THEOLOGY AND THE SCIENCE WARS: WHO OWNS HUMAN NATURE?

by Gregory R. Peterson

Abstract. Lluís Oviedo examines in his article the current conflict over human nature and the role of the sciences in the debate, suggesting that there may be a role for theology to play as well. In this essay I examine and respond to some aspects of Oviedo's article and suggest that the nature of the conflict needs to be nuanced to understand it as a conflict not between scientific and philosophical/social-scientific views of human nature but among scientists, social scientists, and philosophers over the role of science in thinking about human nature. I analyze some of the obstacles for theology's becoming involved and propose that thinking about what are distinctively theological questions as opposed to scientific ones may be an appropriate starting point.

Keywords: biocognitivism; cognitive science of religion; Lluís Oviedo; science wars.

Lluís Oviedo (2006) suggests that the ongoing debate between humanists and science advocates over the status of science generally and claims about human nature specifically provides an opportunity for theology. He asserts that theology currently suffers from a double alienation, spurned both by humanists and scientists and considered, if at all, only as a datum to be explained. Yet, humanists and science advocates cannot reconcile their views on human nature, suggesting that an alternative perspective is needed. Oviedo suggests that theology can provide this needed alternative perspective and so can once again become a party to academic discourse, albeit with some reservations concerning what may have to be given up to do so.

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In many respects, I find Oviedo's analysis and conclusion congenial to my own perspective on these issues. My goal here, therefore, is to elaborate on some of the points that Oviedo raises and, in particular, to argue that if theology is going to become successfully engaged in the way that Oviedo suggests, theologians must start from a broader base of assumptions than is usually the case. At stake is not simply whether theology can be said to be intellectually respectable but whether and in what way theology should have a place in the university.

Who is Divided from Whom?

On Oviedo's analysis, an important divide has occurred between scientists and scholars in the humanities (hereafter humanists) over important questions of anthropology. Of concern among the humanists is the picture of human nature that is being drawn from the biological sciences, especially the fields of genetics, evolutionary biology, and the cognitive sciences. On this picture, human beings are understood to be one of the many parts of the natural world and, as such, of no particular importance. Genetics and evolutionary biology together suggest that the ultimate motivations of human behavior do not lie so much in the realm of rational choice as in the necessity of biological survival. The human mind is understood as a sophisticated information processor, different from a robot only in the particular way that this processing is implemented in the wetware of the brain. The proponents of this view, looking toward the future, envision a day when mind and machine merge, or when genetic technologies allow us to extend or even transform our humanity, perhaps even granting a very physical form of immortality. At least, so the usual argument goes (a particularly obvious example is Kurzweil 1999).

The humanists whom Oviedo cites are a diverse bunch, ranging from Mikael Stenmark and Francis Fukuyama to Jürgen Habermas and John Dupré. Nevertheless, Oviedo observes, these thinkers seem united in their opposition to the picture just outlined, what might be called the biocognitive view. In works such as the ones that Oviedo mentions, it is typical to claim that the biocognitive view is guilty of both scientism and reductionism, as findings from the sciences are extended into universal descriptions of, and perhaps prescriptions for, human nature. This view is reductive because the richness of human experience is either explained simply in terms of information processing or evolutionary survival or, if the particular experiences do not fit one of these models, simply explained away as nonexistent or at best epiphenomenal. For these thinkers, it may be argued, at stake are the very distinctive qualities that make us truly human, in particular the categories of rationality, freedom, and purposiveness that provide the foundations of how we live our lives. In rejecting the biocognitive view, these critics are defending a version of what might be called

the received view: that human beings are in some important, irreducible way different from the rest of the natural world, that there is more to being human than being matter in motion, and that whatever process of evolution did take place, that process is not determinative for who we are.

I call this the received view simply because it inherits much of the dominant tradition of thinking in the Western philosophical tradition. We easily find this sense of human distinctiveness, purpose, and rationality at the roots of the modern era in the writings of René Descartes and, later, in a different key in Immanuel Kant. We find it too in Friedrich Nietzsche, Martin Heidegger, and the existentialist movement, despite the extent to which they moved away from the earlier tradition. We find it in the roots of twentieth-century social science, with its emphasis on environmental influence and its rejection of biological and evolutionary models for explanations of human nature and behavior. If we probe further, we can trace the received view's religious roots, especially in the Christian doctrine of the image of God, which historically has been used to explain how, despite our very materiality, we nevertheless share in the being and likeness of God.

