# **ISCAST BULLETIN 44**

#### Winter 2004

Great are the works of the LORD: they are studied by all who delight in them Ps 111:2 (NASB)

# Institute for the Study of Christianity in an Age of Science and Technology

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#### Chairman:

Prof. JW White CMG FAA FRS, Research School of Chemistry ANU. Email: <a href="mailto:jww@rsc.anu.edu.au">jww@rsc.anu.edu.au</a>

#### Secretary:

Dr Robert Stening, 5 Savoy Ave, Killara NSW 2071 Ph h (02) 9498 2710 b (02) 9385 4584 Email: r.stening@unsw.edu.au

#### **NSW Contact:**

Dr. Lewis Jones 202/35-47 Wilson Lane, Darlington, NSW 2008 (02) 9519-0189 Email: lewis.jones@asn.com.au

#### **Oueensland contacts:**

Dr Ross McKenzie, Dept. Physics, University of Oueensland

Email: mckenzie@physics.uq.edu.au

#### Victoria contact:

Dr Helen Joynt, Administrative Secretary ISCAST (Vic), 8 Mabel Street Camberwell Vic 3124 Ph/Fax (03) 9836 6871

Email: vic@iscast.org.au

#### **Bulletin Editor:**

Dr Jonathan Clarke, 43 Michell St. Monash, ACT 2904. Ph (02) 62920969 (h) Email: act@iscast.org.au

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# **Editorial**

# A community in dialogue

One of the things that I am becoming more and more aware of is the need for community. As an Evangelical, I am part of a tradition that is a child of the Enlightenment, with its emphasis on the individual. In our post modern, fragmented times, community needs to be emphasised. I recently went to my first "Fire in the Belly", and I am hooked! It was a wonderful opportunity to share and exchange ideas with my peers. It is only early days in my study of a theology of the weather, and it was good to have constructive feedback and encouragement. Alan Gijsbers reminded us that to keep one's ideas to oneself is selfish. What we have learned is for the body. And this is what the newsletter does. Glancing through this issue, I find myself saying AMEN to "when is the next one"; reading about the "God Rocks" weekend. The more we get together, the more we can share our knowledge, our enthusiasm and our ideas. People share what they are reading. How can you think about an issue without knowing what others think? There is even a spirited ongoing debate on dualism/monism. And this is exactly what we need, sharing of ideas, disagreement, and debate all in a spirit of grace. So read on, nay, think about what you have to share!

> Guest editorial by Mick Pope, Bureau of Meteorology, Melbourne

## **News**

#### QLD

ISCAST Old held a meeting at Grace College UQ in May 2004 with dinner in between two Ross Mackenzie, Professor of lectures. Theoretical Physics at UQ, who also is Chairman of Iscast Old, spoke on "Critical Realism in Science and Theology", and Dr Stephen Barker of UQ who researches the evolution of lice spoke on "Evolution for Non-Experts". Stephen is a Fellow of Iscast. Attendance was 35, and most judged the meeting a success.

Lawrie Lyons

#### NSW

There have been three NSW ISCAST events. The first was a lecture by Rev. Dr John Dixon, Honorary Associate, Department of Ancient History, Macquarie University, Sydney, entitled "THE GENESIS OF EVERYTHING: The thought-world of the Bible's account of creation". It was held on March 29, as a joint meeting with CASE (Centre for Apologetic Scholarship and Education) at New College. Between 80 and 120 people attended the meeting. A pdf file of the talk is up on the ISCAST website and a recorded version is available on CD.

The second was a lecture by Rev. Michael Hill, Vice-Principal of Moore Theological College, on Mon May 24 on "Developing a Biblical Ethic" in the School of Physics at UNSW. Michael Hill specialises in ethics and philosophy. It was an excellent meeting with about 33 people present.

A lecture by Rev. Dr Bill Dumbrell on "The Garden of Genesis 2 and the Future" on Monday August 2 at 7.30 pm in the School of Physics at UNSW was the third. Bill Dumbrell was previously a lecturer in OT at Moore Theological College, University at Sydney, and Regent College in Canada and Singapore and has written numerous books on the OT and aspects of the covenant and general biblical theology. A pdf file of the topic will be available from the ISCAST website, and a CD of the recorded talk will also be available.

