

**Anastasiia Shabalina**

Summary of doctoral dissertation

**Title: The question of the relationship between religious ritual and religious beliefs in the cognitive science of religion**

Supervisor: **prof. UAM dr hab. Andrzej Klawiter**

Auxiliary supervisor: **dr Maciej Raś**

The aim of this dissertation is to examine the relationship between religious ritual and religious belief. While this relationship has been studied widely in many religious studies disciplines, it has received relatively little attention in the cognitive science of religion (CSR). This is the result of how CSR has evolved over the past three decades. During this time two relatively independent lines of research emerged: one focusing on the mental content and cognitive preconditions of religious beliefs, and the other on the specific nature of ritual behavior and its evolutionary foundations. While in CSR beliefs and ritual are most often treated as separate phenomena, the present work proceeds from the assumption that these two key manifestations of human religiosity are closely interconnected. Identifying a cognitive basis for this interrelation could provide new insights into both belief and ritual, as well as advance our understanding of a mode of thinking characteristic of religion. The aim of this work is to prepare the conceptual foundations for the subsequent construction of a cognitive model of this relationship. To this end, the dissertation offers an analytical reconstruction of existing theoretical approaches to the cognitive study of religious ritual, with particular attention to those principles that may be employed in the formation of such a model. Accordingly, a substantial part of the study is devoted to a critical analysis of relevant CSR theories with respect to the place and function they assign to beliefs, as well as to the ways in which beliefs are linked to ritual action. Three theoretical frameworks are selected as key models for this analysis: the linguistic approach of Lawson and McCauley (1990), which conceptualizes ritual action in terms of the structure of its cognitive representation; the theory of the ritual stance, which emphasizes the problem of individual motivation and the social effects of ritual action (Whitehouse, 2018; 2021); and the enactivist approach, which allows

ritual action to be examined along the body–mind axis (Barsalou et al., 2005; Teehan, 2024). Finally, in the concluding chapter, I examine the conceptual prerequisites for formulating an explicit model of the relationship between religious beliefs and religious ritual and, on this basis, propose my own articulation of this relationship.

The first chapter of this dissertation reconstructs and reinterprets a foundational work in the cognitive science of religion — *Rethinking Religion* (1990) by Lawson and McCauley, a seminal linguistic–cognitive account of ritual. Their Ritual Form Hypothesis (RFH) models rituals as actions that, much like language, are organized according to an underlying “grammar” governed by tacit rules of ritual competence. Within this framework, religious ritual actions are generated by the same Action Representation System that structures ordinary actions. What distinguishes religious ritual is not the structural features of the action itself, but its connection to a religious conceptual schema — above all to concepts associated with culturally postulated superhuman agents (CPSAs), which are embedded in the cognitive representation of ritual action.

Although Lawson and McCauley invoke a religious conceptual scheme in their account of ritual — that is, a culturally defined set of concepts concerning gods, supernatural powers, and sacred objects — they do not explicitly specify how these concepts are incorporated into the structure of ritual action as performed by a human participant. As argued in the first chapter, however, any intentional action, including ritual action, minimally involves beliefs that (i) initiate the action, (ii) determine its goal, and (iii) modulate its structure during execution. The pivotal role of such beliefs in action initiation is not adequately represented in the authors’ model. This limitation is illustrated through the example of Christian blessing with water, which Lawson and McCauley use to demonstrate a chain of representations embedded in ritual structure that ultimately leads to a superhuman agent. In their analysis, the rite depends on a set of religious beliefs anchored in the broader conceptual scheme of the tradition — for example, that the water must be blessed by a priest, that the priest must be properly ordained through the institution of the Church, and that the Church was established by Christ, who qualifies as a CPSA. The presence of a CPSA is treated by authors as the essential component of the ritual’s structure and as the factor that determines its defining characteristics. A closer examination of this case, however, shows that the belief required for the performer to initiate the ritual is much more directly connected to the ritual performance itself — namely, the belief that this particular water is sacred and must therefore be applied in a specific way. This analysis suggests that, for the ritual performer, the most relevant belief is not the abstract doctrinal content emphasized by the RFH, but a proximal, action-guiding belief that is directly connected

to the ritual performance itself — specifically, a belief that specifies what is to be done with the water and how it is to be treated as sacred within the ritual context. Thus, a belief that is treated as structurally peripheral in the model may, in actual ritual performance, function as the primary proximal belief that initiates and guides the action.

