

# *The Extended Mind and Religious Thought*

with Leslie Marsh, "Mindscales and Landscapes: Exploring the Extended Mind"; Mark Rowlands, "The Extended Mind"; Lynne Rudder Baker, "Persons and the Extended-Mind Thesis"; Teed Rockwell, "Minds, Intrinsic Properties, and Madhyamaka Buddhism"; Joel W. Krueger, "Empathy and the Extended Mind"; Leonard Angel, "Quintuple Extension: Mind, Body, Humanism, Religion, Secularism"; and Matthew Day, "Constructing Religion without *The Social*: Durkheim, Latour, and Extended Cognition"

## CONSTRUCTING RELIGION WITHOUT *THE SOCIAL*: DURKHEIM, LATOUR, AND EXTENDED COGNITION

by Matthew Day

*Abstract.* I take up the question of how models of extended cognition might redirect the academic study of religion. Entering into a conversation of sorts with Emile Durkheim and Bruno Latour regarding the "overtakeness" of social agency, I argue that a robust portrait of extended cognition must redirect our interest in explaining religion in two key ways. First, religious studies should take up the methodological principle of symmetry that informs contemporary histories of science and begin theorizing the efficacy of gods as social actors. Second, theorists of religion should begin noting how the work required to construct spaces in which the gods appear depends on the construction of disciplined and capable subjects.

*Keywords:* Emile Durkheim; extended cognition; Bruno Latour; sociology of associations

---

Where does thinking happen? The obvious and most common answer is "somewhere inside the head." After all, this is where the brain is safely housed behind seven millimeters of protective armor. However, despite the instinctive appeal of this response, some theoretical camps have been willing to flirt with absurdity and suggest that it is at best deceptive and at worst wrong. For example, throughout the twentieth century behaviorists of various stripes contested the fruitfulness of this internalist hunch about

Matthew Day is Assistant Professor of Religion in the Department of Religion, Florida State University, 641 University Way, Tallahassee, FL 32306-1520; e-mail mday@fsu.edu.

[*Zygon*, vol. 44, no. 3 (September 2009)]

© 2009 by the Joint Publication Board of *Zygon*. ISSN 0591-2385

[www.zygonjournal.org](http://www.zygonjournal.org)

thinking. B. F. Skinner summarized his methodological hostility to psychological internalism this way: “The objection to inner states is not that they do not exist, but that they are not relevant in a functional analysis. We cannot account for the behavior of any system while staying wholly inside it; eventually we must turn to forces operating on the organism from without” (1963, 35). For the Skinnerians, appealing to inner cognitive processes to explain behavior was akin to summoning Wittgensteinian wheels that spin in hopeless and impotent isolation.<sup>1</sup>

The cognitive revolution may be read as the return of the conceptually repressed, because early cognitive theorists insisted that the behaviorists’ principled disregard for interior springs of thought was shortsighted. Noam Chomsky modestly voiced the concern this way in his well-known review of Skinner’s *Verbal Behavior* (1957): “One would naturally expect that prediction of the behavior of a complex organism (or machine) would require, in addition to information about external stimulation, knowledge of the internal structure of the organism, the ways in which it processes input information and organizes its own behavior” (Chomsky 1967, 144). Whatever else might be happening, these early voices were claiming, the stuff going on inside the head is just too important to ignore. As John Haugeland puts it, to be a cognitivist traditionally has meant endorsing the principle that “intelligent behavior can be explained (only) by appeal to internal ‘cognitive processes’—that is, rational thought in a broad sense” (1998, 9). When viewed through these corrective lenses, the modern cognitive sciences begin to look like a welcome and utterly reasonable antidote to what was an unreasonable theoretical agenda.

Nevertheless, a growing number of contemporary theorists contend that the cognitivist’s traditional focus on internal processes has outlived whatever usefulness it once possessed. “The early researches in cognitive science placed a bet that the modularity of human cognition was such that culture, context and history could be safely ignored at the outset, and then integrated later,” Edward Hutchins judges. “The bet did not pay off” (1995, 354). The reason for this perceived failure is that by assuming that cognition is an internal phenomenon—notice, for example, how casually Haugeland associates rationality with internal cognitive states—one obscures the ways in which thinking actively structures and draws upon the surrounding, external environment. According to the advocates of extended or socially distributed cognition, in thinking of cognition as something that happens inside the head we overestimate the biological brain’s natural prowess and underestimate the consequences of thought’s external ecology.<sup>2</sup> Bo Dahlbom and Lars-Erik Janlert helpfully summarize the theoretical intuition behind models of extended cognition when they observe, “Just as you cannot do very much carpentry with your bare hands, there is not much thinking you can do with your bare brain” (quoted in Dennett 1996, 134). In this limited sense, I suppose one might say that the extended-

cognition movement represents a dose of Skinnerian revenge; although it does not add up to a full-bodied vindication of his studied indifference toward the interior environment of thought, the portrait of an extended mind nevertheless justifies Skinner's conviction that at the end of the day "the skin is not that important as a boundary" (1963, 955).<sup>3</sup> Considered in this light, the cognitive sciences begin to look like an allergic overreaction to the trumped-up threat of behaviorist externalism. The end result of this panic was that cognitivists could not avoid mistaking the computational abilities of the socially and environmentally extended mind for the naked biological brain.

In previous work I have made the case that the emerging cognitive science of religion is guilty of committing the same attribution error (Day 2004; 2005a, b; 2007). The research program thus far has tended to treat the broad spectrum of rituals, music, relics, scriptures, ceremonies, and physical representations typically associated with religious traditions as features that are more or less irrelevant for a biologically fixed human cognitive system. Yet, if the perspective of extended mind highlights a real pattern, and some features of the external world "may be so integral to our cognitive routines as to count as *part of the cognitive machinery* itself," it seems that many forms of religious thought and behavior may be unthinkable without elaborately structured sociocognitive scaffolding in place (Clark 1998, 274). As a result, the attempt to explain religion without addressing the greater ecology of religious thought and behavior could be "as misguided as seeking to investigate the true nature of an ant by removing the distorting influence of the nest" (Griffiths and Stolz 2000, 44–45). Yet, despite my best intentions, I have been tongue-tied when it comes to translating this theoretical hunch into serviceable advice for scholars of religion. Looking back on this earlier work, I think that an unsavory mix of conceptual confusion, empirical naivete, and intellectual cowardice was responsible for this reticence. It is high time for me to either put up or shut up when it comes to religion and extended cognition.

