Cognitive Science and Philosophy of Religion: Embracing the Human Perspective[1]

Javad Darvish Aghajani[iD]

Assistant Professor, Institute for Science and Technology Studies, Shahid Beheshti University, Tehran, Iran. J_darvishaghajani@sbu.ac.ir

Abstract

The Cognitive Science of Religion (CSR) is a relatively young field that explores the intersection between science and religion. Some argue that CSR, by employing purely explanatory methods and presupposing methodological naturalism, has secularized and materialized religion. Others believe that explanatory methods are not the sole approach in CSR, and the use of other methods is permissible. This article aims to show how CSR has influenced the entire realm of philosophy of religion and the nature of this impact. It examines various perspectives on the extent of CSR's influence on the philosophy of religion, particularly analyzing its effect on the proofs of natural theology. The second part demonstrates that contrary to the dominant literature, the impact of CSR can extend beyond merely strengthening or weakening theological arguments and can be used to argue for the reform of religious beliefs. This argument is pursued from four different perspectives: first, the concept of God, arguing that weakening classic proofs does not imply weakening belief in God; second, the methodology of studying religion, advocating for methodological pluralism; third, the topic of revelation and the role of humans in religion, suggesting that a behavioral shift desirable in economics is also preferable in the study of religion; and fourth, the issue of religious pluralism and interfaith relations, arguing against the exclusivity produced by textualism and foundationalism in epistemology.

Keywords

Cognitive Science of Religion (CSR), Methodological Pluralism, Foundationalism, Theory of Mind (TOM), Natural Theology.

Introduction

In the context of classical Islamic scholarship, religious sciences typically encompass disciplines such as jurisprudence (*fiqh*), theology (ʿ*ilm al-kalām*), and Quranic exegesis (*tafsīr*). The ultimate goal of these disciplines is to comprehend the truth of religion or the divine intent. While other fields such as logic (or principles of jurisprudence, ʿ*ilm al-uṣūl*), history, and philosophy are often employed in this pursuit, they are considered instrumental and do not hold primary status within the discipline of religious sciences.

In contrast, the study of religion in contemporary academia is predominantly conducted under the umbrella of *Religious Studies*. Religious studies in modern universities exhibit two fundamental distinctions from classical religious sciences. Firstly, it differs in its approach to understanding religion. Religious studies do not perceive religion solely as a transcendent and highly specialized phenomenon; rather, it adopts a more earthly perspective, seeking to comprehend religion as a socio-cultural phenomenon (Hinnells, 2009). The second distinction stems from the first and is the utilization of a broader and more diverse range of tools. Religious studies encompass a majority of social science disciplines, including anthropology, ethnography, and archaeology.

Besides the broader field of Religious Studies (RS), a distinct branch has emerged: the *Scientific Study of Religion* (SSR). Cognitive Science of Religion (CSR) stands as a prominent and perhaps most well-established example of this scientific approach to religious phenomena. The fundamental distinction between these two branches lies in their respective methodologies. While RS primarily employs an *interpretive* approach, SSR and CSR lean towards an *explanatory* method. The interpretive approach seeks an empathetic understanding of human and social phenomena, whereas the explanatory method is more concerned with elucidating the causal factors, whether physical, biological, or more broadly natural, that underlie these phenomena.[1] As Thomas Lawson, a pioneer in the field of CSR, aptly puts it, the explanatory method entails "the search for causal explanations that will provide an account of why and how religious beliefs and concepts are produced, transmitted, and acquired" (Lawson, 2022, p. 15).

This methodological distinction within the study of religion might be interpreted as a more earthly and naturalistic understanding of the

---

1. Works related to the philosophy of social sciences have addressed this difference and other differences between these two types of methods (e.g. (Benton & Craib, 2001)).

phenomenon of religion. While this interpretation holds some merit, it is not the sole possible interpretation. I will revisit this point in the fourth section of this essay.

In this paper, I aim to examine the scope and quality of the cognitive science of religion's (CSR) impact on the philosophy of religion and theological arguments. While CSR may challenge the philosophical and epistemological foundations of classical theological arguments, it simultaneously opens new avenues for a more progressive understanding of the concept of God, the methodology of studying religion, the role of humans in religion, and interfaith relations.

The concept of God derived from classical philosophical arguments often presents as abstract, difficult to grasp, and inaccessible, bearing few human-like characteristics. In contrast, the concept of God that CSR can guide us towards is one that is closer, more empathetic, and exhibits more ethical actions towards humanity. It can be demonstrated that the concept of God derived from religious teachings aligns more closely with this latter concept than the philosophical concept of God emerging from classical arguments.

