

## **Evolution versus Creationism in Australian Schools**

On February 25, 2008, in an article entitled 'Faith School Boom "Creates Division"', Michael Bachelard of *The Age* reported:

The principal of Chairo Christian School in Drouin, Rob Bray, said that both evolution and creationism were taught in his school's science class. "We don't hide the fact that there is a theory of evolution, and that's how we'd present it, as a theory," Mr. Bray said. "We teach it, explain what it is, and at the same time we present clearly and fairly, and we believe convincingly, the fact that our position as a school is that God created the heaven and earth ... There wouldn't be any point of being a faith-based school if we didn't think that God was the creator."

The article noted that there are now more than 200,000 children—almost 40% of non-government school students—attending a religious school outside the main Catholic, Anglican and Uniting systems. Further, it expressed the concerns of Professor Barry McGaw, head of the National Curriculum Board, and the Deputy Prime Minister, Julia Gillard, that the rapid growth of faith-based schools threatens the social cohesion of the nation. "These people often form a narrowly focused school that is aimed at cementing the faith it's based on ... If we continue as we are, I think we'll just become more and more isolated sub-groups in our community", said Professor McGaw.

Not so long ago, most people would have found it unthinkable that 'creation science' could come to occupy such an important place in public debate, that it could be taught so widely in science classes in our schools, and that it could be accepted by such a large part of the population. In what follows, I will provide a short history of this development, and then consider how we ought to respond to the current state of play.

### **Creationism in Australia**

In 1947, Victorian journalist, John McKellar, established the Australian Evolution Protest Movement (AEPM), a branch of a similar organisation in Britain. Under the leadership of McKellar and later, Christadelphian, John Byrt, the AEPM endured until 1979, with very little public attention. Throughout most of its history, the organisation had around 100 members, though it grew to as many as 350 in the mid-1970s.

In the 1970s, the Australian Evolution Protest Movement sponsored visits to Australia by the US creationists Duane Gish (1975) and Harold Slusher (1978). These visits, and surrounding events, prompted the formation of the Christian Science Association (CSA) in South Australia in 1977 - led by medical doctor and young earth creationist, Carl Wieland. In 1980, after the CSA merged with a like-minded group in Queensland, it was renamed the Christian Science Foundation.<sup>1</sup>

By the mid-1980s, Christian Science Foundation (CSF) had a staff of fourteen, led by Carl Wieland, paediatrician, John Rendle-Short, and science teachers, Ken Ham and John Mackay. Within a few years, Ham relocated to Kentucky, where he established Answers in Genesis (a name that CSF, itself, adopted in 1997). Under Ham's

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<sup>1</sup> Information the preceding two paragraphs is taken from Numbers, R. (2002) 'Creationists and their Critics in Australia: An Autonomous Culture or "the USA with Kangaroos"' *Historical Records of Australian Science* 12, 1-12.

direction, the CSF later opened a \$32 million ‘Creation Museum’ in Petersburg, Kentucky. In 2006, the Australian branch of Answers in Genesis, headed by Wieland, changed its name to Creation Ministries (International). By then, Mackay was heading up an independent organisation, Creation Research, which, like Creation Ministries, has its Australian headquarters in Brisbane.<sup>2</sup>

Groups like CSF, Answers in Genesis, Creation Ministries and Creation Research have pursued a range of strategies to try to influence public opinion. On their own account, the most important and successful strategy is direct ministry in church services. But these groups also run public meetings, family camps, live-in conferences, and so forth, and produce a mountain of materials—magazines, journals, DVDs, and so on—that are disseminated through these various activities. Moreover, these groups work hard to get their materials into schools and taken up for consideration in the old media—newspapers, radio, television. And they also have a large presence in new media—especially on the Web. It seems hard to deny that all of this activity has had a considerable impact on Australian opinions about the origins of life.

In 2005, an opinion poll conducted by UMR Research showed that 43% of Australians accepted a scientific account of the origins of life, 28% took the Bible to offer the most plausible account of the origins of life, 12% held a view that harmonised Biblical and scientific accounts, and 17% were undecided. Among Christian denominations, 51% were creationists (including 83% of those belonging to Assemblies of God, 60% of Baptists, and 31% of members of the Uniting Church).<sup>3</sup>

### **Opposition to Creationism in Australia**

The Australian Skeptics was formed in 1980 in the aftermath of a visit to Australia by James Randi. Randi, an American magician, had become famous for publicly debunking and exposing paranormal claims from spoon-benders to faith healers. From the mid-1980s, members of the Australian Skeptics, (including, in particular, palaeontologist, Dr Alex Ritchie), became increasingly vociferous in their attacks on creationism. However, the most spectacular opponent of creationism in Australia was undoubtedly geologist, Professor Ian Plimer.