So, in what follows, I am prepared to sin boldly and specify how an appreciation for the cognitive phenomenon of extended mind could transform the academic study of religion. In the first section I examine what is perhaps the first and most influential externalist account of religion: Emile Durkheim's *Elementary Forms of the Religious Life* ([1912] 1995). I draw attention to his strategy for anchoring the categories of human cognition in the material practices of a given society. In the next section I turn to another French sociologist, Bruno Latour, in the hopes of finding a theoretical conversation partner who can help me out of my predicament. I review Latour's ongoing attempt to displace the metaphysical assumptions that have been an essential and worrying feature of *the social* category since Durkheim. In the third section I emphasize how Latour explicitly invokes models of situated and extended cognition to make sense of how collectives

and agents are constructed without appeals to *the social*. In the final section I propose two ways in which the portrait of distributed, embodied, and embedded cognition—aided by a generous amount of prodding from Latour’s project—may reorient the study of religion in fruitful ways.

EMILE DURKHEIM AND THE *SOCIAL* CONSTRUCTION  
OF HUMAN THOUGHT

By now, Durkheim’s fundamental intuition about religion—that it is “first and foremost a system of ideas by means of which individuals imagine the society of which they are members and the obscure yet intimate relations they have with it” ([1912] 1995, 227)—is so well known that a lengthy exposition of his general argument is as unnecessary as it is unwelcome. There is, however, a feature of his *Elementary Forms* that merits attention because it helps to explain why I am prepared to treat Durkheim as an extended-cognitive theorist.<sup>4</sup>

Broadly speaking, there are two crucial cognitive themes in *Elementary Forms*. The first is that the specific content we tend to associate with systems of religious thought, including the notions of a *soul* (book 2, chap. 8) as well as those of *spirits* and *gods* (book 2, chap. 9), is in fact a “transfigured” manifestation of mundane social reality. It is this line of thought, for example, that convinces Durkheim that because “religious force is nothing other than the collective and anonymous force of the clan and because that force can only be conceived of in the form of the totem, the totemic emblem is, so to speak, the visible body of god” ([1912] 1995, 223). When he strikes this theoretical pose, Durkheim takes his place in line after Karl Marx and before Karl Mannheim as a relatively conventional sociologist of knowledge. The second cognitive feature of *Elementary Forms* is the bid to account for the social origins, empirical validity, and logical necessity of the fundamental categories of the understanding, such as time, space, number, genus, and cause. We discern the outline of this epistemological enterprise when Durkheim writes: “The fact that the ideas of time, space, genus, cause, and personality are constructed from social elements should not lead us to conclude that they are stripped of all objective value. Quite the contrary, their social origin leads one indeed to suppose they are not without foundation in the nature of things” (pp. 17–18).

Ann Warfield Rawls (1996) suggests that Durkheim’s epistemological desire to anchor the categories of human cognition to the social order is too often conflated with his sociological portrait of knowledge. This scholarly habit is doubly unfortunate. First, it is a patently insensitive reading of a text that demands and repays close attention. Throughout *Elementary Forms* Durkheim writes relatively obvious things, such as that the categories of the understanding provide a cognitive framework that “transcends and dominates the content because it has a different origin,” or “Men owe

to religion not only the content of their knowledge, in significant part, but also the form in which that knowledge is elaborated,” to indicate that he is attempting to solve two distinct but closely related theoretical riddles (pp. 372; 8). Second, this interpretive imprecision conceals one of the most productive elements of Durkheim’s thought and the very thing that I believe makes him an early extended-cognitive theorist of religion. The inattentiveness camouflages his attempt to relate “the permanent framework of mental life” to the various sorts of cognitive scaffolding provided by the social world (p. 441). To clarify the strategy behind this epistemic project, I want to briefly examine how *Elementary Forms* fastens a specific category of human cognition—in this case, the category of genus, class, or kind—to a spatially and temporally extended social order.

Durkheim’s first move is to disqualify the apparent empirical “naturalness” of the category in a roughly Kantian fashion. Although sensations and perceptions may generate judgments of resemblance or similarity between particulars, they provide an insufficient foundation for articulating the genus category itself. The category of kind organizes sense and perception, but it is not directly sensed or perceived. A “feeling of similarity is one thing,” we read, “the notion of kind is another. Kind is the external framework whose content is formed, in part, by objects perceived to be like one another. The content cannot itself provide the framework in which it is placed” (p. 147). The point to grasp here is that although there are infinitely many ways in which one thing may be said to resemble another, the genus concept isolates some property (or properties) in particular as the standard by which a piece of the world’s furniture enters the charmed circle of class membership. At least, this is how I interpret Durkheim when he writes, “Material things can form collections, heaps, or mechanical assemblages without internal unity. . . . A heap of sand or a pile of stones is no way comparable to the sort of well-defined and organized society that is a genus” (p. 148). The kind category yields more than a crowd; it reveals an idealized and rational ensemble.

However, it is Durkheim’s disgust with the “lazy” Kantian tactic of noting the a priori necessity of the categories without worrying about their origins that opens the door to the second stage of his epistemological analysis. Painted in broad strokes, the key claim is that the cognitive practice of articulating kinds is an elaboration of the prior material practice of social sorting. “It is because men formed groups,” he judges, “that they were able to group things: All they did was to make room for things in the groups they themselves already formed” (p. 145).<sup>5</sup> Consequently, the human capacity to engage in second- and third-order reflection on our epistemic interaction with the world is made possible by our first being socially embedded and biologically embodied agents.<sup>6</sup> One could say that if the categories of the understanding are the Kantian “transcendental conditions” of cognition, society represents the Durkheimian “transcendental condition”

for the categories of the understanding. Shared cognitive categories are the *sine qua non* of effective communication inasmuch as “they express the fundamental conditions of understanding between minds,” he writes in the Conclusion; “it seems obvious that they could only have been fashioned by society” (p. 441).