To render the RFH explanatorily complete, the chapter introduces two mediating mechanisms between the general Action Representation System and the Religious Conceptual Scheme: a Concept Selection System, which extracts and narrows religious concepts to match specific action components; and a Belief Selection System, which extracts and prioritizes those beliefs that motivate performance and situate the ritual within a broader context. These mechanisms explain why participants can competently perform rituals by relying on proximal beliefs without necessarily representing the more remote CPSA linkages. This extension makes it possible to introduce the motivation of the human ritual participant into the structure of the model, a dimension that was absent from Lawson and McCauley's original account. As a result, the model becomes applicable to the analysis of concrete cases of ritual action.

Chapter Two examines the relationship between beliefs and ritual as an expression of the tension between the individual intention of the ritual agent and the collective effects of ritual performance. Numerous studies show that ritual participation produces effects at the group level, such as increased cohesion, shared identity, and the transmission of social norms (Fischer et al., 2013; Watson-Jones & Legare, 2016; Whitehouse & Lanman, 2014; Whitehouse & Kavanagh, 2022). At the same time, within CSR, ritual is often described as opaque and non-instrumental action, meaning that its functionality is not transparent to the practitioner (Liénard & Boyer, 2006; Nielbo & Sørensen, 2011; Whitehouse, 2021). This gives rise to a question: how can we account for the behavior of ritual participants who engage in actions that lack a clear goal and are not grounded in explicit individual beliefs, yet nonetheless give rise — unintentionally — to the beneficial collective effects described above? In this chapter, the search for an answer to this question is guided by the fundamental assumption that the individual ritual participant is an intentional agent who relies, in their actions, including ritual actions, on desires and beliefs. Accordingly, in order to connect the social and the individual levels of explanation, the chapter proposes a refinement of the notion of the ritual stance, which is widely accepted as a key cognitive tool involved in ritual behavior.

The concept of the ritual stance is associated primarily with the work of Harvey Whitehouse (2004; 2007; 2021). Whitehouse has developed both an account of ritual as a source of collective outcomes — such as social cohesion and shared identity, — and a more individual-level proposal concerning the ritual stance, which addresses how ritual participants

interpret and reproduce ritual actions. Drawing on Dennett's notion of the intentional stance, Whitehouse develops the concept of the ritual stance as a cognitive orientation toward treating ritual actions as normative. According to this view, the causal opacity of ritual actions triggers faithful reproduction, manifesting as overimitation. This tendency toward overimitation has been supported by experimental research, which shows that from an early age children display heightened accuracy in copying actions whose instrumental causality is not obvious (Herrmann et al., 2013; Nielsen et al., 2015; Whitehouse, 2021). On this basis, these authors identify overimitation as a root of ritual behavior, including religious ritual. Whitehouse (2021) further argues that the ritual stance is a separate variant of the intentional stance; however, rather than being oriented toward influencing the physical world, the ritual stance reflects a desire to influence the social world. At the same time, studies of actual ritual practitioners suggest that such a motivation to influence the social world is not typically salient for participants themselves (Humphrey & Laidlaw, 1994). This leaves open the question of how individual desires and beliefs — which are integral components of the intentional stance — motivate ritual action.

To address this problem, the chapter proposes restoring to the ritual stance the grounding in desires and beliefs originally postulated by Dennett (1987), while reconceptualizing these desires and beliefs not as generated by the individual, but as borrowed from other members of the social group. Rituals, like language, are social not merely because they are performed together with others, but because their meaning and purpose are constituted intersubjectively. Participants often understand and motivate their actions through reference to socially postulated representations of gods, powers, sacred objects, and ritual obligation; yet these representations need not originate in the individual themselves. It is sufficient that the individual adopts them as their own — this, precisely, is what the ritual stance consists in.