In 1997, following several years of bitter public debate, Plimer took creationist minister, Allen Roberts, to court, alleging that Allen’s claims that natural geological formations in eastern Turkey were really Noah’s Ark breached the Australian Trade Practices Act. (Plimer details his arguments against Roberts in *Telling Lies for God* (1994)). Although Plimer lost the case on a technicality, the judge acknowledged that Allen had, indeed, made false and misleading claims. It should have been a pyrrhic victory for Allen. But, it has been plausibly argued that Plimer’s often belligerent and abrasive outbursts against Allen resulted in a considerable surge of public sympathy for creationism.<sup>4</sup>

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<sup>2</sup> Information in this paragraph comes from the British centre for Science Education website: “Creation Research UK”, <http://www.bcseweb.org.uk/index.php/Main/CreationResearch>, accessed on May 15, 2009.

<sup>3</sup> ‘Museum Breathes Life into Creation Fossil’ Insights—Uniting Church of Australia website, <http://www.insights.uca.org.au/2005/march/creation-theology.htm>, accessed May 15, 2009.

<sup>4</sup> Ritchie’s take on the ‘Great Australian Evolution Trial’ can be found at [http://www.noanswersingenesis.org.au/creation\\_science\\_and\\_free\\_speech2.htm](http://www.noanswersingenesis.org.au/creation_science_and_free_speech2.htm) (‘Creation Science and

The Australian scientific community was generally slow to respond to the growth of creationism in Australia. It was not until the mid-1980s that the Australian Academy of Science and the Geological Society of Australia began official campaigns to halt the teaching of creationism in science classes in Australian public schools. Before then, there were few scientists, other than Plimer, who supposed that creationism posed a serious threat to Australian science. However, by the mid-2000s, there was seriously organised opposition to creationism in the scientific academy - as witnessed, for example, by *No Answers in Genesis*<sup>5</sup> and its huge number of links to other Australasian anti-creationist websites<sup>6</sup>.

Of course, it is not only the Australian scientific community that opposed the growth of creationism in Australia: many religious organisations outside the evangelical Protestant wing were happy to join the resistance. In 1986, the Catholic Education Office in Sydney instructed parish schools not to teach creationism; and one of its staff, Barry Price, wrote *The Creation Science Controversy*<sup>7</sup>, a full-dress expansion of his blistering 1987 booklet 'The Bumbling, Stumbling, Crumbling Theory of Creation Science'.<sup>8</sup>

Since then, the Catholic Education Office appears to have since softened its line on teaching intelligent design in schools. Catholic Archbishop George Pell recently claimed that he is 'agnostic' on the question, saying he welcomed discussion of alternative theories in cases where evolution is taught in an 'anti-God' way.<sup>9</sup> Thankfully, there have been many other religious figures who have been prepared to say that creationism and the intelligent design movement are manifestations of 'bad religion'.

### **Creationism in Australian Schools, 1980-2000**

In the early 1980s, the Queensland Minister for Education, Lin Powell, took the view that 'teaching the Theory of Evolution without drawing attention to counter-theories is in fact to present to boys and girls dogma disguised as science'. Around this time, creationism was on the syllabus in Queensland secondary schools but, after 1983, it ceased to be required teaching.<sup>10</sup>

In the mid-1980s, a Christian Science Foundation survey showed that: Western Australia, the Northern Territory and New South Wales taught evolution and did not

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Free Speech', accessed on May 18, 2009). Further interesting material on this episode is available at: <http://www.discord.org/~lippard/hnta.html>.

<sup>5</sup> <http://www.noanswersingenesis.org.au/index.htm>, accessed May 14, 2009

<sup>6</sup> [http://www.noanswersingenesis.org.au/evolution\\_and\\_sceptical\\_links.htm](http://www.noanswersingenesis.org.au/evolution_and_sceptical_links.htm), accessed May 14, 2009

<sup>7</sup> Sydney: Millenium Books, 1990.

