## Review

ESTHER EIDINOW, ARMIN W. GEERTZ and JOHN NORTH (EDS), COGNITIVE APPROACHES TO ANCIENT RELIGIOUS EXPERIENCE (Ancient Religion and Cognition). Cambridge and New York: Cambridge University Press, 2022. Pp. xiv + 299, illus. ISBN 9781316515334. £75.00.

In the Introduction, the editors locate the origins of this volume in a multidisciplinary project that brought together researchers from the cognitive sciences with scholars from the field of history and other branches of humanities in a series of meetings that took place in the UK and Denmark (CAARE). Each chapter focuses on a specific aspect of religious experiences in antiquity and provides insights drawn from classical approaches and cognitive theories.

In Chapter 1, Hugh Bowden offers a paradigm for how specialised historical research can reveal aspects of religious practices that have been neglected by unified cognitive theories. Referring to the theories of Whitehouse, and Lawson and McCauley, about rituals and their association to memory, Bowden points out that sacrifices of animals in Greek antiquity were performed for varied reasons and involved a series of practices in which supernatural agents could engage in different ways. The common factor in which cognitive approaches could find a link between sacrificial rituals and memory is the sense of olfaction triggered by burning sacrificial elements.

In Chapter 2, Yulia Ustinova utilises information of a kind that is rarely available in the study of past rituals to examine the religious experience during an ancient Greek ritual. In particular, the author combines the testimony of Plutarch and Pausanias on the ritual of descent into the Oracle of Trophonius at Lebadeia in Boeotia with cognitive theories to explore the bodily and mental changes that would have happened during the supplicants' stay at the sanctuary, generating intense religious experiences in an altered state of consciousness that resembled initiatory rituals.

In Chapter 3, Esther Eidinow discusses the anthropomorphism of ancient Greek gods by employing the theory of grounded cognition. Exploring the ways in which situated conceptualisations of both gods and specific religious contexts may be activated by the sense of olfaction, she shows how shared cultural forms and individual sensory, bodily and cognitive processes would have mediated the development of multiple beliefs about gods and personal responses to these beliefs and divinities.

In Chapter 4, Felix Budelmann deals with human imagination and its role in religious experience. His paper focuses on the *deus ex machina* in Attic tragedy, which he approaches as an artistic as well as a religious practice. Deepening the study of imagination beyond the ways it is usually used in the cognitive science of religion, Budelmann refers to modern psychological studies to shed some light on the ways in which humans construct and enter imaginary worlds, like those created in ancient Greek drama, and thereby have specific forms of religious experiences.

In Chapter 5, Maik Patzelt takes a cognitive approach to explore the religious experience that would have accompanied the poorly documented ritualised practices of the Salii. Starting from the absurd cult song of the Salian priests (*carmen Saliare*) and the Salian dance (*tripudium*), Patzelt embeds these practices in their ritual settings and sheds light on the patterns of practice that made up the ritual and triggered the cognitive effects that formed the participants' embodied religious experience.

In Chapter 6, Vivienne McGlashan explores the lived experience and religious identity of women who performed the Bacchic ritual of *oreibasia*, imitating the mythical followers of Dionysus, the so-called *maenads*. Based on the cognitive theory of predictive processing and on experimental research findings on agency detection, the author shows how cultural contexts and priming interact with common cognitive mechanisms, enabling participants to have emotional involvement in the ritual and experience altered mental states that would allow them to have subjective experiences of divine presence.

In Chapter 7, Leonardo Ambasciano touches on the themes of sexual violence and masculine domination that characterised Roman religion by examining the myths and cults of Bona Dea. The author approaches the neurosociological aspects of the official festivals in honour of Bona Dea, which manipulated brain and body chemistry to relieve stress caused by repression, thereby facilitating the adoption of desirable behavioural patterns and expectations. In addition, Ambasciano briefly examines the two known festivals devoted to Bona Dea employing the most

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popular cognitive theories of rituals, that of McCauley and Lawson's ritual form hypothesis and Whitehouse's modes of religiosity.

In Chapter 8, Michael Scott explores the impacts that spatial boundaries, as instantiated in the demarcation of *temenos* and the temple walls at the Eleusinian sanctuary of Demeter and Kore, might have on the religious experiences of participants in the mystery cult. Employing the predictive coding model, the author suggests that the separation of the sacred space from the outside world and the limitation of external sensory stimuli would have facilitated the initiates' focus on sensory information received from the inside, having an intense initiatory experience that would post-ritually have been perceived as a life-changing event.

In Chapter 9, Luther H. Martin looks for symptoms of religious experiences in the material evidence of the Mithras cult. Martin provides a discussion about how experience can be conceived, offering a valuable definition in neurocognitive terms as 'the conscious awareness of neurophysiological states that deviate from quotidian levels of sentience'. He then explores how such deviations could have been primed and induced in the contexts of the Mithras cults, further imbuing and being memorialised in the material culture of the cult, and particularly in the scene of tauroctony and the mithraea.

In Chapter 10, Anders Klostergaard Petersen grounds his study on the conceptual distinction between emotions and feelings, and explores the ways in which culturally specific representations of feelings in ancient texts could elicit universal human emotional responses to contemporary audiences. Through the study of a Pauline text (I Cor. 6, 1–11) which refers to the use of water for cleansing ritualistic purposes, the author highlights the close connection between representations of conscious feelings and the unconscious emotional reactions caused by these representations, which would have informed the religious experience of baptism and its subsequent effects on baptised Christians.

In Chapter 11, Isabella Sandwell examines the language used by Gregory of Nyssa in *Against Eunomius* in his attempt to make the Trinity and immaterial begetting of the Son more cognisable by his contemporaries. Employing cognitive theories about mental representations of religious concepts, Sandwell supports the idea that Gregory of Nyssa managed to appeal both to people's implicit/intuitive and explicit/reflective ways of thinking, making otherwise inconceivable concepts fit with human cognition and thereby helping to disseminate them among the people of the Roman Empire.

All the papers in this volume rely upon an embodied conception of human cognition and point out the interrelation of human cognitive, emotional and physiological processes with the specific contexts in which they are embedded and evolve. They highlight how historical studies may broaden neurocognitive research, revealing how specific historical contexts may interact with and modulate universal cognitive processes. On the other hand, the papers show how cognitive theories can provide valuable means to historians to understand historical agents better. However, with some exceptions (e.g. Chapters 8 and 9), cognitive theories and historical evidence are barely interwoven, with historians mainly focusing on ancient testimony and just referring to neurocognitive research findings. What we might expect in the future is that historians will cooperate more closely with neurocognitive researchers to achieve an in-depth analysis of past religious experiences and support historical hypotheses, providing new evidence for cognitive theories.

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