

SŁAWOMIR SZTAJER



BEYOND THE MIND: THE COGNITIVE FUNCTIONS OF RELIGIOUS ARTEFACTS

ABSTRACT. Sławomir Sztajer, *Beyond the Mind: The Cognitive Functions of Religious Artefacts*, edited by Sławomir Sztajer, Ewelina Berdowicz, „Człowiek i Społeczeństwo” vol. LX: *Religion and Culture Beyond Tradition: Contemporary Perspectives*, Poznań 2025, pp. 81–90, Adam Mickiewicz University. ISSN 0239-3271, <https://doi.org/10.14746/cis.2025.60.5>.

The role of material artifacts in religion is significant, yet they are often overlooked or underappreciated, particularly in their function of mediating religious cognition. From this perspective, they are not only tools for action, but also for religious thinking. It can be argued that some forms of religious thought are dependent on the use of material objects, which play a considerable role in cognitive processing. In this paper, I will present an argument based on the concept of extended cognition. This is a hypothesis that the processes that constitute human cognition are not confined solely to the brain or body but can extend into the external environment. I will demonstrate that there are a multitude of ways in which material artifacts are utilized in the cognitive processes that underpin religious thinking, and that a vast array of cognitive functions performed by artifacts. Among the latter are such functions as transforming mental representations into public representations and expanding the capacity of biological memory by creating external forms of memory. Additionally, there are less obvious functions, including promoting the creation of new and stabilizing existing mental representations, giving concrete form to abstract and often incompletely understood ideas, and producing a sense of the presence of intangible supernatural beings and powers. Some of these functions will be illustrated using examples from the holy books of literate cultures.

Keywords: religion, cognition, mind, material artefacts, sacred book

Sławomir Sztajer, Adam Mickiewicz University in Poznań, Faculty of Anthropology and Cultural Studies, Szamarzewskiego 89C, 60-568 Poznań, e-mail: sztajers@amu.edu.pl, <https://orcid.org/0000-0001-8975-2994>.

The material dimension of religion encompasses a wide array of objects and structures that, for the purposes of this study, are considered religious artifacts. Not all of these objects and structures are artifacts in the strict sense, since not all of them were created by humans. However, each has been given religious significance. In addition to narrowly defined artifacts such as images, temples, altars, stupas, books, and bodily marks, material religion includes natural objects endowed with religious meaning, such as sacred mountains, rivers, stones, and trees. These natural objects can be considered artifacts in the broad sense because they were removed from nature by being separated, distinguished, and assigned religious significance. They were transformed into cultural objects by being incorporated into a network of shared meanings.

Material objects are a natural part of the human world. They surround us at all times, and we take their presence for granted. Furthermore, we are material objects ourselves. At the same time, these ubiquitous material objects elude some forms of human cognition. They are perceptible – visible and touchable – and they interact with our bodies. However, their constant presence blinds us to the other cognitive functions they perform. Paradoxically, the presence and tangibility of material objects render them invisible, as we rarely inquire about the roles they play in our mental lives. Furthermore, the human mind’s tendency to divide the world into mental and material realms significantly hinders our perception of the cognitive functions of material artifacts. As Lambros Malafouris aptly notes, “Things are to human intelligence as the eye is to sight: constitutive and yet invisible” (Malafouris, 2013: 45). Material artifacts play a fundamental role in constituting religious cognition. They trigger, transform, modulate, amplify, and sometimes give rise to various forms of religious cognition. Religious ideas can function independently of material artifacts; however, the need for contact with material objects – a kind of hunger for objects – is evident in nearly all religious traditions. Even in traditions that prohibit images of deities, these images are replaced by other material objects that are more or less subtly associated with mental representations.