<sup>8</sup> Information in this section pre-1995 is drawn from Numbers, op. cit.

<sup>9</sup> Eunice Orr, 'Intelligent Design to Enter School Classrooms in Australia', Christian Today, <http://www.christiantoday.com/article/intelligent.design.to.enter.school.classrooms.in.australia/3887.htm>, accessed on May 15, 2009

<sup>10</sup> Martin Bridgstock and Dr Ken Smith were both highly prominent in the fight to have creationism removed from the science syllabus in Queensland secondary schools. See, for example: <http://www.skeptics.com.au/articles/australianperspective.pdf> and <http://www.embiggenbooks.com/skeptics.html#bridgstock>

recognise creationism as science; South Australia had no policy on the teaching of evolution and creationism; Victoria had recently deleted evolution from the curriculum, and left the choice of what to teach to schools; Tasmania did not have widespread teaching of evolution; and Queensland taught evolution ‘only as a theory’, and not in a way that would ‘challenge religious beliefs’.

In 1986, a Sydney television station conducted a telephone poll of 30,000 Sydneysiders. Asked whether schools should teach that God created the world in six days, 65% of respondents to the poll said “Yes!” In 1991, a poll by the Australian Institute of Biology suggested that 12.6% of first-year biology students in Australian universities believed in ‘special creation’, and a further 41.4% of these students believed in ‘theistic evolution’ otherwise known as intelligent design.<sup>11</sup>

A significant factor in the spread of creationism in the Australian community has been the rise in the number of small Christian schools in the outer suburbs of our capital cities. According to the Australian Association of Christian Schools, there were more than 30,000 students attending 151 Christian schools in 1991; but, in 2003, there were over 75,000 students attending 253 Christian schools<sup>12</sup>. From 1986, the Labor government’s policy to reduce competition to public schools limited the development of new private schools. In 1996 the policy was abolished by the Howard government, and this may account for the growth spurt since then.<sup>13</sup>

### **Creationism in Australian Schools since 2000**

Since 2000, as the teaching of creationism in science classes has become more prevalent in Australian schools, there have been some interesting new developments. I shall give just three examples here.

On August 10, 2005, Brendan Nelson, then Federal Minister for Education, Science and Training, gave an address to the National Press Club in Canberra. On the day prior to his address, Nelson had met with delegates from Campus Crusade for Christ (CCC), having earlier watched their DVD *Unlocking the Mystery of Life: Intelligent Design*, which CCC was then in the process of distributing *gratis* to all Australian secondary schools. Nelson said:

Do I think the parents in schools should have the opportunity, if they wish to, for students also to be exposed to [intelligent design] and to be taught about it? Yes, I think that’s fine. I mean as far as I’m concerned students can be taught and should be taught the basic science in terms of the evolution of man, but if schools also

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<sup>11</sup> Information in the last two paragraphs is taken from ‘Creation in Schools’, *Bible Science Newsletter*, August, 1987, <http://www.cai.org/bible-studies/creation-schools>, accessed on May 12, 2009. This information is also contained in Numbers, op. cit.

<sup>12</sup> Ann Morrow (2006) ‘The Public Purposes of Education and the Teaching of Creationism-as-Science’ *Australian Options*, 41, 27-89 [http://www.australian-options.org.au/issues/options\\_41/article\\_41\\_00005.asp](http://www.australian-options.org.au/issues/options_41/article_41_00005.asp), accessed on May 13, 2009.

<sup>13</sup> See Roy Martin “New Federal Funding Policies—An Attack on Public Education” Australian Education Union, <http://www.aeufederal.org.au/Publications/NewFedFundingattack.pdf>, accessed on May 14, 2009.

want to present students with intelligent design, I don't have any difficulty with that.<sup>14</sup>

On October 20, 2005, the Australian Academy of Science released an Open Letter representing more than 70,000 Australian scientists and science teachers. This letter, including the following text, was published in all major Australian newspapers:

The Academy sees no objection to the teaching of creationism in schools as part of a course in dogmatic or comparative religion, or in some non-scientific context. There are no grounds, however, for requiring that creationism and intelligent design be taught as part of a science course. The creationist account of the origin of life is not ... appropriate to a course in the science of biology, and the claim that it is a viable scientific explanation of the diversity of life does not warrant support.<sup>15</sup>

