

# CORRESPONDENCE

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**P.G. NELSON**

## **The Curse: Relational or Cosmic?**

In his reconsideration of the Fall, John Bimson argues that the Bible does not teach that the curse directly affected the whole creation.<sup>1</sup> Rather, it affected the relationship between human beings and their environment. In other respects, the creation continues to be ‘very good’ (Gen. 1:31). This includes earthquakes, predation, pestilence and the like. The goodness of these lies in the freedom of the creation to explore different potentialities (as suggested by Ruth Page and John Polkinghorne), or in its having a cruciform nature (as suggested by George Murphy and Holmes Rolston).<sup>2</sup> Belief in a cosmic Fall, he says, is one reason why evangelicals are uninterested in environmental issues.

I have several problems with this thesis.

1. The psalmist wrote of the earth and heavens ‘wearing out’ and one day being ‘changed’ (Psa. 102:25-26). Isaiah prophesied that God will create ‘new heavens and a new earth’ (Isa. 65:17-25). Jesus alluded to this prophesy (Mat. 19:28). Peter looked for the fulfilment of it (2 Pet. 3:1-13). John was given a vision of it happening (Rev. 21:1-22:5). This strand of teaching implies that the heavens and earth themselves, in their present state, are less than ‘very good’.
2. However metaphorical Isaiah 11:6-9 and 65:25 may be, the prophet makes a clear value judgment in them. This is that the state of a wolf living with a lamb is better than the state of a wolf tearing a lamb apart. The latter cannot therefore be ‘very good’. Passages praising God for creating and feeding predatory animals (e.g. Psa. 104) reflect the fact that he is no less Creator and Sustainer of the cursed earth than he was of the uncursed (cf. Mat. 5:45).
3. If the creation is free to explore potentialities and this freedom is what makes it ‘very good’, then, for any new creation to be ‘very good’, it must have this freedom. This means that there may be happenings in it corresponding to earthquakes, pestilence, etc. This is not a happy prospect.
4. There is no indication in the Bible that God created the earth with a cruciform character. Genesis hints at the cross, but only as a result of the Fall (Gen. 3:15).

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1 Bimson, John J. ‘Reconsidering a “cosmic fall”’, *Science & Christian Belief* (2006) 18(1), 63-81.

2 For refs. see (1).

5. Dr Bimson says that a cosmic Fall conflicts with modern science. This is why he reconsidered it. There need not be, however, a conflict. The late Donald M. MacKay presented one way of reconciling them,<sup>3</sup> and I have suggested two others.<sup>4</sup>
6. Belief in a cosmic Fall ought not to lead evangelicals to be uninterested in environmental issues. The Old Testament teaches care for the land (Lev. 25:1-12) and for animals (Prov. 12:10 etc.).

The issue is an important one. Christendom needs a theodicy for its mission. Non-Christians often ask, 'Why does God allow natural disasters?'

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<sup>3</sup> MacKay, Donald M. 'The Sovereignty of God in the Natural World', *Scottish Journal of Theology* (1968) 21, 13-26.

<sup>4</sup> Nelson, P.G. *Big Bang, Small Voice: Reconciling Genesis and Modern Science*, Latheronwheel: Whittles (1999), chs. 8 and 10.

## **R.J. BERRY**

### **A Cosmic Fall?**

Peter Nelson puts his finger on an extremely important point when he asks in what sense can creation be described as 'good' or 'very good', as Genesis 1 repeatedly describes it. My understanding is that he sees no alternative to believing that the world must have changed since God declared it to be 'good'; in other words, that there was a time when creation was 'good', but that there was then a calamitous event which has introduced global (or perhaps even universal) geological and ecological decay into our existence – a 'cosmic fall'. His argument is one hallowed by tradition, as John Bimson documents. The thrust of Bimson's article is the re-examination of the biblical texts which are used to support the notion of a cosmic fall.<sup>1</sup>

The question is primarily a theological one: science has no record of radical changes during the early days of human life on earth, unless one accepts the interpretations of the 'flood geologists' (who argue about a time later than the fall). The difficulty is that scripture tells us very little about the world as it was first created; we are forced to infer its nature from Genesis 1 and 2, our unease with its imperfections as we now see them, and extrapolations from messianic and apocalyptic passages. Consequently it is crucial to discern what the text

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<sup>1</sup> Bimson, J.J. 'Reconsidering a "cosmic fall"', *Science & Christian Belief* (2006) 18, 63-81.