To justify this far-reaching claim with regard to the genus category, *Elementary Forms* offers the reader an intriguing philosophical case. One of the distinctive features of conceptual classes is that they are linked by means of a dense network of inferential and logical relationships. As Robert Brandom explains, “Concepts are essentially inferentially articulated. Grasping them in practice is knowing one’s way around the properties of inference and incompatibility they are caught up in. What makes a classification deserve to be called *conceptual classification* is its *inferential role*” (Brandom 1994, 89). A skilled concept user knows, for example, that although gorillas and dogs are both members of the *Mammalia* class, this does not mean that dogs should be included among the *Hominidae* or that gorillas belong among the *Canidae*. In this case, the conceptual categories *Mammalia*, *Canidae*, and *Hominidae* are connected through a series of hierarchical associations that determine the direction of inference-preserving cognition. The fact that kind categories—whether they are drawn from the Linnaean taxonomy of Western science or the aboriginal cosmology of the Mount Gambier tribe in Australia (Durkheim [1912] 1995, 141–57)—stand in logically superior and subordinate relationships to each other catches his eye:

The purpose of classification is to establish relations of subordination and coordination, and man would not even have thought of ordering his knowledge in that way if he had not already known what a hierarchy is. Neither the panorama of physical nature nor the mechanisms of mental association could possibly give us the idea of it. Hierarchy is exclusively a social thing. Only in society do superiors, subordinates, and equals exist. Therefore, even if the facts were not sufficiently conclusive, the analysis of those notions would be sufficient in itself to reveal their origin. We have taken them from society and projected them into our representation of the world. Society furnished the canvas on which logical thought has worked. ([1912] 1995, 149)

Thus, Durkheim suggests, the way in which conceptual categories fit together to form a cognitive Matroyska doll of superior and subordinate classes reveals how the practices of articulating conceptual kinds rests on the scaffolding provided by the collective practices of social segregation. From this perspective, we are thinking things (*res cogitans*) only because we are social things (*res socians*).

By virtue of his arguing that the contours of human thought are socially constructed, Durkheim has been ridiculed lately by the doyens of evolutionary psychology. The essential problem, as they see it, is that Durkheim’s commitment to viewing human nature as “the indeterminate matter which the social factor fashions and transforms” is fundamentally at odds with

the representational nativism<sup>7</sup> that underwrites contemporary models of a massively modular mind (Durkheim 1982, 131). Steven Pinker estimates that Durkheim's greatest failing is his "insistence that individual human minds are not worthy of attention" (2002, 156), while Leda Cosmides, John Tooby, and Jerome Barkow (1992, 33) conclude that he is ultimately responsible for an incoherent theoretical stance that is unable to "appreciate the role that the evolutionary process plays in organizing the relationship between our species-universal genetic endowment, our evolved developmental process, and the recurring features of developmental environments." Although I think that this is a relatively ham-fisted reading of Durkheim's theoretical agenda, it is true that he believed all strong nativist programs would ultimately fail because human cognition is not a merely biological phenomenon.<sup>8</sup> As he puts it in *Division of Labor*, "An animal is almost completely under the influence of his physical environment; its biological constitution predetermines its existence. Man, on the contrary, is dependent upon social causes" (Durkheim 1973, 128). In *Elementary Forms*, this intuition is expressed as follows: "thought that is truly and peculiarly human is not a primitive given, therefore, but a product of history" ([1912] 1995, 446). Couched in a slightly more fashionable vocabulary, Durkheim's judgment is that any theoretical approach that does not treat human cognition as an irreducibly hybrid phenomenon will eventually fall short of the mark.

#### MICRO, MACRO, OR NONE OF THE ABOVE? SOCIOLOGICAL THEORIZING AFTER *THE SOCIAL*

I tend to view the evolutionary psychological dismissal of Durkheim as a fairly conventional attack from the scientific right that quickly draws us into sterile nature-versus-nurture debates. Far more intriguing, in part because it begins with a portrait of human hybridity that Durkheim might accept, is Latour's unconventional critique from the sociological left. Given the aims of my essay, there are two notable features of Latour's approach.

The first is his effort to adopt a robustly sociological stance that avoids "the worst defect of Durkheim—taken straight from Kant and passed along straight to Mary Douglas—that is, the self-referential nature of society" (Latour 1999, 118). Worries about whether Durkheim was guilty of "reifying" *society* emerged alongside his attempt to scrutinize this peculiar entity. The reason for this apprehension is not difficult to find. Durkheim insists throughout his writings that *society* represents an ontologically distinct "form of existence" that cannot be dissolved into its constitutive elements. As he makes the point in *Rules of Sociological Method*,

... society is not the mere sum of individuals, but the system formed by their association represents a specific reality which has its own characteristics. Undoubtedly no collective entity can be produced if there are no individual consciousnesses: this is a necessary but not a sufficient condition. In addition, these consciousnesses

must be associated and combined, but combined in a certain way. It is from this combination that social life arises and consequently it is this combination which explains it. By aggregating together, by interpenetrating, by fusing together, individuals give birth to a being, psychical if you will, but one which constitutes a psychical individuality of a new kind. Thus it is in the nature of that individuality and not in that of its component elements that we must search for the proximate and determining causes of the facts produced in it. The group thinks, feels and acts differently from the way its members would if they were isolated. If we therefore begin by studying these members separately, we will understand nothing about what is taking place in the group. (Durkheim 1982, 129)

The key to understanding this passage is the working distinction between an *aggregate* of elements and a *fusion* of elements. According to Durkheim, mere aggregates, like clocks, can easily be explained in terms of their component parts because the components themselves are not transformed by their mechanical association. Although it may be worn down over time, a cog is a cog is a cog, to paraphrase Gertrude Stein. However, in synthetic fusions the characteristics of the component elements are transformed as they come together to create a novel entity with an irreducibly distinct nature all its own. He makes the implications of this position explicit when he acknowledges that “To be sure, society has no other active forces than individuals; but individuals by combining form a psychical existence of a new species, which consequently has its own manner of thinking and feeling” (Durkheim 1951, 310). When seen in this light, societies have a nature and life all their own, and the social world is *à parte entire*.<sup>9</sup>

One of the first to accuse Durkheim of muddying the waters by sailing this tack was his senior colleague Gabriel Tarde. From where Tarde stood, Durkheim was guilty of committing the ruinous philosophical “error of believing that, in order to see a gradual dawn of regularity, order and logic in social phenomena, we must go outside of the details, which are essentially irregular, and rise high enough to obtain a panoramic view of the general effect” (Tarde 1899, 160). Tarde believed that the factors that might account for the idiosyncratic patterns of human activity at a particular time or place could be discovered without recourse to an Olympian meta-perspective because everything we need is already embedded in the asymmetrical relationships between actors. As a result, he concluded, his theoretical approach “is almost the reverse of that of Mr. Durkheim . . . instead of explaining the small by the large, the detail by the big, I explain the overall similarities by the accumulation of elementary actions, the large by the small, the big by the detail” (Tarde 1899, 183). Thus, the pressing Tardean task is to explain some particular feature of human life as the outcome of actors constantly assembling, maintaining, modifying, challenging, and destroying various types of groups rather than relying on the invented object of *society* to take care of the heavy lifting. Simply put, social collectivities are what need to be explained; they cannot be conjured to do the explaining.



