

2

Religion, Cohesion, and Hostility

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Some of the most heinous atrocities of war and terrorism have been perpetrated in the name of religion. But does that mean that such acts of extreme intolerance are, or could be, *caused* by religion? And can religious impulses *conversely* be a force for greater understanding and mutual respect across cultures, faiths, and nations? To address these questions requires a clear and precise conception of what constitutes “religion.” Arguably religion is not a single coherent entity but only a loose assemblage of patterns of thinking and behavior that has been conceptualized very differently over time and across different language groups and cultural traditions (Asad 1993). Recent research in the cognitive sciences suggests that many of the features commonly associated with the “religion” label in Western scholarship and popular discourse are not the outcome of a single coherent cluster of causes but are rather the by-products of disparate psychological systems that evolved to address very different kinds of problems (Boyer 2001, Atran 2004). For instance, notions of a creator being may spring from the way humans reason about the functions of objects (tool cognition), making it quite intuitive to imagine that various features of the natural world were made that way with a purpose in mind (Kelemen 2004). By contrast, afterlife beliefs may stem from the way humans reason about the minds of other agents (folk psychology) thus making it hard to imagine, let alone to simulate, the absence of certain higher-level cognitive functions (such as memories, desires, and beliefs) in dead persons (Bering 2006). The human propensity to learn and perform rituals, another trait commonly associated with religion, has been linked to cognitive systems that evolved to generate precautionary routines when handling hazardous materials (Boyer and Lienard 2006). Rituals may also result from evolved mechanisms of social learning, especially via imitation of causally opaque actions (Whitehouse 2011; Legare and Whitehouse, submitted). Although some of the cultural traditions we happen to label “religions” simultaneously endorse beliefs in creator gods, ancestors, and the efficacy of ritual, the various ways in which these beliefs may be combined, or

not, are highly variable. And the processes of cultural evolution regulating the formation and spread of religious systems may also discriminate between different sectors of those systems. So it is not that “religion” per se is responsible for our attitudes towards others, whether rational or fanatical, tolerant or judgmental. Instead, we must *carve up* the ill-defined category of “religion” and use the dissected parts as our units of explanation.

But even having broken down the category “religion” there is a further problem. Any one of the dissected parts could pick out phenomena that would not ordinarily be classed as “religious.” For instance, while god-concepts involve the attribution of supernatural properties (e.g. the ability to know about people’s guilty secrets), the same may also be said of concepts like Santa Claus, which few would describe as “religious” (Barrett 2009). Similarly, although afterlife beliefs expressed in ancestor worship or notions of heaven and hell are quite easily labeled “religious” there are also widespread ideas about ghosts and spooks that are less readily classified as religious concepts. Much the same could be said about *ritual*. Ritual is often understood to be a religious trait but not necessarily (we can also perform “secular rituals”). In short, religion is a slippery cultural category that changes over time and is used for different purposes in varied contexts.

The focus in what follows will be on *ritual*, rather than on the many other traits that happen to be associated with the religion label. We could define ritual as any normative action that is assumed to lack a knowable physical-causal rationale. In the case of non-ritual actions we assume that the causal links between procedures and intended outcomes could be fully specified (at least in principle). This is not the case with ritualized behavior: nobody expects the causal structure of ritual actions to be fully specifiable in mechanistic or instrumental terms (Legare and Whitehouse, submitted). But the focus of this chapter is mainly on the *social consequences* of rituals (Whitehouse 2011). My guiding question will be *whether the performance of rituals affects our capacities for tolerance and intolerance towards others*.

First, however, we also need to clarify what we mean by “tolerance.” Powell and Clarke construe tolerance as the willingness to accept or even defend the rights of others to engage in behavior that we ourselves eschew:

An attitude of tolerance is only possible when some action or practice is objectionable to us, but we have overriding reasons to allow that action or practice to take place.

They go on to distinguish pragmatic tolerance (e.g. as a means to a less tolerant end) from ideological expressions of tolerance (e.g. liberalism). Both forms of tolerance may be observed in religious organizations. For instance, a Catholic bishop may tolerate the wayward behavior of revelers at annual carnivals for pragmatic reasons (e.g. because experience has shown that to intervene too heavy-handedly causes division and defection and not because tolerance is desirable for its own sake). But the same bishop may adopt policies of toleration

toward members of other faiths as an expression of commitment to some doctrinal principle, such as the Golden Rule (i.e. to do as you would be done by).