actually means. It soon becomes apparent that many modern commentators do not interpret the word translated 'good' as supporting the notion of a primordial perfect state:

- In God's sight the entire creation is good, in spite of all that seems incomprehensible, cruel and terrible to human beings. The goodness of creation is based solely on God's authority; what it is good for, such as it is, only God knows. But because it is good in God's sight, joy in God's creation (as it is expressed in the praise of creation in the Psalms) is set free in human beings.<sup>2</sup>
- [Good] is a very common Hebrew adjective which has a broad range of meaning, as does the English term. Primarily it draws attention to an object's quality and fitness for its purpose. But the Hebrew term as used by the Israelites is more closely related to the mind and opinion of God than is the English word. God is pre-eminently the one who is good, and his goodness is reflected in his works.<sup>3</sup>
- The term 'good' used here does not refer primarily to a moral quality, but an aesthetic quality. It might be better translated 'lovely, pleasing, beautiful' (cf. Eccles. 3: 11).<sup>4</sup>
- For what or for whom can creation be good? One cannot say for man, because man is a part of it. Nor can man say for God, because God created his work for everyone or for something. It can only mean that creation is good for that for which God intends it... What is good is good in the eyes of God: God looks at his work and he says of it that all is very good... Goodness in creation is not something which man notices in the works of God; it is not a judgment which man exercises. This sentence which runs through the chapter [Genesis 1], that the works of creation are good, will not disappear just because in the eyes of man there is much in the works of creation that is not good, much that is incomprehensible, much that appears savage and senseless.<sup>5</sup>
- By God's grace something other than Himself is granted not only existence but a measure of self-determination... Old and New Testaments alike endorse this in their call to a thankful acceptance of things material.<sup>6</sup>
- What a celebration of creation is written in this repeated cry, *God saw that it was good...* Before anything is said about evil, or pain, or disorder, we need first to hear this note of excited pleasure. This is the basis for a

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2 Westermann, C. *Genesis*, Edinburgh: T&T Clark (1988), p.11.

3 Wenham, G.J. *Word Bible Commentary. Genesis 1-15*, Waco, TX: Word (1987), p.18.

4 Brueggemann, W. *Genesis*, Atlanta, GA: John Knox Press (1982), p. 37.

5 Westermann, C. *Genesis 1-11*, London: SPCK (1984), p. 166.

6 Kidner, D. *Genesis*, London: Tyndale Press (1967), p. 53.

celebration of God's world, which in some Christian teaching has got lost behind an almost exclusive emphasis on sin.<sup>7</sup>

There is no reason to think that this sample of commentators is untypical. Hence it seems that there is a consensus that, while there are no grounds for denying that creation from the beginning was good in God's eyes, this is not the same as 'good' in our normal usage of the word. Notwithstanding, Henri Blocher is cautious: while 'nothing in the narrative [of Gen 3] suggests that the realm of nature has been altered in a fundamental way... There is no indication that the Lord God added thorns to the roses or sharp teeth to the carnivorous animals. [But] it is a long-standing question and in case of doubt we would lean to the side of caution and keep our imagination well in hand.'<sup>8</sup> However the overall conclusion seems to support Bimson's argument that the consequences of the fall were 'relational' not 'cosmic', and hence that creation is 'groaning' (Rom 8: 22) because 'there was a state of travail in nature from the first, which man was empowered to "subdue" until he relapsed into disorder himself'.<sup>9</sup> In Blocher's words, 'If man obeys God, he would be the means of blessing the earth; but in his insatiable greed... and in his short-sighted selfishness, he pollutes and destroys it. He turns the garden into a desert (cf. Rev 11; 18). That is the main thrust of the curse in Genesis 3.'<sup>10</sup>

In his note, Nelson makes three suggestions of how to reconcile a cosmic fall with modern science. If the grounds for upholding a 'cosmic fall' disappear, these become redundant. However, it is worth pointing out that one of his suggestions comes from Donald MacKay, who described 'the narrative of the fall as an account of dialogue between man and his Creator, in which man showed himself rebellious and unworthy'.<sup>11</sup> Whilst MacKay himself seems to have believed in a cosmic fall,<sup>12</sup> this suggests that his way of dealing with it was relational. I find myself agreeing wholeheartedly with Bimson<sup>13</sup> and see no escape from the conclusion that we are called to be responsible stewards of creation<sup>14</sup> and that our failures in this respect are marks of the disobedience first recorded in the fall story.