Latour takes Tarde to be outlining an early program for a sociology of *associations*, which stands in stark opposition to the Durkheimian sociology of *the social*, and ironically lists him as the venerable ancestor of contemporary actor-network theory. However, we must be careful not to reinscribe the sociology of associations—with its unwillingness to explain the small by the large—within the exhausted limits of traditional micro-versus-macro debates. It is time to abandon the search for a pioneering Hegelian somersault that might reconcile methodological individualism and methodological holism once and for all: “Instead we claim that another movement, entirely different from the one usually followed, reveals itself most clearly through the difficulty of sticking either to a place considered as local or to a place taken as the context for the former one. Our solution is to take seriously the *impossibility* of staying in one of the two sites for a long period” (Latour 2005, 170). In other words, if the theoretical standoff between microsocial and macrosocial perspectives cannot be resolved, it must be abandoned.<sup>10</sup>

Latour believes that both camps represent failed attempts to make sense of the social sciences’ fundamental insight that our agency is *overtaken* by other agencies: “any given interaction seems to *overflow* with elements which are already in the situation coming from some other *time*, some other *place*, and generated by some other *agency*. This powerful intuition is as old as the social sciences” (Latour 2005, 166). Two examples drawn from the canon of social theory should help clarify his point. From the macrosocial camp of theoretical holism, we find Durkheim noting that “We speak a language we did not create; we use instruments we did not invent; we claim rights we did not establish; each generation inherits a treasury of knowledge that it did not itself amass; and so on. We owe these various benefits of civilization to society, and although we do not see where they come from, we know at least that they are not of our own making” ([1912] 1995, 214). From the microsocial camp of methodological individualism, we find Max Weber observing: “*Today’s* capitalist economic order is a monstrous cosmos, into which the individual is born and which in practice is for him, at least as an individual, simply a given, an immutable shell in which he is obliged to live. It forces on the individual, to the extent that he is caught up in the relationships of the ‘market,’ the norms of its economic activity” (2002, 13). In both of these passages we have an appeal to some notion of context—some larger, more expansive frame of reference—to constrain the agency of a seemingly autonomous actor.

Whether it is society, capitalism, structure, rationalization, *Lebenswelt*, evolution, field, or culture, the history of modern social theory can be summarized as a search for the *context* that may explain how and why our actions are never simply our own. Latour submits that the spatial metaphor of context was incapable of grasping the complexity of agency in part because it establishes a crude division between insides and outsides:

The gravest consequence of the notion of context was that it forced us to stick to a double-entry accounting so that whatever came from the outside was deducted from the total sum of action allotted to agents “inside.” With that type of balance sheet, the more threads you added in order to *make you act* from the outside, the *less you yourself* acted: the conclusion of this accounting procedure was inescapable. And if you wished, for some moral or political reason, to save the actor’s intention, initiative and creativity, the only way left was to increase the total sum of action coming from the inside by *cutting some of the threads*, thus denying the role of what is now seen as so many “bondages,” “external constraints,” “limits to freedom,” etc. Either you were a free subject or you lived in abject subjugation. (Latour 2005, 215)

Nature or nurture? Micro or macro? Local or global? Inside or outside? The empirical emptiness of these forced choices—and the intractable debates over which horn of the dilemma should be embraced—can be traced back to context and the assumption that one agency is *really* responsible for some action because it operates at a grander scale than another. “To be a good sociologist,” Latour advises, “one should refuse to go up, to take a larger view, to compile huge vistas” (2002, 124). The best way to dissolve the brooding presence of the Damoclean *context* that hovers over our heads is to insist that the life of an actor is played out on a meticulously flattened topography.

Over the years, Latour has cobbled together various tactics to get out from under the dead hand of context. In the field of science and technology studies, for example, Latour has worked hard to demonstrate how the universality of science is an empirical outcome of particular networks expanding to other sites. “The universal in networks produces the same effects as the absolute universal, but it no longer has fantastic causes,” he writes. “It is possible to verify gravitation ‘everywhere,’ but at the price of the relative extension of the networks for measuring and interpreting. The air’s spring can be verified everywhere, provided that one hooks up to an air pump that spread little by little throughout Europe owing to the multiple transformations of the experimenters” (Latour 1993, 119).

For the moment, however, his reflections on the collective work necessary to construct a human actor are more important than his reflections on the collective work necessary to construct a scientific fact.<sup>11</sup>

#### ASSEMBLED COMPETENCE: DISLOCATED ACTORS, CIRCULATING OBJECTS, AND DISTRIBUTED COGNITION

Every time my wife and I are invited to a dinner party, I confront the overwhelming assignment of picking out a bottle of wine to take to our hosts. The amount of information to manage is crushing. The vintners have tried to make the task a bit easier by putting particular types of wines in particular kinds of bottles. They also have attached labels that tell me something about the wine’s profile, the types of grapes used, the part of the world the wine came from, and when it was made. Additionally, the store

I go to has grouped wines by type into more or less discrete areas and taped a handful of reviews from *Wine Enthusiast* or *Wine Spectator* to the shelves. Even with this wall of data in front of me, however, the process of making a decision remains excruciating. White or red? If white, should I choose a chardonnay, sauvignon blanc, riesling, or gewürztraminer? If red, should I pick a merlot, pinot noir, cabernet sauvignon, or malbec? Which country? Which region? Which year? Will this be consumed before, during, or after dinner? What are we having for dinner, anyway? How much money should I spend? I don't want to appear cheap, but, depending on the relationship my wife and I have with the hosts and the nature of the occasion, I also don't want to go overboard. After all, I have read Pierre Bourdieu and know that gifts are implicit challenges to the receiver's status (Bourdieu 1977). In the end, I usually abandon any hope of picking out the right wine on my own and call over the store owner to save me.