In recent years, the SSR has garnered significant attention. Springer is currently releasing a series of books titled *New Approaches to the Scientific Study of Religion*, with various subtitles; twelve volumes have been published thus far.[1] Among these works, the fields of psychology, biology, and cognitive science have received considerable focus. Numerous papers and books, particularly on CSR, have been published in the last five years.

In the following sections, I will first briefly introduce the central theories of CSR. Then, I will examine the various influences of CSR on the broader field of contemporary philosophy of religion. In this section, I will particularly focus on the issue of natural theology, explaining how CSR contributes to undermining it.

Finally, in the third section, I will argue that contrary to the prevalent literature, CSR can provide an opportunity to go beyond the strengthening-weakening dichotomy of religion. Indeed, I will explain how CSR can be viewed as a method for *enhancing* our understanding of religion. This perspective is based on the assumption that religion is a multifaceted, intricate, and sacred phenomenon, necessitating the utilization of all available sources of human knowledge. CSR, by embracing methodological pluralism, provides this opportunity. In this section, I will illustrate how CSR can lead to the

---

1. The topics of these books can be seen here: https://www.springer.com/series/15336

reform and advancement of at least four key topics discussed in contemporary philosophy of religion: 1) the concept of God, 2) the method of studying religion, 3) revelation and the role of humans in religion, and 4) religious pluralism and interfaith relations. These topics are among the most significant parts discussed in contemporary philosophy of religion.

What is the cognitive science of religion?

CSR using cognitive science's tools seeks to explain how religious beliefs, doctrines, and behaviors emerge, continue, and transmit in human societies (White, 2021, p. 21). The central idea behind CSR is that religion is a "natural" phenomenon. Here, being natural does not mean being material, but rather refers to the notion that religion is created intuitively and through ordinary human cognitive mechanisms that have evolved over historical periods. In this sense, Science is "unnatural" because it cannot be solely obtained through ordinary daily perceptions. For example, experiments have shown that the belief in an orderly world, designed for a purpose, and having a creator is a belief that takes shape in childhood (for instance, see Deborah Kelemen's works (Kelemen, 1999)). However, one cannot find a child who can explain the Wave Function equation in quantum mechanics without sufficient education. In this context, religion is natural, while science is unnatural.

CSR rooted in various theories from evolutionary biology, posits that religious beliefs and behaviors develop, evolve, and are transmitted through genes and inheritance, similar to phenotypic and psychological traits. Scholars in CSR disagree on whether religion and religious beliefs should be considered *adaptive* features for human evolution (i.e., religious beliefs directly enhance human adaptation to the environment) or *by-products* (i.e., religious beliefs are by-products of the other adaptive traits). However, as Claria White explains, the latter theory holds more influence in CSR, although the two perspectives are not contradictory (White, 2021, p. 66 & 67). Cognitive scientists refer to cognitive tools that have evolved to aid human survival. The by-product of these tools is the emergence of religious beliefs and behaviors. Here, I briefly introduce three of the most significant of these tools.

Hyperactive Agency Detection Device (HADD)

HADD is a cognitive tool that predisposes humans to interpret specific sensory and intuitive experiences as the actions of an agent, whether human or

non-human. Humans tend to naturally attribute environmental occurrences to *agent causes* rather than *event causes*. This tendency aids in swiftly and effectively dealing with environmental threats, thus enhancing survival.

Here, some scholars argue that this tendency can lead to false beliefs. False beliefs fall into two categories: *false positives* and *false negatives*. To understand the difference, consider Aesop's fable, "The Boy Who Cried Wolf." In this story If there is no wolf present, yet the boy believes there is, this illustrates a *false positive* belief. On the other hand, if a wolf is indeed present, but the boy erroneously believes there is not, this exemplifies a *false negative* belief .The key point is that false positives do not carry a significant cost. (In the context of the example, the maximum cost incurred is the additional effort of calling for help and the unnecessary running of those who arrive to assist the boy). In contrast, false negative beliefs come with a high evolutionary cost and can severely threaten survival. (In this example, the wolf might end up killing the entire flock and even the boy).