Peter Barry

#### **ACT**

I have been part of a new "unofficial" initiative (wider than simply science/faith issues) which is starting up at ANU. Church@work is about

the Church working at work. It concerns us, as christians, faithfully living for and serving Jesus to make a difference in our workplace at ANU. We don't wish to recreate a Sunday church model where the emphasis would be on personal Bible study and encouraging colleagues to evangelical meetings — this is already done well by others. With an emphasis on the Kingdom of God, we want to support one another to see God's work done in our daily lives and in the midst of our work place. Valuing work as part of the good creation that God intends us for, we hope to transform lives and the ANU institution around us. The principal idea is that together we seek our Father for what He wants us to do here, then do it! It will also involve praying for our work colleagues and departments, working to set up groups in all parts of campus and supporting each other.

Steven Micklethwaite

#### TAS

I met with a group of science students from one of the student Christian groups on campus, FOCUS. We had a barbecue and discussed science-faith matters, particularly evolution/creation. And one of my colleagues is running a theme on creationism within one of our second year units called "Ecology, Evolution & Society". A major aim of the course is to develop skills of critical thinking, so the students do a lot of reading and group discussion. I was able to insert some ideas and sources into the development of the topic, for example. Michael Ruse's *Can a Darwinian Be a Christian?*".

Alastair Richardson

#### VIC

After a wonderful meal of various curries, there was plenty of fire in two bellies at the latest ISCAST (Vic) meeting on July 17. Our newest ISCAST Fellow, Michael Wong (see his article later in this Bulletin), a psychiatrist and theologian, looked at the clinical and research applications of neuro-imaging. He described the principles behind CT, MRI, fMRI, SPECT and PET scanning and the fascinating issues raised by taking pictures of the living brain. How specific are these different images, and what relation do

they have to the associated thoughts? Are God thoughts nothing but the flicker of neural synapses? Michael identifies three major issues, first of ontology; do we have to accept a form of dualism? Secondly that of epistemology, are we committed in neuro-imaging to reductionism? Thirdly the hermeneutic question describing mental events, what is an adequate discourse?

Mick Pope then complemented Michael's presentation with some intriguing questions on the theological issues raised by being a Christian meteorologist. In what way is the weather the sphere of God's activity and how are we to judge the nature miracles of the Bible? Is God a more sophisticated meteorologist who (like the ones on the ABC) only predicts the weather, or does God control

it? How does God answer the prayers of the resort owner on the Queensland coast for fine weather while still meeting the needs of the wader bird inland who will only lay eggs in flood conditions brought about by cyclones off the Queensland coast? And what difference does my praying make to the scheme of things?

A lively discussion followed as we tackled these large questions. We were once again awed by our ignorance and by the majesty of what we were enquiring after. Both papers should be developed into more substantial documents for the benefit of us all. We look forward to some Bulletin articles!

Alan Gijsbers

# **Articles**

## God Rocks Anglesea Vic

Context! Big picture! As we walked along the beach to Airey's Inlet, the words of the video kept ringing in our ears. We were on the ISCAST (Vic) geology excursion *God in the Rocks*. The night before we had seen the video

of an American geology professor teaching astronauts how to read moon geology. "We could have robots taking samples. What is the point of having humans on the moon if they do not have a trained eye?" he'd demanded. So Jonathan Clarke, ISCAST Fellow, had taken it on himself to train our eyes to read the rocks.

A disparate bunch had clambered down the cliffs. Some had studied geology, others were locals, some were not scientists, but we were all caught up in the tide of enthusiasm as we studied Split Rock.

"What do you see?" asked Jonathan. "Yellow rocks and black rocks." "Good, excellent, now let's look at each in turn."

The yellow rocks were on top of the black rocks, so the black rocks must have been laid down first. The black was basalt, a hard rock laid down by volcanic activity. It did not have the crystalline structure of granite so we inferred that it had cooled on the surface. The

yellow rock was softer limestone, laid down by sedimentary activity. It teemed with millions of fossils; there were none in the basalt. We saw thousands of shell fragments suggesting that the sand was laid down in a high-energy environment with lots of wave activity. We saw evidence that the sea had risen and fallen as a result of various global warmings and coolings and that the rocks in turn had also risen and fallen by many upheavals. We were seeing evidence of large-scale forces over long periods of time. We were starting to read detail and infer events from long ago.

In our car between sites, we tried to learn about the next stop from a geology excursion guide but its erudite language defeated us. What was carbonaceous and what was tuffaceous and what in the world was glauconitic?