This trivial vignette (which, sadly, is all too true) nevertheless reveals something important about human cognition and the poverty of context. The richly structured environment of the store and its merchandise guarantees that I don't need to keep all of the relevant information in my head. As a result, this appears to be a paradigmatic case where "a good deal of actual thinking involves loops and circuits that run outside the head and through the local environment" (Clark 1998, 207). Yet, my meager proficiency at selecting a wine for a dinner party is quite extraordinary when compared to, say, the wine-selecting aptitude of my two-year-old son or five-year-old golden retriever. Whence this competence? The category of context, and its concomitant distinction between inside and outside, begins to run aground when we try to answer this question. "To transform yourself into an active and understanding consumer," Latour estimates, you need

to be equipped with an ability *to calculate* and *to choose*. In the sociology of the social there were only two sources for such a competence: either you were born with it as a human—as if Darwinian evolution had, from the dawn of time, prepared men and women to be supermarket calculators and optimal maximizers—or you were molded into becoming a clever consumer by the powerful grip of some economic infrastructure. But with this new topography that we are sketching, another source of competence might be located at your fingertips: there are plug-ins circulating to which you can *subscribe*, and that you can download on the spot to *become* locally and provisionally competent. (Latour 2005, 210)

This passage highlights the second feature of Latour's project I want to discuss—the post-*social* turn toward the extended mind. As I read him, he has arrived at the conclusion that any attempt to make sense of even modest acts of human agency after abandoning *the social* requires some recognition of the extended and distributed profile of human cognition. When it comes to picking out wines, for example, the store is not merely the static framework or lifeless context in which my actions take place. Rather, the entire store should be seen as a carefully prepared space that provides

both commodities and competence. The simple fact of the matter is that most of what I need and use to select a bottle of wine is left behind when I leave the store. Taken together, the looping patterns of cognitive activity and the circulating bits of nonneural resources mean that the human agent's capacities "no longer come from either context or from the actor's subjectivity, or for that matter from any clever compromise between the two" (Latour 2005, 212). Extended cognition frustrates any attempt to draw a clean division between inside and outside.

One way of presenting Latour's interest in extended cognition is to say that he is trying to rescue Durkheim's intuition about the "overtakenness" of our mental lives from the bogeyman of the Durkheimian *social*. Latour himself appears to concede this when he observes: "Durkheim showed how all logical and personal categories inside are in some ways the translation and interiorization of the outside. But this outside was mistaken for a society thus opening, despite Tarde's warnings, the empty debate between psychology and socio-logy" (Latour 2005, 213 n. 286). The challenge is finding a theoretical vocabulary that allows us to talk about the labor needed to assemble collectives, objects, and thinking subjects without appealing to a *deus ex machina* that is *really* responsible for all this productive activity.<sup>12</sup> We must somehow discover a means for sociological theorizing without *the social*. Broadly speaking, Latour thinks the key is to pay greater attention to *things*.

In its quest for context, modern social theory has produced curiously objectless accounts of human life. Instead of objects, the sociology of the social turned its attention to invisible, immovable, and seemingly immortal phenomena such as systems, functions, structures, and even—if somewhat notoriously—"structured structures predisposed to function as structuring structures" (Bourdieu 1977, 72). Yet, our lives are virtually unimaginable without things. As Lorraine Daston remarks, in a world devoid of things there would be nothing "to describe, or to explain, remark on, interpret, or complain about—just a kind of porridgy oneness" (2004, 9).

"Porridgy oneness" is a lovely turn of phrase, and it captures Latour's intuition that *the social* generates ghostly images of an objectless, homogeneous world that "can stand without being produced, assembled, collected or kept up" (Latour 2005, 184). However, when we compare our object-filled collectives with genuinely objectless collectives, something remarkable happens. The fragility and mortality of *the social order* becomes tragically apparent. For example, without the countless hours of grooming that establish, maintain, and mend associations between baboons, the pack would soon dissolve (Strum 1987; Dunbar 1998). A collective seems to be as fragile or durable as the equipment the actors have for assembling it. Society acquires the patina of permanence from *things*.

Baboons are not utterly deprived of stabilizing tools. But the point is that even though the males show off their formidable canines and the females parade their

irresistible (to the males) swollen bottoms, the baboons still have to maintain their force through even more social skills. Chimpanzees have some tools, but baboons only have their “social tools,” namely their bodies which are slowly transformed by years of constant seduction, grooming, and communal life. In a sense, baboons could really offer the ideal natural experiment to check what happens when social connections are strictly limited to social skills. In this case, no technology of any sort is available to the participants in order to “build” the “superstructure” of their “society.” (Latour 2005, 198; compare Strum and Latour 1987)

Actors, human or not, are *always* embedded, embodied, and distributed.<sup>13</sup> Once we have abandoned *the social*, the challenge is tracing the associations between agents and itemizing the consequences that these associations have on the assembled actors. The number of things that circulate through a collective, Latour proposes, can be “explained by the dimensions of the collective to be held together. A much larger number of objects requires a much larger number of subjects. A much greater degree of objectivity requires a much larger degree of subjectivity” (Latour 1993, 108). Objects play crucial roles in the construction of both collectivities and subjectivities. On the one hand, the durability of things guarantees that collectives will not need to rebuild themselves from the ground up every morning—giving rise to the illusion that *society* is always already there. On the other hand, objects help to create particular subjects because they demand and cultivate specific abilities. There is no “hammering competence” in a world without hammers.

#### ON SECOND THOUGHT: EXTENDED COGNITION AND THE (NON-SOCIAL) CONSTRUCTION OF RELIGION<sup>14</sup>

It is now time to answer the important question: What practical difference does any of this abstract theorizing make for the academic study of religion? I believe this line of thinking arrives at two proposals with potentially far-reaching implications.

