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Evolution and Human Behavior 24 (2003) 137–143

Evolution and Human Behavior

Book review

Darwin's Cathedral: Evolution, Religion, and the Nature of Society

By David Sloan Wilson, The University of Chicago Press, 2002. 280 pp. ISBN: 0-226-90134-3. US\$25.00

Darwin's Cathedral: Evolution, Religion, and the Nature of Society is a well-organized and thought provoking work on the evolution of religion by group selection's leading advocate, David Sloan Wilson. This timely book is a welcome contribution to the evolutionary study of religion and it deserves significant consideration and debate among selectionists, as well as religious scholars. Wilson argues that religion evolved primarily through a process of group selection, but even those who believe group selection has been a weak force in human evolutionary history (I include myself in this lot) will find *Darwin's Cathedral* worthwhile; it offers much more than a group selectionist's view of religion. Wilson's stated goal is to "treat the organismic concept of religious groups as a serious scientific hypothesis" (p. 1), where *organismic* is defined as "synonymous with adaptive at the group level" (p. 17). To achieve his goal, Wilson explains how biologists study adaptations (Chapter 1), develops his hypothesis in detail (Chapter 2), offers various supportive examples (Chapters 3 and 4), evaluates the hypothesis against rational choice theories of religious behavior (Chapter 5), and closely examines forgiveness as a possible adaptive trait (Chapter 6). Wilson concludes with an ambitious argument that considers how unifying systems, of which religion is just one example, enable humans to form adaptive groups (Chapter 7).

In *Church as Organism* (Introduction), Wilson sets a tone that he admirably maintains throughout the book. He approaches religion scientifically, yet respectfully. Indeed, Wilson treats his subject with considerable appreciation, which is only notable because it lies in stark contrast to other prominent evolutionary theorists (e.g., Dawkins, 1998; Pinker, 1999). As Wilson observes, selectionists' general antagonism toward religion and its adherents has probably impeded real progress toward understanding this complex human phenomenon. In one of the more amusing and ironic passages in the book, Wilson describes hell as being eternally locked in a room with people who argue that religion is "stupid" because religious beliefs and behaviors are often contradictory. As Wilson and others (e.g., Boyer, 2001; Rappaport, 1999) have pointed out, the contradictory nature of religion is one of its critical and complex features, one that is generally not lost on religious adherents.

In *The View from Evolutionary Biology* (Chapter 1), Wilson presents his case for the multilevel selection approach to the study of adaptation and fairly describes the debate that has surrounded his work on group selection. In anticipation of his treatment of religion, his emphasis is on cultural group selection. He argues that cultural selection "changes the

parameters of the evolutionary process” (p. 34) by increasing “the potency of selection among groups and decreas[ing] the potency of selection within groups, compared to what would be expected on the basis of genetic evolution alone” (p. 35). Wilson does not add anything new to the group selection debate (Sober & Wilson, 1998; Wilson & Sober, 1994 offer more rigorous treatments of the debate), so he is unlikely to convince individual selectionists that they have, as he describes it, taken a “wrong turn.” Nor do I think this was his goal. His intended audience appears to be scholars of religion, who have little or no background in evolutionary theory.

Wilson concludes Chapter 1 by delineating five “Evolutionary Theories of Religion.” While he is to be commended for differentiating broadly between adaptive and nonadaptive theories, this section also portends one of the most significant weaknesses of the book, his treatment of the evolutionary literature on religion. At the outset, Wilson highlights his outsider status to the study of religion and makes a disclaimer: “No one who has confronted this literature can claim to have mastered it, but I have made a solid effort and I expect to be judged by professional standards” (p. 2). To his credit, Wilson has covered a lot of material and overall his scholarship is exceptional. His historical research on Calvinism and early Christianity is impressive and his readings in the sociology and economics of religion are certainly representative. However, Wilson has completely overlooked the literature on religion by his fellow HBES colleagues, such as Cronk (1994), Irons (1996a, 1996b, 1996c, 2001), Kirkpatrick (1999), Masters (1993), and Steadman and Palmer (1995), as well as the research of many others who have approached religion from an evolutionary perspective (e.g., Hayden, 1987; Hefner, 1993; McClennon, 1997). This is troubling because the work that Wilson ignores challenges his group selectionist approach to religion and society. Wilson’s theory of religion as a superorganism must be evaluated against individual selectionist theories such as Cronk’s theory of religion as a form of manipulation, Irons’ theory of religion as a hard-to-fake sign of commitment, or McClennon’s theory that religion evolved because of the healing and survival advantages of suggestibility. In addition, although Wilson rejects the byproduct view of religion, he completely avoids byproduct arguments from evolutionary psychology (e.g., Kirkpatrick, 1999; Mithen, 1996; Pinker, 1997), including the highly acclaimed work of Boyer (1994, 2001). Instead, he rejects the byproduct view of religion by evaluating the rational choice theory of religion developed by sociologist Rodney Stark and associates, yet these authors are not even aware that their theory is a byproduct hypothesis, nor are they even likely to know what that would mean.

