



## Models, simulations, abstractions, and insights

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## Models, simulations, abstractions, and insights

If there are two things we can learn to our benefit from public political discourse it is that human beings love simple thoughts and that simple thoughts constantly get us into trouble. We reduce cognitive load by generalizing freely and not taking the time to verify our generalizations. We categorize the intangible, impose binaries on the fluid, and generally perpetuate intellectual mischief with our thirst for easy ideas and ready action plans.

Often enough, our intellectual mischief crosses the line into social mayhem with violent consequences. These are long-term disasters that rumble through generations, spreading pain and misery and defying resolution and healing. There's no point in saying that human life need not be this way. To ignore the scope of human groupishness, bigotry, and violence would be to bury our heads in the sand. It's a good thing we can also be generous and kind.

It's no wonder that so many humanities scholars are leery of generalizations. The litany of disasters facilitated by bad generalization and driven by greed, unkindness, and violence is truly painful to contemplate: sexism, racism, xenophobia, colonialism, superstition, authoritarianism, genocide ...

The human tendency to stereotype individuals is a special case of the human capacity for generalization. It is a case in which differences between groups are overstated and differences within groups are ignored. The rapid and overwhelmingly inaccurate distortions to which humans are prone is the dark side of our lineage's capacity for strong social bonding. Though stereotyping may be dangerous, generalization lies at the heart of all understanding, and is necessary for scientific discovery. Our language doesn't work without classifications. We can't think without taxonomies. And we certainly can't theorize without systematizing regularities in the world. To explain everything in the world with everything in the world is a pointless repetition.

Even when our generalizations do not result in violence, our classifications might sit uneasily with our ideals. William James wrote in *The Varieties of Religious Experience*, "The first thing the intellect does with an object is to class it along with something else. But any object that is infinitely important to us and awakens our devotion feels to us also as if it must be sui generis and unique. Probably a crab would be filled with a sense of personal outrage if it could hear us class it without ado or apology as a crustacean, and thus dispose of it. 'I am no such thing, it would say; I am MYSELF, MYSELF alone'" (1902/1985, p. 11).

Generalizations distort – they are strictly speaking lies. Yet discovery remains elusive without generalizations. The way out of this apparent paradox is obvious but difficult to implement: we must hold our distortions accountable to what they explain and predict – much as we might hold a map accountable by assessing how well it guides. Though all generalizations are distortions, they are not all on equal footing. The approach we recommend to generalizations at RBB is therefore threefold: (1) acknowledge that the generalizations embedded in all models are abstractions that, similar to maps, organize understanding; (2) appreciate that not all distortions are on the same intellectual footing: some are instructive, others less so; some are depraved, others illuminating; (3) do what we can to correct and improve our generalizations.

In the academic study of religion, there is a longstanding battle over the meaning of "religion." To some religious studies scholars, "religion" is scorned as an invidious generalization, an artifact of modernity's colonialist pretensions that continues to visit conceptual and social violence upon the complex phenomena to which it is so coarsely applied – or condemned as some other mental hobgoblin. To other scholars of religion, the concept of religion reveals a suite of human behaviors that

have no ready explanation, yet have been part of the human condition since there have been humans. For this latter group of scholars, the concept of “religion” is a useful map for directing attention to aspects of the human condition that call for explanation.

We RBB editors do not pretend we will resolve abstract debates about the promise and perils of “religion.” We do, however, want to address the growing movement of employing models and simulations to generate insights into religious phenomena.

Conceptual models, statistical models, and computer models are in some ways the apex of generalization in the academic study of religion. Our recommendation for managing the dangers of generalization applies double here: we need to be extremely wary and careful to correct and improve all such models. If we are careful in these ways, we think there is no question that models have the potential to generate important insights into religion – note, not definitive knowledge; just useful insights that can be empirically and theoretically validated. This is the fundamental virtue of conceptual, statistical, and computer models.

Alongside this fundamental virtue, models of aspects of what we are prepared to call “religion” have other advantages.

First, models help us get our heads clear. They force us to be precise and specific, enabling us to detect the specters of incoherence and inconsistency and inspiring us to eliminate them.

Second, models help us frame seemingly intractable theoretical disagreements. They allow us to compare competing theories, detecting where they harmonize and where they are dissonant, and producing stable syntheses of their empirically and theoretically most robust aspects.

Third, when clearly and generously expressed, models invite exactly the kind of discussion and debate that are demanded by our recommendation for managing the dangers of generalizations. The more formal, determinate, and predictive the model, the more efficient the process of feedback and correction.

Fourth, models allow us to integrate theory with data. They help us identify the kinds of data we need to evaluate theory and the datasets we use for testing deepen our understanding of the theory.

The application of computer simulations – which are computer models executed through time – to human life, including religion, is flowering. Several research groups around the world are using these new techniques, many conferences have presented results from those groups, and RBB has published a number of articles presenting or discussing computer simulations of aspects of religion (Lane, 2017a; Lane, 2017b; Nielbo & Sørensen, 2015; Roitto, 2015; Shults et al., 2017; Whitehouse et al., 2012, a target article with commentaries).

Computer simulation may be the most theoretically aggressive and data hungry type of modeling at the current time. But there are many non-computational kinds of models and this issue of RBB presents several. Yasha M. Hartberg and David Sloan Wilson present a cultural-evolutionary model for interpreting sacred religious texts. Valerie van Mulukom employs a narrative-processing model for interpreting people’s memories of high-arousal religious rituals. Marieke Meijer-van Abbema and Sander L. Koole offer a perception-representation model to interpret the results of an experiment on the social effects of prayer on people with positive God beliefs.

In this issue’s target article, Connor Wood presents a social-signaling model of ritual well-being. Wood’s article is a notable example of caution toward models of the intricate human phenomena we are willing to call religious, without shrinking from the demands of modeling altogether. The categories employed in this complex signaling model are described with rich theoretical embedding and obvious awareness of the risks involved in the underlying generalizations. The clarity of the model invites a deeper level of engagement than would be possible otherwise and the ensuing commentaries and Wood’s response show the payoff.

We are fortunate to have both generalizations, and the tools for testing their adequacy, in the academic study of religion as in every other part of our lives. Let’s not pretend we can avoid generalizations and let’s not deploy them thoughtlessly or naively. Rather, let’s make every generalization responsive to critical feedback and prize every insight we extract from the complex domain of human religions, brains, and behaviors.

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