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# Ancient Dreams and Modern Approaches

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An exploratory application of cognitive science of religion to book 3 and 4 of the *Oneirokritika* by Artemidorus of Daldis

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## Introduction

What is the difference between us and individuals who lived nearly two millennia ago, around the 2<sup>nd</sup> century AD? There is none – this is at least what those in the field of cognitive science argue. Since the advent of what we now call modern humans (or *homo sapiens*) from 130.000 BCE onwards, the structure of our brains has remained virtually unchanged.<sup>1</sup> This means that the cognitive processes underlying our thoughts and behavior are identical to those of individuals from antiquity. Modern cognitive sciences are thus able to offer us unique insights into ancient history, especially since the development of non-invasive technologies for brain research since the 1980's. In this thesis, I will discuss one cognitive discipline in particular: cognitive science of religion. This field of study developed from cognitive science around 1990 and looks at the cognitive basis for the origin and spread of *religious* thoughts and behavior in particular.

*What can cognitive science of religion do?*

Luther Martin is an ancient historian and one of the main advocates of the introduction of cognitive approaches into the field of (ancient) history. He has a clear conception of what it is that cognitive science of religion is able to provide in the study of ancient religions that other disciplines cannot:

The question, in other words, is can the broadly interdisciplinary cognitive sciences offer a scientifically plausible theory for "filling in the gaps" of the historical record? Given the incomplete data that are characteristic of the historical record generally, from both literate as well as nonliterate societies, social scientists at least since Marx have suggested that social scientific models might, if well articulated, be employed to "fill in the blanks" of those data. [...] The appealing feature of cognitive models, however, is that they go behind the familiar metaphors, typologies or sets of concepts developed on the basis of modern historical assumptions or contemporary sociological descriptions to advance theoretical explanations for historical formations that are grounded in common features of human cognition.<sup>2</sup>

In other words, Martin argues that cognitive science of religion is able to fill in the gaps existing in traditional religious studies, which exist due to the inevitable lack of source material for ancient religions. Furthermore, cognitive science of religion is able to provide a framework in which these materials can be understood, on the basis of a scientific method which is less prone to subjectivity than others. In my opinion it is worth investigating whether cognitive science of religion is indeed able to overcome a number of rifts which cannot be bridged otherwise. This should, of course, be done in a way that does not eliminate the valuable insights gained from other disciplines.

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<sup>1</sup> In fact, brain size is what defines the evolutionary transition from *homo erectus* to *homo sapiens*. See S. Nanda and R. Warns, *Cultural Anthropology* (Belmont 2011) 38-39.

<sup>2</sup> L.H. Martin, 'Towards a Cognitive History of Religions', *Revista de Estudos da Religião* 4 (2005) 7-18: 11-12. Martin has a strong interest in both Hellenistic religions, and theoretical and methodological issues in the study of religion: <https://www.uvm.edu/~religion/?Page=martin.php> [visited 1-10-2015].

Those active in cognitive science of religion argue that applying cognitive science of religion to sources and materials from ancient history has three advantages. First, it offers the opportunity to verify and specify the theoretical claims that are made by cognitive science of religion. By applying its methods and theories to ancient sources, we have a chance to evaluate their effectiveness and applicability outside the theoretical realm. This is a vital part of improving cognitive science of religion in order to (re)connect it to other disciplines, by making it less general and more empirically specific.

Second, it helps us to understand ancient religion on a more fundamental level, since ancient religious concepts and practices are mainly characterized by their enormous diversity and changes throughout time.<sup>3</sup> For example, issues regarding orthodoxy, centralized religious institutions, and the formation of doctrines are not such straight-forward concepts in Greek and Roman antiquity.<sup>4</sup> Investigating our materials with a cognitive perspective might provide us with valuable insights into the underlying structures of the seeming presence or absence of these concepts in ancient societies.

Third, cognitive science of religion may be able to provide more insight into ancient sources on private religiosity, for example in the context of healing, mystery cults, or curses.<sup>5</sup> How should these expressions of individual religiosity be understood with regard to their transmission, for example? This aspect has not been touched upon extensively by cognitive science of religion, however. This thesis aims to do so specifically for ancient dream divination.

