

# Does GOD Exist?

## Does It Matter?

By Nicholas Christie-Blick

It is not difficult to understand why most Americans believe in God and are active participants in their chosen religions. Faith is a source of comfort, meaning, empowerment, and hope. Religion is part of our heritage and identity, a cornerstone of society and, in many countries, a framework for establishing and maintaining political power. Most religions are very successful at inculcation from an early age, with daily or weekly reinforcement, and with effective strategies for excluding other traditions — typically some combination of segregation, customs, dress, language, taboos, and coercion.

In contrast, nontheism — a rejection of the god idea and specifically of divine intervention in our daily lives — is regarded as spiritually bereft, as an attack on religious freedom, and, in the United States especially, as unpatriotic. Can most Americans even imagine a circumstance

in which God might not bless America or our troops? Moreover, if morality is rooted in God, and most believers go with that view, those lacking faith are inherently immoral, or at least not to be trusted. As opinion polls consistently show, atheists are among the most despised demographic groups in the U.S.

The entire edifice of mainstream religion nonetheless depends on its ability to provide an explanation for the natural world and for the place of humans in that world. Biblical creation made sense when the Earth was at the center of the universe, when the timescale of “creation” was short, and when it could be claimed that man was unique and the purpose of it all.

None of those propositions has survived scientific scrutiny. We inhabit one small rocky planet in a galaxy composed of more than 100 billion stars (the Milky Way), and in an observable universe of around 100 billion galaxies. That’s a mind-

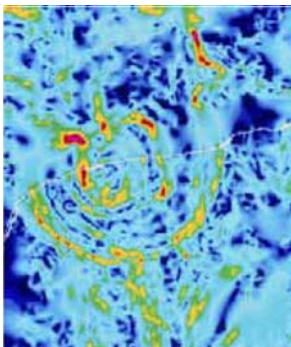
boggling total of about  $10^{22}$  stars, or more than 20,000 stars for every second since the Big Bang 13.75 billion years ago! The Earth is simply irrelevant at that scale.

Our anatomy and genetic code link us with confidence, and through a series of common ancestors, to all other life on Earth, beginning some 3.5 billion to 3.8 billion years ago. We’re biologically unique, therefore, only in the sense that we possess distinctive characteristics — a highly developed brain, for example. We share numerous other features with other hominids, primates, mammals, and so forth in the tree of life. Moreover, there is no evidence that evolution has ceased, that the present arrangement constitutes the culmination of anything.

So in spite of our enhanced prospects for survival as individuals in a civilized world, with all of the benefits of modern medicine, our current success as a species may prove to be short-lived if we outstrip

the ability of the planet to support a projected population of ten billion people with a 21st century lifestyle. While it may be argued that our capacity for self-awareness is unmatched by other animals — one of the few straws left to be clutched by those who insist upon our special place in nature — the fact that we can imagine a deeper meaning for humankind has no bearing on whether such meaning actually exists.

All available evidence indicates that our existence as individuals and as a species is a fluke, the product of billions of years of contingent events, interactions, and feedbacks in complex physical, chemical, and biological systems. The early history of the universe set the stage for the formation of planet Earth with appropriate chemical constituents and at a distance from the Sun that was suitable for life to emerge and flourish. Changing conditions on the



Gravity map of Chicxulub crater

or slightly off course, a direct hit would not have occurred. The Earth as we know it today would be utterly different.

complexity and role of feedbacks in those systems renders them not directable unless every interaction and every process at every timescale and length scale is prescribed in advance. Nor is there any basis for supposing as a fallback position that self-awareness (or any other trait), rather than humankind per se, is the ultimate state towards which the universe has inevitably progressed.

A third option (regarded broadly as deism) is that God was responsible, but only for starting the clock, not for determining the outcome. For example, James Hannam, a British historian and philosopher of science, has suggested to me that “unpredictability is necessary in a universe which is intended to generate free creatures making real choices with real effects.” The difficulty for views such as this, again other than the absence of evidence, is that 13.75 billion years ago

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Earth’s surface subsequently provided the environmental milieu in which natural selection would take place, though the course of evolution was influenced also by extraterrestrial phenomena, some as catastrophic as they were unusual.

The most recent mass extinction 65 million years ago provides an example of the concept of contingency. That extinction, best known for the disappearance of non-avian dinosaurs from the geological record and for the Chicxulub impact crater in Mexico, was the event that led to the diversification of mammals, and ultimately to us (about 200,000 years ago). In view of the great antiquity of this extinction, it is perhaps surprising that it depended upon an asteroid crossing the Earth’s orbit within a span as short as seven minutes! (Divide the target Earth’s diameter by the length of Earth’s orbit around the Sun, and multiply by  $3.16 \times 10^7$  seconds per year.) Even if we allow a little extra time for an oblique trajectory, had the asteroid been more than a few minutes late or early,

The path of evolution was influenced by every biological innovation and change in selection pressure, each “contingent” on earlier changes, no matter how subtle those may have been in comparison with the Chicxulub impact. Mass extinctions are only the most obvious punctuation points in the history of life. Were the clock to be wound back to the Big Bang many times, or just a few billion years to the emergence of life on Earth, as Stephen Jay Gould observes in his book, *Wonderful Life*, the outcome would surely be different in every case.

