are surprising similarities that help us to understand the force and persuasiveness of the EBM movement. The intention is not to discredit EBM and I do not comment on its feasibility or usefulness or on the motivation of its advocates, or, indeed, on its level of actual uptake by clinicians. The intention of this article is to explore these illuminating similarities rather than find a theory of 'best fit' for the EBM movement. There will certainly be other ways of accounting for its style and appeal. In addition, the harsh dualities of Leviticus may also be found in the style of a wide range of other sectarian behaviours and the conversion story is employed in many selling manoeuvres, commercial and otherwise.

## **An introduction to the rise of EBM**

In March 1988, partly as a result of the apparent decline in the comparative international standing of UK science and technology (Smith, 1988), the House of Lords Select Committee on Science and Technology reported on 'Priorities in medical research'. The Committee reported that 'the NHS [National Health Service] was run with little awareness of the needs of research or what it had to offer' (House of Lords Select Committee on Science and Technology, 1988). The inquiry resulted in the formation of the NHS's first Research and Development strategy, launched in 1991:

The prime objective is to see that R&D becomes an integral part of health care so that clinicians, managers and other staff find it *natural* to rely on the results of research in their day to day decision making and longer term strategic planning. Strongly held views based on belief rather than sound information still exert too much influence in health care. (Department of Health, 1991: 4, emphasis added)

The evidence based medicine movement gained strength in the UK in the wake of this new urge, with the aid of a number of charismatic North American clinicians (Smith, 1991; Editorial, *The Lancet*, 1995; Naylor, 1995; Sackett et al., 1996). Organizations such as the Centre for Reviews and Dissemination based in York, UK and the Cochrane Collaboration in Oxford,

UK, named after Scottish clinician Archie Cochrane, proponent of the randomized controlled trial, were set up specifically to commission or carry out systematic reviews of eligible research and to disseminate much needed 'evidence' to clinicians and managers. The randomized controlled trial and the systematic review of such trials were continually promoted as the 'gold standard' of research evidence. Perhaps facilitated by the rise of the Internet and other information technologies, EBM can be seen as an example of a trans-national movement. The Cochrane Collaboration aims to be a global resource of systematic reviews, contributed to by clinicians and reviewers around the world. Despite cultural differences, the movement in North America, Australia and Europe focuses attention on a characteristic trinity of concerns, critical appraisal (of research articles), systematic reviews and the implementation of research findings (<http://www.joannabriggs.edu.au>; Jennett et al., 1988; Kottke et al., 1989; Lomas, 1993).

Because the emphasis on research-mindedness emerged in the context of an ever sharpening focus on health care costs and cost-effectiveness (Redmayne, 1995), and of increasing managerial scrutiny and control over the traditional professions (Harrison and Pollitt, 1994; Traynor, 1996), it represented a threat to medical autonomy. I will argue that EBM can be understood, partly, as an attempt to forestall such a challenge and locate control over research and the useful managerial information it could provide within the medical profession.

As I will detail later, EBM and its adherents were often controversial and fierce debates started to appear in the pages of UK medical journals from 1991 in the form of letters, editorials and other articles. The movement appeared to challenge a deeply entrenched medical establishment by questioning the fundamental principle of individual clinical judgement. These initial challenges to medical practice, however, gave way to more conciliatory, but no less ambitious, arguments. This article opens up for examination two such articles which argue the case for evidence based medicine, one an example of an 'early' challenge, the other a 'late' attempt at conciliation. I ask how far they lay out, and gain their strength from, a rigid system of categorization of the pure and the dangerous similar to that found in biblical texts. In drawing attention to the use of the conversion story, I also ask how far they parallel a move from an emphasis on 'external' laws to an internalization that has been seen to characterize the movement from Old to New Testament.

## **Discourse and dualism: the fear of non-identity and the rejection of otherness**

The desire for purity, distinctness and identity is at work in any culture's systems of categorization. The most banal and commonplace distinctions can be accomplishing fundamental cultural symbolic work. Structural

linguistics has shown us the implicit categorizing effected by language, language which according to Barthes brings both power and servility, its categories compelling us to say certain things (Barthes, 1996). Feminists, critical theorists, poststructuralist and postcolonial writers have all alerted us to the way that groups can exercise power over others by the operation of a kind of social and linguistic ethnocentrism, shaping not only what counts as legitimate knowledge but the language that is available to describe and categorize the world (Foucault, 1980a; Jordanova, 1989; Lather, 1991; Said, 1993). An early example of this kind of theorizing is Simone De Beauvoir's observation that men understand and describe themselves as the norm or the 'one' from which they constitute woman as the 'other', who is defined in relation to her deviation from the male norm (De Beauvoir, 1953). 'No identity can ever exist by itself and without an array of opposites, negatives, oppositions: Greeks always require barbarians', comments Said (1993: 60). Or as Cixous observes:

