

The Promise of the Cognitive Science of Religion for Biblical Studies

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Biblical Studies has traditionally been an academic discipline that adopted pioneering methods and insights to the study of religious texts. In the 1970s and 1980s, feminist, literary, and social scientific modes of criticism have been introduced. In the past two decades, postmodern thought has deeply influenced the field. The set of methods that appeared in the last quarter of the twentieth century have been now used for a considerable time, showing their potential as well as their limitations. In the meantime, a new method has been introduced to religious studies, one that can also bring fresh insights to the study of biblical literature. This article argues that the Cognitive Science of Religion (CSR) provides a new alternative for biblical scholars who would like to gain novel insights about ancient texts.

Scholars who work on biblical literature using cognitive science approaches study literary sources in the context of religious beliefs, emotions, rituals, and social networks. CSR offers new perspectives for the study of ancient Judaism and the religion of early Christians in their complexity, including, but not restricted to, their written and oral literature.¹

The Transmission and Development of Jewish and early Christian Thought

Understanding the transmission and development of early Christian teachings is one of the traditional focuses of biblical scholarship. There are a number of cognitive models that can be used to make new advance on this front. On one hand, cognitive models of the structure and transmission of oral traditions (Rubin 1995) help us better understand the Gospel narratives and other texts; on the other hand, epidemiology (Sperber 1996) and the theory of minimal counterintuitiveness (Boyer 1994; Boyer 2001) shed light on the formation of successful theological concepts, such as the mainstream version of Jesus' death and resurrection (Czachesz 2007a; Czachesz 2007d). Biblical scholars who have explored these new perspectives include István Czachesz (2003; 2007a; 2007b; 2007c; 2007d; 2007e) and Gerd Theißen (2007; forthcoming). In forthcoming contributions, Gabriel Levy (forthcoming) investigates the use of God's names as conceptual containers and their influence on Jewish thought, and Petri Luomanen (forthcoming) reviews memory studies from the perspective of New Testament exegesis. There is no room in this article to discuss all of the cognitive aspects of Jewish and early Christian thought that have been studied with the help of CSR. It will suffice to give only one example, that is, the effect of selective memorization and transmission on the development of the resurrection narratives.

In early Christianity a great variety of ideas about the death and resurrection of Jesus circulated, ranging from the denial of his resurrection to regarding him as a divine being without a truly human existence. As Czachesz (2007a; 2007d) argued, relying on Boyer's theory of minimal counterintuitiveness and the growing body of experimental work that has been

dedicated to this theory, the cognitive advantage of a particular version of these narratives can be shown. That the resurrection of Jesus three days after his death was not accepted by every early Christian believer is evident from such early sources as Paul's first epistle to the Corinthians (1 Corinthians 15:2,11-12). If Jesus dies just like any other human being, however, his figure will match our expectations attached to the innate – or *maturationally natural* (McCauley forthcoming) – ontological category of human beings. In contrast, depicting him as the resurrected one, who can suddenly appear before his disciples in a house with closed doors, or disappear from them in the middle of a conversation (e.g. Luke 24:31; John 20:19, 26), adds counterintuitive traits to his figure, which violate cross-culturally shared ontological expectations. According to research on counterintuitive concepts, we can expect that narratives drawing such a portrait of Jesus will be better remembered in the transmission of ideas about Jesus and will be therefore more widespread than narratives that do not contain such details. There was, however, another significant tradition about Jesus' death in the early Church. Docetics believed that Jesus did not die, but rather he existed in two different forms (human and divine) that separated at the end of his life on earth. In the *Acts of John*, Jesus is at two different locations at the same time, his two 'exemplars' having two different minds as well: the one talking to John on the Mount of Olives does not feel the sufferings of the one on Golgotha. Such a complex picture of Jesus contains multiple violations of expectations attached to innate ontological categories, is difficult to remember, and will be disadvantaged in the transmission. In sum, the version of Jesus' death that has the greatest chance to be remembered and transmitted in the long run is the one containing a limited set of counterintuitive details, that is, the story found in the Pauline epistles (particularly 1 Corinthians 15) and the canonical gospels.

Jewish and early Christian Rituals

Ritual theories in CSR have initiated interesting research on ancient Jewish and Christian rituals. In a comparative study of Hellenistic mystery religions and early Christianity, Luther H. Martin (2006) applied Whitehouse's theory of the modes of religiosity to Hellenistic mystery religions and suggested that Christians assumed the *doctrinal mode* of religiosity at an early point, introducing highly repetitive rituals and routinized teaching, gaining thereby an advantage over the more *imagistic* practice of the Mithras religion. Both Risto Uro (2007; forthcoming b) and Kimmo Ketola (2007) have considered the modes theory as well as Lawson and McCauley's ritual form theory of (Lawson and McCauley 1990; McCauley and Lawson 2002) for the study of Christian rituals. Uro has particularly suggested that John the Baptist introduced a special agent ritual to Judaism, that is, a ritual in which the performer (agent) of the ritual is more closely related to God than any other participant. First century Judaism was missing such a ritual and therefore represented (in terms of the ritual form theory) an *unbalanced ritual system*. This explains the success of John's movement, which prepared the way for the Jesus movement and early Christianity. Uro agrees with Martin with respect to the overwhelmingly doctrinal character (in terms of Whitehouse's modes theory) of early Christianity. Remarkably, however, Christians had a *low-frequency ritual* that does not seem to fit into neither of the major, cognitively oriented ritual theories. From the perspective of the individual believer, baptism was performed only once in a lifetime and should therefore involve great *sensory pageantry* and generate *high emotional arousal* in the participants. There is, however, no indication that Christian baptism would have involved any such sensory pageantry as did the initiatory rites of the mystery cults. This gave room, Uro argues, to the introduction of more arousing elements, such as in Valentinian Gnosticism.