Thus, as a result of this reinterpretation, the ritual stance can be understood as a specific case of the intentional stance in which the reasons for action have a social rather than an individual origin. This account makes it possible to connect the individual and social levels of cognitive explanation of ritual action. It also provides a response to the proposal advanced by Boyer and Liénard (2006), who draw an analogy between ritualized action and compulsions in obsessive–compulsive disorder, thereby pathologizing religious ritual. By recognizing that ritual participants act on the basis of desires and beliefs, even if these are borrowed from the members of a social group to which they belong or aspire to belong, we can explain ritual behavior as intentional rather than pathological. Its rigidity and petrification reflect the social

origin of the beliefs that underlie it, rather than a breakdown in patterns of goal-directed behavior of individual.

Chapter Three presents a perspective on the relationship between beliefs and ritual from the standpoint of the connection between body and mind. The embodied and enactivist approaches were chosen as the main methodological framework for this standpoint, since they directly address this relationship and offer a way of resolving it (Varela, Thompson, & Rosch, 1991; Di Paolo & De Jaegher, 2007; Cuffari, Di Paolo & De Jaegher, 2015). Ritual and belief are often approached through a contrast between bodily action and abstract symbolism, in which the body is reduced to a mere conduit for pre-given religious meanings. By contrast, this chapter maintains that, just as the rigid separation between body and mind can be questioned, rituals and beliefs may also be related in more complex and varied ways. Enactivism and embodied cognition approach, as research programs concerned with overcoming strict divisions between the mental and the bodily, allow us to recognize the formative role of bodily factors in the emergence of mental states. From this perspective, bodily action in ritual can be understood as actively contributing to the shaping of mental representations, including beliefs.

In the literature that theorizes the interaction between bodily action in ritual and the abstract character of related beliefs (Turner, 1967; Geertz, 1973; Luhmann, 2020; Barsalou et al., 2005; Ciołkosz, 2017), four principal modes of this interaction can be distinguished. This analysis forms the basis for the systematic typology proposed in the chapter, which conceptualizes the relationship between the symbolic and the bodily in ritual through the Body/Symbolic Representation Model Scheme (B/S<sub>R</sub>-MS). Within this scheme, four ideal types are identified and arranged along a continuum ranging from the dominance of representations to the dominance of bodily engagement: B/S<sub>R</sub>-M-1, the body as a conduit for symbolic representations; B/S<sub>R</sub>-M-2, the body as an amplifier of an already established “belief frame”; B/S<sub>R</sub>-M-3, the body as a source of religious symbolic content; and B/S<sub>R</sub>-M-4, the body as the core of ritual, in which embodied experience becomes central while belief is minimized or relegated to a secondary role. It is emphasized that these types do not correspond to “pure” empirical cases but function as analytical tools for positioning practices and theories along the axis of embodiment and representation.

The chapter then links the variability in the relationship between body and symbol to the functions of ritual. A regularity is identified: rituals characterized by minimal bodily intensity are typically oriented toward the preservation, transmission, and coordination of socially pre-established norms and shared representations, whereas rituals involving a high

degree of bodily engagement are directed toward the transformation of the participant's own state or identity. Symbolically minimalist gestures (for example, the sign of the cross) illustrate the B/S<sub>R</sub>-M-1 model, in which the body indeed functions solely as a conduit for pre-existing symbolism; practices that reinforce an already familiar narrative through bodily participation (such as the Stations of the Cross) correspond to B/S<sub>R</sub>-M-2; actions in which bodily form directly generates meaning (such as prostrations) exemplify B/S<sub>R</sub>-M-3; and highly intensive rituals (for example, sweat lodge ceremonies) correspond to B/S<sub>R</sub>-M-4. The boundary between models B/S<sub>R</sub>-M-2 and B/S<sub>R</sub>-M-3 is further clarified through a model of meaning acquisition: familiar meanings may be "revitalized" through bodily participation, whereas new meanings are "incarnated" through immersion in a novel sensorimotor context.