The importance of material objects in religious traditions can be explained by the various functions these objects serve. These functions can be aesthetic, social, emotional, cognitive, economic, and so on. Regarding the cognitive functions of religious artifacts, the role in supporting memory for the cultural transmission of religious knowledge is often mentioned. Before the invention of writing, material representations of supernatural

beings served this mnemonic purpose. However, since religious ideas and their visual representations arise from the superimposition of different intuitive knowledge domains or the violation of intuitive expectations in specific areas of intuitive ontology, they are easily subject to cognitive degradation. They lack internal stability. These concepts can be stabilized, though, by linking them to their corresponding material representations. Thus, the latter perform a mnemonic function, supporting memory and being central to religious transmission. For example, archaeologist Steven Mithen claims that material artifacts anchor the counterintuitive features of religious ideas in the mind (Mithen, 1998). Counterintuitive features draw attention, yet their processing may be impaired simply because they do not align with intuitive knowledge. Material representations stabilize mental representations, thereby making the cultural transmission of religious ideas more effective. In other words, material artifacts provide external storage for religious ideas, thereby extending biological memory through artificial creations.

Although the mnemonic function of material artifacts is well understood, it is neither the sole nor the most significant function worthy of examination. According to Lambros Malafouris, material artifacts have a cognitive function that is more fundamental than mnemonic. According to his Material Engagement Theory, religious material representations are not merely external symbols that sustain complex conceptual constructions; rather, they are enactive signs that generate concepts. Malafouris challenges the idea that religious representations are always secondary to pre-existing concepts. He supposes not only that counterintuitive concepts could not spread but also that they could not exist without external scaffolding (Malafouris, 2007: 202). What we perceive as supernatural concepts are merely aspects of an extended cognitive system in which mental processes interact with material representations. Religious conceptual constructions, especially the aforementioned counterintuitive ideas of gods, are not internal structures created by an isolated mind that can be translated into material objects. Rather, the creation of material representations directly influences supernatural ideas. More precisely, religious ideas are anchored in both the mind and material forms. However, these two anchoring processes are not separate; rather, they are “the continuous and interactive parts of an extended cognitive system that incorporates materiality to solve the problem of absent ‘representational stability’” (Malafouris, 2007: 203). From the perspective of Material Engagement Theory, the Hohenstein-Stadel Lion-Man figurine, discovered in a German cave in 1939, is not merely a representation of conceptual blending that occurred in a prehistoric individual’s mind. Rather, it is an enactment

of this blending. Rather than representing a concept, the figurine co-creates it. In conclusion, material artifacts can play a role in creating new mental representations. Additionally, as solid structures that are intersubjectively available, they can stabilize these representations, making them less changeable. Complex conceptual structures, such as highly counterintuitive religious concepts, gain greater permanence by linking them to material structures.

Another basic function of material artifacts is to transform mental representations into public ones. Material objects are used as tools through which religious ideas are externalized and objectified. Without this role, the cultural transmission of religious knowledge would not be possible. Language, in its material form – whether speech or writing – is a fundamental means of externalization and objectification (Sztajer, 2018: 151). Material objects endowed with religious meaning also play an important role in transmitting religious knowledge. Even religions that prohibit the depiction of deities still use objects for religious purposes and religious language. As illustrated by holy books, writing is a tool of communication and a material object that can be the subject of worship and magical-religious rituals.

Material artifacts are sometimes understood as mediators of supernatural powers. They are immanent things that provide access to transcendent realities. Although the concept of a mediator is useful in the study of culture, including religion, it does not accurately reflect the specifics of material religion. Although religious people may understand material objects as mediating the supernatural, these objects are often considered supernatural themselves. In semiotic terms, these objects are not always arbitrary signs that refer to a transcendent reality. Sometimes, they are part of this reality or causally related to it. The modes of signification differ fundamentally between the phrase “Christian cross” written on a piece of paper and a wooden Christian cross hung in a church. The phrase “Christian cross” refers to the Christian cross as a material object, but the wooden cross in the church symbolizes Christ’s passion. Symbolization is complex in this case, as it is with all religious symbols. They are always ambiguous and have multiple meanings. However, their ontological status differs from that of words. As arbitrary entities, words can be replaced or destroyed with little consequence. The same cannot be said for material symbols, as their relationship with the objects they represent is not arbitrary. They are believed to participate in the objects to which they refer. The destruction of religious symbols is often interpreted as sacrilege. Destroying a symbol means violating the reality to which it refers.