At Point Addis we saw a very different environment. The stone was much finer, almost mud-like. Vertical channels suggested marine creatures had burrowed into the mud. The fossils were far more intact. This suggested a far more tranquil estuarine environment. We were reminded that when we shake up a sample of soil, the heavier particles settled first and the fine muddy particles settle very slowly and only when they were undisturbed. We tried to imagine the muddy swamp which led to the soft

mudstone now covered by later layers of limestone. We were starting to read what the rocks were telling us.

Meanwhile up at the car park, Glenys Gijsbers and her Dad, Russ Pickering, had organised a magnificent spread of biscuits, cakes and beverages. The sun was shining, the threatened rain had held off and the day was looking good. Off we went to another site where we saw old limestone which had obviously been weathered flat and pitted by surf, rain and wind. It was subsequently covered by the mixture of sand and shell we had come to recognise. The patterns were beautiful. These changes must have occurred over millions of years. Over this time sea and land had risen and fallen in a very slow dance to shape the patterns we were marvelling at. Some of that wonder imprinted itself on us as we just sat on the beach for five minutes looking out at the waves, drinking in the scenery and imagining the power of the forces that were at work. We were quite subdued as we climbed the cliff to enjoy the lunch prepared by Glenys and Russ.

Then down to Soapy Rocks, so called because they were so muddy. Once again we admired the complete shells in the mudstone, but then we looked up the cliff to a brilliant sulphurous layer of larva, mixed with black lines (the carbonaceous of the book) and the pinky ash above that, (tuffaceous). This was the edge of the volcanic activity which had occurred about a hundred kilometres to the west, about 37 million years ago (give or take a year or two). We looked at the complicated swirls and patterns created by the forces of liquid rock, mud and ash as it slopped and settled and hardened into the rock we saw today.

Finally, after afternoon tea, we went to the Jan Juc marl (mudstone and limestone, the Macquarie helped this time!). We stood on a solid lump of mudstone heavily impregnated by intact shells and other marine creatures. This must have been one of those tranquil estuarine environments that we had seen earlier.

There was one more surprise in store. We saw this large brachiopod fossil. Jonathan told us that such a marine creature still exists, but that they lived below 400 feet of water, away from light-penetration. Yet here they were in rocks high up on the cliffs. The dance of sea and land was extreme, if very slow.

We retired to a magnificent dinner put on by the ladies at the Anglesea Uniting Church. After feasting (again!) we reflected on what we had seen. We had learnt that rocks were not Rorschach blots into which we could read anything we liked, but that we could form reasonable hypotheses about how they came to be there and test those with subsequent observations. We were applying the scientific method! Our eyes were also being opened. We now saw with understanding and perceived much more detail because we knew what to look for. With the aid of a trained eye we now saw what we had previously missed but which had always been there.

As people of faith we were struck by the awesome power of it all; the scale of time, of size and of intricacy, in just such a small part of a large country, yet but a small planet in a large galaxy. Can we relate what we saw in God's book of nature to what we read in the book of Scripture? The Bible describes all this so briefly: God spoke, it happened, it was good and another day had passed. We were confident that the same God was the author of both, but we were dealing with very different genres – scientific on the one hand and a much earlier cosmology on the other. And yet both spoke of the grandeur of God the creator, who in Christ shows us more completely the wonder of his loving ways. Both the Old and the New Testament teach creation through the eyes of the believing community. It is God, the Father of our Lord Jesus Christ who has made all this, and deigned to live among us, handling our rocks, and our wood, touching us and healing us. He really lived and walked together with us, just as we had walked together this day.

So we enjoyed Day 2 of creation. Perhaps we could organise a trip to the forests of the Otways to enjoy Day 3, some astronomer for days 1&4 and maybe an ornithologist and zoologist for days 5&6, finishing up with anthropology and sociology for yet another excursion. It was good to see Jonathan enthusiastically teaching in his element. I think we have found a winning way in which we could develop further ISCAST activities.

When is the next one?

As I drove along the freeway at peak hour, I was most disappointed. The bumper-to-bumper traffic was moving too fast. I did not have time to read the rocks in the cutting at Kew!