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7 Atkinson, D. *The Message of Genesis 1-11*, Leicester: IVP (1990), p. 42.

8 Blocher, H. *In the Beginning*, Leicester: IVP (1984), p. 183.

9 Kidner, *op. cit.* (6), p. 73.

10 Blocher, *op. cit.* (8), p. 184.

11 MacKay, D.M. *The Open Mind*, Tinker, M. (ed.) Leicester: IVP (1988), p. 190.

12 MacKay, *op. cit.* (11), p. 89.

13 Bimson's careful analysis supports the understanding about the fall that I previously set out in this journal (*S&CB* (1999) 11, 29-49. This was criticised by Philip Duce (*S&CB* (1999) 11, 159-165, Peter Addinall (*S&CB* (2000) 12, 47-52, H. Russman (*S&CB* (2000) 12, 165-166, Peter Nelson (*S&CB* (2000) 12, 166-167, and Roger Knight (*S&CB* (2000) 12, 167-168. I have replied to the earlier criticisms (*S&CB* (1999) 11, 165-167; *S&CB* (2000) 12, 168-171) and it would be supererogatory to comment further, except to welcome Bimson's conclusions in his article.

14 Berry, R.J. (ed.) *Environmental Stewardship*, London: T&T Clark (2006).

## LYDIA JAEGER

### **Comment on Roger Paul, 'Relative State or It-from-Bit...', *Science and Christian Belief* (2005) 17, 155-175.**

Interpretations of quantum mechanics are a difficult chapter in current physics and an on-going field of research. I was therefore pleased to see *Science and Christian Belief* taking up the question of their potential theological consequences. Without entering the general discussion on the subject, I would just like to mention one particular point: it is somewhat misleading of Roger Paul, especially for readers without expert knowledge in quantum mechanics, to present Hugh Everett's and John Wheeler's interpretations on the same footing. Whereas Everett's relative state interpretation is certainly metaphysically extravagant, it is compatible with standard quantum mechanics; in fact, it is the most straightforward realist interpretation of the formalism.<sup>1</sup> Therefore it makes sense to inquire about the theological implications of this interpretation.

The situation is very different with Wheeler's idea of it-from-bit and his conception of the universe as a self-excited circuit. Although Wheeler as a physicist has made significant contributions to both quantum mechanics and cosmology, his metaphysical use of quantum mechanics in order to explain the creation of reality is misguided, as it relies on several confused arguments, of which I want to point out three.

#### **1. The idea that observation creates reality**

Wheeler considers that all reality emerges from observation:

Each query of equipment plus reply of chance inescapably do build a new bit of what we call 'reality'. Then for the building of all of law, 'reality' and substance... what choice do we have but to say that in some way, yet to be discovered, they all must be built upon the statistics of billions upon billions of such acts of observer-participancy?<sup>2</sup>

But his conclusion relies on a misleading interpretation of the quantum measurement process. A measurement does not fix a previously undetermined (or even non-existent) reality; it simply objectifies a certain set of observables. For example, in the case of the two-path thought experiment, depicted in *figure 1* of Paul's article (p. 169), there is no reason to think that the photon is more real after the measurement. Depending on the experimental set-up, one

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1 Mittelstaedt, Peter *The interpretation of quantum mechanics and the measurement process*, Cambridge: C.U.P. (1998), pp. 14-18.

2 'Beyond the black hole', In *Some strangeness in the proportion: a centennial symposium to celebrate the achievements of Albert Einstein*, Woolf, H.(ed.), Reading (MA): Addison-Wesley (1980), p. 359.

or other set of observables (either the paths taken or the superposition of the paths) now has definitive values. But by virtue of Heisenberg's uncertainty principle, this necessarily implies that other observables now have indeterminate values. The measurement has therefore not enhanced 'reality'; only different parameters are now fixed compared to the situation before the experiment. Thus quantum mechanics does not warrant Wheeler's conclusion that 'reality consists of a few iron posts of observation'.<sup>3</sup>

## **2. Delayed-choice experiments and backward causation**

It is convenient to discuss, as does Paul, Wheeler's delayed-choice interpretation of quantum experiments, by using once again the two-path thought experiment. Depending on the experimental set-up, one does or does not observe an interference pattern. One might therefore be tempted to describe the outcome of the experiment as measuring either the path that the photon has taken or the superposition of both paths. But such a representation relies on a classical picture. In fact, quantum mechanics forbids even *the thought* that the photon has taken one rather than the other path, before measuring the corresponding observable. Einstein and Bohr had already discussed similar experimental setups, in their early debates on the probabilistic character of quantum mechanics. In the 1960s, the formulation of Bell's inequalities (experimentally confirmed in the 1990s) showed definitively that it is contrary to quantum theory to consider that the photon has taken one specific path, of the two possible, before measuring it. Thus one cannot read quantum probabilities as stemming from our ignorance; the path of the photon is *objectively* undetermined before the measurement. Thus, there is no place for backward causation in quantum mechanics, against Wheeler's rhetoric concerning delayed-choice.