From a phenomenological point of view, material artifacts are often considered objects through which an intangible, supernatural reality manifests

itself. While the supernatural is typically perceived as intangible, abstract, and detached from everyday experience – as well as incomprehensible and counterintuitive – material religion is part of everyday experience. Unlike supernatural concepts, material representations of the supernatural are tangible and touchable. They are also intuitive and understandable. As Edmund Leach (1976: 37) points out, material objects condense abstract meanings. In relation to religion, this means that they give concrete form to abstract religious concepts. As a result of condensation, religious ideas become intersubjective and take on a form that allows religious people to interact with them. Therefore, artifacts are not merely tools used in social interactions; they are objects with which human actors interact. Material artifacts can be acted upon and act upon human beings. They are endowed with agency, symbolic efficacy, and sometimes even intentionality and personality. Like gods, they can talk back to humans – or, more precisely, religious people can make them talk back. In general, artifacts can be perceived as actors because they influence human behavior. Actor-Network Theory, developed by Bruno Latour, significantly broadens the meaning of the term “actor” to include both human and nonhuman entities (Latour, 2005). According to this understanding, an entity is an actor if it can shape human behavior. It does not matter if the entity is alive, intentional, or conscious. A cellphone is not alive, yet it effectively shapes human behavior, considerably influencing what its users think, the posture they maintain, and how they move in public spaces with a phone in their hand. However, in religious thought, whether an artifact has intentionality is relevant. Religious artifacts are considered actors primarily because they are assigned agency and intentionality. Apart from being actants in the sense proposed by Actor-Network Theory, religious artifacts are also perceived as actors because they are believed to be agents similar to human beings. In many religious traditions, religious artifacts, such as images, sculptures, and relics, are considered visible representations of supernatural entities and are believed to possess power. Many of these artifacts are perceived not only as substitutes for supernatural agents but also as agents themselves.

Finally, material artifacts play a significant role in religion by inducing a sense of reality that accompanies religious cognition. Among various counterintuitive representations, the idea of supernatural beings stands out because it is accompanied by a sense of the reality of these beings (Gervais & Henrich, 2010: 384; Pyysiäinen, 2004: 45). Gods differ from literary characters in that believers treat them seriously and attribute real existence to them. Students of religion rightly demand an answer to the question of why

religious people have different attitudes toward fictional and religious ideas. While many factors contribute to this difference, one of the most important is the connection between religious ideas and material artifacts. This sense of reality is reinforced and sustained through interaction with material artifacts. Consider a situation in which material representations of supernatural beings, based on a specific semiotic ideology, are identified with the beings themselves and worshiped accordingly. Through these representations, supernatural realities become present in the here and now. These representations are visible, touchable, and manipulable; they function as inhabitants of the human world. Their intersubjective accessibility and manipulability make them seem more real in the human experience.

To illustrate the various cognitive functions of material artifacts, I will use holy scripture as an example. Holy books from different religious traditions have two dimensions: they contain text, and they are physical objects. Like any other book, a holy book is intended to record and store information. Like any other book, a holy book can be used as a material object, either instead of or in addition to the information it contains. Holy books carry sacred messages believed to be produced by supernatural beings or divinely inspired humans. While the content of a holy book is important, it is not the only important aspect.

The materiality of a holy book is especially important in rituals, though different dimensions of scripture can be ritualized. According to James W. Watts, three dimensions are crucial: the semantic, the performative, and the iconic (Watts, 2013). The semantic dimension involves interpreting the text through teaching, preaching, and studying the book. The performative dimension involves reciting and reenacting the narratives presented in the book. The iconic dimension involves decorating, displaying, and manipulating the book as a form of ritualization. All of these dimensions use the book as a material object in a religious context and include various forms of extended cognition. In the performative dimension, ritual action centers on the body performing the text. Conversely, when the iconic dimension of scripture is important in a ritual, its material aspects take center stage.