The focus in what follows is on *ideological tolerance*. Arguably, the extension of such tolerance to humanity at large is hard to put into practice. Universal tolerance is an expressed ideal of some “ethical religions,” for instance undergirding the Christian injunction to “love thy enemy.” But it remains an empirical question whether such ideals can indeed serve to counteract our pan-human inclinations towards groupishness, tit-for-tat justice, and moral indignation. Exceptional individuals, such as Jesus and Mother Theresa, have appeared to practice what they preach but how widely emulated are such figures? And if these values are so hard to implement, how are we to explain their emergence and persistence in the first place?

The remainder of this chapter has two parts. Part 1 considers how rare, traumatic rituals contribute to the formation of intense cohesion, trust, and tolerance in small groups. But such rituals also have a darker side, fomenting out-group hostility, sectarianism, and warfare. In Part 2 we consider how more routinized rituals have allowed much *larger-scale* communal identities to emerge (as found in traditional chiefdoms, kingdoms, and empires as well as modern nations and world religions). We will consider some of the complex mechanisms of *proximate* causation (especially the psychological factors responsible for various kinds and degrees of tolerance and intolerance). But we will also consider the *ultimate* causes of variable patterns of tolerance and intolerance in processes of social and cultural evolution. Finally, we will reflect on the prospects of more *universalistic* forms of religious tolerance that would emphasize the common rights and responsibilities of humankind as a whole.

RITUAL AND COHESION IN SMALL GROUPS

Within a group, members will inevitably harbor some negative views of fellow members, at least some of the time. Levels of *tolerance* towards other members of the in-group often seem to be regulated by *ritual participation*. The notion that rituals promote social cohesion has a long and illustrious history, but efforts to tease apart the psychological mechanisms involved only really took off in the 1950s, much of the work inspired by Festinger’s theory of “cognitive dissonance” (1957) which maintains that it is aversive to hold conflicting ideas at the same time. Rituals *incur costs* (e.g. time, labor, and psychological endurance), often with the promise of only poorly defined or indeterminate rewards, and in some cases for no explicit purpose at all. In the case of initiations (a distinctive class of rituals marking induction into groups), the costs are typically extreme, for instance involving physical or psychological tortures often of a terrifying kind (Whitehouse 1996). In a now classic

application of Festinger's theory, Aronson and Mills (1959) demonstrated that the more severe the requirement for entry into an artificially created group, the greater would be the participants' liking for other group members. Their explanation for this was that our feelings towards the groups we join will never be wholly positive and the experience of *disliking* aspects of the group will be *dissonant* with the experience of having paid a price to join; this dissonance could be resolved by downplaying the costs of entry, but the greater the severity of initiations into the group, the less sustainable that strategy will become. Under these circumstances, dissonance reduction will focus instead on generating more positive evaluations of the group.

More recent studies using psychological experiments, economic games, and cross-cultural surveys have shown repeatedly that within-group liking and outgroup hostility are directly correlated (Cohen et al. 2006). As one games theorist neatly put it: "When Joshua killed twelve thousand heathen in a day and gave thanks to the Lord afterwards by carving the ten commandments in stone, including the phrase 'Thou shalt not kill,' he was not being hypocritical" (Ridley 1996: p. 192). If rituals increase within-group liking and cooperation, we should not be surprised to learn that they also promote a more ruthless and intolerant stance towards outgroups. But this can only be part of the story. Many groups that accomplish high levels of internal cohesion are at peace with their neighbors. To understand the causes of extreme outgroup hostility and intolerance we need to sharpen our conception of the relevant variables. Ritual is too broad a category and initiation too narrow.

