

Another example that shows how religion has become transformed into a political instrument and an object of violence is illustrated by the purposeful management of reified culture by the politically active members of the local, educated, and Christianized Loma elite. During free elections to a number of political offices at the local, regional, and national levels since the early 1990s, the candidates tried to win the support of Loma farmers by promising to facilitate an abrogation of the still existing ban on local religious practice. They also encouraged people to resume the male initiation ritual into the secret Poro cult that had not been performed publicly in more than thirty years. Members of the local elite also took an initiative to organize a cultural awareness movement known as "unity" (*gilibai* in the vernacular) with the official purpose of promoting cultural lore. Unofficially, the *gilibai* formed as a civil defense organization in opposition to the simultaneous ethnic-based mobilization of neighboring and coexisting Mandingo peoples. These events happened at the height of the fighting in the Liberian civil war in the first half of the 1990s—a conflict which also opposed Loma and Mandingo armed forces.

### Conclusion

Research in human cognition has brought attention to the fact that conscious beliefs are driven by automatic assumptions working below our conscious awareness. From a standard cognitive perspective, consciously held beliefs do not constitute a sufficient and necessary definition of the nature of religious concepts. I acknowledge and have described briefly how such more or less unconscious psychological-cognitive

processes are at work. However, the unconscious cognitive constraints on religious imagination cannot explain alone why people, the Loma in this case, remain committed to their "old ways." As suggested, a more comprehensive account must consider other environmental factors, including people's explicit reflections on their religion. From the limited case material I have presented above emerge different modes of reflexivity that are associated with the *sale* category. Religious reflexivity refers to a continuum of knowledge. At one end of the continuum one finds religious knowledge which is not fully intelligible and yet reflexive, such as the sense of self implied by *sale* healing rituals and subsequent initiation into a *sale* cult, or the non-contradictory conceptualisation of gods that are perceived both as pure artefacts and powerful, invisible agents. At the other end of the continuum exists the explicit awareness of religious representations and practices which facilitates outsiders' strategic manipulation of religious symbolism, such as the candidates that "invent tradition" in their campaign for political election, or the ritually framed harassment of co-existing Muslims. Thus, in order for a cognitive theory of religion to provide causal explanations of relatively stable and lasting religious representations it must consider both the unconscious yet reflective thought and, in the present case, the explicit awareness underlying the elite manipulation of religious adherence for political purposes.

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## Modes of Religiosity<sup>1</sup>

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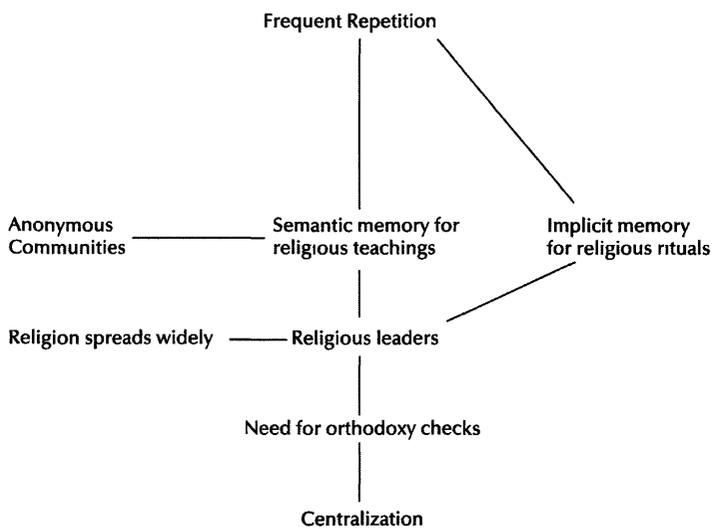
This article distinguishes two modes of religiosity, "doctrinal" and "imagistic." The "modes theory" advances a set of testable hypotheses concerning the causal interconnections between a set of cognitive and sociopolitical features of religious traditions everywhere (see also Whitehouse 1995, 2000, and 2004).

### The Doctrinal Mode of Religiosity

In many religious traditions, ritual action tends to be highly routinized, facilitating the storage of elaborate and conceptually complex religious teachings in semantic memory, but also activating implicit memory in the performance of most ritual procedures. These cognitive features are linked to particular social morphology, including hierarchical, centralized institutional arrangements, expansionary potential, and dynamic leadership. The following specific hypotheses may be enumerated (summarized in Figure 1).