Ours is an era [where] . . . a phobia of non-identity has spread and nations like individuals are infected with this neurosis, this pain, this fear of non-recognition, where each constructs, erects his auto-identification, less out of intimate reflection than out of a system of rejection and hatred. The Serb says: I am no Croatian; to be Croatian is to be non-Serb. And each affirms him – or her self as distinct, as unique and nonother, as though there were room only for one and not for two, as if two and otherness were forbidden. (Cixous, 1993: 202–3)

Dualisms, according to Derrida, are deeply ingrained in western thought. They tend to contain implicit or explicit hierarchies as one element of the dualism is privileged, according to the world view of western cultural tradition (Derrida, 1982: 329). Such dualisms help create and maintain an appearance of a deep stability to the characteristics that are promoted and it is the strength of this assertion that can lend power and authority to institutions with which these characteristics can be associated.

Implicit in the instituting of such privilege is, as we have seen, the formation of the 'other'. Often this involves a subtle (or not so subtle) vilification of this 'other' which is then characterized as incomplete, impure, outmoded and dangerous. Everything that can be, however spuriously, associated with this alterity loses its legitimacy and becomes a threat.

Paradoxically, however, a new or mainstream discourse depends for its power on the old or marginal discourse which the new intensifies or parodies. For example, the term 'systematic' depends for its effect upon the notion of the 'unsystematic' which is called into existence as a shadow allowing the preferred term to stand out. 'Scientific' or 'research-mindedness' requires 'ritual', or 'belief', 'rationality' requires 'emotional-ity' for their persuasive effects. Such categorizations and separations are fundamental to the operation of discourse. Using gender as an example, literary theorist, Terry Eagleton argues that this project of purification leaves a trace:

Woman is the opposite, the 'other' of man: she is non-man, defective man, assigned a chiefly negative value in relation to the male first principle. But equally, man is what he is only by virtue of ceaselessly shutting out this other or opposite, defining himself in antithesis to it, and his whole identity is therefore caught up and put at risk in the very gesture by which he seeks to assert his unique, autonomous existence. . . . Perhaps [woman] stands as a sign of something in man himself which he needs to repress, expel. (Eagleton, 1983: 132–3)

It is possible then that the (continuous) formation of any community is based upon the expulsion of an excluded element, 'a scapegoat charged with the evil of which the community duly constituted can then purge itself, a purge which will finally exonerate that community of any future criticism' (Kristeva, 1996: 392). Psychoanalysis provides similar insights with its suggestion that there is a similarity between the paranoid who 'magically creates in others the signs of the internal reality he defends against' and religion and metaphysics – perhaps any institution – which erect 'systematic, defensive creations of a magic realm beyond the empirical that mask an unacceptable inner reality' (Bass, 1992: 169).

### **The categories of the clean and unclean in the Old Testament**

In her study of abjection, Kristeva turns to biblical accounts of purity, taboo and defilement. She looks mainly at Old Testament dietary laws, detailed in the book of Leviticus, but also at the New Testament Gospels and the writing of the apostle Paul. Her interpretations turn on orality, the fear of the maternal, blood and other bodily products. But for the purposes of this investigation, I leave aside these powerful themes to single out her discussion of how the concept and practices of defilement rely upon and reinforce a cultural logic of separation and identity, not just of tribes, but of the whole world of entities, different types of animal, of fabric. I then follow her into the Christian New Testament where she argues that the new child of God is freed from the myriad of practices of purity but turns to find the source of guilt and sin within.

According to Kristeva, the system of categorization on the basis of purity and impurity provides a key element in the logic upon which a symbolic community is founded. The opposition of the pure and the defiled reflects a biblical concern with 'separating, with constituting strict identities without intermixture' (Kristeva, 1982: 93), even intermixture of different kinds of cloth. Such a concern preserved a separation not only between the monotheistic people of Israel and powerful surrounding polytheistic religions, ensuring distinctness and survival, but also between humankind and God. At the centre, perhaps, of this distinction is dietary intake. The Fall occurred as a result of eating of the tree of the knowledge of good and evil consequently, 'another food will be absolutely banned [the fruit of the tree of eternal life] in order to forestall the chaos that would result from the identification of man with the immortality of God' (Kristeva, 1982: 95).

The logic of the antediluvian prohibition on animals as food stems from a fundamental division between God and mankind. To mankind was given vegetables and fruit; to God alone belongs power over life and death. It is only after the Flood that this law is relaxed as an acknowledgement of man's incorrigible evil and the taxonomy of the clean and unclean beasts is set out.