Like other books, holy scriptures serve as external cognitive scaffolding in many ways. First, they serve as external memory storage; they are always available for reference. Not only do books support the process of memorization, they also replace memory. In a book-based culture, religious experts do not need to memorize entire traditions. For example, they do not need to memorize the verses of the Quran or the content of the Gospels. Holy books are repeatedly used as memory storage in public and private rituals,

readings, studies, and daily life. The physical structure of a book, including how its content is organized into parts, chapters, paragraphs, and verses, plays a significant role in memorization. The physical features of a book, especially the various visual cues, provide useful external support for memory work.

As a physical object, a sacred book can be understood as a visible presence of God and treated as such. However, it is not always clear what such a presence means or how the relationship between the sacred book and God is understood. This usually depends on the intuitive ontologies, theological concepts, and semiotic ideologies shared by religious believers. A holy book can be understood as a symbol of God – that is, an object chosen to represent God. In this case, knowing that a book symbolizes God in a specific context (e.g., a ritual) means knowing the tradition that defines the book as a sign of God’s presence. However, making God present can also mean an iconic relationship between the book and God in the broader sense, as exemplified by the use of the Gospel in early Christianity, or in the narrower, Peircean sense, which emphasizes the similarity between the book and the supernatural. This similarity can be suggested through illustrations, calligraphy, magnificent book design, gilded bookbinding, and so on. Lastly, in religious understanding, a sacred book can function as an index, establishing a direct relationship between God and the written word. The written word becomes a physical trace of God’s presence.

As physical objects, holy books play a role in how religious people conceptualize their interactions with the supernatural world, particularly with person-like supernatural beings. While using a book is certainly not a prerequisite for understanding these interactions, it creates new opportunities. A sacred book is perceived not only as the written word of God, but also as a tangible, touchable object present here and now. This Word of God can speak to a person who uses the book correctly, just as it spoke to St. Augustine through the Apostle Paul in the garden in Milan (Augustine, 1992, Book 8, Ch. 12). Using the right technique for reading the Bible – such as opening it to a random page – and applying the right interpretive framework (e.g., the voice of a child as divine inspiration) can suddenly make communication with God possible. The book is not only a reservoir of content, but also a tool that can bring that content to life. It can be adapted to the situation of the reader and incorporated into the pattern of “communication with God.”

A sacred book used in rituals can serve another cognitive function. It is an enactive sign, which means that it refers to something other than itself

and triggers and shapes behavior. In a ritual context, the book is not only read but also manipulated in many different ways. In addition to engaging the cognitive mechanisms underlying the ability to read, it also engages the sensorimotor system. It can be carried, processed, touched, handled, kissed, and so on. It can symbolically structure sacred spaces and organize ritual actions. In religions where a sacred book plays a significant role in rituals, the book is usually placed at the center of the sacred place, and the behavior of worshipers is directed toward it. A sacred book's enactive character consists of its being more than a passive object or a medium for a religious message. Rather, it is an object entangled with ritual behavior. This means that, on the one hand, it is manipulated by human bodies and, on the other hand, it shapes participants' behavior. One might argue that this function of the sacred book is nothing special. Indeed, there are many indications that the use of a sacred book in a ritual is similar to the use of everyday tools. Using a hammer, for example, requires adopting the correct posture and gripping it appropriately for the task at hand. The way a hammer is used determines the body's movement to a certain extent. However, the person still operates the hammer. They decide how the hammer will be used. While the comparison between a sacred book and a hammer reveals patterns in human tool use, it also obscures important differences. A sacred book is a cognitive artifact. When used as a material object or a tool, its value and effectiveness depend not only on its sensory form but also on the symbolic value of the text. In other words, a sacred book can be used as a tool to solve specific problems, such as healing, divination, protection, and signaling authority. In this respect, it is similar to other tools. However, it always remains sacred, or at least treated as an extraordinary object. Of course, not all copies of books are endowed with this power. The billions of copies of the Bible currently in circulation are not understood in this way. Along with improvements in printing technology, the meaning and functions of the holy book as a material object have changed significantly.