Recent research has focused on a particular class of rituals that includes initiations but also a much wider range of dysphoric practices. The hallmark of such rituals is that participants undergo them only infrequently in the role of patient and require the endurance of intense pain or fear and in many cases both (Sosis et al. 2007). A recent survey of 644 rituals selected from a sample of 74 cultures reveals an inverse correlation between ritual frequency and levels of dysphoric arousal, with most rituals clustering around the two poles of the continuum (Atkinson and Whitehouse 2010). In this survey, most low-frequency rituals involving intense dysphoric arousal were not used to mark entry into a group. They served a diversity of overt goals, such as communion with gods and spirits, honoring the dead, veneration of icons, the promotion of crop fertility, and so on. Moreover, extensive analysis of case studies reveals considerable variability in the rationale assigned to them by participants, and in some cases no rationale at all was provided (Barth 1987; Humphrey and Laidlaw 1994). Since it is by no means clear that the costs of participation should be understood as an advanced payment for group entry, a more encompassing explanation for "rites of terror" is clearly required. Further, this explanation would ideally address another equally striking consequence of these kinds of rituals: not only do they increase cohesion and tolerance *within groups* but they also intensify feelings of *hostility and intolerance towards out-groups*.

Research on the causes and consequences of low-frequency, dysphorically-arousing rituals would suggest that the bonding effects of surmounting an ordeal *as a group* are only part of the story. Two other factors also have crucial consequences for group formation. One is *memory*: one-off traumatic experiences, especially ones that are surprising and consequential for participants, are remembered over longer time periods (and with greater vividness and accuracy) than less arousing events (Whitehouse 1992). Such memories have a canonical structure, sometimes referred to as “flashbulb memory” (Conway 1995), specifying not only details of the event itself but what happened afterwards and who else was present. This last point is especially important in establishing the exclusivity of ritual communities: there is little scope for adding to or subtracting from ritual groups whose membership derives from uniquely encoded, one-off experiences.

The other factor is *interpretive creativity*. Since the procedures entailed in rituals are a matter of stipulation, and are not transparently related to overall goals (if indeed those goals are articulated at all), the meanings of the acts present something of a puzzle for participants. In the case of traumatic ritual experiences that are recalled for many months and years after the actual event, questions of symbolism and purpose are typically a major focus of attention. Recent experiments using artificial rituals and varying levels of arousal have shown that, after a time delay, the volume and specificity of spontaneous reflection on the meanings of rituals is substantially greater in high-arousal conditions than in controls (Richert, Whitehouse, and Stewart 2005).

We have demonstrated similar effects in field studies by systematically comparing the interpretive richness of people’s accounts of rituals involving variable levels of arousal (Whitehouse, 1995; Xygalatas, 2007). Since rites of terror are typically also shrouded in secrecy and taboo, participants have little opportunity to compare the contents of their personal ruminations and so form the impression that their rich interpretations are shared by others undergoing the same experience, increasing the sense of camaraderie (Whitehouse 2000).

This heady cocktail of psychological mechanisms (especially shared memory and the impression of common experience and revelation) produces exceptionally intense cohesion among small, exclusive communities of ritual participants. Groups formed in this way display high levels of trust, cooperation, and tolerance for fellow members. But there is also a darker side to this syndrome, which finds expression in out-group hostility. Our comparative research, both ethnographic and historical, has revealed a strong correlation between rites of terror and chronic inter-group conflict and warfare. Exactly why ritually induced cohesion produces intolerance towards out-groups requires further research, however. Together with colleagues at Royal Holloway in London and at the University of British Columbia in Vancouver we are currently undertaking experiments to measure levels of intolerance and punitive altruism towards out-groups following the performance of rituals involving variable levels of dysphoric arousal (~~INSERT PROJECT URL~~). <http://www.icea.ox.ac.uk/large-grants/ritual/>