## **3. The role of consciousness**

As Wheeler himself points out, consciousness is not an integral part of the measurement process (as Paul points out, p. 167f). The objectification is brought about by the interaction of the quantum system with the macroscopic measurement instrument. Even if the way this objectification comes about is one of the (most would say) unsolved puzzles of quantum mechanics, one should not look towards consciousness as a potential solution of the problem: there is no reason to think that the pointer of the measurement instrument is not already in a definitive position, before the scientist looks at it. The fact that a human being (or perhaps a computer) becomes 'conscious' of the objectified result is no essential part of the measurement process.

Wheeler seems, however, to forget his own warning not to confuse observation with registration of a measurement result when he develops his concep-

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<sup>3</sup> J. Wheeler, quoted by Paul, p. 172.

tion of observer-participancy and the universe as a self-excited circuit. In this context, he speculates about the strategic role of consciousness in giving rise to reality (cf. Paul, p. 172f). He even tries to explain the fact that our universe is hospitable to life, by the idea that consciousness might be necessary in bringing about reality, via quantum measurements :

If an anthropic principle, *why* an anthropic principle ? Envisage as Carter does ‘an ensemble of universes’ in only a very small fraction of which life and consciousness are possible? Or ask as we do now if no universe at all could come into being unless it were guaranteed to produce life, consciousness and observership somewhere and for some little length of time in its history-to-be?<sup>4</sup>

But even if his interpretation of the quantum measurement process as giving rise to reality were correct, the additional step he takes here would still be totally unwarranted. The objectification is brought about by the interaction with macroscopic measurement instruments, not by (human or other forms of) consciousness. Thus at the very best, his idiosyncratic solution to the measurement problem would allow speculation about the necessary existence of macroscopic objects. But such a conclusion is still a far cry from anything resembling an anthropic principle.

Given these very serious conceptual problems in Wheeler’s conception of the universe as a self-excited circuit, I consider it misleading to inquire about theological implications of his ‘interpretation’ of quantum mechanics, as Wheeler’s metaphysical extrapolations have no basis in quantum mechanics. In fact, parts of his construction (as delayed choice) are even contrary to standard quantum mechanics, today’s best available scientific knowledge. But there is another kind of theological question which it might be interesting to ask with regard to Wheeler’s proposal: Why does an excellent scientist like Wheeler get himself into such a deep conceptual muddle, when he tries to use science in order to explain the origin of reality? I have argued elsewhere that Wheeler’s proposal of the universe as a self-excited circuit mimics creation *ex nihilo*, without being able to provide an immanent grounding of reality as ersatz for the Creator which he refuses.<sup>5</sup> Such a conclusion reveals something about the religious nature of human beings and about the improper use of science. But this kind of critical evaluation of Wheeler’s proposal uses a quite different methodology from that in an inquiry about the theological implications of Wheeler’s conception as if it were true – when we know that it is not.

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4 ‘Genesis and ownership’, In Butts R. & Hintikka, J. (eds.) *Foundational problems in the special sciences*, Dordrecht: Reidel (1977), p. 21 ; cf. p. 5. Cf. Misner, Charles W., Thorne, Kip S. & Wheeler, J.A. *Gravitation*, San Francisco: Freeman (1973), p. 1217.

5 Jaeger, L. ‘La volonté de tout expliquer: John Wheeler et l’univers comme “circuit auto-excité”’, *Archives de philosophie* (2006), submitted.

## **RICHARD STURCH**

### **Evolution and intelligence**

Might I make two related comments (one minor, one less so) on the admirable Boyle Lecture by Simon Conway Morris and the discussion printed with it in *Science and Christian Belief* (2006) 18, 1?