Guided by the principle "better safe than sorry," the human cognitive system seeks to optimize decision-making to promote survival. Consequently, humans strive to minimize false negatives, even if it leads to increasing false positives. Numerous studies indicate that humans have a propensity to assign agency to events transpiring around them. As such, HADD plays a significant role in shaping supernatural beliefs in humans.

Theory of Mind (ToM)

Humans have a natural inclination to attribute mental states, such as beliefs and desires, to various agents, including hypothetical ones. This inclination is referred to as "ToM." The Theory of Mind (ToM) is a cognitive ability that leads humans to ascribe thoughts, emotions, and general mental states to other beings. This capability is crucial for fostering successful social interactions and effective communication.

The primary function of ToM is to anticipate the behavior of an agent. When early humans encountered an unfamiliar creature, they had a natural propensity to perceive it as possessing emotions such as hunger or anger, enabling them to exhibit adaptive behaviors. Experimental research has confirmed the existence of this tendency, even in young children (Kelemen, 1999). Furthermore, ToM contributes to *anthropomorphism*, driving us to assign quasi-human attributes, emotions, and intentions to nonhuman entities or objects. Additionally, ToM supports mind-body dualism.

Collectively, these cognitive processes assist humans in forming religious

beliefs about the existence of supernatural beings, the afterlife, and other related concepts.

Minimal counter-intuitiveness (MCI)

Pascal Boyer posits that *minimally counterintuitive* beliefs are better accepted and transmitted than *intuitive beliefs* and *maximally counterintuitive beliefs*. This is because the human mind has evolved in a specific manner that optimizes learning and information sharing. According to Boyer, minimal counterintuitive beliefs are more effectively learned and transmitted than intuitive and maximally counterintuitive beliefs as they strike a balance between *attractiveness* and being *surprising* (Boyer, 2008, pp. 54–65). Attractiveness refers to simplicity and comprehensibility, while being surprising signifies the violation of our expectations, capturing our attention and encouraging further exploration. These two elements, attractiveness and surprisingness, work in tandem to set counterintuitive beliefs in our minds. Attractiveness increases our initial willingness to accept these beliefs, while being surprising prompts us to delve deeper into their nature.

From this perspective, religious beliefs fall within the realm of minimal counter-intuitiveness. These beliefs challenge our normal expectations to a certain extent, but not excessively. For instance, an invisible yet personal God (like the God in Abrahamic religions), satisfies our minimally counterintuitive expectations, whereas a God that transcends time and space (as portrayed by classical theologians and philosophers) would be maximally counterintuitive and more challenging to believe.

CSR and its impact on the philosophy of religion: strengthening or weakening belief in God?

According to scholars in CSR, the aforementioned cognitive tools and theories, in conjunction with other theories, can elucidate the origins of religious beliefs. It is essential to consider CSR as an intellectual tradition, paradigm, or at least a conceptual framework—not merely a single theory—as highlighted in the introduction. This view facilitates a better examination of its influence within the philosophy of religion. Consequently, some contend that CSR has revealed certain truths in the philosophy of religion, including the observation that most philosophers of religion exhibit a strong bias toward religious beliefs. This bias raises concerns about the scientific rigor and overall health of the discipline (Draper & Nichols, 2013). In their work, Draper and Nichols aim to demonstrate that many religious philosophers are influenced by

cognitive biases in their arguments, such as emotionalism and sectarianism, by referencing various experiments.

Part of the impact of CSR on the philosophy of religion can be attributed to its method. Some argue that *methodological naturalism* is inherent in CSR, implying a potential incompatibility between CSR and theism. This perspective treats religion as a cultural phenomenon that exists independently of human minds, thereby allowing it to be explained by purely natural causes (Atran, 2002, p. 10). I will revisit this notion and scrutinize the validity of this claim more closely. Conversely, there are those who, while accepting a less stringent version of methodological naturalism, advocate for *methodological pluralism* within CSR (Barrett, 2007; Visala, 2018; White, 2021, p. 79). Their central argument is that religion has diverse facets and cannot be reduced to a singular representational approach. Thus, interpretive and explanatory methods can collaborate to enhance our understanding of religion. Additionally, Justin Barrett has argued that CSR has implications not only for the belief in God's existence but also for beliefs regarding God's attributes, such as omniscience (Barrett, 2012, p. 79).

Several studies have explored the relationship between CSR and the doctrines of specific religions like Islam and Christianity, establishing a connection between CSR and *systematic theology*. For instance, Aria Nakissa attempts to reexamine five central concepts in Islamic theology from the perspective of Al-Ghazali and then investigates their relationship with CSR, ultimately highlighting a kind of compatibility between them (Nakissa, 2020). Conversely, Horvat and Roszak argue that Christianity, when examined through a Thomistic lens, is incompatible with CSR (Horvat & Roszak, 2020).