1. Frequent repetition activates semantic memory for religious teachings.

One of the most conspicuous features of the doctrinal mode is that the transmission of religious teachings is highly routinized (i.e. frequently repeated). A great advantage of frequent repetition is that it allows the establishment of a great deal of explicit verbal knowledge in semantic memory. Doctrines and narratives that would be impossible to learn and remember if they were rarely transmitted can be very effectively sustained through repetitive sermonizing. Repetition, however, can lead to reduced levels of motivation. But many routinized religions are successful at holding onto their followers through a variety of mechanisms including supernatural sanctions (such as eternal damnation) and, more positively, incentives (such as eternal life and salvation). Of course, both of these mechanisms depend on people believing the religious teachings. In order for people to believe in a set of doctrines, they have to be cast



**Figure 1. The Doctrinal Mode of Religiosity**

in a highly persuasive fashion. This is commonly achieved, at least in part, by special techniques of oratory established over time through processes of selection. Routinized religions tend to be associated with highly developed forms of rhetoric and logically integrated theology, founded on absolute presuppositions that cannot be falsified. All of this is commonly illustrated by poignant narratives that can easily be related to personal experience.

2. Semantic memory for religious teachings and the presence of religious leaders are mutually reinforcing features.

Where religious ideas are expressed in words (e.g. transmitted through oratory), it is likely that the orators themselves will rise above the common herd. Most religious traditions of this sort have celebrated leaders, who may take the form of gurus, messiahs, prophets, divine kings, high priests, mediums, visionaries, disciples, or simply great evangelists or missionaries. Partly through their skills as orators, these leaders become marked out as special. But, at the same time, their pronouncements (real or attributed) provide the central tenets of a belief system, and their deeds become the basis for widely-recounted religious narratives, transmitted orally. Both forms of knowledge are stored primarily in semantic memory.

3. The presence of religious leaders implies a need for orthodoxy checks.

Where religious leaders are upheld as the source of authoritative religious knowledge, their teachings must be *seen to be* preserved intact. At the very least, the credibility of any such tradition depends on its adherents *agreeing* what the teachings are, even if other traditions hold to alternative (and perhaps conflicting) versions. Agreement depends partly on effective detection of unauthorized innovation and partly on its effective obstruction and suppression. Religious routinization contributes to both detection and suppression, by conferring a selective advantage on standardized/orthodox forms over non-orthodox ones. The link between routinization and de-

tection is especially straightforward. Frequent repetition of a body of religious teachings has the effect of fixing it firmly in people's minds. In literate traditions, the teachings might also be written down in sacred texts, and thereby fixed on paper (at least to some extent). But the crucial thing is that standardized versions of the religious teachings become widely shared and accepted through regular public rehearsal and reiteration. Once this has happened, the risks of innovation going undetected become remote. Rather more complex is the role of routinization in the obstruction of unauthorized innovation, to which we now turn (points 4–5).

4. Frequent repetition leads to implicit memory for religious rituals.

Rituals that are performed daily or weekly rapidly come to be processed, to a considerable extent, in procedural/implicit memory. Although potentially accessible to conscious representation (e.g. for the purposes of teaching a child or newcomer how to behave in church) liturgical rituals may not, in the normal pattern of life, trigger very much explicit knowledge at all.

5. Implicit memory for religious rituals enhances the survival potential of authoritative teachings stored in semantic memory.

To the extent that people do participate in routinized rituals "on autopilot," this reduces the chances that they will reflect on the meaning of what they are doing. In other words, frequent repetition diminishes the extent to which people come up with personal theories of their rituals. And they are more likely to accept at face value any official versions of the religious significance of their rituals. The processing of routinized rituals as implicit procedural schemas really opens the way for religious authorities to tell worshippers what to believe, especially when it comes to the meanings of their rituals. At the same time, the provision of a standardized orthodoxy tends to limit individual speculation.

6. The need for orthodoxy checks encourages religious centralization.

Not all innovation is a bad thing. Doctrinal orthodoxy simply requires that innovation is seen to originate from authoritative sources and is accepted/observed by all loyal followers. Routinization may have the effect of insulating orthodoxies from unintended innovation but it does little to obstruct the determined heretic. The problem here is clearly one of *policing*. As soon as a routinized religion becomes well established, we tend to see the emergence of a central authority and some sort of ranked, professional priesthood. It becomes the task of delegated officials to police the orthodoxy across the tradition as a whole, and there will often be a proliferation of sanctions for unauthorized innovation and heresy (ranging from excommunication and ostracism to torture and execution).