In *The View from the Social Sciences* (Chapter 2), Wilson begins his critique of the rational choice theory of religion, which is further developed in Chapter 5. Although I am critical of Wilson for focusing on the rational choice theory of religion *instead* of evolutionary theories of religion, his critique of rational choice theory is excellent and may be the most valuable part of the book. Stark, Finke, Iannaccone, and Bainbridge are leaders in the economics and sociology of religion. As Wilson rightly notes, their accomplishments are inspiring. They have developed a sophisticated rational choice model of religious behavior, some of which, as I have noted elsewhere, is similar to developments pursued by Irons (2001) and myself (Sosis, 2000, in press; Sosis & Bressler, in press). They have evaluated hypotheses in a variety of contexts and their analytical skills and historical scholarship are enviable. Wilson’s

primary attack concerns their supposed rejection of functionalism. As Wilson accurately observes, the rational choice theory of religion seems to disregard the fact that religion is a social phenomenon that solves some inherent problems in human sociality. Unfortunately, here and elsewhere, Wilson is forced to imagine what these theorists believe because they do not discuss functionalism or evolutionary issues. For example, he deduces that they reject religious groups as adaptive units, the position he is advocating, but of course these scholars have never considered such an issue. Wilson appears to be left in a challenging position; it is difficult to reject the rational choice theory of religion in its entirety because these scholars have amassed a wealth of supportive data. Thus, he criticizes the rational choice literature because “[i]t *seems* to reject the concept I am evaluating, when in fact it does nothing of the sort” (p. 81; italics in original). Ultimately, Wilson does focus on the genuine weakness of the rational choice literature: its assumption that individuals are utility-maximizers. Evolutionists have long noted the limitations of this assumption and offered fitness maximization in its stead (e.g., Hirschleifer, 1977; Smith & Winterhalder, 1992). Wilson makes a valuable contribution to this debate.

As an alternative to the rational choice model of religion, Wilson argues that religious groups function as adaptive units. He explains that many resources can be achieved only through coordinated action of individuals and, thus, human groups form to acquire these resources. Human groups are able to function as adaptive units because they have moral systems, expressed through religious imagery and symbolism, which regulate behavior. Adaptive features of religion evolve by an ongoing process of cultural selection—some religious experiments and ideas survive, others do not. Wilson also suggests that the nature of supernatural agents and how humans relate to these agents are adaptations that enable groups to function as adaptive units, although this component of the argument needs further development. Other adaptive features of religion are a consequence of psychological mechanisms that are a product of selection pressures. Wilson does not claim that group selection can explain all features of religion, but he does not routinely apply his own recommended multilevel selection program that focuses on group and individual selection. This is unfortunate because the gulf separating Wilson from some individual selectionist approaches to religion does not appear to be wide. For example, Irons (2001) also argues that the coordination of individuals for the acquisition of resources is one of the main environmental problems religion solves, and Wilson appears to agree with Alexander’s (1987) contention that moral systems evolved as a consequence of intergroup competition. The main difference, which of course has significant implications, is that individual selectionists argue that the selective pressures that have favored the emergence of religious and moral systems in human groups are a consequence of the net benefits accrued by individuals.