After formulating the B/S<sub>R</sub>-MS, the chapter turns to examples of its application to the analysis of religious processes. The theory of ritual transfer (Lüddeckens et al., 2006) is then employed to support the claim that the B/S<sub>R</sub>-M is not a fixed property of a ritual but rather a dynamic parameter that varies with context. The transfer of rituals — especially into diasporic or digital settings — often leads to an intensification of symbolization and a reduction of bodily components. However, as the analysis of online rituals demonstrates, the bodily dimension retains its key significance even in such environments, albeit undergoing a process of symbolization. In this way, ritual transfer theory is shown to provide a productive basis for investigating the dynamic characteristics of ritual, including shifts in the balance between bodily and symbolic dimensions.

In its concluding section, the chapter integrates Tanya Luhrmann's (2020) concept of real-making as an explanatory approach for understanding how rituals link bodily practices and beliefs, thereby generating the experience of religious objects as real and personally significant for the believer. Real-making is reconstructed as a multi-stage process that includes enabling conditions (a belief frame, the capacity for absorption, and culturally shared assumptions about the porosity of the boundary between the mental and the material), sustained and goal-directed repetitive practice, and the emergence of experiences that induce a sense of the real involvement of supernatural forces in a person's life. It is shown that the objects of real-making are not limited to gods or spirits but may also include states of mind, which suggests a broader applicability of this theory. Relating real-making to the B/S<sub>R</sub>-MS makes it possible to describe different modes of actualizing religious reality, ranging from predominantly interpretative forms to bodily intensive ones. In this way, the concept of real-making offers a plausible account of the role played by the coupling of bodily and symbolic dimensions in ritual in the production of religious experience.

Selected ideas discussed in the first three chapters of the dissertation served as the basis for constructing, in Chapter Four, an idealizational-cognitivist model of the relationship between religious ritual and religious beliefs.

The proposed theoretical model rests on the following assumptions:

1. Performing a ritual requires adopting of a ritual stance.
2. Religious ritual and religious beliefs are interdependent.
3. The performance of the ritual is driven by an irresistible sense of duty.

These assumptions are discussed in detail in the dissertation. The present section indicates the reasons for their introduction.

The first assumption, according to which entering a ritual requires the adoption of a ritual stance, derives from Whitehouse's theory. The dissertation postulates a modification of the original concept of ritual stance, pointing out inconsistencies in its formulation. The proposed modification consists in assuming that remaining in a ritual stance requires the suspension of an instrumental stance, which means that the ritual participant also suspends the belief in the existence of a causal connection between the component actions of the ritual. This, in turn, leads to the conclusion that the constituent actions of a ritual are ordered not on the basis of causal relations but on the basis of norms that decree the order of their performance. In this way, a clear distinction emerges between the agent of instrumental action and the agent of ritual action. The former enjoys freedom in selecting both the goal and the actions leading to its achievement, whereas the latter receives a specific prescription for the ritual, including a list of component actions that must be performed in a prescribed sequence. The ritual thus functions for its participant as a specific tool for achieving a predetermined goal, accompanied by instructions specifying how such a tool, in the form of a ritual, should be used.

The second assumption holds that religious ritual and religious beliefs are interdependent. In such a general formulation, this thesis is not controversial. However, within the cognitive science of religion it is difficult to find a more precise characterization of this interdependence. The dissertation attempts to provide such a characterization, which requires specifying the structure of the system of religious beliefs and identifying which of its components influence the initiation of a ritual and which are the result of its performance. The postulated structure of the system of religious beliefs is discussed below.