Durkheim was certain that only his approach could avoid the trap of treating religion as a tissue of hallucinations that turn otherwise thoughtful religious human actors into idiots.<sup>15</sup> Nevertheless, despite his best efforts, religion remains a kind of an illusion at the end of the day. “A society is to its members what a god is to its faithful,” Durkheim argues, by which he means that when the faithful *think* they are communicating with their god they are really interacting with *society*. Of course, Durkheim is unexceptional in this respect. Ever since Ludwig Feuerbach there have been countless attempts to properly contextualize religion so that we might finally discern what is *really* going on behind the push and pull of this all-too-human activity. Latour forces us to confront the uncomfortable truth that every attempt to provide a *social* “explanation” of religion, thanks to an unwavering trust in context, has merely substituted one utterly mysterious thing for another. “The social is not like a vast impalpable horizon in

which every one of our gestures is embedded,” he advises; “society is not omniscient, ubiquitous, watching every one of our moves, sounding every one of our most secret thoughts like the omnipotent God of older catechisms” (Latour 2005, 241). From this perspective, the nontheological study of religion has never existed, because we have yet to relinquish our faith in the pantheon of invisible agents (society, capitalism, power, structure, field, culture, function) that are actually pulling the strings. Religious studies is still haunted by ghosts.

The reasons for this state of affairs are manifold, but many of them have to do with the nineteenth-century endeavor to promote the sciences as contextless knowledge of the world. The epistemic ideal of “aperspectival objectivity” was built around the sense that a particular claim about the world becomes more objective, that is, counts more as genuine knowledge, to the degree that it does not matter when or where the claim is made or who is making it. “Just as the transcendence of individual viewpoints in deliberation and action seemed a precondition for a just and harmonious society to eighteenth-century moralists,” Daston argues, “so the transcendence of the same in science seemed to some nineteenth-century philosophers a precondition for a coherent scientific community” (1992, 607). It may seem a bit glib, but Robert Kohler is on to something important when he notes that “it was the end for cold fusion when people decided that it only happened in Salt Lake City” (2002, 191). Thus, from the construction of placeless places such as laboratories to establishing official matrices of measurement and distributing standardized machinery of discovery, modern scientific practices have been specifically designed to efface the marks that local conditions make on the production of knowledge.<sup>16</sup>

This link between science and placelessness virtually guaranteed that when it came to human beings the only things that needed to be *properly contextualized* were those beliefs or practices deemed archaic, primitive, irrational, or superstitious. From this perspective, social-scientific explanations are, in practice, ontological sleights of hand that replace “false” beliefs or practices with “real” contexts. Or, as Latour puts it, the trajectory of social explanations has always been downward “since the power of science remained on their side and was not scrutinized. Religion, popular culture, mythical cosmogonies, markets, corporations—even works of art—were never as strong as the science of the social, which was *replacing* all those softer things by the harder stuff of some hidden social aggregates as well as their powers, structure and inertia” (Latour 2005, 97).

This brings me to my first proposal. If we wish to *explain* religion rather than merely replace it with something else, the academic study of religion will need to take up a methodological principle of symmetry that allows us to explain truth and falsity, rationality and irrationality, even science and religion, in the same basic terms.<sup>17</sup> Ironically, the challenge of a nontheological study of religion may demand that we turn our backs on a half

century of institutional wisdom and admit the efficacy of gods-as-things. “Why not just say that in religion what counts are the beings that make people act, just as every believer has always insisted?” Latour provocatively asks. “That would be more empirical, perhaps more scientific, more respectful, and much more economical than the invention of two impossible non-existing sites: one where the mind of the believer and the social reality are hidden behind illusions propped up by even more illusions” (2005, 235). Admittedly, this sounds like heretical advice, and I am a bit uneasy about the Pandora’s box it may open—but then, I did set out to sin boldly! As I see it, the payoff for this reorientation is that we will be able to make good on Durkheim’s enduring intuition about religion as “an eminently social thing” without having to bear the suffocating weight of *the social*. This is what I take Latour to mean when he makes the suggestive but maddeningly opaque proposition that religion gathers all the same entities as law or science but does so in a religious way (2005, 239). That is, we must learn to trace how one sort of collective can be assembled with rights and laws, another with genes and quasars, and yet another with gods and souls. The gods are constructed, but they cannot be merely reduced to *the social* because they are simultaneously mobilized by the relevant actors to assemble a group. If we are lucky, we may be able to observe, perhaps for the first time, what it is about gods (and the rest) that makes them effective actors when constructing a particular type of collective.

The other proposal focuses more narrowly on the potential role of the extended mind in a methodologically flattened, academic study of religion. As already mentioned, Latour finds the basic thrust of Durkheim’s epistemological project as promising as I have since first reading *Elementary Forms*. The problem is that any attempt to anchor (distributed) cognition in a social context will ultimately fail because it relies on the quaint division of insides and outsides to analyze agency. More to the point, we cannot simply drop the extended mind into our existing social theories of religion and expect very much to happen.

I confess that this is one of the mistakes I committed in previous attempts to discuss religion and extended cognition. For example, “The Ins and Outs of Religious Cognition” (Day 2005a)—even the title gives me away—uses the insider-versus-outsider debate in the study of religion as a trope for thinking about the sources of religious thought and behavior. What I failed to appreciate is that a collective built with the help of only gods and souls is quite different from one built with gods, souls, sacrifices, temples, pilgrimage sites, and relics, which now suggests two things. First, in addition to the familiar worries about the dubious essentialism and political strategies embedded in *religion*, we should be concerned about the ways in which this taxonomic category obscures the differences between communities. One community charts a path of self-creation that includes a history of sumptuous materiality built around their interactions with the

gods. Another proceeds to construct and regulate itself in the midst of a god who forbids such ornate (representational) practices. In these cases, rather than thinking of these groups as types of religious communities, it may be more fruitful to think of them as ontologically distinct entities.<sup>18</sup>

Second, the skills required for an actor to assemble, maintain, modify, challenge, destroy, and replace these different kinds of groups also will be different. This is where Latour has forced me out of my dogmatic slumber. Threads of association—not to mention the sites where these associations are forged, preserved, and challenged—don't just scaffold or support cognition. The equipment and buildings used to assemble a group aren't just painted spandrels or flying buttresses.<sup>19</sup> My favorite wine store doesn't merely scaffold my (slender) competence at selecting an appropriate wine; without the wealth of "plug-ins" that the store provides, my competence would disappear almost completely. Once we recognize this, Latour judges, "we should be able to observe empirically how an anonymous and generic body is made to be a person: the more intense the shower of offers of subjectivities, the more interiority you get" (2005, 208). Just as the durability and scale of a collective seem to increase with the sheer number of things, the subjectivities that are associated and assembled with these objects seem to grow in complexity and depth.