Dr Alan Gijsbers

# The Relevance of the Changeux-Ricoeur Dialogue on neuroscience and philosophy to theological anthropology

Recent advances in neuroscience and the convergence of interests witnessed in theology, philosophy and neuroscience on consciousness and human nature provide a golden opportunity for a synthesis of knowledge and crystallization of new insights into philosophical and theological anthropology. <sup>1</sup>

Jean-Pierre Changeux, Professor of neurobiology at College du France and the author of Neuronal Man,<sup>2</sup> a collection of his lectures on the biology of mind, has been wrestling with the question — How can neuronal man be a moral subject? Paul Ricoeur, the French phenomenologist and Professor Emeritus of Philosophy University of Paris and University of Chicago (succeeding Paul Tillich), professes his Christian insights as a philosopher (not a theologian). He writes Oneself as Another, positing his famous "little ethics" — aiming at the good life with and for others in just institutions<sup>3</sup> — as one of the key issues of philosophical anthropology. Both Changeux and Ricoeur share an urgent concern for ethics and attempt to bridge the gap of philosophy and neuroscience to develop a basis for ethics for our time. Together they attempt to reconcile the forward focus on discoveries and

Ricoeur's synthesis of "reflective philosophy", "phenomenology" and "hermeneutics" and his emphasis on the integrative power of acting, thinking and feeling<sup>6</sup> provides a promising approach to integrate ontology, epistemology and moral theology in the understanding of the notion of brain, mind, soul, self, person and human nature. In response to Changeux's spirited defense of materialism, Ricoeur raises little objection to practical materialism but strongly dismisses eliminative reductionism. In contrast to Changeux who champions a naturalized phenomenology, Ricoeur maintains a phenomenological discourse "apart from the cognitive sciences". Ricoeur is receptive to the science of the brain, but careful to define its limits. Neurobiology will not be able to capture all aspects of human experience and natural explanation must be supplemented by considerations that extend to reflectivity, experience, understanding. Changeux, in turn, is quite open to the importance of these dimensions though he continues to insist on the capacity of neuroscience to provide a naturalistic account of such things.

Unlike the Popper-Eccles dialogue, Ricoeur's contention that neurobiology and phenomenology constitute two heterogeneous and irreducible discourses argues for a dualism that is semantic rather than of substance. By asking Changeux precisely what does knowledge about the brain contribute to my understanding of my own life,

advances of science with the "narcissism" and retrospective preoccupation with textual heritage of philosophy.<sup>4</sup> This dialogue, similar to the dialogue between the philosopher, Karl Popper, and the neuroscientist, John Eccles, in the 1970s,<sup>5</sup> highlights both the fruitfulness as well as hermeneutic difficulties in the synthesis of knowledge derived from different academic disciplines.

<sup>&</sup>lt;sup>1</sup> MTH Wong, *Consciousness – A Theological Appraisal*. Masters of Arts Research Project Thesis (Bible College of Victoria, 2001)

<sup>&</sup>lt;sup>2</sup> Jean-Pierre Changeux, *Neuronal Man* (Princeton: Princeton University Press, 1985)

<sup>&</sup>lt;sup>3</sup> Paul Ricoeur, *Oneself As Another*, trans. Katherine Blamey (Chicago: The University of Chicago Press, 1992), 180.

<sup>&</sup>lt;sup>4</sup> Jean-Pierre Changeux and Paul Ricoeur, What Makes Us Think? A Neuroscientist and a Philosopher Argue about Ethics, Human Nature, and the Brain, trans. M.B. Debevoise (Princeton: Princeton University Press, 2000), ix.

<sup>&</sup>lt;sup>5</sup> Karl R. Popper and John C. Eccles, *The Self and Its Brain : An Argument for Interactionism* (London: Routledge & Kegan Paul, 1977)

<sup>&</sup>lt;sup>6</sup> Changeux and Ricoeur, 4-5.

situation, Ricoeur admits its fundamental importance in science, but questions its importance in the pragmatics of life, and in this way elegantly challenges naïve reductionism.

Although they disagree on religious issues — Changeux holds the view of a non-believer that religion has repeatedly played a destructive role in human affairs while Ricoeur sees religious beliefs and the underlying ultimate reality can provide a means to unleash the good — they agree that we urgently need to find a basis for ethics upon which both the secular and the religious may build. They ask whether there are elements in human nature that can provide a foundation for ethical understanding.

They contemplate that if in fact the self through the brain — has motivation and intention, forms itself, models the world, knows the "other" and experiences the transcendent, then it is also capable of ethical decision-making. However in order to be successful an ethical system must also harness natural proclivities, such as the drive to survive — present in all life forms — and the awareness of self and not-self — found in sentient beings. On these levels behaviour is driven by conscious and unconscious responses such as hunger and lust and altruistic behaviour toward kin can be explained by the drive to pass on one's own genes.