The general aim of cognitive science of religion is to investigate the influence of religion on human thought and behavior and vice versa. For the most part, however, cognitive science of religion has been a theoretical field of study. Although some controlled experimental studies have been carried out, historical case studies from a cognitive perspective are sparse. The so-called Standard Model of cognitive science of religion unites the basic viewpoints, the most prominent theories, and main fields of interest. Important theoretical frameworks are the concept of Agency Detection and the concept of counterintuitivity, which are applied to themes such as morality, religious rituals, group membership in religious settings, and religious ideas about suffering and death. It is only recently that these theories have started to be applied outside the conceptual realm. The aim of this thesis is to contribute to the process of operationalizing cognitive science of religion, especially with regard to the concept of counterintuitivity. Therefore, the main question is as follows:

**Can the concept of counterintuitivity, as described in the Standard Model of cognitive science of religion, offer us more insight into ancient divinatory practices?**

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<sup>3</sup> F. Graf, 'What is Ancient Mediterranean Religion?', in: S.I. Johnston ed., *Religions of the Ancient World: A Guide* (Cambridge 2004) 3-16.

<sup>4</sup> These will not be treated here, however, due to the limitations on the extent of this thesis.

<sup>5</sup> J. Barrett, 'In the Empirical Mode: Evidence Needed for the Modes of Religiosity Theory', in: H. Whitehouse and R.N. McCauley ed., *Mind and Religion: Psychological and Cognitive Foundations of Religiosity* (Walnut Creek 2005) 109-126.

## *Cognitive science of religion and ancient religion*

Cognitive based research into ancient religion has been a booming topic in recent years. It has been carried out on a variety of subjects, such as the cognitive foundations for Roman ruler cults,<sup>6</sup> the Roman mystery cult of Mithras,<sup>7</sup> and the rise of early Christianity and Christian rituals.<sup>8</sup>

In order to formulate an answer to the main question, this thesis will specifically focus on a case study from ancient history. More specifically, this thesis will focus on ancient divination. With regard to ancient divination, however, the number of publications from a cognitive perspective remains surprisingly small. I use the term ‘surprisingly’ for two reasons. Primarily, because divination in particular is a promising line of investigation for cognitive disciplines and ancient history, due to its pluriform nature, wide attestation throughout antiquity, and (at least for some forms of divination) relatively elaborate literary sources.<sup>9</sup> The subject itself has also been of interest for a lecture series, a TEDx talk, and even a well-viewed YouTube video.<sup>10</sup> However, not much written work has been produced.<sup>11</sup>

The most promising work on ancient divination from a cognitive perspective has been published by Anders Lisdorf in recent years. He has done work on the pervasiveness of

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<sup>6</sup> C. D. Groot, *The New Standard Model of Ancient History? An Enquiry Into the Applicability of the Cognitive Science of Religion in the Origin and Flourishing of the Hellenistic and Roman Ruler Cults* (MA thesis, Leiden 2015).

<sup>7</sup> L. H. Martin, ‘Performativity, Narrativity, and Cognition: Demythologizing the Roman Cult of Mithras’, in: W. Braun ed., *Persuasion and Performance, Rhetoric and Reality in Early Christian Discourses* (Waterloo 2005) 75-82. Other work on Mithraic rituals and symbols is done by Beck: R. Beck, ‘Exaltation/Humiliation: Coding in Word and Image in Mithraism, Ancient Astrology and Early Christianity’ (paper presented to a panel on Imagistic Traditions in the Graeco-Roman World at the Graeco-Roman Religions Section of the annual meeting of the Society of Biblical Literature (SBL), Toronto, November 2002), R. Beck, ‘Four Men, Two Sticks, and a Whip: Images and Doctrine in a Mithraic Ritual’, in: H. Whitehouse and L. Martin ed., *Theorizing Religions Past* (Walnut Creek 2004) 87-103, and R. Beck, *The Religion of the Mithras Cult in Roman Empire: Mysteries of the unconquered Sun* (Oxford 2006).