Thus, if the concept of extended cognition is to work its way into the religious studies vocabulary, we will need more sensitive tools to follow the threads of association that are ultimately responsible for a religious person's competence at such things as piety, repentance, prayer, and sacrifice. This will be difficult to accomplish, but we are fortunate. In the history of science we already have learned how to see laboratories as sites that manufacture both scientific objects and scientific subjects. That is to say, the work required to construct a space in which objective scientific facts can emerge ultimately depends on suitably disciplined and capable subjects. You cannot have one without the other (Shapin and Schaffer 1985; Latour and Woolgar 1986; Schaffer 1988). Likewise, the networks responsible for producing, maintaining, and circulating *the gods* are the same ones that produce, maintain, and circulate the subjective skills required to act where such beings are present. Here again, you cannot have one without the other. We must therefore find ways to track both processes simultaneously in the academic study of religion. When we do, we will have successfully ignored the tired opposition between the social and the psychological—and perhaps exposed the realistic foundations of religion in the process.



## NOTES

1. Ludwig Wittgenstein observed that “a wheel that can be turned though nothing else moves with it, is not part of the mechanism” (1967, I: §271).
2. Throughout this essay I use *extended cognition* and *extended mind* synonymously. For the sake of economy, I also use these terms to cover the full spectrum of affiliated sociocultural approaches to cognition, such as activity theory, situated action, and distributed cognition.
3. For example, compare Skinner’s claim with this observation by Andy Clark: “The human mind, if it is to be the physical organ of human reason, simply cannot be seen as bound and restricted by the biological skinbag” (Clark 2003, 4).
4. The obvious criticism that one might make at this point is that, given Durkheim’s stance on the irreducibility of sociology to psychology, it is preposterous to treat him as a cognitive theorist (see Pyysiäinen 2003). My brief reply to this criticism is that although Durkheim—and the extended-cognition movement in general—thinks more flexibly about the boundaries between the social and the psychological than the traditional cognitivist vocabulary allows, he is no less interested in explaining the structure and sources of human thought as a result. For a nice discussion of the ways in which models of extended cognition deliberately blur the lines between the social and the psychological, see Giere and Moffatt 2003.
5. An early version of this thesis appears in *Primitive Classification*: “Things of the same class were really considered as relatives of the individuals in the same group and consequently of each other. They are ‘of the same flesh,’ the same family. Logical relations are thus, in a sense, domestic relations” (Durkheim and Mauss 1967, 84).
6. By “second- and third-order reflection” I simply mean to draw attention to the fact that human beings have the epistemic capacity to treat their cognitive categories as objects for further reflection, manipulation, and revision.
7. Representational nativism is the claim that there is domain-specific knowledge and/or computational mechanisms encoded in the human genome.
8. For a sophisticated rebuttal of the standard evolutionary psychological case against Durkheim, see Schmaus 2003.
9. Durkheim often compares society’s distinct nature to the qualitative properties of substances like bronze, where “the hardness of bronze lies neither in the copper, nor in the tin, nor in the lead which have been used to form it, which are all soft or malleable bodies. The hardness arises from the mixing of them” (Durkheim 1982, 39).
10. For what it is worth, this is also John Dewey’s philosophical advice: “intellectual progress usually occurs through sheer abandonment of questions together with both of the alternatives they assume—an abandonment that results from their decreasing vitality and a charge of urgent interest. We do not solve them; we get over them” (Dewey 1910, 19).
11. Intriguingly, Latour wishes to argue that science is “objective” only insofar as its products, findings, and discoveries are constructed. The philosophical problem with taking up this line of thought, he confesses, is that our theoretical vocabularies are ill-suited to fleshing out this intuition. As he observes, there “seems to be no plausible way to say that *because* something has been constructed and *well-constructed* it is *thus* solid, durable, independent, autonomous, and necessary—even though this is what manifold languages of practices obstinately belabor, and what science studies has tried to exact by staying as close to the bench as possible” (Latour 2003, 36).
12. “What is meant by a ‘social explanation’ most of the time?” Latour asks. “Adding another actor to provide those already described with enough energy necessary to act. But if you have to add one, then the network was not complete. And if the actors already assembled do not have enough energy to act, then they are not ‘actors’ but mere intermediaries, dopes, puppets” (Latour 2005, 147).
13. Although I do not take the time here to clarify his point, I should mention that Latour is prepared to treat objects as agents because they “make a difference in the course of some other agent’s action” (Latour 2005, 71).
14. The legitimacy of the *religion* category has been hotly contested over the last decade or so, and many scholars now advocate eliminating the term from our vocabularies altogether (Fitzgerald 2000; Dubuisson 2003). However, any attempt to address this issue would draw me into a deeply tangential discussion. So, for the time being, I treat religion as referring to behaviors and beliefs that are oriented around and toward extrahuman beings, such as gods, ghosts, and spirits.

15. "Turning now to Frazier's theory," Durkheim writes, "this author assumes a kind of thorough-going idiocy on the part of the primitive that the facts do not allow us to ascribe to him" (Durkheim [1912] 1995, 177).

16. For a lovely exploration on how this erasure is never complete, see Livingstone 2003.

17. Emerging first out of the Edinburgh "strong programme" in the sociology of knowledge, the principle of symmetry is now a standard methodological device in the history of science. David Bloor explains: "The interesting question is how the world is going to be described by the actors under study. That the world doesn't contain witches leaves open the question of whether it will or will not be believed to contain witches. Having chosen the true option is no less problematic than having chosen the false one: that is what methodology symmetry amounts to" (1991, 177). Latour, however, thinks the standard version of methodological symmetry is in fact *asymmetrical* in that it treats "scientific facts" about "nature" as thoroughly constructed but tends to adopt a kind of naive realism about "society." Whether Latour is right about this assertion is another issue.

18. I thank Harry Collins, the distinguished sociologist of science, for stepping out from behind the cloak of anonymous peer review and forcing me to reckon with this possibility. In general, I admit that I am rather skeptical about the utility of thinking about religion(s)—or religious communities—as ontological entities, if only because the history of "discovering" religion(s) has such a politically and epistemologically checkered past (see Chidester 1996).

19. I introduced this distinction in Day 2005a. In contemporary evolutionary debates, spandrels—the roughly triangular areas that form between the right or left exterior curves of an arch—are the metaphor of choice to describe nonadaptive by-products or side effects of evolutionary design. Flying buttresses—High Gothic architectural features designed to absorb and resist thrust from the vaulted roofs of church naves—were invoked as a metaphor for external scaffolding that functionally extends and supports cognition.

