EDITORIAL

Bio-Cultural Approaches to Social Forms

For more than a century, we have relied on sociologists to explain the varied forms of human sociality, from political parties to religious organizations, from families to class hierarchies. The task of the sociologist is to interpret the emergent system of human life from the perspective afforded by its group character. Sociologists have battled internally over the extent to which abstracting the human-group perspective from the entire emergent system of human life leads to mistakes of interpretation or theoretical blind spots. For example, when we focus on the social construction of human life and behavior, do we underestimate biological factors such as shared cognitive-emotional structures? Psychologists grapple with a similar challenge of estimating what price might be paid for abstracting the individual-level perspective from the entire emergent system of human life.

Many sociologists and psychologists are increasingly realistic about the risks of oversimplification that might be associated with their disciplinary practices, including the elision of salient explanatory factors. We suspect this is partly because of high-quality interdisciplinary work showcasing the sciences of culture and the sciences of cognition combined to make sense of human life at all levels.

These bio-cultural approaches to social forms have been growing in influence within the scientific study of religion during the last decade due to their production of a wide range of illuminating results. For example, the study of ritual has been transformed by taking account of information about the physiological, emotional, cognitive, and health effects of rhythmic-affective bodily states. The moral functions of religious groups are cast in a new light by research in moral psychology.

This issue of Religion, Brain & Behavior presents a target article (with discussion) and several research articles that represent this sea change in the scientific understanding of social forms in relation to religion. Collectively, the papers in this issue illustrate the diversity of bio-cultural techniques used to shed new light on religious sociality.

The target article in this issue is by Uffe Schjoedt, Jesper Sørensen, Kristoffer Nielbo, Dimitris Xygalatas, Panagiotis Mitkidis, and Joseph Bulbulia. This research team employs a familiar framework within ritual theory, namely, one in which collective rituals facilitate the transmission of cultural ideas. They then attempt to identify specifically cognitive features of religious ritual practices that increase the susceptibility of participants to religious authorities and the narratives that such authorities propound. They hypothesize that the susceptibility to authority is a direct result of the way that the identified cognitive features inhibit the ability of individuals from exercising their usual methods of interpreting their experience. The novelty here is to articulate a standard assumption of ritual-theory with an analysis of human cognition, exemplifying bio-cultural methods. The commentaries make for a fascinating discussion. As the response by the target article authors indicates, the commentators pushed hard on the model, the evidence, and the supposed neglect of
other cognitive-emotional mechanisms not included in the model. But all commentators agree that the bio-cultural approach itself sheds valuable new light on ritual.

Leading off this issue is a completely different illustration of a bio-cultural approach to social form. Luke Matthews, Jeffrey Edmonds, Wesley Wildman, and Charles Nunn employ methods adapted from phylogenetic analysis in biological evolution and network analysis to analyze the properties of rapidly dividing religious groups, focusing especially on violence. Network analysis is a method commonly used in the social sciences to measure the “horizontal” spread of behaviors and beliefs across population groups. Phylogenetic techniques yield measures of the rate and strength of “vertical” transmission across generations within social lineages. When combined, the phylogenetic and network methods are capable of answering questions about the relative strength of horizontal and vertical transmission, thereby helping to resolve issues that are exceptionally difficult for historians to judge based on documentary evidence alone. Such results can have important strategic implications for managing the problem of religiously inspired or rationalized violence.

Steven Hrotic’s paper uses a bio-cultural approach to analyze a famous myth about composer Palestrina’s intervention to prevent counter-reformation Catholic authorizes from banning polyphony. Hrotic’s argument helps explain why the myth has endured despite the fact that historians have known for a long time that the story has little or no historical basis. In this case, the bio-cultural tool is Whitehouse’s modes theory of religiosity and ritual styles, conjoined with compelling assumptions about human preferences in narrative styles.

Bio-cultural methods have almost unlimited scope of application because they combine methods from the social, psychological, and biological sciences—the methods chosen depending on the problem to be solved. When approached with appropriate caution, bio-cultural methods avoid invidious forms of reductionism and help scientists steer a steady course between the pretensions of some to explain everything through biology, or through personality, or through socio-cultural conditioning. What emerges is a deeper and richer picture of the vast and intricate emergent system of human reality.

Wesley J. Wildman, Richard Sosis, Patrick McNamara