In this context, the most substantial discussions have emerged concerning the relationship between CSR and the epistemology of religious belief. Numerous papers and books in recent years have attempted to address the question: what implications does CSR have on the rationality of religious beliefs? Regarding the interplay between cognitive science and religious beliefs, three possible scenarios can be logically envisioned :1- Cognitive science undermines (debunks) the rationality of religious beliefs .2- Cognitive science bolsters the rationality of religious beliefs .3- Cognitive science has no impact on the rationality of religious beliefs.

Many papers have explored the second scenario, which posits that CSR bolsters religious beliefs. One of the most frequently cited is the 2010 paper by Clark and Barrett. They argue that CSR provides compelling evidence supporting the notion that "our belief in the existence of God is a production

of a particular cognitive faculty." This hypothesis draws inspiration from Calvin's ideas and Plantinga's efforts to redefine it within the context of his *Reformed Epistemology.* Consequently, Clark and Barrett contend that if CSR is accurate and we accept the *Reformed Epistemology*, the rationality of believing in God is strengthened[1] (Clark & Barrett, 2010). Moreover, some have attempted to defend the second scenario through pragmatic epistemology (e.g.,Van Eyghen, 2022).

Each of these viewpoints can be evaluated in its own place; however, a general criticism can be applied to the second scenario or *strengthening* approach: the epistemological theories employed in this argument all resort to non-mainstream theories concerning belief justification and rationality. In other words, both Plantinga's view and Alston's pragmatic religious epistemology, utilized by Van Eyghen, are theories proposed in response to Gettier's criticisms of the definition of knowledge, attempting to supplant Evidentialism. By invoking these theories in the context of CSR, theologians appear to be selectively adopting them to support their positions. In other words, since these theories enable the defense of strengthening religious beliefs under CSR, certain theologians have chosen to embrace them and therefore, they commit the fallacy of *begging the question*.

The majority of debates concerning the relationship between CSR and religious belief revolve around the negative relationship between them. Various theories exist within this realm, and a relatively recent contribution comes from Helen de Cruz and Johan de Smedt. They argue that CSR can potentially undermine the arguments of natural theology, consequently challenging theism. This topic will be further discussed in the following sections.

CSR and the challenge to natural theology

The primary components of natural theology's arguments include premises like the existence of design, causality, beauty, the inception of time, possibility, consciousness, and others in the world. While these premises appear *reflective*, they are fundamentally grounded in humans' *intuitive* understanding. Cruz and Smedt leverage this connection to establish CSR-based explanations within the context of natural theology.

The distinction between intuitive and reflective understanding stems from Daniel Kahneman's well-known differentiation between cognitive systems 1

---

1. I have criticized this argument here: (Aghajani, 2022)

and 2, as outlined in his book *Thinking, Fast and Slow*. Kahneman asserts that humans possess two distinct thinking systems. System 1 operates quickly, intuitively, automatically, without requiring conscious effort, relies on experiences and heuristics, and is susceptible to cognitive biases. In contrast, System 2 is slower, precise, analytical, deliberate, demands conscious effort, and employs logic and reasoning (Kahneman, 2013, pp. 19-26). Recognizing a face in a crowd exemplifies System 1 while solving mathematical problems illustrates System 2. Kahneman explains that the human brain prefers System 1 for problem-solving due to its speed and efficiency. System 2 is engaged only when confronted with complex challenges requiring high precision and concentration. However, these two systems continuously interact (Kahneman, 2013, p. 24).

Drawing upon Kahneman's distinction, Justin Barrett posits that religious beliefs can also be categorized into two types: beliefs arising from System 1, labeled *intuitive beliefs*, and beliefs stemming from System 2, designated as *reflective beliefs* (Barrett, 2007, p. 47). Our intuitive beliefs lead to a rapid, superficial, and potentially imprecise understanding of God, whereas theological beliefs guide us toward a more accurate and justified belief in God through rigorous philosophical arguments. Consequently, it can be argued that classical proofs of God's existence, such as cosmological and teleological arguments, originate from our reflective beliefs.