<sup>8</sup> W.A. Meeks, *The First Urban Christians: The Social World of the Apostle Paul* (New Haven 1983) and T. Vial, ‘Opposites Attract: The Body and Cognition in a Debate over Baptism’, *Numen* 46 (1999) 121-145. An excellent overview of recent publications concerning CSR and the history of religions can be found in I. Pyysiäinen, ‘Cognitive Science of Religion: State-of-the-Art’, *Journal for the Cognitive Science of Religion* 1 (2012) 5-28: 9.

<sup>9</sup> Why, then, has ancient divination been largely neglected from a cognitive perspective? On the one hand, this is due to the fact that CSR has only recently developed the requirements to venture into non-theoretical and non-controlled experimental environments. On the other hand, this could be the result of the long-standing reluctance of academia in general to occupy itself with ‘dark’ topics such as divination, magic and curses - a praxis that has only relatively recently become challenged and adapted. See also S.I. Johnston, ‘Magic’, in: S.I. Johnston ed., *Religions of the Ancient World* (Cambridge 2004) 139-152: 139-142.

<sup>10</sup> The lecture series, Youtube video and TEDx video all feature P. Struck. The lecture series are named “Ancient Divination and Modern Intuition: A Cognitive History”; they have been scheduled for 2014, 2015, and 2016. The Youtube video can be watched through this link: <https://www.youtube.com/watch?v=ix2zFgfbbKw> [visited 1-10-2015]; the TEDx video is accessible through this link: <https://www.youtube.com/watch?v=-RNq6RI8DvI> [visited 1-10-2015]. A promising publication on divination from a cognitive perspective is also on the way: P. Struck, *Divine Signs and Human Nature: A Cognitive History of Divination in Antiquity* (forthcoming).

<sup>11</sup> A discussion of the oracular methods of the Delphic Pythia from a cognitive perspective can be found in A. Chalupa, ‘Pythiai and Inspired Divination in the Delphic Oracle: Can Cognitive Sciences Provide Us with an Access to “Dead Minds”?’, *Journal of Cognitive Historiography* 1:1 (2014) 24-51. Furthermore, a very promising volume on divination from different perspectives is about to appear, including a cognitive perspective: Munk and A. Lisdorf, *Unveiling the Hidden: Interdisciplinary Approaches* (forthcoming). Unfortunately, it remains unclear when it will be published.

divination in Roman culture, for which he developed a theoretical model of divination by characterizing the phenomenon and subsequently investigating these characteristics using cognitive science of religion. Within this model, Lisdorf strives to integrate both ecological and social factors; finally, he uses the model to analyze the sources for ancient divination.<sup>12</sup> Another publication by Lisdorf on counterintuitive aspects of Roman prodigies continues where this PhD dissertation halted. By looking at Roman prodigy reports between 218 BCE and 44 BCE he addresses two goals: on the one hand, better understanding ancient divination from a cognitive perspective; on the other hand, testing two hypotheses of Boyer and Nyhof on the transmission of counterintuitive concepts.<sup>13</sup> In my opinion, this is exactly the type of work that currently needs to be done. It enhances our knowledge of ancient religion on the one hand, but on the other hand it also tests the applicability and implications of the current Standard Model (and provides feedback to improve it when necessary). This is what this thesis aims to do as well.

### *Divination and its case study Artemidorus of Daldis*

When talking about ancient divination, I refer to the definition by Kim Beerden:

... Divination is the human action of production – by means of evocation or observation and recognition – and subsequent interpretation of signs attributed to the supernatural. These signs can be anything which the supernatural is perceived to place in the world with the intention to communicate, whether evoked or unprovoked, whether visible, auditory, tactile, olfactory or gustatory: in all cases the individual must recognize a sign as coming from the supernatural in order to consider it as a divine sign. Once this has occurred, the sign needs to be interpreted – whether this task is straightforward or difficult.<sup>14</sup>

In order to establish whether the concept of counterintuitivity at this stage is indeed fit for application to ancient divination, I will apply it to a historical case study. To be more precise, I will take a closer look at a selection of two volumes from the divinatory dream book of Artemidorus of Daldis.<sup>15</sup> This is also the delineation of this thesis. Artemidorus' work can be considered unique due to its impressive preservation, but at the same time as an undeniably commonplace part of Hellenistic religion and society. Despite the fact that the *Oneirokritika* form the only dream book coming down to us from antiquity in such a complete manner, we should by no means forget that it was only one dream book of

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<sup>12</sup> A. Lisdorf, *The Dissemination of Divination in Roman Republican Times: A Cognitive Approach* (PhD thesis, Copenhagen 2007).