7. Semantic memory for religious teachings leads to anonymous religious communities.

Where religious beliefs and practices are frequently repeated, we have seen that at least part of this religious knowledge is

organized in semantic memory. This means that the knowledge itself becomes separate from particular episodes in which it is acquired. As a result, many aspects of what makes somebody a member of any given tradition are really abstracted properties that, in principle, could be ascribed to anybody. What it means to be a church-going Christian, for instance, is not that one is part of a particular group, but rather a participant in a ritual scheme and belief structure that anonymous others also share. Of course, the anonymity principle only comes into operation if the religious community is large enough to ensure that no individual follower could possibly know all the other followers. And it turns out that there are factors at play in routinized religions that encourage rapid spread, and therefore large-scale religious communities. One of the most important of these is the emphasis on oratory and religious leadership.

8. The presence of religious leaders is conducive to the religion spreading widely.

The fact that the religious teachings are expressed in oratory, on the part of great leaders (or their deputized representatives), means that these teachings are readily transportable. Only one or a few proselytizing leaders or good evangelists are required to spread the Word to very large populations.

In sum, the doctrinal mode of religiosity consists of a suite of mutually reinforcing features. When these features coalesce, they tend to be very robust historically and may last for centuries and even for millennia. At the root of all this is a set of cognitive causes deriving from the ways in which frequently-repeated rituals and beliefs are handled in human memory.

### The Imagistic Mode of Religiosity

The sorts of practices that lead to the coalescence of imagistic features are invariably low frequency (rarely enacted). They are also, without exception, highly arousing. Examples might include traumatic and violent initiation rituals, ecstatic practices of various cults, experiences of collective possession and altered states of consciousness, and extreme rituals involving homicide or cannibalism. These sorts of religious practices, although taking very diverse forms, are extremely widespread. Archaeological and historical evidence suggests they are also the most ancient forms of religious activity. As with the doctrinal mode, the coalescence of features of the imagistic mode derives its robustness from the fact that these features are causally interconnected or mutually reinforcing. Once again, this claim rests on a series of testable hypotheses, depicted in Figure 2 and enumerated below.

1. Infrequent repetition and high arousal activate episodic memory.

Rarely performed and highly arousing rituals invariably trigger vivid and enduring episodic memories among the people who participate in them. It appears to be a combination of episodic distinctiveness, emotionality, and consequentiality that together result in lasting autobiographical memories. These memories can be so vivid and detailed that they can take the form of (what some psychologists call) flashbulb memories (Brown and Kulik 1982). It is almost as if a camera has gone

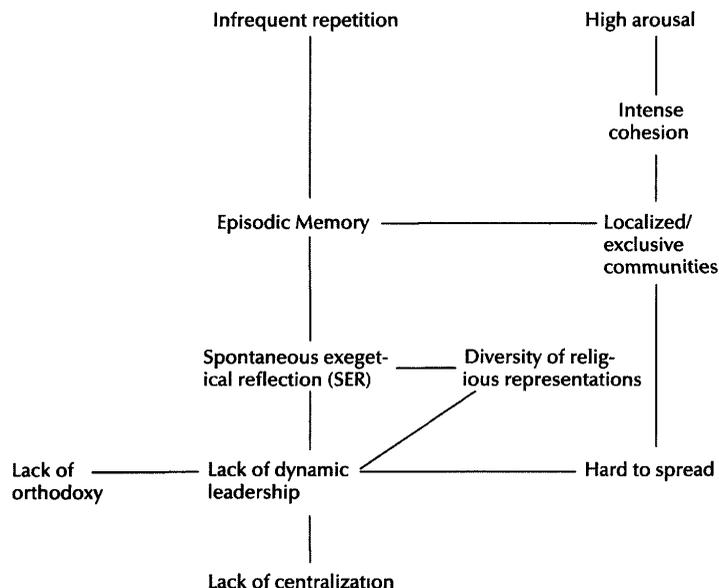


Figure 2. The Imagistic Mode of Religiosity

off in one's head, illuminating the scene, and preserving it forever in memory. The effects of infrequent performance and high levels of arousal should be thought of in terms of processes of selection. Religious practices that are rarely performed, but which elicit low levels of arousal, are unlikely to be passed on: people will rapidly forget the procedures, and especially their meanings, during the long gaps between performances; even if they could remember some aspects of the rituals, their lack of thought about these practices for long periods would not be conducive to high motivation. In short, rarely performed religious practices that survive tend to involve high levels of arousal, and this is due to the triangular nexus of causes indicated in Figure 2.