## REFERENCES

- Bloor, David. 1991. *Knowledge and Social Imagery*. 2d ed. Chicago: Univ. of Chicago Press.
- Bourdieu, Pierre. 1977. *Outline of a Theory of Practice*. Trans. Richard Nice. Cambridge: Cambridge Univ. Press.
- Brandom, Robert. 1994. *Making Things Explicit*. Cambridge, Mass.: Harvard Univ. Press.
- Chidester, David. 1996. *Savage Systems*. Charlottesville: Univ. of Virginia Press.
- Chomsky, Noam. 1967. "A Review of B. F. Skinner's *Verbal Behavior*." In *Readings in the Psychology of Language*, ed. Leon Jakobovits and Murray Miron, 142–71. New York: Prentice Hall.
- Clark, Andy. 1998. *Being There*. Cambridge: MIT Press.
- . 2003. *Natural-Born Cyborgs*. New York: Oxford Univ. Press.
- Cosmides, Leda, John Tooby, and Jerome Barkow. 1992. "The Psychological Foundations of Culture." In *The Adapted Mind*, ed. Jerome Barkow, Leda Cosmides, and John Tooby, 19–136. New York: Oxford Univ. Press.
- Daston, Lorraine. 1992. "Objectivity and the Escape from Perspective." *Social Studies of Science* 22:597–618.
- . 2004. "Speechless." In *Things That Talk*, ed. Lorraine Daston, 9–16. New York: Zone Books.
- Day, Matthew. 2004. "Religion, Off-Line Cognition and the Extended Mind." *Journal of Cognition and Culture* 4:101–21.
- . 2005a. "The Ins and Outs of Religious Cognition." *Method and Theory in the Study of Religion* 16:241–55.
- . 2005b. "Rethinking Naturalness." In *Mind and Religion*, ed. Harvey Whitehouse and Robert McCauley, 85–106. Lanham, Md.: AltaMira.
- . 2007. "Let's Be Realistic." *Harvard Theological Review* 100:47–64.
- Dennett, Daniel. 1996. *Kinds of Minds*. New York: Basic Books.
- Dewey, John. 1910. *The Influence of Darwinism on Philosophy, and Other Essays on Contemporary Thought*. New York: Holt.
- Dubuisson, Daniel. 2003. *The Western Construction of Religion*. Baltimore: Johns Hopkins Univ. Press.

- Dunbar, Robin. 1998. *Grooming, Gossip and Language*. Cambridge: Harvard Univ. Press.
- Durkheim, Emile. [1912] 1995. *Elementary Forms of the Religious Life*. Trans. Karen Fields. New York: Free Press.
- . 1951. *Suicide*. New York: Free Press.
- . 1973. *Division of Labor*. New York: Free Press.
- . 1982. *Rules of Sociological Method*. New York: Free Press.
- Durkheim, Emile, and Marcel Mauss. 1967. *Primitive Classification*. Trans. Rodney Needham. Chicago: Univ. of Chicago Press.
- Fitzgerald, Timothy. 2000. *The Ideology of Religious Studies*. New York: Oxford Univ. Press.
- Giere, Ronald, and Barton Moffatt. 2003. "Distributed Cognition: Where the Cognitive and the Social Merge." *Social Studies of Science* 33 (2): 301–10.
- Griffiths, Paul, and Karola Stolz. 2000. "How the Mind Grows." *Synthese* 122:29–51.
- Haugeland, John. 1998. *Having Thought*. Cambridge: Harvard Univ. Press.
- Hutchins, Edward. 1995. *Cognition in the Wild*. Cambridge: MIT Press.
- Kohler, Robert. 2002. "Place and Practice in Field Biology." *History of Science* 40:189–210.
- Latour, Bruno. 1993. *We Have Never Been Modern*. Cambridge: Harvard Univ. Press.
- . 1999. "For Bloor and Beyond—A Reply to David Bloor's *Anti-Latour*." *Studies in History and Philosophy of Science* 30:113–29.
- . 2002. "Gabriel Tarde and the End of the Social." In *The Social in Question*, ed. Patrick Joyce, 117–32. London: Routledge.
- . 2003. "The Promises of Constructivism." In *Chasing Technoscience*, ed. Don Ihde and Evan Selinger, 27–46. Bloomington: Indiana Univ. Press.
- . 2005. *Re-assembling the Social*. New York: Oxford Univ. Press.
- Latour, Bruno, and Steve Woolgar. 1986. *Laboratory Life*. 2d ed. Princeton: Princeton Univ. Press.
- Livingstone, David N. 2003. *Putting Science in Its Place*. Chicago: Univ. of Chicago Press.
- Pinker, Steven. 2002. *The Blank Slate*. New York: Basic Books.
- Pyysiäinen, Ilkka. 2003. *How Religion Works*. Leiden: Brill.
- Rawls, Ann Warfield. 1996. "Durkheim's Epistemology: The Neglected Argument." *The American Journal of Sociology* 102 (2): 430–82.
- Schaffer, Simon. 1988. "Astronomers Mark Time: Discipline and the Personal Equation." *Science in Context* 2:115–45.
- Schmaus, Warren. 2003. "Is Durkheim the Enemy of Evolutionary Psychology?" *Philosophy of the Social Sciences* 33:25–52.
- Shapin, Steve, and Simon Schaffer. 1985. *Leviathan and the Air-Pump*. Princeton: Princeton Univ. Press.
- Skinner, B. F. 1963. "Behaviorism at Fifty." *Science* 31 (140): 951–58.
- Strum, Shirley. 1987. *Almost Human*. New York: Random House.
- Strum, Shirley, and Bruno Latour. 1987. "The Meanings of Social." *Information sur les Sciences Sociales/Social Science Information* 26:783–802.
- Tarde, Gabriel. 1899. *Social Laws: An Outline of Sociology*. Trans. Howard C. Warren. New York: Macmillan.
- Weber, Max. 2002. *The Protestant Ethic and the "Spirit" of Capitalism*. Trans. Peter Baehr. New York: Penguin.
- Wittgenstein, Ludwig. 1967. *Philosophical Investigations*. Trans. G. E. M. Anscombe. London: Blackwell.