In noting this divide, Oviedo suggests that it is part of the wider conflict that has become known as the "science wars," the dispute especially between scientists and postmodern critics of science (located usually in the field of science studies) over the status and significance of scientific truth claims (Sokal 1998). At stake is not only how we interpret claims about human nature but also more general issues of how we view the universe and science's role in that view.

Although Oviedo's observations are correct as far as they go, it is worth considering further the actual parties involved in the debate. The assumption that the advocates of the biocognitive view are scientists and its opponents all humanists is far from universally true. In the case of the humanists, we find an important divide, for much of the reason that the biocognitive view has become increasingly influential is precisely because it has been promulgated and popularized by scholars in the humanities and the social sciences. Within Anglo-American philosophy, especially philosophy of mind, this is particularly obvious, as the impact of the sciences in the analytic tradition has long been felt. Daniel Dennett (1991; 1995; 2006) is perhaps the most prominent and familiar voice in American philosophy arguing for a biocognitive approach, but he is by no means the only one. Indeed, it would not be a gross exaggeration to say that in the Anglo-American philosophy of mind the primary question is not whether the biocognitive approach is correct but which version of it is correct. In ethics, for instance, consideration of Darwin, if not yet the cognitive sciences, has received renewed consideration (Rachels 1998; Singer 2000). It is important to note that much of the ruckus over evolutionary psychology is occurring precisely because it is being pushed not simply by biologists but also by psychologists, sociologists, and anthropologists. The text that put

evolutionary psychology on the map, *The Adapted Mind* (1992), was edited by two anthropologists (Jerome Barkow and John Tooby) and a psychologist (Leda Cosmides). Similarly, many of the primary scholars in the cognitive science of religion hearken from the social sciences and, in the case of E. Thomas Lawson, from religious studies (Lawson and McCauley 1993).

Similar divisions exist among scientists, although they are not always so obvious or clear-cut. It is certainly the case that many of the best-known advocates of a biocognitive view of human nature are themselves scientists. Richard Dawkins and E. O. Wilson, the primary founders of sociobiology as a field in the 1970s, have both been tireless promoters of an evolutionary view of the type that the humanists whom Oviedo cites are most concerned with (Dawkins [1976] 1989; Wilson 1978). Yet, not all scientists take Dawkins's and Wilson's view, as Oviedo's citation of the work of Stephen Jay Gould and Richard Lewontin indicates. Less clear is how diverse the scientific community actually is on these issues. Most scientists do not write outside of their narrow specialty, and while there may be good reason to suppose that Dawkins's and Wilson's views are widely shared by their fellow scientists, there is little to go on. Indeed, it might be supposed that participants in different fields of science will view these issues somewhat differently and that disciplinary perspectives may play more important roles in thinking about these broader claims than is generally recognized.

I do not think that this observation contradicts Oviedo's description, but it is important to emphasize that the conflict over anthropology is more than a conflict between scientists and humanists. Indeed, it might be fairer to say that the main argument is over not science but the interpretation of science, especially findings in the biological sciences, for the wider purposes of worldviews and values. Many of the data produced, for instance, by evolutionary psychologists are good data. Typically, the dispute lies in the interpretation of the data, in particular whether the evolutionary factors that evolutionary psychologists cite are either necessary or sufficient for the correlations that are observed. A similar point can be made with respect to cognitive neuroscience, where computational models of the mind/brain are dominant. Within the field, these computational models certainly work; they provide insights, means of generating predictions and assessing brain imaging and behavior correlations, and so forth. The primary dispute arises when the computational model is taken to be sufficient for understanding human cognition and personhood.

In observing that much of the debate over the significance of biological science for anthropology concerns the interpretation of science, I am not saying that no one interpretation is better than another. Clearly, there are good interpretations and bad ones. But recognizing the role of interpretation in the debate suggests that it is not simply a debate about science. It is about philosophical and religious worldviews and the extent to which science should play a role in that worldview formulation.

The Devil or the Deep Blue Sea?

If Oviedo's analysis is correct, it seems that theologians have two choices to make. The first is whether to become involved in this debate at all. In denoting the opponents of the biocognitive view as "humanists," Oviedo seems to mean primarily that the opponents are scholars in the fields of the humanities, or at least the humanities and the social sciences. But he seems to mean more than this: that most of the humanists of whom he is speaking are already nonreligious or even antireligious in their outlook. Indeed, it may be argued that this is what makes the debate, at least for the theological outsider, so fascinating: for once the opposition to science (so to speak) is not specifically religious in character. Many of the voices involved in the so-called science wars are secular (that is, nonreligious), and their objections to the biocognitive view have little to with the status of religious claims or religious communities. Although Oviedo emphasizes the differences between these secular voices and theologians engaged with the sciences, there also are important overlaps, especially with regard to the claims of sociobiologists and evolutionary psychologists, which often are treated to the same withering criticism by theologians as by the secular critics (see, for exaample, Haught 2003).