Understanding small-group cohesion and out-group hostility within an evolutionary framework requires close attention, not only to the proximate causes of the trait (in this case the psychological processes involved in rites of terror) but also the ultimate causes, namely *why a given ritual spreads and persists over time*, through processes of cultural group selection. Cultural evolution is governed by many of the same fundamental principles as biological evolution, except that: (a) inheritance is by learning (rather than by genes); (b) selection by consequences for cultural traits tends to be rapid; (c) adaptive cultural mutations arise frequently (often as a result of deliberate innovation); (d) prior cultural forms are only loosely constraining (cultural revolutions do sometimes happen). Nevertheless, the study of how ritual variability affects the survival of cultural groups can be understood in the same basic terms that any evolutionary biologist would recognize. Specifically, we need to understand how changing features of a given group's ecology and resourcing needs might make the adoption of particular ritual forms *adaptive* (by contributing to group survival and reproduction over time), allowing also for the possibility of drift (random factors contributing to the ritual's persistence or extinction), and phylogenetic inertia (the constraints imposed by pre-existing ritual traditions). Rites of terror and the intense cohesion these produce in small groups are typically an adaptation to conditions of intense inter-group conflict, although they also serve as a commitment mechanism for other dangerous pursuits, such as the hunting of large game (Bloch 1992). Our research has established a strong correlation between activities involving high risk and temptation to defect (e.g. raiding and warfare, sectarian violence, and gangland disputes) and the presence of low-frequency, dysphoric rituals (involving deprivation, gang rape, mutilation, ritual homicide, cannibalism, etc.). These patterns seem to emerge and spread, not only among warring tribes (for instance in Papua New Guinea, Melanesia, Amazonia, etc.), but also play a prominent role in the formation of military cells in modern armies, terrorist organizations, and rebel groups (Whitehouse and McQuinn 2012). New surveys of rituals, group morphology, and patterns of conflict over 5,000 years of recorded history, are currently under way, involving the collaboration of professional historians in the construction of an online database (~~INSERT PROJECT URL~~). The aim is to produce an evolutionary account of the relationship between ritual frequency, arousal, group size, and other variables over multiple traditions in changing ecologies. <http://www.icea.ox.ac.uk/large-grants/ritual/>

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RITUALS THAT EXTEND TOLERANCE TO LARGER COMMUNITIES

As noted already, a recent survey of ritual diversity confirmed the prediction that rituals come in two main varieties: low-frequency but highly arousing (the

variety just considered), and high-frequency, but much less emotionally arousing (the variety to which we now turn). High-frequency ritual (or *routinization*) is a hallmark of world religions and their offshoots, but is also characteristic of a great many regional traditions and new religious movements. Routinized rituals play a major role in the formation of large-scale identities, enabling complete strangers to recognize each other as members of a common in-group, facilitating trust and cooperation on a scale that would otherwise be impossible (Whitehouse 2000). To disambiguate the proximate mechanisms involved, we need to return briefly to our studies of how rituals are remembered.

When people participate in the same rituals on a daily or weekly basis it is impossible for them to recall the details of every occasion. Instead they represent the rituals and their meanings as *types* of behaviour—a Holy Communion or a Call to Prayer, for instance. Psychologists describe these representations as procedural scripts and semantic schemas. Scripts and schemas specify what typically happens in a given ritual and what is generally thought to be its significance. When we conceptualize beliefs and practices in this way, we do not mentally represent the actors and believers as particular persons but only as incumbents of more generic qualities and roles (worshippers, imams, gurus, choirboys, etc.). In other words, what it means to be a participant in the tradition is generalized beyond people of our acquaintance, applying to everyone who performs similar acts and holds similar beliefs. This route to the construction of communal identity, based on routinization, is a necessary condition for the emergence of “imagined communities” (Anderson 1983)—large populations sharing a common tradition and capable of behaving as a coalition in interactions with non-members, *despite* the fact that no individual in the community could possibly know all the others, or even hope to meet all of them in the course of a lifetime.

Routinization has other important effects as well. For instance, it allows very complex networks of doctrines and narratives to be learned and stored in collective memory, making it relatively easy to spot unauthorized innovations. Routinization may also artificially suppress creativity, in effect producing more slavish conformism to group norms. In one experiment, for instance, thirty students performed an unfamiliar ritual twice a week for ten weeks and were asked to post comments on the meanings of the ritual after each performance. Reflexivity dramatically declined once the ritual had become a familiar routine. Part of the reason seems to be that having achieved procedural fluency one no longer needs to reflect on *how* to perform the ritual, and this in turn makes one less likely to reflect on *why* one should perform it (Whitehouse 2004). Thus, routinization aids in the transmission of doctrinal orthodoxies: traditions of beliefs and practices that are relatively *immune to innovation* and in which unintended deviation from the norm is *readily detectable*.