To abide by the set of differences organized by the pure/impure distinction, then, is to partake in the sacred order. It is only through maintaining and teaching strict purity of procedure and dress that the priests Aaron, his brothers and descendants, can approach the tabernacle, the sacred place in which God may be encountered. Likewise, any person with physical defect, 'a man that is brokenfooted, or brokenhanded . . . shall not come nigh to offer the bread of his God' (Leviticus 21: 18–21).

Douglas reviews a number of explanations for these enigmatic and detailed regulations. She dismisses medical materialistic explanations which cast Moses as the first public health specialist, although the Hebrew world view, even more so than that of European medieval culture centuries later, did not distinguish between spiritual and physical (and national) wellbeing, between sickness and sin (Turner, 1995). Douglas also disagrees with arguments that the laws were arbitrary, their real object being to 'train the Israelites in self-control as the indispensable first step for attainment of holiness' (Epstein, 1959). Her insights turn around the suggestion that these laws enact, reflect and are to constantly remind God's people of their God's holiness, purity and completeness. God has created the world in distinct categories that are detailed in the opening chapters of the book of Genesis. Animals, for example, dwell in the air, on the ground or underwater and each animal has characteristics, such as skin coverings or modes of propulsion, that reflect its proper realm: 'Holiness means keeping distinct the categories of creation. It therefore involves correct definition, discrimination and order . . . Those species are unclean which are imperfect members of their class, or whose class itself confounds the general scheme of the world' (Douglas, 1984: 53/55). For example, regarding forms of movement, swarming is considered unclean because it is not a mode of propulsion proper to any particular element, it cuts across classification. Similarly, snakes are unclean because they are covered with scales, the proper skin covering of sea dwellers. Purity and completeness signify completeness in a social context, which in turn reflects God's holiness. Hybrids and other confusions are abominated. There must be no incompleteness, no unfinished business, no double-dealing. A warrior about to go to war who has built a house but not dedicated it must return to do so lest his condition mar the purity of the army and lack of purity before the Lord would likely result in defeat. In ambiguity of any kind, then, lies danger.

## The New Covenant and a shift towards the interior

By the time of the Christian New Testament, the teaching of Jesus shifts and interiorizes defilement, to such an extent that it is Pharisaism with its meticulous observation of rituals of purity that has become the prime target of Jesus' attacks. Jesus appears at moments to flout Rabbinic teaching, for example the ritual washing observed by the Pharisees before eating. He explains to disciples who are slow to grasp the new logic:

Don't you see that nothing that enters a man from the outside can make him 'unclean'? For it doesn't go into his heart but into his stomach, and then out of this body . . . What comes out of a man is what makes him 'unclean'. For from within, out of men's hearts, come evil thoughts . . . All these evils come from inside and make a man 'unclean'. (Mark 7: 18–23)

Kristeva argues that it is a person's inner state that is to become the new focus and that inner state is marred by sin. Subjecthood in God's *new* kingdom is characterized by individual 'understanding' rather than adherence to the law. The topic is still diet, here the Eucharist: 'But let a man examine himself, and so let him eat of that bread, and drink of that cup. For he that eateth and drinketh unworthily, eateth and drinketh damnation to himself, not discerning the Lord's body' (1 Corinthians 11: 28–9). Or again, Paul notes in his letter to the Christians in Rome: 'I know, and am persuaded by the Lord Jesus, that there is nothing unclean of itself; but to him that esteemeth any thing to be unclean, to him it is unclean' (Romans 14: 14). The shift from adherence to strict dietary law and the bringing to prominence of an inward-looking gaze, then, far from being emancipating gives rise to a new subjectivity, one that continually searches for error in its own thoughts, speech and actions.

So far, I have looked at ancient approaches to preserving cultural integrity through the formation of notions of defilement along with strictly regulated dietary and other laws. I have begun to suggest that the Christian period articulated, or at least has been seen to articulate, an interiorization of such approaches. We have to wait until the Enlightenment and Kant's attempt to link morality with the agency of rational beings (MacIntyre, 1985) for a full articulation of the modern highly individualized subject, a notion of subjectivity central to evangelical movements.

## The rise of the rational and the discovery of lost wisdom

I gave a short account of the context of the emergence of EBM earlier. I now turn to look at two texts that promote its cause. Many texts, of course, discuss, promote, resist or employ EBM principles and its proponents point to the burgeoning in literature and educational programmes that take EBM as their starting point. These particular texts are chosen because they are primarily concerned with arguing the case for EBM in the highly visible and influential context of a leading UK medical journal. The first article

appeared in 1991 at an early stage in the movement's rise to prominence. It can be seen as a key example of a direct challenge to a central medical principle of individual clinical judgement. The second text, from the same journal five years later, marks a turning point in EBM's argumentation and is an example of an apparently reconciliatory gesture with the reinstatement of the individual doctor's personal judgement and other contextual factors. Although not representative, I suggest that these two articles mark two distinct points in the presentation of EBM in the UK.