From September 2005, reports began to emerge that the Pacific Hills Christian School at Dural planned to include the theory of intelligent design in its science classes.<sup>16</sup> An SBS television report on these classes provoked a complaint from Chris Bonner, former president of the Secondary Principals Council. An investigation by Christian Schools Australia and the NSW Board of Studies followed, but reached the conclusion that the School had met its requirements for teaching the science syllabus at years 7 to 10. In December, 2008, the school was cleared of breaching state curriculum requirements for the teaching of evolution. Commenting prior to the handing down of the verdict, Greens MP, John Kaye, observed that it was unsurprising that no private school in NSW had been disciplined for pushing creationist propaganda in science classes because, with the board handing over its only investigation to Christian Schools Australia, 'the fox had been put in charge of the hen house'<sup>17</sup>. After the verdict was handed down, Kaye further observed that the board's ruling set a dangerous precedent that failed to protect the integrity of the science curriculum and 'opened the floodgates to [its] religious invasion'<sup>18</sup>.

There are many similar developments that might be mentioned here; but, the examples above should suffice for the purposes of our subsequent evaluation.

### **What should we think?**

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<sup>14</sup> See, for example, Denise Sutherland 'Intelligent Design Hits Australia' at Creation & Intelligent Design Watch <http://www.csicop.org/intelligentdesignwatch/oz.html>, accessed on May 13, 2009

<sup>15</sup> The full text of the letter is available at the Australian Academy of Science website: <http://www.science.org.au/policy/creation.htm>, accessed on May 15, 2009. The release of the letter coincided with the airing of an episode of Catalyst that considered the debate about intelligent design in Australia, including an interview with Dr. Ted Boyce, the Principal of Pacific Hills Christian School. After the show, an on-line poll attracted 9357 votes on the question whether intelligent design should be taught in science classrooms, with 66% voting 'No' and 34% voting 'Yes'.

<sup>16</sup> See Orr, op. cit.

<sup>17</sup> Anna Patty, 'Creationism versus Science: School on Report', *Sydney Morning Herald*, 25/11/2008, <http://www.smh.com.au/news/national/creationism-v-science-school-on-report/2008/11/24/1227491462490.html>, accessed on May 15, 2009

<sup>18</sup> Anna Patty, 'School in clear over teaching creation' *Sydney Morning Herald* 08/12/2008, <http://canowindra.yourguide.com.au/news/national/national/general/school-in-clear-over-teaching-creation/1381044.aspx>, accessed on May 15, 2009

There is a spectrum of views about evolutionary theory that can be taken by theists whose religions regard the Old Testament as Holy Scripture. At one end of the spectrum, there are theists who regard the claim that God created the universe as myth or metaphor; at the other end, there are theists who think, on the basis of their reading of *Genesis*, that the universe is about 10,000 years old. For the purposes of our discussion, the key distinction is between (i) those theists who suppose either that the standard scientific account (according to which the observable universe is about 13.8 billion year old) is massively mistaken, or else that God has made particular interventions in order to bring about life, and, in particular, human life, on the earth, and (ii) those theists who suppose that the standard scientific account of the history of the observable universe is at least roughly correct, and that there have been no divine interventions in the course of that roughly 13.8 billion year history (except, perhaps, for the bringing about of some miracles - incarnation, resurrection, etc. - of very recent provenance).

Young earth creationists, (those who suppose that the universe is about 10,000 years old), deny the teachings of a large range of well-established sciences: biology, geology, palaeontology, archaeology, and so forth. More moderate creationists, (e.g. those who suppose that God has made just a few particular interventions since creating the Earth), find rather less to deny in the teachings of established sciences. However, as a minimum requirement, *most* of those who want to see 'creationism' taught in Australia's science classes want to insist that human beings do not have 'naturally' shared common ancestry with other animals - and that brings their beliefs into direct conflict with the teachings of evolutionary theory.