Thus, it would seem that routinized rituals provide a foundation for much larger-scale communities, capable of encompassing indefinitely many individuals singing from the same hymn sheet (both literally and metaphorically). Extending the size of the in-group in this way has implications for the scale on which people can engage in cooperative behavior, extending both *trust* and *tolerance* even to strangers, simply because they carry the insignia that display shared beliefs and practices. At the same time, however, the cohesion engendered through common membership of the tradition is less intensely felt than that accomplished in small groups undergoing rare and painful rituals together. In other words, as cohesion is expanded to encompass greater populations, it is also in an important sense spread more thinly. Some routinized traditions, however, manage to get the best of both worlds: a mainstream tradition, constructed around regular worship under the surveillance of an ecclesiastical hierarchy, may tolerate (in the tactical or pragmatic sense) much more colorful local practices, involving rare, dysphoric rituals (such as self-flagellation at Easter parades in the Philippines or walking on red hot coals among the Anastenaria of northern Greece). While these localized practices undoubtedly produce highly solidary groups distinct from the mainstream tradition, the resulting cohesion can be projected onto the larger community, rejuvenating commitment to its unremitting regime of repetitive rituals. This has been shown by analyzing over a hundred detailed case studies, in collaboration with historians and anthropologists (e.g. McCauley and Whitehouse 2005; Martin and Whitehouse 2005; Pachis and Martin 2009; Whitehouse and Laidlaw 2004; Whitehouse and Martin 2004; Whitehouse and McCauley 2005). Other patterns are also possible, however. That grand theorist of Muslim society, Ernest Gellner, showed that rural tribes bound together by low-frequency, high-arousal rituals formed the most formidable little military units in Islam, capable of periodically toppling urban elites, whose more routinized rituals failed to generate the kind of cohesion needed to mount an effective defence (Gellner 1969). Other major patterns include periodic splintering of the mainstream tradition and reformation (Pyysiainen 2004).

Although much of our work on these topics is concerned with understanding the effects of psychological affordances, biases, and constraints, we are also seeking to model processes of religious group formation in terms of their ultimate causes. What factors favor the appearance and persistence of routinized rituals and the large-scale communities they engender? One strand of research has been focused on the first appearance of routinized collective rituals in the Neolithic Middle East (Whitehouse and Hodder 2010) following initial efforts to survey ritual and group formation in the prehistory of Western Asia over a 13,000-year period (20,000–7,000 BC), ending with the first appearance of large settlements at Catalhoyuk, in what is now central Anatolia in Turkey (Mithen 2004; Johnson 2004).

More detailed recent research on the excavations at Catalhoyuk is producing a more nuanced picture of the transition from small foraging groups to

large-scale farming societies (Whitehouse, Atkinson, and Mazzucato 2011). The people who originally settled at Catalhoyuk seem to have been organized into small groups bound together by the intense rituals of an esoteric hunting-feasting cult, the tail end of a hunting civilization that lasted for thousands of years. Although they were beginning to experiment with farming, their cosmology and community life was built around mystery cults, focusing on the fertility and renewal of wild animals and humans through intense rituals and initiations and heroic forms of cooperation in hunting and exploration in pursuit of exotic trophies and obsidian. But their culture was changing: their awe for the natural world was being replaced by a growing sense of mastery of plants and animals, celebrated in an explosion of exquisite new arts and technologies. The intense bonds of local cults were displaced by a more homogeneous regional culture and household-based economy. But they remembered their glorious hunting past through regular rituals, festivities, and narrativity. The “extension of tolerance” to a greatly enlarged in-group was facilitated by the appearance of the first ever regular collective rituals, focused around daily production and consumption, and the spread of stable identity markers, for instance in the form of stamp seals used for body decoration and more standardized pottery designs.

Efforts are currently under way to quantify the evidence on ritual and social morphology at Catalhoyuk and to extend this approach back into the Paleolithic and forward to the development of even larger-scale civilizations in the Levant and Mesopotamia, eventually joining the record together with the 5,000 year historical database mentioned above (~~INSERT PROJECT URL~~). The successful spread of routinized rituals may be linked to the need for greater trust and cooperation when interacting with relative strangers. This need arises especially in groups that rely on the extraction of small but cumulatively large resources across larger populations (e.g. by forging exchange networks with relative strangers, extracting taxation or tribute from widely distributed populations, coordinating a complex division of labor, etc.). Under such circumstances, groups with routinized rituals capable of uniting large populations will tend to out-compete those who lack shared identity markers of this kind.