Uro's study of early Christian rituals illustrates that the cognitive study of historical sources can inspire new research in CSR. In a forthcoming publication, Czachesz (forthcoming c) argues that the study of rituals has to consider a greater variety of emotional effects on memorization than it was the case in previous cognitive theories. Recent experimental work on memory has revealed that stress, visually salient stimuli, and thematically arousing details effect memorization differently. An initiation rite that stresses the initiate with great pain or fear will therefore effect memory differently from a ritual containing emotionally salient elements in the context of narratives, music, or theatrical performance. Self-referentiality or self-involvement is another important factor in memorization (Cloutier and Neil Macrae 2008; Rogers, Kuiper, and Kirker 1977). It is therefore likely that rituals will generate more detailed memories in participants who take part voluntarily and actively than in participants who undertake the same ritual passively or as a social obligation. Conscious choice and active preparations might have played an important role in the memorability of early Christian baptism, compensating for the lack of arousal that has been noticed by Uro.

Tamás Bíró (forthcoming) has introduced yet another interesting method to the study of Jewish rituals. Using Optimality Theory, Bíró formulates a model that predicts how the willingness of believers to spend resources on rituals, in combination with the expected reaction of divine agents (*intuitive theology*), will elicit the performance of rituals. In addition to personal experience, also random events and social influence play important roles in the willingness of believers to spend particular costs on performing rituals. The model is capable of reproducing the predictions of the modes theory and the ritual form theory in a highly formalized manner, as well as it offers explanations for some data that do not readily fit into earlier theories. Bíró's

contribution also illustrates that the study of ancient Judaism and Christianity can both profit from CSR and inspire new solutions to hitherto unsolved problems.

Magic and Miracle

Miracle stories constitute a considerable part of ancient Jewish and Christian literature, and are particularly widespread in the Gospels, the Book of Acts, and the Apocryphal Acts of the Apostles. Both Jewish and Christian evidence shows that magical practices were common in these populations (Bremmer and Veenstra 2002) – which is not surprising given the magical worldview of ancient people in general. Czachesz (2008a; forthcoming a) has proposed a cognitive explanation of magic, with special attention to early Christian evidence. The sources show that early Christians did not see pagan magic and Christian miracles as phenomenologically different; it is therefore unjustifiable to maintain such a dichotomy in scholarship. With regard to magic performed by others, early Christians emphasized that Christian miracles were made possible by a more powerful agency, the Spirit of Jesus Christ. Miracle stories are interesting and attractive for a number of reasons, regardless of the actual practice of magic: the involvement of counterintuitive ideas (see above) makes such stories salient and memorable, and emotionally arousing details provide them with further advantage in the transmission. That miracle can be enjoyed without actually practicing magic is excellently demonstrated by the great success of such literature in our days, such as the Harry Potter series. There is strong evidence that magic was actually practiced in Christian congregations from the very beginning. In his first epistle to the Corinthians, Paul mentions among the gifts that the

Holy Spirit has given to various members of the congregation “gifts of healing” and “the working of miracles” (1 Corinthians 12:7-10).

F.B. Skinner’s famous “superstitious pigeon” experiment inspired empirical work (Vyse 1997) demonstrating that also humans develop magical behavior in response to random reinforcers (events that are in fact entirely independent from their actions). Recent experiments (Pronin et al. 2006) have shown that subjects easily believe they have caused headache in other people by magical manipulations. Our early developed intuitions about the widespread presence of agency in the world provide cognitive tools to make sense of magical practices (e.g. in the ancient theory of the *parhedros*, the assistant who helped magicians). Finally, a number of cognitive biases (Gilovich 1991) are underlying the accumulation of “supporting evidence” for the efficiency of magic. All of these factors contribute to the emergence and persistence of magic, which in early Christianity was particularly motivated by the circulation of miracle stories and the belief in the Holy Spirit, an especially potent *parhedros*.

Altruism and Morality

The role of altruism and morality in religions is a frequently discussed issue in CSR. New insights on Jewish and Christian ethics from this perspective have recently emerged from the Mind, Society and Tradition section of Society of Biblical Literature. Thomas Kazen (forthcoming) has shown the usefulness of cognitive insights in understanding Jewish moral laws. Uro (forthcoming a) is using costly signaling theory to argue that early Christian rituals sent out altruistic signals that contributed to the coherence of the group. In a number of contributions, Czachesz (2008b; forthcoming b) has described a model that explains the growth

of early Christianity with the help of network theory. It was sociologist Mark Granovetter (1973; 1983) who has first shown that weak social ties (such as connections among acquaintances) are crucial for the spread of information in society. In early Christianity, a number of pro-social attitudes helped the formation of such ties, including the participation of women, the practice of charity, and the entertainment of visitors from other congregations (and probably of itinerant Christians) – as primarily attested by the relevant sections of the Pauline epistles and the Didache. Due to these factors, early Christianity developed a social network structure that enabled the successful cooperation of quite diverse social and ethnic groups, facilitated the emergence and circulation of competing theological views (eventually leading to the selection of cognitive optimal variants), and strengthened the resistance of the Church against external attacks.

Summary

Although the application of the methods and results of CSR in Biblical Studies is in an early phase as yet, this article has shown that advance has been booked on several fronts, particularly in the research of theological development, rituals, morality, and magic. These initial results demonstrate that CSR has the potential of inspiring new research in Biblical Studies and we can expect further interesting results in the near future.

¹ In this article I do not discuss the use of cognitive linguistics in Biblical Studies (including the use of blending theory).

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