The other major contribution of Chapter 2 is the extensive discussion of functionalism. Wilson surveys the history of functionalist thought in anthropology, with the aim of trying to understand its demise. It is not surprising that Wilson admires the work of Durkheim and other early anthropologists, most of whom were group-level functionalists. Wilson convincingly shows that those anthropologists who dismissed Durkheim because of his functionalist perspective, actually supported, unintentionally, group-level functionalism in their own writings. Wilson then provides a welcome discussion on the power of functionalism within

evolutionary biology. Anthropologists who reject functionalist interpretations often argue that behavioral ecologists and evolutionary psychologists are just functionalists dressed up in evolutionary clothes. Wilson agrees, but he skillfully clarifies why evolutionary functionalism avoids the pitfalls of previous functionalist approaches.

In *Calvinism: An Argument from Design* (Chapter 3), Wilson examines the historical beginnings of Calvinism to assess whether religious groups can be considered organisms and, if so, determine whether the features of this organism can be interpreted as adaptations. I generally accept the Yiddish proverb that translates, “An example isn’t proof.” Nonetheless, I think Wilson’s close look at Calvinism is a useful exercise, especially since he introduces a methodology that may be valuable for future research. Wilson cleverly uses catechisms as his historic data. He claims,

[Catechisms] may truly qualify as ‘cultural genomes,’ containing in easily replicated form the information required to develop an adaptive community. They are short enough for detailed analysis, and many religious denominations have them, enabling the comparative study of religious organizations. Finally, single denominations periodically revise their catechisms, providing a neatly packaged ‘fossil record’ of their evolutionary change. It would be hard to imagine a better historical database (p. 93).

Although I agree that catechisms provide a wealth of information, it is important to remember that catechisms are a record of idealized religion, not patterns of behavior; a distinction Wilson clearly recognizes. As he notes, idealized religion is likely to look like pure group selection. This is an important observation, but it says little about the impact of group selection on actual religious behavior. Indeed, individuals are not likely to comply with rules (whether secular or religious) that limit their individual fitness unless mechanisms (e.g., punishment) alter the cost-benefit equation enough to favor such behavior.

Wilson contends that “Calvinism is an interlocking system with a purpose: to unify and coordinate a population of people to achieve a common set of goals by collective action” (p. 118). He demonstrates that Calvinism achieved this coordination and was immensely successful; Geneva, where Calvinism was founded, assumed an importance in world affairs incommensurate with its size. Wilson claims that behavioral homogeneity enabled Calvinists to achieve their goals and that homogeneity is a precondition for a trait group (in this case, a behavioral pattern) to act as an adaptive unit. However, it is not clear if the conditions of homogeneity ever truly exist. As countless studies in the sociology of religion have shown, although some laws within religious communities may elicit full observance, there is considerable variance in individual compliance to the entire gamut of community regulations even among the strictest religious communities (e.g., Heilman & Cohen, 1986).

Wilson convincingly argues that religious teachings are aimed at encouraging members to behave for the benefit of the group. This claim, however, seems contrary to Wilson’s position that group selection was a potent force in human evolutionary history. If the architecture of the human mind were shaped by group selection, would religious doctrines really be necessary to promote sacrifice for the group? It appears that religious doctrines are necessary precisely because we are not likely to act for the benefit of the group when it is not in our own individual interests. Religious doctrines such as the catechisms of Calvinism or the Ten Commandments

do indeed serve to coordinate individuals and organize groups, as Wilson suggests. However, the reason we are exhorted by religious specialists to improve our moral character (by following the Ten Commandments, for example) is because we are not likely to make group sacrifices at the expense of our individual fitness without significant coercion (see Cronk, 1994).

In *The Secular Utility of Religion: Historical Examples* (Chapter 4), Wilson provides three more examples to support his hypothesis that religion causes human groups to function as adaptive units: the water temples of Bali, Judaism, and early Christianity. Wilson thoroughly explores his examples; however, it would have been valuable here to include an example of a shamanistic religion. Indeed, it is somewhat striking that a book on the evolution of religion never mentions shamanism, which many regard as the earliest form of religion (e.g., Eliade, 1974; McClennon, 2002; Winkelman, 2000).