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<http://www.icea.ox.ac.uk/large-grants/ritual/>

CONCLUSIONS

According to Powell and Clarke:

religion has two faces when it comes to social behaviour: one that produces a sense of compassion, brotherhood and concern for others, and another darker face that leads to intolerance, bigotry and violence.

This may be correct. Small groups bound together by rare traumatic rituals will make extraordinary sacrifices and tolerate great hardships for the common good, but when provoked will show in equal measure hatred and intolerance towards outsiders. Tolerance, compassion, and brotherhood can be extended to larger communities through the adoption of routinized rituals. But there are limits to the scale on which tolerance can be extended. In times of hardship or inter-group conflict and competition, larger, more inclusive communities close the door on outsiders, and may launch missiles at them when the opportunity arises (Rummel 1979).

A major factor here would seem to be levels of “existential anxiety”! The more insecure the individual or the group, the more intolerant and intransigent will be the stance towards outsiders. So extending the inclusivity of routinized religions to the world at large, to a world in which people do not share one’s beliefs and practices, may require near eradication of between-group competition and exceptionally high levels of affluence and existential security. When that happens, however, our need for “belonging” diminishes; we can abandon our ritual traditions and the collective identities they engender more or less at will. This process is usually called secularization. It is almost entirely restricted to places like Scandinavia, rich in natural resources and buttressed by a welfare state that provides a safety net for everyone, irrespective of ethnicity, religion, or class. On this view, liberalism and tolerance are the mirror image of ritual and tradition, rather than the guardians of religious pluralism. As soon as we can afford to be pluralists, the irony is *we actually all become the same*.

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REFERENCES

- Anderson, B. (1983). *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.
- Aronson, E. and J. Mills (1959). “The effect of severity of initiation on liking for a group.” *Journal of Abnormal and Social Psychology*, 59(2), 177–81.

- Asad, Talal (1993). *Genealogies of religion: Disciplines and reasons of power in Christianity and Islam*. Maryland: Johns Hopkins University Press.
- Atkinson, Q. D. and H. Whitehouse, H. (2010). "The cultural morphospace of ritual form: Examining modes of religiosity cross-culturally." *Evolution and Human Behavior*, 32(1): 56–62 AQ2
- Atran, Scott 2004. *In Gods We Trust: The Evolutionary Landscape of Religion*. New York: Oxford University Press.
- Barrett, Justin (2009). "Why Santa Claus is not a God." *Journal of Cognitive and Culture*, 8(1–2): 149–61.
- Barth, F. (1987). *Cosmologies in the Making: A Generative Approach to Cultural Variation in Inner New Guinea*. Cambridge: Cambridge University Press.
- Bering, Jesse M. (2006). "The folk psychology of souls." *Behavioural and Brain Sciences*, 29: 453–98.
- Bloch, Maurice 1992. *Prey Into Hunter*. Cambridge: Cambridge University Press.
- Boyer, Pascal (2001). *Religion Explained*. London: Vintage.
- Boyer, P. and Lienard, P. (2006). "Why ritualized behavior? Precaution systems and action parsing in developmental, pathological and cultural rituals." *Behavioural and Brain Sciences*, 29(6), 595–612.
- Cohen, T. R., R. M. Montoya, and C. A. Insko (2006). "Group morality and intergroup relations: Cross-cultural and experimental evidence." *Personality and Social Psychology Bulletin*, 32: 1559.
- Conway, M. A. (1995). *Flashbulb Memories*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Festinger, L. A. (1957). *A Theory of Cognitive Dissonance*. Stanford: Stanford University Press.
- Gellner, E. (1969). "A pendulum swing theory of Islam." In R. Robertson (ed.) *Sociology of Religion: Selected Readings*, Harmondsworth: Penguin Education.
- Humphrey, C. and J. Laidlaw (1994). *The Archetypal Actions of Ritual: A Theory of Ritual Illustrated by the Jain Rite of Worship*. Oxford: Clarendon Press.
- Johnson, K. (2004). "Primary emergence of the doctrinal mode of religiosity in prehistoric southwestern Iran." In H. Whitehouse and L. H. Martin (eds.) *Theorizing Religions Past: Historical and Archaeological Perspectives on Modes of Religiosity*. Walnut Creek, CA: AltaMira Press.
- Kelemen, Deborah (2004). "Are children 'intuitive theists'? Reasoning about purpose and design in nature." *Psychological Science*, 15(2): 295–301.
- Legare, C., and H. Whitehouse (Under review). "Imitative foundations of cultural learning." *Cognition* AQ3
- McCauley, R. N. and H. Whitehouse (eds.) (2005). "The psychological and cognitive foundations of religiosity." Special issue of *Journal of Cognition and Culture*, 5(1–2).
- Martin, L. H. and H. Whitehouse (2005). "History, memory, and cognition." Special issue of *Historical Reflections/Reflexions Historiques*, 31(2). AQ4
- Mithen, S. (2004). "From Ohalo to Çatalhöyük: The development of religiosity during the early prehistory of Western Asia, 20,000–7000 BC." In H. Whitehouse and L. H. Martin (eds.) *Theorizing Religions Past: Historical and Archaeological Perspectives*. Walnut Creek, Calif: AltaMira Press.