It is worth observing that theists who are happy to accept that human beings *do* have a 'naturally' shared common ancestry with other animals will be hard pressed to find *anything* in current secondary school science curricula to which they can object. For example, there is nothing in the key knowledge required in the Victorian secondary biology curriculum that conflicts with view that holds that God created the Universe, but does not intervene in the unfolding of the course of nature according to the dictates of natural law - except, perhaps, in order to allow human beings to witness miracles, or to receive communications from God, and so forth.<sup>19</sup>

Recent controversies about the teaching of 'intelligent design' in our schools have missed the main point. While evolution is taught, quite rightly, as scientific fact, no speculation is made about whether the origins of life emanated from natural or supernatural causes. The curriculum, as it stands, indicates no commitment to scientific naturalism (the view that reality is exhausted by the natural universe), or to any other competing metaphysical view about the *ultimate* origins of the universe. So, the proper answer to those who seek 'equal treatment of the hypothesis of intelligent design' in science classes is that this hypothesis *already* gets equal treatment since *none* of the many competing theories about the origin of the universe are taught in Australian schools. The topic simply has no place in the curriculum. In short, as naturalism is *not* currently taught in relation to the origin of the universe, then to add the hypothesis of intelligent design would unduly privilege that unproven thesis.

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<sup>19</sup> See <http://www.vcaa.vic.edu.au/vce/studies/biology/biologystd.pdf> 'Biology: Victorian Certificate of Education Study Design', accessed on May 18, 2009.

Setting aside the irrelevant considerations introduced by proponents of ‘intelligent design’, we return to consideration of those who want to introduce to science classrooms, views that contradict well-established theories in biology, geography, palaeontology, archaeology, and so forth. Someone who asserts that human beings and chimpanzees do not have a common ancestry, or who asserts that the observable universe is about 10,000 years old, plainly makes assertions that are relevant to the standard biology curriculum. If giving ‘creationism’ equal treatment in science classes means that *these* kinds of claims should be given equal treatment, then the scientific community needs to explain vociferously to our politicians and educators why these claims should *not* be given that equal treatment.

The most obvious point to make is that there is an overwhelming *scientific* consensus against the claims in question. It is not *scientifically* controversial that the universe is about 13.8 billion years old; it is not *scientifically* controversial that human beings and chimpanzees have a common ancestry. The Australian Academy of Science statement on creationism and intelligent design says that ‘the explanatory power of the theory of evolution has been recognised ... by all biologists, and their work has expanded and developed it’<sup>20</sup>. Given that the Australian Academy of Science is the obvious choice to be the final arbiter of a national *science* curriculum - and hence, in particular, of a national *biology* curriculum - one would need to have very compelling competing reasons to justify the inclusion of ‘creation science’ in the Australian secondary school science curriculum. The simple fact is that ‘creation science’ has no acceptance whatsoever in the mainstream scientific community, and should, therefore, have no place in our children’s science classes.

There is no *scientific* reason to include ‘creation science’ in the school curriculum. Despite this, it might be argued that parents should be allowed to determine key elements of the education of their children. While the teachings of evolutionary theory are no threat to the beliefs of many religious believers, those teachings clearly are a threat to the teachings of some strands of evangelical Christianity (and Islam, and other major faiths). If we suppose that parents have a right to raise their children in the religious faiths that those parents espouse, then we might be tempted to think that parents have an implied right not to have their children exposed to teachings that are likely to undermine those religious faiths. Following this line of thought, it might be argued that parents have a right not to have evolutionary theory taught in secondary schools as part of the science curriculum.

There are at least three major flaws in this argument. First, of course, it is not an argument for ‘equal time’ for evolutionary theory and ‘creation science’; rather, at its heart, it is an argument for the removal of evolutionary theory from the secondary school science curriculum. Second, if this line of thought works here, then it must apply universally. It would mean that nothing could be on the school curriculum that would give offence to *some* religious believers. As a corollary of this policy, no religious instruction could be allowed in schools (except in those schools whose student bodies were carefully selected on sectarian lines). Third, if this argument were accepted and applied universally, it would have serious consequences elsewhere. For

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<sup>20</sup> op. cit. (see footnote 13). I think that the Academy exaggerates slightly when it says that *all* biologists recognise the explanatory power of the theory of evolution. However, it is not in question that *almost all* biologists do this: the number of creationists who belong to the Academy is very small—less than 0.1%—and the number of biologists among those creationists is also very small.



instance, there would need to be *very* extensive censorship to ensure that nothing was published or broadcast that might be accessed by children whose parent's religious sensibilities were susceptible to offence by the material in question. In short, it would require the kind of repressive, theocratic rule that exists in some other parts of the world.