Sacred books can influence behavior in many ways. The mere presence of a sacred book can prompt a religious experience and behavior. Would St. Augustine have undergone his profound spiritual transformation without a copy of the Bible nearby? Having the book nearby gave him an opportunity to use it as a medium for communicating with God. In religions of the book, sacred scriptures are often widely available. They are present in places of worship and in the homes of followers. While the ritual use of sacred books tends to be strictly regulated by norms, their everyday use,

especially in folk religion, tends to be much more spontaneous and often includes magical and theologically incorrect behaviors.

I will not discuss the many other functions of holy books that involve cognitive processing and can be understood as cases of extended cognition here. One particularly important function in the context of religious communities and identities is that related to social cognition. Holy books mark the boundaries of religious traditions. The fact that certain religious traditions have sacred books that occupy a central place distinguishes them as “religions of books.” In these religions, possession of, reading, and other uses of the sacred book distinguish followers from members of other religions. Collective identity is largely defined in relation to the book. But that is not all. Ritual displays, processions, and kissing the book contribute to the cyclical renewal of a sense of identity. The content of the book, as well as its physical presence and visible features, play an important role in extended social cognitive processes when used in a ritual context.

The study of cognitive function of religious artefacts requires taking into account not only mental processes, but also interactions between the mind, body, and environment (Sztajer, 2019: 166). Theoretical approaches that allow for the study of these interactions include, among others, the extended mind hypothesis, as well as various other approaches based on the assumption that cognition is constituted at the intersection of mind, body, and environment. These approaches are currently referred to by the acronym 4e cognition, which refers to extended, embodied, embedded, and enactive cognition (Newen et al., 2018: 4). They are based on different assumptions, but their common feature is the belief that cognition is not limited to processes occurring in the brain, but also includes the body and the environment. The main advantage of using these approaches in religious studies is that they help explain key aspects of religious cognition.

Literature

- Augustine. (1992). *Confessions* (Trans. H. Chadwick). Oxford: Oxford University Press.
- Gervais, W.M., Henrich, J. (2010). The Zeus problem: Why representational content biases cannot explain faith in gods. *Journal of Cognition and Culture*, 10(3–4), 383–389. <https://doi.org/10.1163/156853710X531249>
- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Leach, E. (1976). *Culture and Communication: The Logic by Which Symbols Are Connected*. Cambridge: Cambridge University Press.

- Malafouris, L. (2007). The sacred engagement: Outline of a hypothesis about the origin of human “religious intelligence.” In: D.A. Barrowclough, C. Malone (Eds.), *Cult in Context: Reconsidering Ritual in Archaeology* (pp. 198–204). Oxford: Oxbow Books.
- Malafouris, L. (2013). *How Things Shape the Mind: A Theory of Material Engagement*. Cambridge, MA: MIT Press.
- Mithen, S.J. (1998). The supernatural beings of prehistory and the external storage of religious ideas. In: C. Renfrew, C. Scarre (Eds.), *Cognition and Material Culture: The Archaeology of Symbolic Storage* (pp. 97–106). Cambridge: McDonald Institute for Archaeological Research.
- Newen, A., de Bruin, L., Gallagher, S. (2018). 4E cognition: Historical roots, key concepts, and central issues. In: A. Newen, L. de Bruin, S. Gallagher (Eds.), *The Oxford Handbook of 4E Cognition* (pp. 3–15). Oxford: Oxford University Press.
- Pyysiäinen, I. (2004). *Magic, Miracles, and Religion: A Scientist's Perspective*. Walnut Creek, CA: AltaMira Press.
- Sztajer, S. (2018). *Pojęciowa konstrukcja świata religijnego. Przekonania religijne a procesy poznawcze*. Poznań: Wydawnictwo Naukowe Wydziału Nauk Społecznych.
- Sztajer, S. (2019). Materialne artefakty jako narzędzia religijnego myślenia. *Przegląd Religioznawczy*, 2(272), 165–173.
- Watts, J.W. (2013). The three dimensions of scriptures. In: J.W. Watts (Ed.), *Iconic Books and Texts* (pp. 9–32). London: Equinox.