Thus we can confidently reject Biblical creation as mythology falsified by modern science. The notion that some supernatural entity guided the development of the universe with sufficiently close attention to detail to ensure the eventual emergence of the contemporary human species is equally fanciful. There is no objective basis for claiming that natural systems are directed in the manner that would have been required. Indeed, the inherent

it would not have been possible even to imagine what a “creature” is, let alone a creature capable of making choices. And if God was unaware of the outcome, it is not reasonable to suppose that it (God) would develop an interest in the individuals of a particular species (us) temporarily inhabiting such a tiny planetary speck.

Given that the god idea adds nothing to our science-based understanding of the natural world, that much of what is believed is inconsistent with science, and that the rest is so fundamentally anthropocentric that it makes no sense at the length scales and timescales of the universe as they are now understood, it matters little that the existence of God cannot ultimately be disproven. It is also not possible to falsify the existence of leprechauns and the Loch Ness Monster.

The god idea persists across many cultures not because it retains any explanatory value, and not because it is

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any more plausible than Irish mythology or Scottish legends. It persists because an inclination to accept a role for the supernatural is deeply rooted in human experience. That traditions emerging at different times or from different geographic locations are mutually inconsistent seems not important. Each religious group

that a post-religious United States would function just fine.

Second, while I understand the rationale for claiming that differences among faiths don't matter — it is our common humanity that is important — the reality is often different. The central problem for religion, beyond its shaky foundation, is that in spite of the best intentions of many practitioners it is also a persistent source of conflict, corruption,

## Corrections

Several errors appeared in the print and online versions of this article after final editing. They are corrected here. Page numbers are from the printed magazine.

The two illustrations were selected by the editor from several recommended, but without including adequate captions.

The gravity map of the Chicxulub crater illustrates a near-circular buried feature, approximately 180 km across, and straddling the northern coastline (white line) of the Yucatan Peninsula, Mexico. Courtesy:

Geological Survey of Canada, Science Photo Library.  
<http://www.sciencephoto.com/media/177059/enlarge>

The title image is a portion of the Hubble Ultra Deep Field: a view of thousands of galaxies, the most distant as they existed more than 13 billion years ago, and in a patch of sky that is just 10% of the diameter of the Moon across. Courtesy: NASA Hubble Space Telescope.  
<http://hubblesite.org/newscenter/archive/releases/2004/07/image/a/>

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regards its god (or gods), beliefs, and practices as true, apparently oblivious of the obvious alternative: that all versions of God were created by us (humans), in our likeness, and with characteristics and qualities that we have chosen to celebrate, not the other way around.

I do not expect to change many opinions. After all, the essence of faith is to accept propositions unsupported by evidence, and in many cases in spite of readily made observations. So we may ask: Does it matter? My answer is yes, and for at least a couple of reasons.

First, belief in God isn't necessary. Like many organisms, we have found it useful to develop an elaborate social structure, and hence what we may regard as morality, concern for our neighbors, and so forth. There is no need to invent supernatural sources for the norms and rules that have been established. Most of us will agree that murder should be against the law. It was not necessary for God to write it down on a stone tablet. Much of what religion supplies in practice is replaceable with secular equivalents, and would exist even if belief in God did not.

Consider the contributions of family and community to a meaningful life, of democracy writ large, a college education and paid employment as sources of empowerment, and of social safety nets and children to hope for the future. The shared experience of a packed Yankee Stadium rivals any church, synagogue or mosque on the sabbath. There is every reason to think

abuse, and intolerance. Nothing inhibits our capacity to deal with the thorniest challenges — from violent jihad to same-sex marriage — more than organized ignorance compounded by an unwavering belief that our respective prejudices are divinely inspired. So while the United States is still a long way from shaking off the shackles of religion, in spite of its heritage as a secular nation, we can perhaps agree that that is a worthy objective.

### Acknowledgments:

I am indebted to James Hannam, Robert Pollack, and John Templeton for critical reviews. Walter Alvarez drew my attention to the improbability of an asteroid intersecting the Earth's orbit at exactly the right moment. I credit Richard Dawkins with the expression "organized ignorance." Jonathan Weiner's 1995 book, *The Beak of the Finch: A Story of Evolution in Our Time*, on the finches of Daphne Major, a small island in the Galapagos archipelago, is among the most compelling and accessible summaries of natural selection at human timescales.

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