The minor one is this. Both Professor Conway Morris and some of the symposiasts describe the Intelligent Design movement (with which I have no great sympathy) as 'deist', or at least potentially so. Surely the boot is if anything on the other foot? Deism is usually taken to mean the belief that God created the world and then allowed it to develop in accordance with the laws He had built into it. Advocates of ID, on the contrary, hold that He has intervened to insert specially designed items into it. Whereas Professor Conway Morris holds that features like eyes and intelligence were bound to arise eventually, presumably in accordance with the way the world was created – which seems uncommonly close to what a deist would say.

More important, in the criticisms made of the late Stephen Jay Gould, I think a possible line of approach has been overlooked. Gould thought that the odds were heavily against the evolution of intelligence by ordinary evolutionary processes. 'Replay the tape a million times from a Burgess beginning,' he wrote, 'and I doubt that anything like *Homo sapiens* would ever evolve again.' (*Wonderful Life* [p/b, Penguin, 1991] p. 289.) Let us suppose, for the sake of argument, that this is right. Now let us invent a few more figures. Suppose that on all the other evidence the odds are 99 to 1 that there is no God (I should put it the other way round myself!); and that they are also 99 to 1 that if there were a God He would have no wish to create intelligent life. A little arithmetic shows that the probabilities are, out of ten million: 9,899,901 that there is no God, and no intelligent life; 90,000 that there is a God, but He has not created intelligent life; 10,000 that there is a God and He *has* created intelligent life; and 99 that there is no God and yet intelligent life has appeared by chance. But there does exist such a thing as intelligent life. The first two possibilities are therefore ruled out; and the odds are 10,000 to 99, or more than a hundred to one, that there is indeed a God.

Sam Berry hails Conway Morris's lecture as providing a 'mighty apologetic plank', and he is right. But there is another possible plank even in Gould's position, and it too may be a little bit mighty.

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## **SIMON CONWAY MORRIS**

### **A response to Richard Sturch**

I thank Richard for the comments, as well as his kind remarks about the Boyle Lecture printed in the April, 2006, issue of *Science and Christian Belief*.

To the gentle correction of the use of the term 'deist' I must accept negligence in its usage. I was trying to capture a God closer to a super-engineer, and so acceptable to supporters of Intelligent Design, than the personal and loving Creator that stands at the centre of Christian orthodoxy. I wonder, indeed, if there is at present an available word for a deity who only occasionally meddles in a world that otherwise ticks along? Deist may not be the term, but it did try to capture the idea of a disinterested deity whose main function seems to be to leave enigmatic calling-cards.

His second point of the odds for or against something was one that we had engaged with in an earlier personal correspondence. At that time, if I recall correctly, my response was that I see no particular reason to accept the posit that the odds are 99 to 1 against there being a God. Why would we want to accept that probability, and on what basis? Similar comments would apply to the other proposed odds.

I am aware that in responding I do so as one with no statistical training, and indeed there is a tradition of thinking of the existence of God on the basis of probabilities. The book by David Bartholomew entitled *Uncertain Belief: Is it Rational to be a Christian?* (Clarendon; 1996) comes to mind. So, no doubt, will Pascal's wager that it is better to believe, 'just in case'. It is widely appreciated that Pascal's thinking was considerably more sophisticated than a sort of cosmic insurance policy. And from a scientific perspective, where the calculation of probabilities and accompanying statistical analyses are a mainstay of the argument, it is understandable why this method of investigation into the rational world (which is, after all, ultimately from God's *creation ex nihilo*) might have theological implications. Could it be that a signature of uncertainty would paradoxically reinforce our sense of God himself? Maybe so, but I am wary of such extensions, just as I am wary of trying to understand how quantum indeterminacy (and the weird effects) actually collapses in our concrete reality. Maybe there is some sort of analogy here, but the various attempts to reconcile physics, quantum mechanics and God fail to convince me. So far as there is a virtue in thinking that we are hedged with uncertainties I would prefer to look at it more in terms of our utter precariousness, not only by the sustenance of creation but by the fact one day (soon?) it will change for ever. Or at least so we have been warned, or maybe promised.

Nevertheless, I would not wish to deter anybody from an exploration of God's existence on the basis of probabilities. As indicated, however, it is not a road that I would choose to follow, and so far as likelihoods are concerned my

apologetic energies would rather be expended on the historical evidence of the Gospels, the internal intellectual consistency of the Incarnation, Resurrection, and Ascension, and the validity of prayer.

Let no one imagine that there is a single road to God, nor when we arrive at the next staging post we will all be in the same mansion.

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