

## *Editorial*

### IDEAS HAVE REAL-LIFE CONSEQUENCES

Social facts are facts. Those primarily reflecting on the natural sciences may focus on facts that seem to be independent of humans. Thus, they can pass by the simple truism about social facts, until the time comes when they want to have salaries in real money. The issue is of importance to any reflection on religion in an age of science, as the scientific mindset might refer to religious myths and narratives as nothing but stories, often also dismissed as “myths.” However, as stories, whether right or wrong, they have real-life consequences.

Different narratives about evolution have constructive or adverse consequences, especially for educational policy and science policy. Thus, major bodies of scientists have reached out to the wider public with reconciliatory strategies. The National Academy of Sciences in the United States published a booklet on evolution, in its third edition titled *Science, Evolution, and Creationism* (NAS 2008; previously in 1984 and 1999). Chairman of the committee that prepared this brochure (and probably one of its main authors) is geneticist Francisco Ayala, winner of the 2010 Templeton Prize. The NAS brochure presents the case for evolution and for its significance in understanding modern medicine and agriculture, and argues for its inclusion in school science curricula. The brochure moves beyond the properly scientific domain when the committee addresses the fact that some people “wonder if it is possible to accept evolution and still adhere to religious beliefs” (NAS 2008, xi).

The NAS does not venture into the religious discussion itself. The booklet parades some important representatives of religion and of science, underlines the sense of “awe and wonder at the history of the universe and of life on this planet” (p. 12), and emphasizes methodological differences—and here we might be hearing the voice of Ayala:

Science and religion are based on different aspects of human experience. In science, explanations *must* be based on evidence drawn from examining the natural world. Scientifically based observations and experiments that conflict with an explanation eventually *must* lead to modification or even abandonment of that explanation. Religious faith, in contrast, does not depend only on empirical evidence, is not necessarily modified in the light of conflicting evidence, and typically

involves supernatural forces or entities. Because they are not part of nature, supernatural entities cannot be investigated by science. In this sense, science and religion are separate and address aspects of human understanding in different ways. Attempts to pit science and religion against each other create controversy where none needs to exist. (p. 12)

Not that the neutrality extends to all beliefs that may be held in a religious context; that would be too much.

Scientific advances have called some religious beliefs into question, such as the ideas that the Earth was created very recently, that the Sun goes around the Earth, and that mental illness is due to possession by spirits or demons. But many religious beliefs involve entities or ideas that are currently not within the domain of science. Thus, it would be false to assume that *all* religious beliefs can be challenged by scientific findings. (p. 54)

Francisco Ayala is a most worthy winner of the Templeton Prize; our congratulations to him.

The first contribution in this issue of *Zygon*, by Melissa Conroy, reflects on the treatment of transgendered children, that is, children who do not fit in the common dichotomy of male and female. Their existence is a hard fact. There are persons who have biologically a mixed baggage (if one takes the male/female dichotomy as standard) due to additional chromosomes, chromosomes that are expressed differently, receptors that are not sensitive to some hormonal signals, or brains that are wired differently. In some countries, this new scientific knowledge has led to new laws that reflect the idea that transsexuality is a biological reality, not a choice. Elsewhere it is considered a disorder that has to be treated by impressing one particular gender role on the children. Conway reflects on the way religious mythology, in particular the biblical expression that God made humanity as man and woman, has strengthened the denial of transgender identities. Science may have real-life consequences, but so too may religious myths.

The article by Craig Palmer, Lyle Steadman, Chris Cassidy, and Kathryn Coe on magic challenges the all too common idea that magic is to be seen as faulty science that is mistaken about the causal efficacy of certain actions. If that were true, why would people who have performed a magic ritual to ward off threats also take practical measures? The authors propose that we consider magic as a form of religious behavior. In expressing acceptance of the claim that certain actions have supernatural efficacy, one acknowledges the authority of the group and thereby promotes cooperation. Magic actions thus may have real-life consequences, though not necessarily those that the magic act seems to invoke.

