

Is the earth still underpopulated?

I was surprised by Andrew S. Kulikovsky's article on human population.¹ Although the article was in the 'Viewpoint' section of the journal, it was still striking that no more than a jot of evidence was adduced to support what seemed to be its central claim: that the earth is not yet full, i.e. that the earth's resources can easily sustain the current population at reasonable levels of consumption.

The 'jot' to which I refer is the fact that "assuming a population density similar to New York City, the earth's entire present population of seven billion could fit into the state of Texas" (or a slightly larger area at the lower population density of London). From this, and from this alone, Kulikovsky reasons, "It should be clear, then, that whatever the maximum sustainable population is, we are presently nowhere near it."

Readers wishing for a more evidence-based treatment of the issue of population, from a Christian perspective, would do well to start with the chapter by John Guillebaud and Pete Moore in the recent book *Creation in Crisis*, from which I quote:

"When God said, 'Fill the earth', it is reasonable to assume he did not mean us to 'overfill' it. God's earth is finite. On the basis of the numbers already present and sharing in its total biocapacity ... and, since we are unlikely to accept an ecological footprint per capita that would dictate unremitting extreme poverty, the planet is 'full'.²"

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References

1. Kulikovsky, A.S., Human dominion and reproduction, *J. Creation* 26(1):43–47, 2012.
2. Guillebaud, J. and Moore, P., Population matters: voluntary contraception for environmental sustainability; in: White, R.S. (Ed.), *Creation in Crisis: Christian perspectives on sustainability*, SPCK, London, p. 97, 2009.

Andrew Kulikovsky replies:

I would like to thank Anthony Smith for his comments and for giving me an opportunity to clarify why I believe the earth is not 'full'. Smith complains, of my article, that "no more than a jot of evidence was adduced to support what seemed to be its central claim: that the earth is not yet full". According to Smith, the article by Guillebaud and Moore in *Creation in Crisis* provides a more evidence-based treatment of the issue of population, although the passage he cites simply asserts that the earth is full, yet offers no supporting evidence.

In any case, I did draw special attention to the work of J.E. Cohen, who has authored a detailed investigation into the maximum population that the earth could support. Cohen concluded that the answer depends on many parameters, including personal tastes, values and fashions.¹ As I stated in my article, if we assume a population density equivalent to London, the earth will still be largely empty.

In addition, I would also point readers to the comprehensive work *The State of Humanity*, edited by the late Julian Simon. This work contains 58 chapters by 67 authors and examines human progress and our impact on the earth and its resources. It contains numerous chapters on human life, death, and health, standard of living, and productivity. It examines the availability of natural resources and of agricultural land, food and water, as well as reviewing humanity's impact on the environment. Simon concludes that, based on present trends of development and technological progress, "[t]he material conditions of life will continue to get better for most people, in most countries, most of the time, indefinitely."² But why should we believe Simon and his colleagues rather than others such as Guillebaud and Moore? Simon answers: "My colleagues and I have been right across the board in the forecasts we have made in the past few decades, whereas the

doomsayers have been wrong across the board."²

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References

1. Cohen, J.E., *How Many People Can the Earth Support?* W.W. Norton & Company, New York, 1995.
2. Simon, J.L. (Ed.), *The State of Humanity*, Blackwell, Oxford, p. 642, 1995.

Creation and the courtroom—what is the right strategy?

I read with interest Rachael Denhollander's article on how Christians may be able to reopen the public schools to at the very least ID (Intelligent Design). She offers this statement as a possible line of reasoning to enable ID to be taught in public school science classrooms:

"Yet a converse line of reasoning is equally valid for evolution, for evolution is every bit as markedly linked with particular religious sects as ID. Further, while ID does require at least a foundational belief regarding a deity, evolution most certainly does as well. Developing these two facets of evolution may be useful in creating an analogy to demonstrate that neither theory is disqualified simply by association with a religious group, or inherently religious simply because it entails a belief regarding a deity" (p. 115).