However, this judgment about the arguments would be changed when we seriously take into account the findings and implications of CSR. In their book, *Natural History of Natural Theology* (De Cruz & De Smedt, 2015), and subsequent article "Beliefs and Arguments" (De Cruz & De Smedt, 2017), the authors trace the intuitive roots of these arguments and patterns, offering mechanistic and biological explanations. They show that these arguments, which ostensibly fall under reflective beliefs, are not independent of intuitive beliefs. Instead, they can be viewed as intuitive beliefs reflected upon (De Cruz & De Smedt, 2017).

Transferring classical theological arguments from the realm of reflective beliefs to that of intuitive beliefs, as proposed, may substantially undermine their validity. This is because intuitive beliefs possess weaker epistemological credibility, and any foundation constructed upon them will inherently be unstable. One example explored by Cruz and Smedt is the *Kalam cosmological argument*, which originates from the Islamic theological tradition. Recently, William Craig, a contemporary philosopher of religion revisited and reinterpreted this argument. The structure of the argument is as

follows:

1. Everything that began to exist has a cause.

2. The existence of the world has begun.

3. Therefore, the world has a cause.[1] (Craig & Sinclair, 2009)

The principle of causality lies at the heart of this argument. This principle, expressed in various terms, maintains that every phenomenon and event has a cause. Throughout the history of philosophy, the principle of causality has been extensively debated within metaphysical discourse. Yet, recent findings suggest that humans intuitively recognize this principle. Cruz and Smedt contend that the principle of causality appears to be intuitive in humans, as evidenced by its consideration in both human children and, to some extent, adult chimpanzees (De Cruz & De Smedt, 2015, p. 92). In a well-known experiment, scientists demonstrated that crows also comprehend the principle of causality and exhibit behavior that reflects this understanding (Taylor et al., 2009).

As earlier discussed, cosmological arguments seem to be more rooted in intuitive beliefs than previously thought. Cruz and Smedt offer a similar explanation for teleological arguments (De Cruz & De Smedt, 2017).

In summary, their argument so far can be formulated as follows:

1. The arguments of natural theology stem from intuitive beliefs rather than reflective beliefs.

2. Intuitive beliefs lack strong epistemological validity.

3. The arguments of natural theology are questionable and invalid.

This argument can be critiqued from different angles. While the first premise is less challenging, with CSR findings supporting it, one could argue that not all natural theological arguments rely solely on intuitive beliefs. Specifically, the premises used in newer arguments within natural theology draw upon the findings of physics, cosmology, and biology, making it challenging to attribute them solely to intuitive beliefs.

Meanwhile, the second premise presents a more substantial challenge, with numerous opponents in contemporary epistemology. Debates surrounding *Debunking Arguments* and their counterarguments predominantly revolve around this very premise. It can be demonstrated that accepting this notion necessitates adherence to a strict *internalism* in epistemology. Various *externalist* theories contend that common-sense and intuitive beliefs remain

---

1. Here I have examined the various debates surrounding this argument (Aghajani & Karimi, 2017)

valid as long as they do not encounter *defeaters* (McNabb, 2018, pp. 6–8).

Cruz and Smedt, however, have acknowledged these criticisms, asserting that the biases and intuitions found in natural theological arguments—also present in other knowledge domains—sway theists towards utilizing them to support God's existence, while atheists employ them to argue against it (De Cruz & De Smedt, 2017).

In light of this, it appears that the CSR cannot provide definitive conclusions regarding the existence or non-existence of God. The potential applications of CSR in this context will be explored in the subsequent section.

Transcending the binary: CSR beyond strengthening and weakening theistic belief

Given the divergence of opinions presented above, with one group considering cognitive science debunking religious beliefs and another perceiving them as reinforcing these beliefs, an alternative perspective can be introduced here. This viewpoint, which we can label the "third way,"[1] encompasses various positions. Some scholars argue that CSR is independent of religious and theological beliefs, adopting a neutral stance towards CSR findings and asserting that these sciences don't have *Epistemic Relevance*[2] to theological beliefs. Proponents of this view include Van Eyghen and Wildman (Van Eyghen, 2022). Others, like Cruz and Smedt, emphasize the importance of background beliefs in shaping the interpretation and implications of CSR.

In this context, I propose an alternative perspective within the "third-way" theories, suggesting that CSR neither bolsters nor debunks religious beliefs, but instead, possesses the potential to *reform* and *enhance* them. This concept will be explored under four key themes:

1. The concept of God
2. Methodology of studying religion

---

1. Derived from an approach in biology that tries to open a third way between creationism and neo-Darwinism. One of the most important supporters of this approach is James Shapiro and Dennis Noble (Shapiro, 2021).