The first text, then, is an Editorial that appeared in the *British Medical Journal (BMJ)* in 1991 (Smith, 1991). The editorial summarizes, with extensive quotation, a conference address by American proponent of EBM, David Eddy, to an audience of health service managers in the UK. The piece is an opportunity to present the central arguments of EBM. It is approximately 1000 words long.

### ***The objects of discourse***

The Editorial uses as its material:

1. the individual, Professor David Eddy;
2. poetry;
3. two groups of people, purchasers (of health care) and doctors;
4. the operation of rationality, figured first as the human mind and later as the computer;
5. fundamental uncertainty about clinical effectiveness;
6. numbers (e.g. numbers of medical journals, the percentage of medical interventions supported by scientific evidence, numbers of problems investigated, numbers of groups investigating them);
7. dollars and financial decision making;
8. 'traditional' medical practice;
9. scientific evidence;
10. variation in practice/opinion.

Each of these are presented as coherent, stable, relatively unproblematic and unified entities. They are 'cultural material'. As such, we can recognize them easily, rather as we recognize a stock character in a vintage British film. The text's argument arranges these entities or objects into a number of dualisms:

the (special) individual	the generality or group
poetry	numerical information
scientific evidence	fundamental uncertainty
rationality	(tradition) traditional practice
dollars/decision making	practice variation

The writer positions himself as a commentator, perhaps one who is, to some extent, detached; once removed, reporting news of another, assembling a number of already legitimated entities (Latour, 1987). The author's cool

account inoculates us with an attenuated but ultimately effective version of the key EBM arguments.

### ***The text***

The piece opens by quoting poet, T.S. Eliot's halting and meditative explorations of a religious spirituality that proceeds by paradoxes such as the one quoted: "Where is the wisdom we have lost in knowledge, and where", asked T S Eliot, "is the knowledge we have lost in information?" (Smith, 1991: 789). In an article that is full of dualism and abrupt contrasts that keep us engaged with the argument and lend a dramatic persuasiveness because we are continually wrong-footed, Eliot's lines make an effective opening. They contrast a pure, ethereal, nostalgic wisdom with a mundane 'information'. But from poetry we are taken shortly to numbers, bald facts, to the present day, to the prosaic, perhaps ephemeral, world of the '30,000' medical journals:

There are perhaps 30,000 biomedical journals in the world . . . Yet only about 15% of medical interventions are supported by solid scientific evidence, David Eddy, professor of health policy and management at Duke University, North Carolina, told a conference in Manchester last week. This is partly because only 1% of the articles in medical journals are scientifically sound. (Smith, 1991: 789)

From the singular figure of the poet and pure 'wisdom' we are brought up against the proliferation of biomedical information. Here, too, is a contrast, a paradox between the proliferation of information and the claim that a small, pure minority of medical interventions are based on true wisdom. Eliot's 'wisdom' and Eddy's '1%' are similar in that they are iconic. They stand for a knowledge that is characterized by purity, centrality and trustworthiness, a purity and centrality that needs a contrast. For Eliot, the contrast is with mere information. For the writer of this article, it is the '99%' of articles in medical journals that are not 'scientifically sound', are unproven and possibly dangerous. These are the two most significant categories of the text.

### ***Evangelism and Enlightenment***

The second movement of the article blends two themes or broad types of discourse that will resonate with the reader and add deep persuasive power to the whole piece; that of the evangelist's account of religious conversion and the coming of the Enlightenment. Both projects depend upon the existence of a previous, degenerate state that is overcome; for evangelical religion it is the state of sin, for the Enlightenment it is tradition, superstition, darkness. The focus on the interior world of the individual – Professor Eddy – locates this, perhaps, as a New Testament narrative.