2. Activation of episodic memory triggers spontaneous exegetical reflection, leading to expert exegetical frameworks stored in semantic memory.

The combination of infrequent repetition and high arousal may provide excellent conditions for remembering the details of religious procedures—such as ritual actions. But it does not seem to help people to remember verbally transmitted information—such as doctrines and narratives. It turns out that this needn't matter. In fact, the meaning and salience of rare, climactic rituals usually lies in their capacity to trigger spontaneous exegetical reflection (SER)—often experienced as personal inspiration or revelation. The key to understanding this lies in the fact that episodic memory is a type of explicit memory. This means that rare, climactic rituals are processed at a conscious level. Not surprisingly, people tend to reflect deeply on these experiences, and speculate about their significance and meaning. This eventually results in elaborate, if idiosyncratic, exegetical knowledge stored in semantic memory. An important factor here is that elevated arousal is occasioned typically by sensory stimulation (often using a variety of channels—auditory, visual, kinaesthetic, olfactory, etc.). This in turn encourages people to draw associations between different images evoked in religious ceremonies which are rooted in the way perception is organized (see

McCauley 2001). Two points need to be borne in mind here. The first is that rare and climactic rituals evoke abundant inferences, producing a sense of multivalence and multivocality of religious imagery, experienced as personal and unmediated inspiration. The second requires a separate hypothesis.

3. SER leads to a diversity of religious representations.

The personal experiences and revelations triggered by rare, climactic rituals tend to be quite unique. They may converge on certain themes and central ideas, but there is nothing resembling the kind of uniformity of belief that characterizes doctrinal orthodoxies. The Principle of Agreement, if it is invoked at all, applies only to the ritual procedures themselves and not to their meanings. If exegesis is verbally transmitted, it is restricted to “experts” whose adherence to the Principle of Agreement may well be asserted but seldom demonstrated.

4. SER and representational diversity inhibit dynamic leadership.

If a fertile and compelling array of religious beliefs and interpretations is generated independently through personal reflection, dynamic leadership is almost impossible to establish. If a leader tried to come forward at rare, climactic rituals, to advance an intricate and coherent body of doctrine, people might listen. But they would very rapidly garble or forget what they had been told and, at least in the long run, their own inspirational ideas are likely to be more compelling than the content of a single oration. In such circumstances, admittedly, the possibility remains open for an individual, group, or class, to be elevated socially, and for this to be expressed in the structure and choreography of rituals and the accordance of ritual precedence to persons of high standing. But leadership of this sort is primarily symbolic rather than dynamic.

5. Lack of dynamic leadership, lack of centralization, and lack of orthodoxy are mutually reinforcing.

The fact that each person experiences inspiration as coming directly from the gods or ancestors, rather than being mediated by leaders or priests, means that there is no place here for

centralized authority. And there is no orthodoxy over which such an authority might preside.

6. High arousal fosters intense cohesion.

The high arousal involved in the imagistic mode tends to produce emotional bonds between participants. In other words, there is intense social cohesion. People who are bound together in this way tend to form rather small and localized communities.

7. Intense cohesion and episodic memory foster localized, exclusive communities.

Where rituals are remembered episodically, each participant remembers who else went through the rituals with them. Ritual groups are based on memories for shared episodes, in which particular co-participants feature. Consequently, religious communities tend to be exclusive: you cannot be a member unless people remember you as part of a previous cycle of religious activities; and, by the same token, you cannot very easily be excluded once you are in (i.e. your participation cannot be easily forgotten). This tends to give rise to fixed and exclusive ritual groups in which there is no easy way of adding to or subtracting from the established membership.