<sup>13</sup> See J.L. Barrett and M.A. Nyhof, 'Spreading Non-Natural Concepts: The Role of Intuitive Conceptual Structures in Memory and Transmission of Cultural Materials', *Journal of Cognition and Culture* 1:1 (2001) 69-100 and A. Lisdorf, 'The Spread of Non-Natural Concepts', *Journal of Cognition and Culture* 4:1 (2004) 151-173.

<sup>14</sup> K. Beerden, *Worlds Full of Signs: Ancient Greek Divination in Context* (Leiden 2013) 20.

<sup>15</sup> There has been previous research into the applicability of Agency Detection, another important concept from cognitive science of religion, to ancient divination. The application of this concept has proven to be successful. For example, see Beerden, *Worlds Full of Signs*; U.S. Koch, 'Three Strikes and You're Out! A View on Cognitive Theory and the First-Millennium Extispicy Ritual', in: A. Annus ed., *Divination and Interpretation of Signs in the Ancient World* (Chicago 2010) 43-60; J.P. Sørensen, 'Cognitive Underpinnings of Divinatory Practices', in: Munk ed., *Unveiling the Hidden*, 311-337; and Lisdorf, *The Dissemination of Divination*.

many more from this period. The *Oneirokritika* are both a unique and representative source with respect to private dream divination in antiquity, since they acknowledge the dreams they discuss as signs coming from the supernatural and subsequently interpret them. Artemidorus' dream book can thus be considered to be a representative source for ancient divination, taking Beerden's definition of divination into account.

Artemidorus, who was born in Ephesus in the 2<sup>nd</sup> century AD, is the author of the only complete dream book that has come down to us from antiquity.<sup>16</sup> Very little is known about his personal life. The *Oneirokritika* have been studied from a variety of perspectives, for example concerning their narratology, method of dream interpretation, and the motivation behind their writing.<sup>17</sup> There is also a long-standing discussion regarding the differences between book 1-3 and book 4 and 5. The first three books are directed at a general audience, while the last two have a private character.<sup>18</sup> The *Oneirokritika* have not yet been studied from a cognitive perspective, however, despite the fact that they are a good candidate. Let me explain this. The five volumes of the *Oneirokritika* discuss both theoretical considerations and practical examples of dream interpretation in a clear manner, which makes them relatively easily accessible for cognitive theories. In a way, one might argue that the theoretical reflections of Artemidorus in his dream book make him a very early precursor of modern cognitive scientists.<sup>19</sup> Furthermore, Artemidorus offers a unique insight into the minds of common individuals of his time. The *Oneirokritika* are not directed at the elite, but rather at the lower social strata who were - figuratively speaking - shopping on the mantic marketplace. Artemidorus unmistakably expresses the widely-felt unease of the common people with regard to the Roman identity that had been forced upon them. This is usually not reflected in our sources, since most of them come from the elite part of ancient societies.<sup>20</sup>

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<sup>16</sup> For an overview of the historical transmission and the great influence of the *Oneirokritika* on later dream books, even up to Sigmund Freud, see S.R.F. Price, 'The Future of Dreams: Freud to Artemidorus', *Past and Present* 113:1 (1986) 3-37: 31-34.