Professor Eddy's story has three parts; his 'old' life, his conversion experience, and his 'new' and successful life. The authenticity of his story is vouched for by the concrete biographical details: he hails from Stanford,

California. He starts the story as one surgeon among many, albeit in a high status speciality, i.e. he is already sanctioned, but is quickly differentiated by his 'concern', his thirst for answers to questions that other less remarkable men did not even ask. He may perhaps be likened to Weber's charismatic figure, a disruptive personality set against the mass (Gerth and Mills, 1991). Like many conversion stories, his is anchored in some specific details; Paul's road was the road to Damascus, the first medical treatment Eddy investigated, and which caused the scales to fall from his eyes, was glaucoma. The experience that 'changed his life', and the phrase is emphasized within the article, was his realization that many accepted treatments that he found detailed in esteemed medical textbooks were not based on 'one randomised controlled trial'. This moment of realization, that the whole of his professional life and self-identity had lacked any convincing grounding, echoes the sinner's sudden realization of his state of sinfulness and need for redemption. But this powerful realization is merely the beginning of a new regenerate life, one marked by a change of direction, moral confidence and, as in many testimonies (Scott Peck, 1988), renewed worldly success. There is also a specialist field of knowledge associated with regeneration: as the new Christian might enrol in Bible school, Eddy took a degree in maths.

The second theme in Eddy's story, and a major theme in the project of the article concerns Eddy, who now stands in the place of the EBM movement, as bringer of Enlightenment. The Enlightenment fundamentally changed Europe, at least its educated societies, replacing the tradition of authority and superstition with the simple rigours of observation and rational thought, aided by the rapidly developing mathematics and various new optical instruments like the telescope and microscope. Rational thought was available to all and sufficient in itself to answer the important questions, not only those questions concerning the stars but those about how best to organize human beings and their societies. Eddy's emphasis and apparent faith in mathematics parallels, to a surprising extent, Descartes' own belief that the human mind, when solving a mathematical problem, provided the model or paradigm for all rational enquiry: 'Turning to the "good news" in his presentation, he illustrated how mathematical modelling could be used to analyse limited data in order to make better decisions' (Smith, 1991: 790).

Eddy, where he is associated with a technique in this Editorial, is described as a supporter of mathematical modelling as providing the future basis for health care decision making. However, if the philosophers of the Enlightenment claimed that the human mind and the eye provided the uniquely fitting attributes to unlock nature's secrets, Eddy creates a startling dualism between the human mind and the computer, that quintessential mathematical machine. In his dualism the mind, that was elevated to the loftiest heights 200 years ago, now figures as exhausted, not up to the challenge, even responsible for having, over 'two millennia', landed

medicine in a fine mess: 'Professor Eddy . . . points out that medicine is far too complex an activity to be conducted by human minds unaided by computers: "We've been trying that for two millennia and look where we've got to"' (Smith, 1991: 790). Computers landing aeroplanes in 'rough weather' is proof of their superiority and this analogy represents medical practice as, above all, a complex technical task. In this dualism, the expertise of the individual is brought down from the pride of place it had held within professional discourse.

The piece ends by returning to the previous theme of ultimate uncertainty. In the kind of move described by Callon as problematization (Callon et al., 1986), the article appeals to anyone, doctor and manager alike, who can be made to feel dismayed at the prospect of 'two millennia spent making life and death decisions with inadequate information' (Smith, 1991: 790) and focuses them on the centrality and the indispensability of the EBM movement in providing safe and proper knowledge. The discourse of EBM positions the whole edifice of medical practice as unenlightened, based on ignorance, tradition 'handed down from generation to generation' as the article comments. Whatever is not EBM, therefore, is an unacceptable mixture of witchcraft and science. No rational being could defend this abomination, and no purchaser would now want to purchase it or be seen to purchase it. EBM is the only place of moral purity.

### **Five years on: inside/outside**

The second text (Sackett et al., 1996) appeared in the same journal five years later. In the intervening years, EBM has come under criticism. Such criticism has focused both on the 'style' of the movement which is unacceptably evangelical. For example, an Editorial in *The Lancet* from 1995 describes the movement's 'strident insistence' and promotion of a 'new orthodoxy' as having risked antagonizing doctors (Editorial, *The Lancet*, 1995). Others detected the presence of a 'backlash' against the movement produced by 'the fears of some clinicians that [its] concepts threaten the art of patient care' (Naylor, 1995: 840). 'Evidence based medicine: What it is and what it isn't' (Sackett et al., 1996), a letter to the *BMJ* by five of its advocates from institutions on both sides of the Atlantic, appears in this context and presents itself as answering every objection that had been raised to EBM during this period.

The article has four movements, a brief background (21 lines), a summary of what EBM is (29 lines), a passage in which five arguments against EBM are dealt with in turn giving rise to a summary of what EBM 'is not' (72 lines) and a conclusion. Between the background and the summary of EBM is a single sentence which becomes the turning point of the whole piece: 'But enthusiasm has been mixed with some negative reaction' (p. 71).