8. Localized/exclusive communities and lack of dynamic leadership inhibit spread/dissemination.

Unlike the beliefs and practices of the doctrinal mode, traditions operating in the imagistic mode do not spread widely. Since religious understandings are inspired by collective ritual performances, the unit of transmission is the entire ritual group (not a small number of talented orators). It follows that the spread of such traditions would be inefficient and costly: either the local group must perform its rituals with neighboring groups, or the local group must be mobile (i.e. migratory or nomadic). But, either way, the practices are likely to mutate as soon as they get passed on. In part, this is because of the lack of leaders and religious hierarchies, capable of policing an orthodoxy and, in part, it is because each ritual community is likely to be fiercely exclusivist (and therefore will tend to emphasize local distinctiveness over regional unity).

VARIABLE	DOCTRINAL	IMAGISTIC
<b>Psychological Features</b>		
1. Transmissive frequency	High	Low
2. Level of arousal	Low	High
3. Principal memory system	Semantic schemas & implicit scripts	Episodic/flashbulb memory
4. Ritual meaning	Learned/acquired	Internally generated
5. Techniques of revelation	Rhetoric, logical integration, narrative	Iconicity, multivocality, and multivalence
<b>Sociopolitical Features</b>		
6. Social cohesion	Diffuse	Intense
7. Leadership	Dynamic	Passive/absent
8. Inclusivity/exclusivity	Inclusive	Exclusive
9. Spread	Rapid, efficient	Slow, inefficient,
10. Scale	Large-scale	Small-scale
11. Degree of uniformity	High	Low
12. Structure	Centralized	Non-centralized

Figure 3. Modes of Religiosity Contrasted

## The Nature and Origins of Modes of Religiosity

The key features of doctrinal and imagistic modes of religiosity stand in stark contrast with each other, as represented in Figure 3. It will be observed that these contrasting features are of two types. First, there are cognitive features, concerned with differences in the way religious activities are handled psychologically. Second, there are sociopolitical features, concerned with contrasts in social organization and politics at the level of groups and populations. This clustering of sociopolitical features has been widely recognized for quite a long time, but what is new about the theory of "modes of religiosity" is the way it places these features together in a single model, and then explains the clustering of features in terms of a set of cognitive or psychological causes.

The theory advanced here operates on principles of selection. Modes of religiosity constitute *attractor positions* around which ritual actions and associated religious concepts *cumulatively* tend to cluster. Innovations remote from these attractor positions cannot survive. For instance, a new prophet might discourse on his elaborate personal revelations and audiences might be eager to listen. But if that discourse is to crystallize into a stable body of teachings, it *must* be subjected to regular reiteration and safeguarded by a system of effective policing. If not, it will be garbled or simply forgotten. Likewise, a new ritual might be invented to mark the effects of a rare event, such as a solar eclipse. But if that ritual is to establish the basis for a new religious tradition, it *must* be sufficiently moving, attention-grabbing, and personally consequential to drive subsequent revelations based on "spontaneous exegetical reflection." If not, it too will fail to

stabilize as a tradition. History is obviously littered with such failures. The success stories, however, have given rise to the diversity of religious traditions we know today.

### Endnotes

1. This is an abridged version of the article "Modes of Religiosity: A Cognitive Explanation of the Sociopolitical Dynamics of Religion," first published by Brill (2002) in *Method and Theory in the Study of Religion* 14, 293–315 and subsequently reprinted by AltaMira Press (2004) as chapter four in the volume *Modes of Religiosity: A Cognitive Theory of Religious Transmission*. This essay is reproduced here with the kind permission of the original publishers.

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## Common Criticisms of the Cognitive Science of Religion—Answered

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Although not an exhaustive list of criticisms directed at research in the Cognitive Science of Religion (CSR), it is our impression that the following are among the most commonly repeated. We hope that by answering these objections succinctly we can encourage our critics to move forward with us into more fertile territory intellectually.

### 1. The CSR is guilty of reductionism.

Anything we know is potentially relevant to assessing the truth of any new theory or interpreting any new empirical discovery

in science. This moral is no less true for all other forms of human inquiry, but nowhere is new evidence more rigorously pursued than in the sciences. Whenever inquirers abandon this principle, they indulge in special pleading that insulates their endeavors from possible sources of insightful criticism (Fodor 1983). Special pleading attempts to forestall checks-and-balances but it inevitably cuts off opportunities that will arise for integration with other related inquiries as well.

Scientists have traditionally attended mostly to reductionist checks from the bottom up, because of the greater generality and precision of theories and because of the greater evidential



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