Andrew Robinson and Christopher Southgate have brought together scientists, theologians, and philosophers to reflect on the possibilities of using a semiotic approach as potential framework for all our understanding, from the origin of life to human culture and religions. Defenses of encompassing schemes seem to be rare nowadays, with the exception of

process philosophy and theology inspired by Alfred N. Whitehead, but here we seem to have a new research program in the making. Semiotics, focusing on understanding as interpretation of signs, is presented here as the key to life in general. By considering interpretation one comes to reflect on the relation of an organism with its environment, the sense of purpose involved, and the possibility of mistakes. As a research program it is to be developed and tested. In this issue of *Zygon*, the first cluster of articles on “God and the World of Signs” addresses primarily the scientific side. In the next issue (September 2010), a second set of articles will speak of semiotics and theology. Not only do ideas have real consequences as ideas are conveyed to others and interpreted, but the reverse may also be most relevant: The fact that “social” meanings arise says something about the structure of the world. As Robinson and Southgate introduce the theme, “the fundamental structure of the world is exactly the structure that is required for the emergence of meaning and truth-bearing representation” (see p. 339). Their introduction is followed by contributions by different scientists with an interest in metascientific questions: Bruce H. Weber on selection and the emergence of living systems, Jesper Hoffmeyer on biosemiotics, and Robert Ulanowicz on process ecology. This half of the symposium ends with an exchange between Robinson and Southgate and Terrence Deacon—Deacon challenging their semiotic program by presenting a slightly different understanding of biosemiotics and emergence based on theses articulated in 2008 at a conference in Saka, Estonia (Kull et al. in press).

The other set of papers is titled “*Zygon* and the Future of Religion-and-Science.” That may seem self-serving in this journal, but it is useful to reflect from time to time on the development of the field of religion-and-science (or whatever else this is to be called if not a “field”). It is our purpose to serve this dialogue—right from the first issue, as analyzed by Karl Peters, former editor and currently member of the Joint Publication Board. Preceding Peters’s essay, Philip Hefner, the previous editor, reflects on the audiences served by *Zygon* and the tensions that arise when we combine roles as public intellectuals, academics that make religion-and-science their professional niche, and members of religious communities that seek to reformulate their self-understanding in order to remain true to their deeper identity. This tension results in a situation of irony, as Hefner calls it, given the persistence of questions we cannot ignore but cannot answer, either. In subsequent contributions, authors argue that we can transcend irony and need to do so given the ethical challenges ahead (Sol Katz) and that we need a better understanding of the past in order to understand the present and prepare for the future (Lea Schweitz, Hava Tirosh-Samuels). Stephen Modell draws on the metaphor of genetic recombination to speak of science, society, and religion in the genome era. John Teske points out the multiplicity of perspectives embedded in the linguistic differences between

the first person, second person, and third person. Carol Rausch Albright returns to an earlier contributor to *Zygon*, James Ashbrook, and his understanding of the mind and the relational, holistic nature of reality. James Haag urges us to focus on moral and public issues, to seek the middle ground rather than extreme positions, and to draw upon the concept of emergence. Joan Koss-Chioino reminds us of the multiplicity of religious forms and thus warns us against the presumption of theism or Christianity as the framework for these conversations. Ann Pederson offers new directions by calling us to draw upon the arts and to address genuine human needs and the associated local and global crises. Gregory Peterson uses the work of Charles Taylor and others to analyze our current condition as “stage-two secularity”; read to see what is meant. As current editor, I offer my concluding reflections on the responsibility of this journal to promote quality in reflection upon religion and in religious reflection.

Last but not least, several book reviews provide us soundings of a vast world “out there” of others who also offer their ideas to religion-and-science as a world of ideas with consequences.

Willem B. Drees

#### REFERENCES

- Kull, Kalevi, Terrence Deacon, Claus Emmeche, Jesper Hoffmeyer, and Frederik Stjernfeldt. 2009. “Theses on Biosemiotics: The Saka Convention.” *Biological Theory* 4 (2): 1–7.
- NAS. 2008. *Science, Evolution, and Creationism*. Washington, D.C.: National Academy of Sciences and Institute of Medicine.