The idea that parents might have a right *not* to have their children exposed to teachings that may undermine their religious faith, is at least, *prima facie*, opposed to other ideas that have an important place in our national conscience. Our Australian ethos includes a very strong general commitment to freedom of speech and freedom of expression. By extension, we are committed to ensuring that our scientific community enjoys these same freedoms. Freedom of speech must be severely compromised in a society in which parents claim an untrammelled and unlimited right not to have their children exposed to teachings that are likely to undermine their religious faith. Moreover, *even if* we suppose that parents should have a right to protect their children from *certain* kinds of teachings, it seems overwhelmingly plausible to suppose that there are at least two kinds of teachings that must be exempt from this right: scientific teachings, and teachings about basic civic rights and responsibilities. If 'creation science' was to become good, established science, then there would be no problem including it in the secondary science curriculum and non-theistic parents would have no right to argue that *their* children were being religiously indoctrinated. But, as we have already noted, there is simply no likelihood that that will happen

There are broader issues in the background here. It seems right to think that we ought to recognise freedom of religious belief and religious expression. Granted this recognition, perhaps we might say that each person's *right* to religious freedom should be proportional to their willingness to grant that same right to those who do not share their particular beliefs. In other words, in order to maintain social cohesion, people who demand *rights* must be prepared to grant those same rights to others. Those who would claim *more* for their own religious beliefs than they would be prepared to give to the beliefs of others should, quite properly, have their claims refused. Similarly, those whose claims would tend to undermine the social order that underpins our religious freedoms should also be denied.

I have argued, above, that proponents of creationism and intelligent design are *not* arguing for equal time in Australian science classrooms, but rather to have their position privileged above, or even to replace, the mainstream scientific consensus. I have argued that, if applied universally, protecting children from views contrary to those of their parents would require extreme prohibitions upon freedom of speech and expression and the imposition of the kind of censorship that one sees in the world's most restrictive theocratic regimes. Further, I have argued that to grant these 'rights' to a particular section of the religious community would, inequitably, restrict the rights of others who do not share their particular views. In effect, the proponents of 'creation science' and 'intelligent design' are claiming rights for themselves that they are not prepared to extend to others.

Given this, (and building upon Barry McGaw's and Julia Gillard's concerns about the effect of faith-based schools poses on social cohesion), it seems to me that, it is



possible to defend the claim that the push for ‘creation science’ is a potential threat to ‘the social cohesion of the nation’.

### What should we do?

There are two current developments that may have significant implications for the ‘debate’ about the inclusion of ‘creation science’ in the science curriculum in Australian secondary schools. On the one hand, there is presently a concerted push for a national school curriculum. On the other hand, there is also careful consideration being given to a Religious Freedom Act.

The National Curriculum Board is currently in the process of developing a national curriculum that spans education from kindergarten to the end of secondary schooling<sup>21</sup>. In its present incarnation, the ‘Shape of the Australian Curriculum: Science’ proposal includes the teaching of both evolutionary theory and geological history in years 7-10, and, perhaps unsurprisingly, makes no mention of ‘creation science’<sup>22</sup>. Of course, we can expect to see vigorous lobbying from creationists for the inclusion of ‘creation science’ in the mooted national science curriculum, lobbying that should be met with even more vigorous opposition by friends of science.

The Education and Partnerships Section of the Race Discrimination Unit of the Australian Human Rights and Equal Opportunity Commission is currently conducting an inquiry into *Freedom of Religion and Belief in the Twenty-First Century*<sup>23</sup>. This inquiry is, in part, a follow up to the 1998 HREOC report: *Article 18—Freedom of Religion*<sup>24</sup>. Included among the recommendations of the *Article 18* report is the enactment of a Commonwealth Religious Freedoms Act. This would include sections on discrimination and incitement to hatred on the grounds of religion and belief. It is currently being suggested that, in relation to employment, the Act should permit some exceptions to anti-discrimination laws for religious institutions.<sup>25</sup> It is also anticipated that the section concerning incitement to religious hatred would allow exceptions relating to genuine academic, artistic, scientific or media-related statements or expressions.<sup>26</sup>

One possible - perhaps even likely - consequence of the recommendations described above is the further entrenchment of the teaching of ‘creation science’ in Australian ‘faith-based’ secondary schools. It is, at best, unclear whether the clause which provides some unspecified exemptions for scientific expression will be sufficient to protect the teaching of evolutionary theory against the charge of incitement to hatred on the grounds of religion and belief. It is also unclear whether ‘faith-based’ schools will be permitted to employ only creationists as science teachers via the clause that allows discrimination in order to avoid injury to the religious sensibilities of adherents of particular religious beliefs.