The article positions itself as informing and reconciliatory, a healing of some of the harsh dualisms of the kind seen in the first text, by 'integrating'

the two rhetorics of 'external', evidence with the skill, compassion and judgement of the 'individual' expert clinician, in Kristeva's terms a realignment of the inside/outside dichotomy (Kristeva, 1982). Through what the article refers to as a refining of the discussion about EBM, a much more extensive claim to space is made. The effect of raising and refuting every vaguely plausible argument against EBM leaves no space for doubt or disagreement. In fact a 'definition' of evidence based medicine swallows up the whole of medical practice leaving no other possible ground:

Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external evidence from systematic research. By individual clinical expertise we mean the proficiency and judgement that individual clinicians acquire through clinical experience and clinical practice . . . Good doctors use both individual clinical expertise and the best available external evidence, and neither alone is enough. (Sackett et al., 1996: 71)

A parallel here with Kristeva's view of the coming of Christ is that the individual has come to be understood in a new way. In the place of, or rather, in addition to a concern with outcomes (of medical treatment or adherence to codified behaviour) there is a dazzling light directed at previously invisible inner moral qualities. The clinician is expected to be 'conscientious . . . judicious . . . [have] experience . . . judgement', drawing on both 'clinical expertise and the best available external evidence' in his or her decision making processes. Kristeva writes of the new dispensation of the New Testament texts:

What is happening is that a new arrangement of differences is being set up, an arrangement whose economy will regulate a wholly different system of meaning, hence a wholly different speaking subject. An essential trait of those evangelical attitudes or narratives is that abjection is no longer exterior. (Kristeva, 1982: 113)

Perhaps, mid-1990s EBM has not had quite the world-changing impact as Christianity. However, although medical practice was certainly morally located in the 1991 article, five years later the possibilities for failure and impurity include those of a more personal character in addition to the requirement to observe a strict diet of the scientifically sound: 'Increased expertise is reflected in many ways, but especially in more effective and efficient diagnosis and in the more thoughtful identification and compassionate use of individual patients' predicaments, rights, and preferences in making clinical decisions about their care' (Sackett et al., 1996: 71).

The text anticipates a number of objections from the unconverted among its readership. Like the individual faced with an evangelical address, one objection may involve the plea that we lead a good life and have no need for the costly drama of salvation. In reply, the writer has little difficulty in pinpointing our failings of practice, thought or omission: 'The argument

that “everyone already is doing it” [evidence based medicine] falls before evidence of striking variations in both integration of patient values into our clinical behaviour and in the rates with which clinicians provide interventions to their patients’ (Sackett et al., 1996: 72). It is as if the writer, like any powerful persuader, has access to knowledge about our failings that we did not foresee. Our objection ‘falls’, completely overcome and cannot stand.

A further anticipated objection echoes the dietary laws we have been discussing: ‘Evidence based medicine is not “cookbook” medicine’ (Sackett et al., 1996: 72). EBM is not simply adherence to some external code, but make no mistake, we are not released from the books of the law as the apostle Paul argued was true of the New Testament believer. We may have the freedom to make personal, contextual decisions, but decisions still need to be based upon a thorough knowledge of the law. Although the article can be seen as presenting an evidence hierarchy rather than a dualism, because, for example, it advises clinicians to ‘follow the trail to the next best external evidence’ (p. 72), the law remains unquestioned as the ‘gold standard’:

Because the randomised trial and especially the systematic review of several randomised trials is so much more likely to inform us and so much less likely to mislead us, it has become the ‘gold standard’ for judging whether a treatment does more harm than good. (Sackett et al., 1996: 72)

There may be situations when we might settle for less, but they are either extreme ones concerning fatal conditions or those where no trials or reviews exist. So there is some acknowledgement that the law presents too high a standard to always comply with, but this refinement of EBM, rather than releasing the practitioner from the law, in fact adds new requirements. This appears to be one area of difference between New Testament subjectivity and the move to interiorize good practice apparent in EBM’s reconciliation between ‘internal’ judgement and ‘external’ evidence.

As Douglas argued of Leviticus, this text assumes and reinforces a kind of holiness which ‘separates that which should be separated’ (p. 55). There is order, not disorder or ambiguity. The categories which the text calls upon are remarkable for their distinctness. There is external scientific evidence which the practitioner must have fully comprehended, then there is the individual patient’s clinical state and the patient’s preferences and ‘values’. The practitioner brings these three distinct entities into a decision about action, which is itself another distinct entity. As I mentioned before, in the Old Testament, purity and completeness signify completeness in the social and supernatural order. EBM assumes or performs the achievement of a world where there are distinct and stable categories. Like anomalous creatures, ‘evidence’ which does not fully conform to its class is rejected. This is why acceptable evidence is described in such meticulous detail.