The third assumption points to ritual obligation, understood as an irresistible sense that, regardless of the difficulty in identifying the goal of the ritual, one ought to fulfill the duty of

engaging in its performance. This sense of obligation, rooted in the norms operative within the community of adherents of a given religion rather than in causal reasoning or emotional states, functions as the primary trigger of ritual engagement. It allows one to explain why individuals participate in rituals even when they are unable to provide either a personal or a doctrinal justification for their actions. This assumption receives additional support from developmental research (Piaget, 1987; Gergely & Csibra, 2013), which shows that sensitivity to normativity emerges early in human development and motivates the construal of certain actions as necessary. This suggests that ritual obligation draws on deeply rooted cognitive capacities related to the recognition of norms and engagement in socially prescribed forms of action.

After discussing the assumptions of the model characterizing the relations between religious ritual and religious beliefs, the dissertation presents a rough structure of the system of religious beliefs. It is argued that, unlike rituals, which function relatively independently of one another and are usually not organized into a coherent system, religious beliefs do form such a system. A fundamental feature of the system of religious beliefs is its rigidity and closure. This means that its basic components — that is, the beliefs most central to a given religion — cannot be freely replaced or abandoned, and that the system itself resists attempts to incorporate new elements.

The rigidity and closure of the system of religious beliefs are ensured by its specific structure, which may be compared to a sphere composed of several layers. It is postulated that the basic structure of religious beliefs consists of three layers. The innermost layer is formed by core beliefs, which constitute the fundamental components of the religious worldview. Surrounding them is a layer of justifying beliefs, which include, among others, historical testimonies as well as beliefs resulting from personal experiences. Their function is to legitimize and defend the core beliefs. Finally, the outer layer of this sphere is formed by procedural beliefs, which take the form of norms recommending specific courses of action. The dissertation argues that among the three types of beliefs distinguished above, only some are directly related to participation in ritual. In particular, when entering a ritual, the participant primarily appeals to procedural beliefs, since it is these beliefs that indicate which actions should be performed and in what order. Three types of procedural beliefs are distinguished: beliefs concerning the obligation to participate in the ritual; beliefs concerning the order of the component actions; and beliefs concerning the hidden meaning of the relations among the component actions of the ritual.

Beliefs concerning the obligation to participate in a ritual contain the conviction that the ritual must be performed because “this is what one ought to do.” In this case, the