She goes on in the following sections to make the case that evolution forms the basis for belief in certain religious sects (humanism and atheism). This would put evolution on equal religious footing with ID, thereby paving the way for ID to be taught alongside evolution in the science classroom (pp. 115–118). However, she failed to comment on theistic evolutionist groups such as the Biologos foundation and the Templeton foundation. The existence of such theistic evolutionary interest groups would seem to show, at

least at the level of experiential reality, that belief in evolution does not seem to *inherently* presuppose belief in atheism. Even arguing that evolution presupposes belief in methodological naturalism does not work, because there are many theistic evolutionists (e.g. most at Biologos) who believe in Jesus' *miraculous* bodily resurrection.

I passionately believe that theistic evolutionists who claim belief in in the biblical God are being logically inconsistent. However, demonstrating this in a court of law would be extremely difficult because evolution is propounded by religious interest groups ranging from atheist to Christian. Therefore, at the level of existing religious praxis, evolution does not appear to be inherently tied to any particular belief about a deity, unlike ID and creationism (as the American courts have ruled, anyway). That Christian theistic evolutionists are being logically inconsistent is irrelevant *for the courts* because the point made is not about what Christians (and other theists) *ought* to believe (which the courts can't prescribe); it's about what they actually *do* believe (which the courts can observe). The only solution would seem to be rendering Christian evolution a proscribed belief system, which is obviously an absurd goal.

This would then mean that, in the eyes of the courts, ID will *always* be religious and evolution will *always* be agnostic towards any specific beliefs concerning a deity. Therefore, I do not believe that any attempt to link evolution with humanist interest groups will achieve anything positive.

However, the other strategy Denhollander offers, that of questioning the current definition of science (pp. 118–120), would perhaps be a more fruitful approach.

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Rachael Denhollander replies:

You are correct that the existence of theistic evolution may make it more difficult to place both evolution

and creation on equal philosophical footing. In fact, to a degree, it already has. In *McLean vs Arkansas Board of Education*, the court briefly used the existence of theistic evolution and other similar theories to rule that teaching evolution could not be said to infringe on core tenets of Christianity, as so many Christians did not hold to a literal account of Genesis. The failure of Christians to hold to biblical truth has indeed has serious ramifications in the legal realm.

However, I do believe the line of argument is justified and has the potential to be effective for two main reasons:

1. While Christians have compromised on the literal interpretation of Genesis, evolutionists, on the whole, have been very firm on the atheistic nature of evolution. Evolution's main proponents and their works, as well as the groups which advocate for evolutionary theory, are firmly and unapologetically atheistic, and often go so far as to state both that evolution requires atheism, and that evolution destroys Christianity, or the need for God. While some Christians have adopted evolutionary ideas, evolutionists have not generally done the reverse and adopted theistic ideas. Further, theistic evolution itself would fail the court's current test and understanding of the First Amendment, solely by virtue of the fact that it too, requires the existence of a God. Courts currently require strict atheism in the educational treatment of evolution—a teacher instructing the class that God may be the 'starter' of the evolutionary process is currently just as unconstitutional as Intelligent Design. A student may believe it on his own, but he may not be taught it. Theistic evolution is a hybrid between creationism and evolution, but it is certainly not Darwinian evolution. An accurate understanding of Darwinian evolution, and even the court's treatment and own understanding

of evolution, still requires atheism—compromises of Christians notwithstanding.

2. While uniformity of belief is a portion of the consideration, when courts have been faced with First Amendment challenges (either in free exercise of religion or the establishment clause) they have also placed great weight on whether the particular act or belief is integral to a particular religion. For example, while some may argue that creationism is not a fundamental tenet of Christianity, it could never be argued that evolution is not a fundamental tenet of atheism or humanism. Evolution is an inherent (and often directly stated) part of atheistic and humanistic creeds—it is integral to those faiths. The link between evolution and atheism, or evolution and humanism, is every bit as direct, if not more so, than the link between Christianity and creationism, particularly in light of the fact that there is wide disagreement on whether creationism or Intelligent Design is part of the Christian creed, and no disagreement on whether evolution is integral to atheistic or humanistic faiths. While Christians do not have 100% uniformity in their belief of origins, atheists and humanists certainly do, and the reality that evolution is integral to specific religions carries great significance and weight.

I would certainly agree that compromises in Christian circles will make such an argument more difficult than it would be if there were complete uniformity in the church regarding Genesis. However, because of the reasoning the courts have used, irrespective of any lack of uniformity, and because the courts have specifically barred any theory that requires the idea of a deity, effectively defining evolution as atheistic, I would suggest this approach still has merit.

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