## Discussion

### *Three qualifications*

A number of qualifications to this argument need to be made. First, a great deal has been written about EBM, including positive but perhaps less evangelical articles than the two discussed here, for example by Greenhalgh (1996) quoted at the beginning of this article. The articles selected, however, represent high profile texts in the popular medical press, are both strongly orientated around arguing the case for EBM and appear to mark two particular points in its development. It would also be hazardous to suggest that these texts unproblematically represent or correspond to the social practices of evidence based medicine, however, I would argue that the inclusion of professional judgement as an aspect of EBM made in the second article does reflect an important tendency found in the movement as a whole.

Second, the intention is not to question the usefulness of EBM but to examine the structures of various arguments used to promote it. Aspects of EBM may well represent a highly useful approach to delivering health care, a usefulness that should be placed alongside other approaches to investigating and understanding these things.

Third, the parallels that I have explored here have certain limits. These centre around just how far the notion of discontinuity can be applied either to the change between Old and New Testament teaching or to the two arguments for EBM that I have looked at. Alongside the harsh questioning of individual judgement given voice in the first article, there is clearly a call to the practitioner, as individual, and Professor Eddy is in some ways an archetype of the charismatic individual. His 'conversion' to EBM seems 'evangelical' in tone because of this emphasis on the individual's sudden change of heart. The two articles are also united in their view of medicine as a moral, as well as a rational, enterprise (Turner, 1995). So it would be wrong to suggest that there is no conception of a medical conscience in the 1991 article. It could even be pointed out that the 'selling' of EBM in the first text relies in part on the telling of a conversion narrative and there may be parallels to be found between this style and capitalism's appropriation for various commercial projects of the style of the charismatic's testimony. However, I am not commenting here on how far the EBM movement relied or relies on charismatic leaders, though doubtless the sociology of EBM and its textual practices are not unrelated. There is scope to investigate how far Weber's theorizing of the routinization of charisma might apply to this movement (Gerth and Mills, 1991).

Another unexpected continuity exists between Old and New Testaments. The coming of Christ cannot be simply characterized as marking a radical point of departure in a Judaeo-Christian shift, for example by a new interiorization of defilement. Dunn argues that early Christianity was in very many respects indistinguishable from orthodox Judaism and was seen

by Jewish authorities, in its first 70 years, as an unthreatening eccentricism (Dunn, 1990). Perhaps the focus on the individual's moral judgement proposed by Kristeva is an example of the overlaying of an Enlightenment concept of the conscience on to a period that had little notion of such a self. The conclusion is, however, that the parallel between the apparent liberalizing and interiorizing discerned in the change from Old to New Testament and in the EBM texts masks more complex movements in each case.

### **Three arguments**

The central question is, what can this analysis of textual practice tell us about the EBM movement?

In this article I have argued that in these texts promoting EBM we can see an attempt to achieve power and control in three ways: through a 'totalizing' discourse (Lyotard, 1979) which morally denigrates and intellectually disqualifies all other positions; through penetrating attempts to create norms for the consciousness and moral identity (conscience) of the clinician; and through the providing of an explicit identity for the medical profession (or groups within it) in the face of 'threats' from without.

As I said at the outset, notions of purity and impurity may be called upon by many cultures and sects so this is not a phenomenon unique to EBM. Douglas has suggested that:

Ideas about separating, purifying, demarcating and punishing transgressions have as their main function to impose system on an inherently untidy experience. It is only by exaggerating the difference between within and without, above and below, male and female, with and against, that a semblance of order is created. (Douglas, 1984: 4/3)

But further than simply tidying up, EBM takes up the harsh dualities of the pure and the dangerous to claim an absolute authority. I have pointed at literature that warns us of the destructive effects of such moves as they apply to gender and nationalistic politics (De Beauvoir, 1953; Cixous, 1993; Said, 1993). EBM can be placed in such a context. In addition, its arguments resonate both with this ancient systematizing and with an 'evangelical' presentation. By 'evangelical' I mean an approach to arguing the case for a particular account which, as well as relying on dualism, discursively forces the listener to choose between two stark alternatives, a movement similar to Callon's 'problematization' (Callon et al., 1986). The effects of this choice are total; the 'wrong' choice can lead, in this case, only to a practice of medicine that is intellectually and morally indefensible. The 'evangelical' style, despite, in its religious form, its call to antiquity, can be seen as emerging from an Enlightenment view of the centrality of the individual conscience as an effect of reason (Kant, 1994) and perhaps shares what many have seen as the Enlightenment's desire for total systematizing domination from which nothing may escape (Adorno and Horkheimer, 1979; Foucault, 1980b). In summary, EBM discourses claim such a space that those who are not within it are excluded from credible practice.