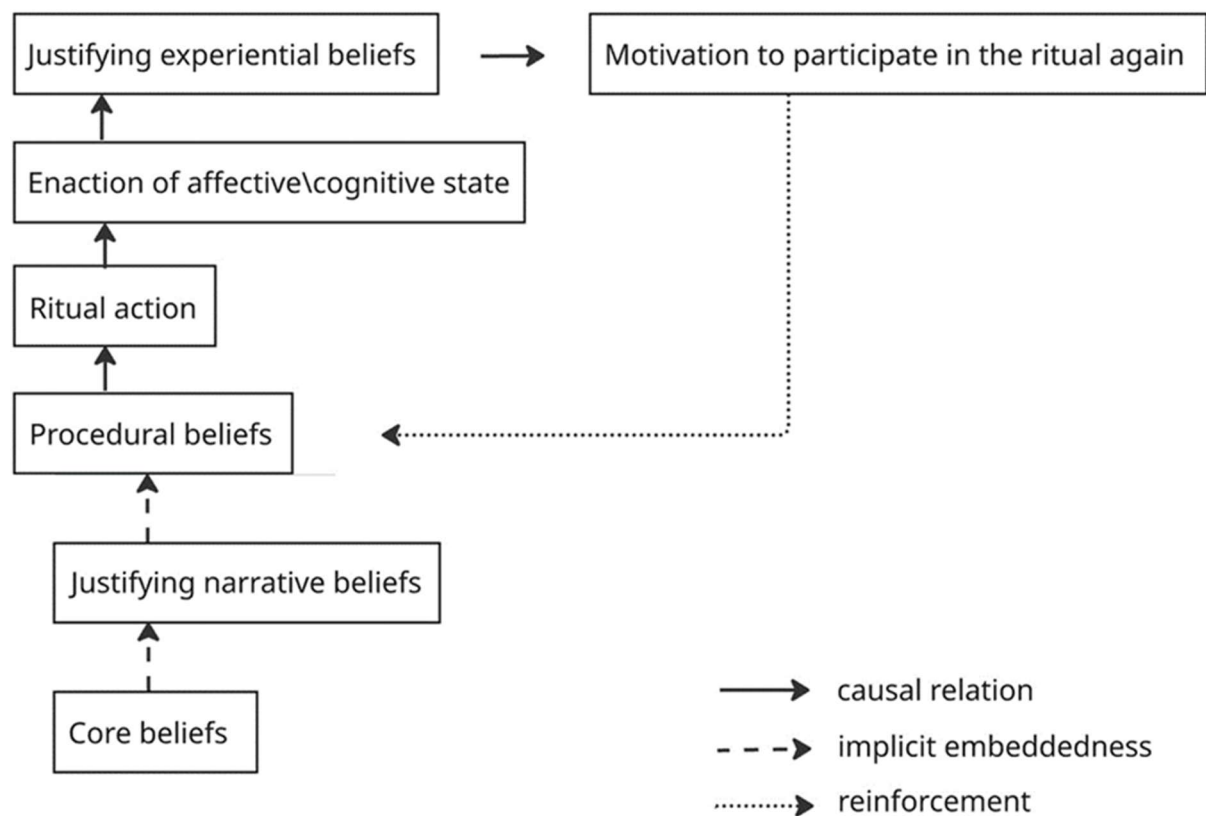
representation of necessity is detached from causal reasoning. Beliefs concerning the order of the component actions determine how the ritual should be performed and are indispensable for specifying the plan of ritual execution. The third type of procedural beliefs is connected with the adoption of a ritual stance and the suspension of belief in a causal connection among the component actions of the ritual. The absence of such causal connections is interpreted as the presence of a hidden connection leading to a goal that is likewise hidden from the ritual participant. This belief in a hidden connection and goal provides additional motivation for undertaking the ritual.

A different type of relationship between ritual and religious beliefs emerges once the participant has completed their participation in the ritual. Although in the case of a ritual it is not possible, immediately after its completion, to determine whether the intended goal has been achieved, if the ritual was performed with full engagement the participant experiences a state in which their belief in the content of core beliefs has been strengthened. This experience becomes the source of a justifying belief — one that reinforces and protects the core beliefs.

The relationships between religious ritual and religious beliefs identified here form the basis for two theses summarizing the results of Chapter Four:

1. Procedural beliefs are directly related to the initiation of ritual.
2. The completion of participation in a ritual triggers the emergence of experiential justifying beliefs, which leads to the strengthening of core beliefs.

The chapter integrates the above analyses into a general model of the relationship between ritual and beliefs (Fig. 1). Ritual action is initiated by procedural beliefs, in particular beliefs concerning obligation and correct form. The completion of the ritual generates affective, bodily, and social experiences that lead to the formation of experiential justifying beliefs. These beliefs, in turn, strengthen core beliefs by increasing their credibility. In this way, religious ritual and religious beliefs mutually sustain one another as components of a single cognitive cycle.



**Figure 1. Model of relationship between ritual and beliefs.**

Ritual action begins with procedural beliefs, which specify the conditions and correct form required for initiating the ritual performance. The performance itself enacts cognitive and affective state, as the participant receives feedback indicating that the ritual is being performed properly. This state provides experiential justification for reinforcing the associated core religious beliefs, making them more salient and credible. In turn, the strengthening of core beliefs enhances the motivation to participate in ritual again.

The approach proposed in the dissertation shows that beliefs related to ritual belong to different layers of the system of religious beliefs. Some of them are directly connected with entering an initiated ritual (procedural beliefs), while others emerge as a consequence of its completion (experiential justifying beliefs). The beliefs that are fundamental to the system of religious beliefs — and to the religious system as a whole, namely core beliefs — are related to religious ritual only indirectly, through experiential justifying beliefs.