Throughout Chapter 4, Wilson supports another important theme of *Darwin's Cathedral*: religion serves practical purposes by facilitating individual–environment interactions. Reynolds and Tanner (1995) previously developed this thesis in considerable detail, but Wilson improves on this work by connecting his supporting examples to a theoretical framework. If religion serves secular purposes, which it clearly does, it raises a difficult question: Why are metaphysical elements necessary in religion? Although Wilson does not address this issue in detail, he briefly notes Rappaport's (1979) argument that supernatural ideas give greater authority to institutions than secular dogma can. Empirical work I have pursued with Eric Bressler appears, contrary to our expectations, to support this thesis (Sosis & Bressler, in press).

In *The Secular Utility of Religion: The Modern Literature* (Chapter 5), Wilson continues his stinging critique of the rational choice theorists. He shows how these theorists fail to acknowledge that many of the benefits of religion are material, not vague psychic pleasures. He notes that because economists use utility rather than fitness functions when modeling behavior, they are apt to use different currencies that are often not comparable when measuring costs and benefits to evaluate their models. Wilson is correct that studies that focus on the material benefits provided by religious groups are urgently needed. Wilson also shows that there is great confusion in the rational choice literature concerning the units of analysis. Rational choice studies generally fail to distinguish between religious communities. Consequently, their results are difficult to interpret because analyses are conducted on populations in which diverse religious communities are categorized as a single group (such as Catholics, mainline Protestants, etc.). Wilson recommends that these global studies be complemented with local studies of individual religious communities.

Wilson's focus in *Forgiveness as a Complex Adaptation* (Chapter 6) is largely, but not exclusively, on Christianity. To support his argument that forgiveness has enabled groups of individuals to become adaptive units, he provides a fascinating adaptationist view of the Gospels, building on the work of Pagels (1995). During this discussion, Wilson emphasizes that adaptations are context-dependent. For example, he contends that the hypocrisy of Christian forgiveness [e.g., "How can Christians preach forgiveness when they are so judgmental about people's behavior?" (p. 217)] must be understood within the environment in which it evolved, otherwise, it appears nonsensical. He also stresses that religions must be judged by appropriate standards. Religions did not evolve to solve world peace, nor should they be expected to achieve such a goal. According to Wilson, religions evolved to enable

groups of individuals to function as a cohesive, and consequently adaptive, unit. Wilson correctly notes that most religions fall short when judged by the standard of universal brotherhood, but that “the failure to achieve universal brotherhood is like the failure of birds to break the sound barrier” (p. 217).

In the final chapter, *Unifying Systems*, Wilson expands his argument of religion as a unifying system into a general theory of unifying systems. He argues that religion is just one of many unifying systems in society and that he could have similarly written a book about sports teams, political organizations, military organizations, or a variety of other societal institutions that serve the same purpose. These institutions emerged to regulate and coordinate individual behavior to prevent groups from dissolving. Wilson explores Durkheim’s contention that “social life is only possible thanks to a vast symbolism” (p. 226). He argues, following Richerson and Boyd (1999, p. 227), that “[s]acred symbols command respect; they dictate behavior.” This observation appears accurate, but it provides us little insight into *why* humans respect sacred symbols or the within group variance in *how* individuals interact with sacred symbols. Wilson does not develop this but he offers, “. . . sacred symbols provide a mechanism for representing a moral system and putting it into action” (p. 227). In other words, if I am interpreting Wilson correctly, sacred symbols provide the link between religion and morality by assisting our “natural” inclination to form moral communities. Wilson further argues that symbolism is not limited to religion and lies at the foundation of how all unifying systems promote coordination among individuals.

Hopefully, Wilson will build on the arguments developed in *Darwin’s Cathedral* and continue research on the evolution of religion. Wilson recognizes that simply presenting historical examples of his choosing is not the way to conduct science. Thus, he describes how he is currently pursuing a project to evaluate his theory in which 25 religious communities were randomly chosen from Eliade’s *Encyclopedia of Religion*. This work, as well as the work of other researchers who empirically evaluate the many hypotheses Wilson offers, will ultimately determine the enduring value of *Darwin’s Cathedral*. Regardless of these anticipated results, Wilson has provided a valuable service by clearly articulating a new framework for the study of religion.

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