<sup>21</sup> The National Curriculum Board website is at: [http://www.ncb.org.au/home\\_page.html](http://www.ncb.org.au/home_page.html)

<sup>22</sup> See [http://www.ncb.org.au/verve/resources/Australian\\_Curriculum\\_-\\_Science.pdf](http://www.ncb.org.au/verve/resources/Australian_Curriculum_-_Science.pdf), accessed on May 18, 2009.

<sup>23</sup> See [http://www.humanrights.gov.au/frb/frb\\_2008.pdf](http://www.humanrights.gov.au/frb/frb_2008.pdf)

<sup>24</sup> See [http://www.humanrights.gov.au/pdf/human\\_rights/religion/article\\_18\\_religious\\_freedom.pdf](http://www.humanrights.gov.au/pdf/human_rights/religion/article_18_religious_freedom.pdf)

<sup>25</sup> Recommendation R4.1, HREOC Report *Article 18: Freedom of Religion and Belief*, op. cit.

<sup>26</sup> Recommendation R5.3, *ibid.*

It seems to me that there are reasonably strong grounds to support the proposals of the National Curriculum Board, and that there are very strong grounds to be worried about the likely outcome of the inquiry into *Freedom of Religion and Belief in the Twenty-First Century*. Proponents of ‘creation science’ are very well-resourced, and they represent a sizeable part of the Australian population – around 42% according to the UMR research cited above. Consequently, there is simultaneous lobbying on many different fronts and it is difficult for those who would keep ‘creation science’ out of our secondary schools to defend against the many different attacks that are being made. Nonetheless, I think that we should be doing all that we can to resist: there are many different quite fundamental reasons why ‘creation science’ should not be taught in science classes in secondary schools, and those reasons can be put publicly in simple and easily understood arguments.

When Rob Bray, Principal of Chairo Christian School, says ‘we present clearly and fairly, and we believe convincingly, the fact that our position as a school is that God created the heaven and earth ... There wouldn't be any point of being a faith-based school if we didn't think that God was the creator’, he says nothing that engages with the content of current science curricula in Australian secondary schools. It is vital that we demand much more detail on proposals to teach ‘creationism’ and ‘intelligent design’ in science classes than has currently been provided. Perhaps then, the real agenda will be revealed. The fact is, no one, and certainly not the creationists, seriously thinks that competing religious accounts of the ultimate origins of the universe ought to be taught in science classes. If that *is* what creationists ask for, then they are engaged in special pleading on behalf of their religion, because, currently *none* of the many unproven speculations are taught as part of our secondary syllabus. On this basis, then, their pleas should simply be ignored. However, if creationists want to their objections to well-established scientific claims (e.g. that human beings and chimpanzees have a common ancestry) taught in science classes, then, while it is true that these claims *do* engage with the content of current science curricula in Australian secondary schools, the proper response is that there simply *are* no good scientific objections to these claims.

What of the prospect that ‘creationism’ might be taught in our secondary schools, but in some other part of the curriculum? We saw above that the Australian Academy of Science ‘sees no objection to the teaching of creationism in schools as part of a course in dogmatic or comparative religion’. It is not entirely clear that we should agree with this judgment, either. True enough, creationism is part of the contemporary religious landscape, and it should be taught *about* in any comprehensive course on comparative religion. However, the thought that creationism might be taught as part of a course in *dogmatic* religion in schools that are also genuinely teaching evolutionary science is plainly problematic. At the very least, conveying such mixed messages to students is likely to hamper genuine learning in science classes. If a student is taught in a religion class that human beings and chimpanzees do not have a common ancestry, is it plausible to suppose that it won't affect their learning when confronted with the parts of evolutionary theory which teach just the opposite?

Perhaps it might be replied that many students will be taught these things in Church and Sunday school. But then, I think, what ought to be said is that we are committed (a) to *private* freedom of religious belief and religious expression, and (b) to *public*

education in science and basic civic rights and responsibilities. And then we should say that, in Australia in the twenty-first century, this is just how the chips fall.