Oviedo suggests, with some reservations, that this divide provides an opportunity for theology, allowing it to become engaged in the intellectual life of Western civilization in a way that it has not been able to do for some time. Given the difference in secular viewpoints, perhaps there is an opening once again for theology, long held in academic disrepute, to resume its formative role in intellectual discourse. The only question is, which side to choose?

Theologians, it would seem, endorse the biocognitive view at their own risk. To side with this view would seemingly be to side with the devil. After all, many of the values that secularists are defending against the advocates of the biocognitive view—values of rational autonomy, of moral agency and worth, of dignity and purpose—are values that traditionally are part of the theological vocabulary. Theologians who take this approach would run the risk of endangering their own discipline, because the biocognitive view seeks to swallow up not only the received view of anthropology but religion as well, a point made explicit early on by Wilson (1978) and now pursued eagerly in the new field of cognitive science of religion.

To side with the humanist critics, however, runs the danger of sailing theologians into the deep blue sea of antiscience rhetoric and reactionary thinking. While it would be a mistake for theologians to buy into the entirety of the biocognitive view as described, it nevertheless may be argued that there is much in the biocognitive view that is right or, at the very least, worthy of serious consideration. This indeed has been the argument of many theologians, including myself (see Peterson 2002), who have been

strongly engaged with the sciences. The strength of scientific claims and scientific reasoning is such that, despite many theologians' wish to the contrary, it can no longer be ignored. Rather, theologians must engage seriously with the sciences, even if it sometimes requires a revision of long-held doctrines that have been important to the tradition.

But perhaps theologians need not side with either view. Theological approaches may present a third option, a means of bridging the gap between the biocognitive and the received view. This seems to be the drift of Oviedo's conclusion: that theology once again has a special role to play precisely because of the unique resources that it brings to the table—not least, as Oviedo observes, its ability to stand from the perspective of the whole in a way that allows critiques of the misplaced concreteness of both the biocognitivists and their opponents.

There is only one problem, which Oviedo notes: that the presence of theologians may not be particularly welcomed by either side. For the advocates of the biocognitive view, the reason stems at least partly from the perceived conflict between religion and science. This is certainly the case for Dawkins, who has made the discrediting of religion in the name of science a central goal of his popular writing (1996; 2004). There are also broader reasons, which Oviedo does not address but which loom large for any involvement of theology. Two of these are particularly noteworthy.

The first is the question of religious diversity. When Oviedo argues for theology to become involved, he clearly means Christian, and perhaps more specifically Roman Catholic, theology. Secularists, whether in the sciences or humanities, often are aware of the diversity of religious traditions and the consequent diversity of theologies (Muslim, Hindu, Jewish) that follow. Particularly for secularized scientists, one of the great virtues of science is its apparently universal scope, practicable by Indians, Chinese, and Argentinians as well as by Americans and Germans. If theology is going to be taken as an entrant into these debates, it must be up front about the diversity question as well as able to respond appropriately to it.

A second problem is the issue, real or perceived, of religious intolerance and violence. It is striking how frequently the specter of religious intolerance is used as a means of discrediting religion altogether. We may expect that this criticism would be emphasized by humanities scholars who are steeped in history and more than aware of the many awful things that have been done in the name of religion, but it is used with surprising frequency by antireligious scientists as well. The rise of various forms of fundamentalism in recent years has not helped matters. The question of religious intolerance and violence may seem a long way from supporting a significant theological engagement of the relation of sciences and human nature, because most theologians take for granted that the forms of religion associated with these extremes are discredited and so are barely brought to mind when engagement with scientists and other humanities scholars occurs.

Unfortunately, this is not nearly as widely shared a perception as it ought to be. On this issue, modern theology retains a guilt by association for many secular-minded scholars, to the extent that the kind of role that Oviedo envisions for theology is made more problematic.

Both of these issues, however, are preliminary. The real question is what exactly theology has to offer. If it is simply assumed by the secularists that theology has no intellectual standing, how does the engagement begin? What, in fact, does theology bring to the table that would be worth considering?