These facts lead Changeux to a Darwinian view on the importance of social instinct in the origin of morality. Ricoeur questions this view, cautioning about reading evolutionary development in a retrospective way, so as to find precursors to an ethical attitude that may have emerged on different, purely human, principles. He argues that there may be principles in the genesis of morality that are not reducible to neuronal or evolutionary principles.

Looking at the "three histories that take shape in the brain of each person: the evolution of the species, the individual's personal history, and finally the social and cultural history of the community to which the individual belongs", they notice that cultures throughout the world have espoused some variation of the golden rule that "prevents individuals from behaving in ways that disturb their own lives as well as the life of the social group". They wonder if these cultural rules may be the principles that are irreducible to neurons or evolution.

In discussing how religious tradition and praxis fit into such an ethics, Changeux reckons they should help people distinguish between custom and conviction and admits that religious ritual may provide support for believers. Ricoeur goes a step further, arguing that religion points to deeper truth and consists in "a fundamental approval which comes from somewhere farther away and higher than I am, in my courage to live and to make goodness prevail over the evil". Changeux's response is that religion can be replaced by the goodness and beauty of the arts.

The significance of this dialogue to theological anthropology is that it rules out substance dualism and reductionism as a valid solution to the problem of human nature. Moreover the hermeneutic insight that different discourses reveal different aspects of reality provides a legitimate opportunity for religious discourse to anthropology. Last but not least, the focus on ethics and culture of the dialogue highlights the relational and transcendental aspects of humanity and demands anthropology to go biology beyond and individuality spirituality and relationality in order to be meaningful and relevant to the human condition.

Michael Wong

# Science and Christian Belief

The Journal of Christians in Science (UK). It comes out twice a year and contains many thoughtful articles. It may now be accessed both online and in printed format.

Cost: Aust\$50 for one year's subscription (\$56 for both printed and online access)

For subscription contact Helen Joynt, Administrative Secretary ISCAST (Victoria)

# **Reviews**

On the Shoulders of Giants, The Great Works of Physics and Astronomy, Edited and with Commentary by Stephen Hawking (Penguin, London 2002), 1265 Pages

This is a useful source work for students of the history of science. It contains English translations of the most famous publications by Copernicus, Galileo, Kepler, Newton and Einstein. Newton's *Principia* runs to 428 pages. For comparison, a selection of Einstein's papers requires only 147 pages.

The famous theoretical physicist Stephen Hawking provides a preface to the book and a brief introduction to each scientist's papers. He expresses the awe the reader feels upon considering their achievements. Hawking, in this and others of his writing, is moved upon by the "anthropic principle", i.e., the universe seems tailor-made for humanity — what is the explanation of this? Is it sufficient to say that things are as they are (however improbable *a priori*), because they are (*a posteriori* certainty) and that's that?

The selections in the book suggest that any apparent gap between science and Christianity diminishes with the progress of scientific understanding. Only Einstein seems insensible to the postulate that God is there. Progressively the need to ascribe what we cannot yet explain to the work of a Creator becomes less important to us. If this is so, where are we now? Particularly since we continually discover new areas demanding explanation. History seems to show that as ecclesiastical pressures to explain nature by dogma wane, new discoveries yet retain a numinous quality which affects the human psyche quite apart from Christian teaching. Patently this was a powerful motivation in the discoveries and analyses of the giants of the past.

The erudite discussions in the ecclesiastical court which examined Galileo (Pages 399-626) show the scientific understanding the members possessed. Also the extent to which

the great discoverers were aware of the findings of their predecessors and contemporaries. Physical and mathematical tools emerged with them all, e.g. the telescope, the calculus, and tensors, without which their achievements might not have been possible. Hawking rightly emphasises the prime significance of the title of the book.

We need to consider also the contribution of Planck, and the ongoing search for a unified field theory. Perhaps a further work is contemplated which relates the anthropic principle to these. Your reviewer would like to see more attention given to the relation of the higher dimensions of space-time, as contemplated mathematically, to the spiritual dimension of man, and perhaps also to possible spirit beings. Do we inhabit a Matrix (vide the current popular films)? We have yet to explore a universe whose fabric is measured in tiny Planck numbers. seemed to sense this. He integrated Christian doctrine and discovery in the *Principia* (Pages 1157-1160). He rejected "blind metaphysical necessity", and hoped that ongoing discovery might reveal the properties of that "most subtle Spirit which pervades and lies hid in all gross bodies".