<sup>17</sup> Narratological aspects of the *Oneirokritika* are discussed in J. Downie, 'Narrative and Divination: Artemidorus and Aelius Aristides', *Archiv für Religionsgeschichte* 15:1 (2014) 97-116. Artemidorus' method of dream interpretation is discussed in G. Boter and J. Flinterman, 'Are Petitionary Dreams Non-predictive? Observations on Artemidorus' *Oneirocritica* 1.6 and 4.2', *Mnemosyne* 60 (2007) 589-607. Artemidorus is discussed in the broader context of ancient dream theory in L. H. Martin, 'Artemidorus: Dream Theory in Late Antiquity', *The Second Century* 8 (1991) 97-108.

<sup>18</sup> The latest publication centering on the discussion why the last two of the five books of the *Oneirokritika* are so different from the first three can be found in D. Harris-McCoy, 'Writing and Reading Books IV and V of Artemidorus' *Oneirokritika*, in: G. Weber ed., *Artemidor von Daldis und die antike Traumdeutung: Texte - Kontexte - Lektüren, Colloquia Augustana* 33 (Berlin; Boston 2015) 17-37.

<sup>19</sup> A clear example of this 'academic distantiation' from his subjects is Artemidorus' discussion of the origin of dreams. Artemidorus really makes a point of it to avoid ascribing a divine or biological origin to dreams, despite his use of the term "god-sent": ... οὐχ ὁμοίως δὲ νῦν ἐγὼ ὡς Ἀριστοτέλης διαπορῶ πότερον ἐξῶθεν ἢ μὴν ἐστὶ τοῦ ὄνειρώσειν ἢ αἰτία ὑπὸ θεοῦ γινομένη ἢ ἔνδον αἰτιῶν τι, ὃ ἡμῖν διατίθησι τὴν ψυχὴν καὶ ποιεῖ φύσει συμβεβηκὸς αὐτῇ, ἀλλὰ θεόπεμπτα [ὡς] ἤδη καὶ ἐν τῇ συνηθείᾳ πάντα τὰ ἀπροσδόκητα καλοῦμεν (*Oneirokritika* 1:6).

<sup>20</sup> J. Bilbija and J. J. Flinterman, 'De markt voor mantiek: droomverklaring en andere divinatorische praktijken in de *Oneirocritica* van Artemidorus', *Lampas* 39 (2006) 246-266: 251.

As we have seen before, the main question of this thesis is as follows:

**Can the concept of counterintuitivity, as described in the Standard Model of cognitive science of religion, offer us more insight into ancient divinatory practices?**

By applying an important concept from cognitive science of religion, the concept of counterintuitivity, to book 3 and 4 of the *Oneirokritika* by Artemidorus of Daldis, the aim of this thesis is to establish whether cognitive science of religion in its current state is developed well enough to be applied outside the theoretical realm and to a historical case study. If so, I will demonstrate what new insights can be gained from this approach. If not, I will define in what ways cognitive science of religion is as of yet unfit to be applied outside the theoretical realm, and what improvements have to be made to make it more applicable.

By doing this, I will contribute to the process of operationalizing cognitive science of religion, most notably the concept of counterintuitivity. Furthermore, I will reflect on the question whether the concept of counterintuitivity is able to provide us new insights into Artemidorus of Daldis' *Oneirokritika* on the one hand, and into ancient divination in general on the other hand. This question is of secondary importance in this thesis, however. The main focus of this thesis is to provide a theoretical contribution to cognitive science of religion and its theories.

This thesis is divided into three parts. In Part I: Theory and Debate, cognitive science of religion and its main methods and theories are introduced. I will also reflect on one of the main lines of criticism cognitive science of religion has had to face, and how cognitive scientists have reacted to this. In Part II: Application, I will discuss the application of cognitive science of religion to ancient divination. More specifically, the concept of counterintuitivity will be discussed more closely, before it is applied to book 3 and 4 of the *Oneirokritika*. In Part III: Analysis, I will analyze the results of this application. I will reflect on the system I have used to apply the concept of counterintuitivity to Artemidorus' dream book, and I will compare my results to a similar investigation by Anders Lisdorf into Roman prodigy reports. By doing this, this thesis aims to contribute to both cognitive science of religion and our understanding of ancient divinatory practices, Artemidorus of Daldis in particular.

The remainder of this thesis will be worked into a publication, and is therefore unavailable as of yet.