A system which reinforces a sense of clarity and distinctness in the way the world is carved up and which is associated with principles for human wellbeing may have a power to attract those who are placed to hear, as Althusser observed of the call of ideology (Althusser, 1971). EBM, then, may offer some clinicians the chance of an intensified or stabilized identity for all of the reasons outlined earlier. But at the same time as it provides a compelling, and, for some, an attractive version of clinical practice, it inculcates a self-surveillance (Foucault, 1977), a confessional space, where the individual clinician has to ask: 'Is my practice evidence-based?' (Greenhalgh, 1996), or as one nurse, promoting evidence based nursing urges: 'As professionals, we need to develop systems of scrutinising our practice with a view to self improvement' (Thompson, 1997: 8). The effect is an influence on the consciousness of health professionals through the promotion of a normative professional experience. This purported experience involves decision making and the valuing of impartial, generalized 'external' knowledge as determining optimal practice. It is a version of practice which is at pains to erase the spontaneous, the hidden and unarticulated (although, of course, it can never do this in practice). Some accounts of clinical practice have been explicit about what is understood as its hybrid nature. Feinstein, whose writing predates the recent EBM debate by over 30 years, considered the 'art-science' argument within medicine as meriting 'burial rather than revival' (Feinstein, 1967: 291). He suggested that the crude understanding of art as belonging to the realm of the bedside, while science happened externally to practice in the laboratory, had influenced the medical consciousness in an unhelpful way. His recommendation was for a more integrated understanding: 'Everything that man conceives and produces with the entities of nature is inevitably, simultaneously a mixture of art and science' (Feinstein, 1967: 293). Today, the central concern to make health care interventions more effective, cost-effective, controllable and risk free as well as practitioners more accountable, inevitably also involves a subtle reshaping of professional identity. In this sense, EBM is a disciplinary practice. A demoralizing 'failure' to 'put research into practice' is no less a response to the ideology of EBM than an initiation of 'successful' change would be because it has an effect on the subjectivity of the practitioner.

In order to understand why we are witnessing a reinforcement of *these particular* categories of purity and impurity, and not others, we need to ask, what are the pressures on the boundaries and margins of contemporary medicine? One possible answer is that the last 15 years have seen an encroachment, or at least a theatre of encroachment, on to the ground of medical decision making by managerialism with its warnings of rationing (Pollitt, 1993; Hunter, 1994). Perhaps also there has been a threat to its traditional authority from changes in society at large (Klein, 1989). In the face of these changes it could be argued that the boundaries of medicine need a vigorous restating and EBM provides this by attempting to delineate a

medicine that is above all untainted by any hint of ineffectiveness. Strong control over what is deemed effective or dubious is retained within the profession. Hunter, though not discussing EBM as such, suggests that managerial challenges to medical autonomy cause doctors to 'regroup around a set of countervailing practices and tactics which may be aimed at lessening or diverting the impact of a management-led reform agenda' (Hunter, 1994: 1). Again, concerning medical power, Jamous and Peloille (1970) argue that groups such as the medical profession face a dilemma:

either to act with a view to greater and greater control of their practice by making it more technical, by codifying it, but in doing this, to give the possibilities of intervention and access to all those whose social qualities set them outside it. Or on the other hand to make use of their qualities in order to continue to monopolise their field by ideological rationalisations about its nature, its functions. (Jamous and Peloille, 1970: 117)

Similarly, Turner (1995) suggests that professions need to have a 'hermeneutic basis', a discourse of interpretative skills, in order to avoid outside control. The two presentations of EBM in this article, in a sense, play out this dilemma. In its presentation in the first text, an account of a speech given to a conference of medical managers, EBM can be understood as featuring an assurance that doctors have the capability of practising rationally and hence efficiently without need for managerial control. However, it has laid itself open to claims, which the second article articulates and rebuts, that it figures medicine both as overly rational, 'cookbook medicine', and as implicated in the rationing of medical interventions. The second text can be seen as an ambitious attempt to occupy both horns of Jamous and Peloille's dilemma by combining a hermeneutic basis and adherence to the best 'external evidence'. It could be argued that the second text reintroduces the element of clinical judgement in a way that preserves medical decision making to this end.

## **Conclusion**

The recent rise of the evidence based movement in health care is worthy of study for a range of reasons. Although it is easy to overestimate its impact on clinical practice by giving too much attention to the arguments of those who promote it, this article has suggested that its styles of promotion rely on discursive moves which are disturbing because of their totalizing ambitions, as some styles of religious argument have been. This style involves a moral and intellectual discrediting of all those who do not join in the promotion of its cause. Contrary to first impressions, the movement's recent apparent accommodation of individual judgement can be seen as an intensification of this ambition.

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