# **Operation Paradigm Shift** Thomas Woodward "Doubts About Darwin—A History of Intelligent Design" Baker 2003

"The pincer movement I spoke of is squeezing us not just from the grassroots direction, but from the top down as well—thanks to the rise of university-based antievolutionism in the form of 'intelligent design theory' and other well-camouflaged varieties of creationism. University of California lawyer and creationist guru Phillip E. Johnson boasts of his 'wedge strategy...' "This frustrated cry for funds, coming from American N.C.S.E. director Eugenie Scott, is quoted by Thomas Woodward to characterise a scientific community now under siege on a second front, due to the Intelligent Design Movement. Other rumblings he reports are: A "deemphasis" on teaching macroevolution, adopted by the Kansas Board of Education 1999-2001, and a "Message from the Alabama Board of Education," appearing in every High-School biology textbook since 1996: "This textbook discusses evolution, a controversial theory some scientists present as a scientific explanation for the origin of living things, such as plants, animals, and humans..."

Woodward, with professorships in theology and history of science, is based at Trinity College Florida and shows his enthusiasm for the I.D.M. comparing their achievements with those of the Allied Forces at Normandy in 1944. Michael Denton, (Evolution: A Theory in Crisis) Phillip Johnson, (Darwin on Trial) and Michael Behe, (Darwin's Black Box) are seen by him as heroes in a just campaign to bring the whole Darwinian Paradigm to a state of crisis and defeat. (Kuhnian).

Tracing interactions between the I.D.M. and the Darwinian establishment, Woodward recounts the Campion Debate 1989, when Johnson met Stephen J. Gould over the subject: Science & Creationism in Public Schools. "Johnson spoke for over an hour, after which Gould immediately seized the floor and 'donned the mantle of Darwin.' Displaying agitation in his voice and shaking bodily, he began to set the record straight. The two were engaged in a furiously paced seesaw debate that lasted for nearly an hour before a spellbound audience." (scored even)

Less dramatic, but more fruitful, was Johnson's encounter with Michael Ruse at a "Darwinism Symposium" in 1992. Woodward tells how at a later meeting of the A.A.A.S., Ruse admitted to some agreement with Johnson, conceding that: "for many evolutionists, evolution has functioned as something with elements which are, let us say, akin to being a secular religion." The meeting adopted a synthesis to the effect that: "Darwinism entails only methodological naturalism, not metaphysical naturalism". Not satisfied, the I.D.M. responded: "The distinction between methodological and metaphysical naturalism is functionally meaningless and misleading, since to exclude intelligent causes from consideration in science, is really the same as excluding them

from reality".

Woodward quotes Gallup Polls indicating that some 40-45% of the US public are happy with 'recent creationism', while another 40-45% go along with theistic evolution. Non-theistic evolutionists make up about 9-10%. "Why, asks Johnson, is the view of the 10% enshrined as textbook orthodoxy?" The answer is not far to seek. A special poll of biologists in the National Academy of Science showed 95% who said they did not believe in God.

According to Woodward, the I.D.M. has already established among Darwinists a realisation that it is unwise of them to use evolutionary findings to promote atheism: "Even Eugenie Scott now frequently corrects and warns against all such metaphysical preaching by scientists." So far so good, but what of the I.D.M's larger vision? They propose: "not to insert a role for deity at any given point but rather to secure the freedom within the academy to range across all possible explanatory perspectives, including one that entertains the possibility of God's existence".

Would this be the place to coin the terms: *methodological theism* and *evangelical theism*; the former being acceptable in the science room, but not the latter?!!

Woodward's book is well indexed and is inexpensive at \$19.95 for a 300pp hardback.

Noel Bailey

# Adam P. Hearing God's Words: exploring biblical spirituality. Apollos, Intervarsity Press, Illinois. 2004. 237.

I looked forward to this book enormously. Peter Adam over the years at St Jude's has shaped my thinking and my spirituality, and his ability to make a Biblical text plain is second to none. When he has finished preaching you would not wonder at the exegetical gymnastics he has undergone, but you'd see clearly what is really there, and wonder how you had missed it before he spoke.

