Modeling Pathways of Unbelief Across Cultural Contexts

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This presentation will address both of the major questions guiding the "Cultures of Unbelief" conference by outlining the conceptual architectures and initial experimental findings of two computational models of unbelief. Social simulation techniques of the sort to be described here enable researchers to test hypotheses about the ways in which micro-level psychological variables and individual behaviors (such as levels of unbelief and affiliation with in-groups that exclude believers) can lead to the emergence of macro-level sociological phenomena at the population level (such as demographic changes related to unbelief and group affiliation). By constructing simulated agents with psychologically realistic cognitive architectures (and individual variables such as class, age, gender and education) who interact within an "artificial society," and validating those interactions in light of real-world data sets, researchers can run experiments that explore how different cultural contextual conditions (parameters) can alter the pathways through which individual agents alter their religious beliefs and behaviors. And this is exactly what our research teams have done. At last year's conference in London, we offered an introduction to the relevant models, which were just underway. Our presentation at the NSRN conference was featured in the most recent issue of Der Spiegel: http://www.spiegel.de/plus/glaube-was-haelt-religionen-zusammen-was-schwaecht-sie-a-00000000-0002-0001-0000-000161665903. In the currently proposed paper, we would like to present an update on two models that are directly relevant to the conference theme. The first is a systems-dynamics model of the "analytic" pathway to atheism, which includes parameters that allow us to test how contextual factors (such as presence of religion in the environment) impact this pathway. The second is an agent-based model of CRED theory. In the latter, agents have variables such as gender, education, employment, etc., as well as "worldviews" (religious or nonreligious). We will present the architectures and our initial findings, which help to shed light on "the nature of unbelief" and "the ways in which different types of unbelief" shift across cultural contexts.

Biographical note: F. LeRon Shults is professor at the Institute for Global Development and Social Planning at the University of Agder and director of the NORCE Center for Modeling Social Systems in Kristiansand, Norway.