The future of religious education: neurobiological, ecological-historical, and computational approaches to comparative mythology and religion

Steve Farmer (USA)[1]

Traditional studies of comparative mythology and religion are notorious for their uncontrolled use of evidence, untestable theories, and in popular forms frequent overlaps with 'New Age' religious ideologies. These tendencies sharply limit the scientific use of those studies as adjuncts of genetics, linguistics, and archaeology in attempts to reconstruct human prehistory; they have also contributed to the modern decline of interest in comparative mythology in education and the generally bad reputation the field has in scientific circles for being methodologically unrigorous.

Continued problems in the field include an overreliance on bad translations and misleading paraphrases (some originating in heavily worked-up late-ancient compilations) as comparative evidence; and an uncritical use of handbooks and databases of myths that juxtapose data from distant periods and over- and under-report myths from different global regions. These problems frequently lead to difficulties in distinguishing superficially similar myths arising from parallel growth processes from those involving common descent or long-range transmissions.

Due in part to expanding global contacts, like those taking place in this conference, awareness of these problems is improving; meanwhile, expansions of work in cultural neurobiology (studies of brain and culture) and closely related fields suggest new tools and approaches capable of putting research and education in comparative mythology and religion on a scientific footing.

This talk reviews four related developments that we can expect to see vastly expand in the next decade. Specifically, it proposes that a comprehensive and fully testable/falsifiable model of the global evolution of myth and religion is emerging through the convergence of four main elements:

1. Rapid developments in cultural neurobiology (or 'evolutionary psychology'), in which a broad consensus has emerged in the past half decade concerning the deep biological origins of myth and primitive religion (in processes of the so-called 'social brain');

2. Studies of ecological forces and cultural neurobiology that allow us to make probabilistic predictions concerning recurrent tendencies in myth formation and modification in changing ecological conditions;

3. Studies of how changing literate technologies and related demographic variables (which affect how traditions are stored and modified in networked brains) transformed myths and early religion in predictable structural patterns over vast periods in manuscript cultures;

4. The development of cultural modeling software that allows us to replicate and test theoretical ideas involving the three previous elements in realistic computer simulations.

The talk ends with a description of the most powerful cultural modeling software yet designed, which has the capability of "growing" myths and religions in realistic ways that can be cross-checked against available historical data. The software, which is currently in an advanced stage of testing by a US consortium (Farmer, Zaumen, Witzel *et al.*, in preparation), has a broad range or research and educational applications that will be reviewed in the talk.

[1] Director, IACM (International Association for Comparative Mythology); CEO and Director of Research, the Cultural Modeling Research Group, Palo Alto, California.