There are some wonderful sections in this

book. His careful detailed exposition of the spirituality expressed in Colossians is to my mind, a highlight. His ability to expound large themes over many chapters interpreting a text within the wider context is a strategy worth emulating.

However in expounding the importance of God's word in biblical spirituality, Peter has I think indulged in overkill at the expense of major practical themes in expounding a spirituality for today. Thus in his chapter on the Old Testament, his emphasis that God speaks, detracts from what God actually said. Thus the rich statement about being made in the image of God, being fruitful, multiplying, filling the earth, subduing and having dominion over it, is glossed over. The only point made is that just as God speaks, humans speak. That is somewhat banal, and a whole theology of work, creation spirituality, acting as God's agents in the created order and humans as God's stewards in creation, is passed over. This represents a failure to enter into a dialogue with the scientific community. Yes, God speaks, but it is what God says, and says about the world, and our role for God in it, that matters. We have made some attempts to do that in ISCAST (www.iscast.org.au) and I have tried to bring my spiritual aspirations science together http://www.cmdfa.org.au/lukes/2002sciencesp irit.html).

This lack of an engaged spirituality, a spirituality of the everyday, is heightened by a curious lack of considering the Word Made Flesh. The only allusion to John's prologue is to emphasise speaking. The fact that God spoke, not just in words from a book, but also in the living reality of his Son in this world, is glossed over. I agree that God speaks through words but God also spoke through a person, and that person's actions and being also speaks volumes. Taking the incarnation seriously means taking the ordinary everyday physical world seriously. Jesus' care for people in healing their illnesses illustrates the sort of compassionate kingdom Jesus brings (I owe that insight to one P Adam at a Christian Medical and Dental Fellowship conference!). Jesus revealed the Father in word and deed (Luke 24:19). The love of God is expressed in action, not just in words (1 John 3:18).

An engaged spirituality would take social justice seriously. This would make a strong link between ethical behaviour and right worship. The Micah Declaration, (http://www.micahnetwork.org/home/) doing justly, loving mercy and walking humbly with God, Micah 6:8), calls us to do exactly that. This is a major theme among evangelicals dealing with wholistic mission, however Peter does not even reference this verse from Micah in his book, nor is this theme prominent.

One of the key themes of the Old Testament prophets is the link between ethics and spirituality. Thus only those with clean hands and pure hearts can worship God (Ps 15), and sacrifices and other religious observances without ethical behaviour is strongly condemned by the prophets (Isaiah 1:10ff, Amos 5:21-24). Curiously the book of Amos is not referenced in the index.

One of the main problems in any systematic exposition of themes is in the selection of the verses quoted. These selections reflect not just the concern of Scripture, but also the bias of the writer. Instead of discussing ethical behaviour, social justice and healing, there are fairly lengthy polemics against pictures in Bibles, icons and manger scenes, leading to an almost Presbyterian austerity in our churches. I am sympathetic to his emphasis on God's word and on the God of the word, but in seeking to pull us back to God's word, Peter neglects other dimensions of spirituality through the word.

This does raise the question of methodology in determining what the Bible says about a topic. In researching the literature in clinical medicine we have developed search engines and methodology to ensure that there is a fair and unbiased selection of studies and references to the subject in question. Would it be the next step in Biblical theology that researchers are asked to state why they chose some texts and discarded others? I am aware of Charles Sherlock's admirable comment that the importance of a topic does not arise out of the frequency of its appearance in Scripture, but there has to be some guard against neglect of key texts.

One of the great challenges of an engaged spirituality is to seek God's mind about our

conduct in relation to the new technologies like IVF, abortion, the human genome project and genetic engineering. Unfortunately the Scriptures do not give clear guidelines here. While Scripture is sufficient for salvation, we need other sources to find God's mind on these matters.

In sum then the book is a rich compendium of evangelical and reformed writers on spirituality, but tends to remain within the ecclesiastical confines of debate between theologians. It is not a book that will provide much resource for the deep spiritual thirst that exists in the word outside the church today, a

thirst that as yet the Christian church has not found the power or the resources to slake. While different branches of the Christian church debate about words and icons, people are looking elsewhere for hope. Peter has retreated into an ecclesiastical ivory tower. This is a pity, for his pastoral and preaching skills are better than that. One watches with interest to see whether ethics will survive at Ridley College once the current Director of the Centre of Applied Christian Ethics moves to Sydney.