The Question of the Whole

That Oviedo is well aware of this question is indicated by his description and analysis of the work of sociologist Niklas Luhmann. Luhmann's analysis of theology consigns it to the "shadow lands" in no small part because it does not have the kind of cognitive content that allows it to operate out in the open and on the same ground with the sciences. The thesis is familiar to theologians and, often enough, actively embraced. In addition, Oviedo considers several possible lines of approach, from endorsing some form of systems theory to engaging the strengths and weaknesses of the work of Nancey Murphy and John Milbanks.

I would suggest a slightly different starting point. Instead of beginning with the question of what method would be the most promising for theology, it may be better to begin by considering what questions are distinctively theological ones. There are several reasons to do this. Traditionally, the domain of theology has often been understood as the domain of God-talk, and so presumably what theology uniquely brings to the table is the knowledge of God's will and activities in the cosmos. The problem is that for many secularists this is a nonstarter, because they do not share the theologians' prior commitments about God. Additionally, such an accounting of theology fails to take stock of today's radical religious pluralism. Not only can we speak of nontheistic "theologies" from a Buddhist or Hindu perspective, but even within the Western intellectual tradition the term *God* has become quite elastic—used equally by John Polkinghorne (1996) to speak of the more traditional divine personal agent and by Gordon Kaufman (1993) to speak of the "serendipitous creativity" in the evolutionary process. As a result, the automatic privileging of one perspective becomes problematic. What can be argued to be distinctive about theology as a discipline are the questions that it asks and the way that these questions are related to a holistic framework. Questions about the ultimate nature of the universe, the distinction (if one exists) between the natural and the supernatural, the possibility of transcendence, and human and cosmic ultimate purpose and direction are distinctly theological questions. Theology speaks of ultimacy in a way that the sciences do not, and

this point is key to understanding the role that theology may play in questions about human nature. In speaking of human nature, the task of theology is not to directly compete with, for instance, neuroscience and behavioral genetics. Rather, its task is to question neuroscientific and genetic models of human personhood and ask to what extent they are sufficient and in what ways they are deficient when we come to the profound questions of value or purpose.

Although Oviedo has phrased it differently, this seems to be at least one possibility that he envisions for theology: that theology can play a role of critique and that there are criticisms to be made of the biocognitive view from a theological standpoint on questions of human nature and, perhaps especially, research into consciousness. Interestingly, although theology will inevitably side with the critics in the humanities on at least some issues with the biocognitive view, the claim that theology takes the standpoint of the whole may be more acceptable to scientists than to humanities scholars, simply because the notion of a whole, of a universal or universalizing metaphysic, has become anathema to many influenced by various strands of postmodern and deconstructionist thought. Although these concerns are serious and need to be addressed carefully, I do not think they are insurmountable, and it is perhaps on these questions of the whole and the correlative claims to completeness where the dialogue should begin.

Claiming that there are distinctly theological questions is profoundly important to the continued viability of theology as an intellectual enterprise and vital to theology's standing in the debates about human nature. To put this in a different way, is there a place for theology in the university? In European countries, there may exist theological faculties within state-sponsored universities, but it may be argued that this is due very much to historical legacy, and there are not a few who would like to see that legacy done away with. In the United States, with its official separation of church and state, the situation is quite different. Public universities in the United States do not have departments of theology, and many do not even have departments of religion or religious studies. So, if there are distinctly theological questions, does that mean there is a place for theology in the university after all? Perhaps it does.

This point is also relevant for consideration of the new field of cognitive science of religion, which Oviedo considers as posing a possible problem for theology's entry into the human nature debate. As a nascent scientific field, the cognitive science of religion seeks to explore the biological, largely evolutionary and cognitive-structural, roots of religion. Many scholars in the field understand that these biological explanations will also be exhaustive and consequently reductive, that is, showing that religion is nothing but a result of biological pressures and therefore, in the words of Pascal Boyer, an "airy nothing" that has no proper domain and whose claims can be safely dismissed (Boyer 2001, 330).

Although the cognitive science of religion needs to be taken seriously, more than many theologians have to date, I would suggest that for the most part it does not much change the character of the conversation. Currently, the cognitive science of religion is a curious pastiche of cognitive psychology, evolutionary psychology, and a revival of Claude Lévi-Strauss' structuralism ([1983] 1969). While some of the work that has come out of the field has been both insightful and provocative, it remains hampered by the same kind of grandiose claims and sweeping generalizations that affects evolutionary psychology, although a future integration with a cognitive neuroscience of religion may correct some of these deficiencies. A good argument can certainly be made from scientific data that broad areas of human behavior have a genetic influence and that human cognition, including religious cognition, has correlating brain activity. To claim, however, as some advocates of the cognitive science of religion do, that such findings discredit all religious claims is simply to commit the genetic fallacy writ large. The intellectual territory may need to be rearranged, but theology will persevere, not least because whatever the findings of the cognitive science of religion may be, the distinctly theological questions that all human beings ask will remain.