## References

- Barsalou, L., Barbey, A., Simmons, W. K., & Santos, A. (2005). Embodiment in religious knowledge. *Journal of Cognition and Culture*, 5(1-2), 14-57.
- Barsalou, L., Barbey, A., Simmons, W. K., & Santos, A. (2005). Embodiment in religious knowledge. *Journal of Cognition and Culture*, 5(1-2), 14-57.
- Cuffari, E. C., Di Paolo, E., & De Jaegher, H. (2015). From participatory sense-making to language: there and back again. *Phenomenology and the Cognitive Sciences*, 14, 1089-1125.
- De Jaegher, H., & Di Paolo, E. (2007). Participatory sense-making: An enactive approach to social cognition. *Phenomenology and the cognitive sciences*, 6(4), 485-507.
- Dennett, D. C. (1987). *The intentional stance*. MIT Press, Cambridge, MA.
- Fischer, R., Callander, R., Reddish, P., & Bulbulia, J. (2013). How do rituals affect cooperation? An experimental field study comparing nine ritual types. *Human Nature*, 24(2), 115-125.
- Geertz, C. (1973). *The Interpretation of Cultures*. New York: Basic Books.
- Gergely, G., & Csibra, G. (2013). Natural pedagogy. In M. R. Banaji & S. A. Gelman (Eds.), *Navigating the social world: What infants, children, and other species can teach us* (pp. 127–132). Oxford University Press.
- Humphrey, C., & Laidlaw, J. (1994). *The archetypal actions of ritual: A theory of ritual illustrated by the Jain rite of worship*. Oxford University Press.
- Herrmann, P. A., Legare, C. H., Harris, P. L., & Whitehouse, H. (2013). Stick to the script: The effect of witnessing multiple actors on children's imitation. *Cognition*, 129(3), 536-543.
- Lawson, E. T., & McCauley, R. N. (1990). *Rethinking Religion: Connecting Cognition and Culture*. Cambridge University Press.
- Liénard, P., & Boyer, P. (2006). Whence collective rituals? A cultural selection model of ritualized behavior. *American Anthropologist*, 108(4), 814–827.
- Lüddeckens, D., Langer, R., Radde, K., & Snoek, J. (2006). Transfer of ritual. *Journal of Ritual Studies*, 20(1), 1-10.
- Luhrmann, T. M. (2020). *How God becomes real: Kindling the presence of invisible others*. Princeton University Press.
- Nielsen, M., Kapitány, R., & Elkins, R. (2015). The perpetuation of ritualistic actions as revealed by young children's transmission of normative behavior. *Evolution and Human Behavior*, 36(3), 191–198.
- Piaget, J. (1987). *Possibility and necessity* (Vol. 2). University of Minnesota Press.
- Teehan, J. (2024). Toward an embodied cognitive science of religion: Enaction, evolution, emergence. *Religion, Brain & Behavior*, 1-33.
- Varela, F. J., Thompson, E., & Rosch, E. (1991). *The Embodied Mind: Cognitive Science and Human Experience*. MIT Press.
- Watson-Jones, R. E., & Legare, C. H. (2016). The social functions of group rituals. *Current Directions in Psychological Science*, 25(1), 42-46.
- Whitehouse, H. (2018). Dying for the group: Towards a general theory of extreme self-sacrifice. *Behavioral and Brain Sciences*, 41, e192.
- Whitehouse, H. (2021). *The ritual animal: Imitation and cohesion in the evolution of social complexity*. Oxford University Press.
- Whitehouse, H., & Kavanagh, C. M. (2022). What is the role of ritual in binding communities together? In J. L. Barrett (Ed.), *The Oxford handbook of the cognitive science of religion* (pp. 278–302). Oxford University Press, Oxford.
- Whitehouse, H., & Lanman, J. A. (2014). The ties that bind us: Ritual, fusion, and identification. *Current Anthropology*, 55(6), 674-695.