Alan Gijsbers

# Books on Science and Religion by Graeme Finlay, a NZ scientific pathologist, available from ISCAST(Vic)

Evolving Creation, Graeme Finlay, Science and Faith Series, TELOS Publications, 2004 \$10,00

This booklet celebrates the essential compatability between natural science and Christian theology. It invites its readers to move beyond the tired old 'conflict' stereotypes, and rejoice in the God who is revealed in nature and by Jesus of Nazareth in Scripture.

"It is", says Professor Allan Day, "clearly written, tackling the science/faith issues in a way that provides a concise approach to the important issues... I believe it will be an excellent publication to put in the hands of university students and others..."

God's Books: Genetics and Genesis, Graeme Finlay, Science and Faith Series, TELOS Publications, 2004 \$10.00

""""Dr Denis Alexander, Molecular Immunologist and Editor of *Science and Christian Belief* writes: "Graeme Finlay surveys the recent genetic evidence that demonstrates definitively that humans are descended from the apes and relates this new information to the Biblical account of God's creative purposes for humankind. The author helpfully brings out the resonances between the evolutionary and Biblical accounts of God's actions in the world..."

#### **Books on Science and Religion from the Australian Theological Fellowship**

These books can be ordered from the Australian Theological Forum, P.O. Box 504 Hindmarsh SA 5007

*God, Life, Intelligence, & the Universe.* Edited by Terrance J Kelly and Hillary D. Regan. ATF Science and Theology Series: One, 2001. \$35.00

Interdisciplinary Perspectives on Cosmology and Biological Evolution. Edited by Hillary D. Regan and Mark Worthing. ATF Science and Theology Series: Two, 2001. \$25.00 Habitats of Grace: biology, Christianity, and the global environmental crisis. Carolyn M. King, ATF Science and Theology Series: Three, 2001. \$25.00

## Letters

### Reply to Allan Day in Bulletin 43

Allan Day's criticism (Bulletin 43) of my mind

paper (Bulletin 42) illustrates exactly the points that I am making. We are both committed to the truths of Scripture and science and yet we both hold different perceptions, partly rationally and partly emotionally. Allan sees what I have written as an in-house document between fellow believers, and therefore an example of Christians disengaging from a discussion with neuroscientists. To him, a discussion with neuroscientists would mean to embrace non-reductive monism, and an abandonment of dualism.

My Bulletin 42 paper on the mind avoids that It sought to describe the controversy. complexity of the mind (not necessarily a metaphysical entity – it could be an emergent property!) and the meaning that we can give such an entity when we consider the complexity of human thought and social interaction. Although it might sound like a discussion about Christian interactions, my reflections arose also out of the daily clinical tasks of sitting with my addicted patients. I try there with them to understand their broken relationships and the personal growth involved in mending those relationships. I agree that broken and mended relationships also occur within the Christian community, and my reflection applies there also.

I would submit that as an applied neuroscientist practising addiction medicine, I can bring my reflections to the debate and remind reductionists how complex mental and

social function can be. I can remind them that the descriptive science at that complex level has its own methodology, suitable to that level of emergence. I do not think that that is the same as being a seven-day creationist, for I am working within my science not within my ideology. There are a number of neuroscientists who are calling for a complex interaction with that level of mind and society, socio-psychologists sociologists. The principles outlined by Eric Kandell referred to in my ISCAST paper (http://www.iscast.org.au/pdf/COSAC2003Co llectedPapers.pdf, page 34) are worth grappling with as we seek to root those theories back within the bedrock of neuroscientific discovery.

I am not prepared to abandon dualism, nor to embrace it. To mis-paraphrase Paul, to the dualist I am a monist and to the monist I am a dualist that to both I might encourage ongoing discussion and debate, thus to acknowledge the difficulty of where we are at currently. This is a time for an appropriate provisionality. History may well vindicate Allan, and I will be the first to say well done. However that day, in my opinion, is not there yet. The paradigm might be shifting, but there are still gaps to be clarified before we will truly know. To quote Brown, Murphy and Malony's preface to Whatever Happened to the Soul? "There is, however, no way to provide absolute proof that dualist theories are false. Therefore, we honor the opinions of those who disagree with our premise". The debate should continue in that spirit.

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# The deadline for submissions for the next issue of the Bulletin is end of October 2004

Word limit for articles is 1,000 words, for letters, reflections and book reviews 600 words. Exceptions may be made in exceptional cases.

Please submit to Jonathan Clarke at the address on the front page. Electronic submissions preferred.