- Pachis, P. and L. H. Martin (eds.) (2009). *Imagistic Traditions in the Graeco-Roman World*, Thessaloniki: Vanias.
- Pyysiainen, I. (2004). "Corrupt doctrine and doctrinal revival: On the nature and limits of the modes theory." In H. Whitehouse and L. H. Martin (eds.), *Theorizing Religions Past: Historical and Archaeological Perspectives on Modes of Religiosity*, Walnut Creek, CA: AltaMira Press.
- Richert, R. A., H. Whitehouse, and E. E. A. Stewart (2005). "Memory and analogical thinking in high-arousal rituals." In H. Whitehouse and R. N. McCauley (eds.), *Mind and Religion: Psychological and Cognitive Foundations of Religiosity*. Walnut Creek, Calif.: AltaMira Press.
- Ridley, M. (1996). *The Origins of Virtue*. London: Penguin Viking.
- Rummel, R. J. (1979), *War, Power, Peace*. Beverly Hills, CA: Sage.
- Sosis, R. et al. (2007). "Scars of war." *Evolution and Human Behaviour*. 28: 234–47.
- Whitehouse, H. (1992). "Memorable religions: Transmission, codification, and change in divergent Melanesian contexts." *Man* (N.S.), 27: 77–97. AQ5
- (1995). *Inside the Cult: Religious innovation and transmission in Papua New Guinea*. Oxford: Oxford University Press.
- (1996). "Rites of Terror: Emotion, metaphor, and memory in Melanesian initiation cults." *Journal of the Royal Anthropological Institute*, 4: 703–15.
- (2000). *Arguments and Icons: Divergent Modes of Religiosity*. Oxford: Oxford University Press.
- (2004). *Modes of Religiosity: A Cognitive Theory of Religious Transmission*. Walnut Creek: AltaMira Press.
- (2011). "The coexistence problem in psychology, anthropology, and evolutionary theory." *Human Development*, 54: 191–9.
- Q. Atkinson, and C. Mazzucato, C. (2011). "Ritual, community, and conflict project." *Çatalhöyük Annual Archive Report*.
- Whitehouse, H. and I. Hodder, I. (2010). "Modes of religiosity at Çatalhöyük." In I. Hodder (ed.), *Religion in the Emergence of Civilization: Çatalhöyük as a Case Study*. Cambridge: Cambridge University Press. AQ6
- Whitehouse, H. and J. Laidlaw, J. (2004). *Ritual and Memory: Toward a Comparative Anthropology of Religion*. Walnut Creek; CA: AltaMira Press.
- Whitehouse, H. and L. Martin (2004). *Theorizing Religions Past: Archaeology, History, and Cognition*. Walnut Creek, CA: AltaMira Press.
- Whitehouse, H. and R. N. McCauley (2005). *Mind and Religion: Psychological and Cognitive Foundations of Religiosity*. Walnut Creek, Calif.: AltaMira Press.
- Whitehouse, H. and B. McQuinn (2012) "Ritual and violence: Divergent modes of religiosity and armed struggle." In Margo Kitts, Mark Juergensmeyer, and Michael Jerryson (eds.) *Oxford Handbook of Religion and Violence*. Oxford: Oxford University Press.
- Xygalatas, D. (2007). "Firewalking in Northern Greece: A Cognitive Approach to High-Arousal Rituals." PhD Dissertation, Queen's University Belfast, UK.

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