Between Is and Ought

Starting from the standpoint of theological questions is, in some respects, very different from the specifically Christian and perhaps confessional framework that Oviedo probably has in mind. But I suggest emphasizing the distinctly theological questions with regard to anthropology as a starting point, not as an ending point, a way to recognize the pluralism of views both within and outside of theology. In the end, the kinds of worldviews that are practicable for living are the kinds that have significant content and make significant claims about how the world operates. In this space we find room for involvement of the great theological traditions of the world. It is this connection between content and practice, perhaps, that makes theology unique among disciplines. The sciences, as David Hume would remind us, tell us how the world is but nothing about how it ought to be. Inheriting this very modern distinction, a primary legacy of philosophical ethics has been to try to tell us how the world ought to be without having to rely on claims about how the world is. Perhaps connecting the is and the ought is the vital task remaining to theology, and it is why the questions of anthropology now being so heatedly discussed have such an important, if sometimes tacit, theological component. To make claims about human nature is, almost inevitably, also to make claims about what humans ought to be and are capable of doing. In scientific discourse, this point can easily be overlooked, since in science it is not the ethical implications that count but, at least in principle, only the empirical data. Claims

made on behalf of science, however, are not neutral in the way that we would sometimes like to believe, and in claims about human nature, personal motives and ideology can easily be seen to play at least a tacit role in what is then pronounced as scientific truth. As a result, part of the job of the theologian is to disentangle these claims, evaluate them, and then assess how they reflect on human hopes and aspirations.

REFERENCES

Barkow, Jerome H., Leda Cosmides, and John Tooby. 1992. *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. New York: Oxford Univ. Press.

Boyer, Pascal. 2001. *Religion Explained: The Evolutionary Origins of Religious Thought*. New York: Basic Books.

Dawkins, Richard. [1976] 1989. *The Selfish Gene*. 2d ed. New York: Oxford Univ. Press.

———. 1996. *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe without Design*. New York: W. W. Norton.

———. 2004. *A Devil's Chaplain: Reflections on Hopes, Lies, Science, and Love*. New York: Mariner.

Dennett, Daniel. 1991. *Consciousness Explained*. Boston: Little, Brown.

———. 1995. *Darwin's Dangerous Idea: Evolution and the Meanings of Life*. New York: Touchstone.

———. 2006. *Breaking the Spell: Religion as a Natural Phenomenon*. New York: Viking.

Haught, John. 2003. *Deeper than Darwin: The Prospect for Religion in the Age of Evolution*. Boulder, Colo.: Westview.

Kaufman, Gordon. 1993. *In the Face of Mystery: A Constructive Theology*. Cambridge: Harvard Univ. Press.

Kurzweil, Ray. 1999. *The Age of Spiritual Machines: When Computers Exceed Human Intelligence*. New York: Viking.

Lawson, E. Thomas, and Robert McCauley. 1993. *Rethinking Religion: Connecting Cognition and Culture*. New York: Cambridge Univ. Press.

Lévi-Strauss, Claude. [1983] 1969. *The Raw and the Cooked: Mythologiques*. Vol. 1. Trans. John Weightman and Doteen Weightman. Chicago: Univ. of Chicago Press.

Oviedo, Lluís. 2006. "Is Christian Theology Well Suited to Enter the Discussion between Science and Humanism?" *Zygon: Journal of Religion and Science* 41 (December): 825–42.

Peterson, Gregory R. 2002. *Minding God: Theology and the Cognitive Sciences*. Minneapolis: Fortress.

Polkinghorne, John. 1996. *The Faith of a Physicist: Reflections of a Bottom-Up Thinker*. Minneapolis: Fortress.

Rachels, James. 1998. *Created from Animals: The Moral Implications of Darwinism*. New York: Oxford Univ. Press.

Singer, Peter. 2000. *A Darwinian Left: Politics, Evolution, and Cooperation*. New Haven, Conn.: Yale Univ. Press.

Sokal, Alan D., and Jean Bricmont. 1998. *Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science*. New York: Picador.

Wilson, E. O. 1978. *On Human Nature*. Cambridge: Harvard Univ. Press.