2. Epistemic relevance is a topic that has been raised in epistemology since the time of Carnap. Based on that, evidence E is related to hypothesis H, if and only if, the probability of occurrence of H considering E is different from the probability of occurrence in the initial state of H .For example, if the hypothesis is that "extraterrestrial life exists," the discovery of a new fossil on Earth is irrelevant evidence. But if water molecules or carbon dioxide are discovered on other planets, it will be positive evidence for our hypothesis and increase the probability of its acceptance.

3. Revelation and the position of humans

4. Religious pluralism and inter-religious communication

These topics stand among the most significant and debated issues within the contemporary philosophy of religion. As they form the core subjects of numerous educational works (textbooks) and are extensively covered by leading philosophers of religion in the 21st century, the implications of CSR for these areas may hold notable sway over the broader discourse in contemporary philosophy of religion.

The concept of God

The "concept of God" stands as a crucial topic within the contemporary philosophy of religion, with notable works specifically devoted to its exploration (e.g., Buckareff & Nagasawa, 2016). This subject pertains to the diverse philosophical interpretations, characteristics, and definitions associated with the existence of God within both monotheistic and non-monotheistic traditions.

As previously mentioned in the third part of the paper, Cruze and Smedt suggest that classical theological arguments are more closely aligned with intuitive beliefs than with reflective beliefs. Moreover, cognitive science generally does not support the reliability of intuitive beliefs. I would like to present an alternative argument in this section, proposing that undermining natural theology and classical theology does not necessarily weaken theism. Instead, it can be interpreted as weakening certain conceptions of God while fortifying others.

In *The Divine Nature and Human Language*, William Alston posits that various theological arguments emphasize distinct *perfections* of God, which he distinguishes from "*divine attributes*." He contends that these diverse theological arguments can lead to disparate conceptions of God, despite ultimately referring to the same supreme reality (Alston, 2019, p. 21).

Diverse theological arguments indeed lead to distinct conceptions of God. The *Kalam cosmological argument*, for instance, points to God as the initial cause of the universe (its origin and creator), while the cosmological argument of philosophers alludes to God as the *cause of all causes*. The teleological argument, on the other hand, directs our attention towards a wise and *purposeful creator*—God.

If this understanding holds true, undermining classical arguments would just consequently weaken the associated concepts of God. However, by integrating CSR as a substitute for classical theology, novel and alternative

concepts of God can emerge, which revolve around agency, anthropomorphism, and the like. Essentially, CSR paves the way for a God characterized by effective actions in relation to humankind, with behaviors adhering to rules akin to those governing our own. This God also embodies compassion and morality in decision-making processes.

Such a concept of God better aligns with the divine portrayal found in scriptural texts. A significant portion of these texts, particularly those belonging to Abrahamic religions, depict God as a being intimately connected to humans. Scriptural texts ascribe human attributes to God while cautioning against solely defining God's nature based on these attributes.

Methodology of studying religion

While the philosophy of religion primarily focuses on the philosophical facets of religious beliefs, concepts, and experiences, it also engages with the methodologies employed in religious studies, making it a subject of discourse within the philosophy of religion. Methodological and epistemological aspects, such as the epistemology of religion, phenomenology, hermeneutics, comparative studies, and interdisciplinary approaches, form key topics of discussion in this field.

As mentioned in the introduction, the traditional method of studying religion revolves around an *interpretive* approach, whereas the scientific method adopts an *explanatory* perspective. A significant limitation of the interpretive view lies in its narrow scope, which tends to overlook various biological, psychological, and cognitive dimensions of religion. One major consequence of this restricted focus is the diminished attention given to human, moral, and emotional aspects.

However, the question arises: can the explanatory method bridge the gaps left by traditional interpretive approaches? If we consider the explanatory method, rooted in natural sciences, as the sole valid approach, the answer is absolutely negative. Adopting such an exclusivist stance would result in an even narrower perspective on religion than interpretive methods, severely limiting our understanding of its various aspects. Furthermore, embracing a strictly explanatory method leads to the loss of religion's most crucial dimension—its sacred aspect, which forms the very core of religious belief.

This exclusivist approach is commonly adopted by scholars like Scott Atran, Pascal Boyer, and Daniel Dennett in the cognitive science of religion (Atran, 2002, p. 10; Boyer, 2001; Dennett, 1996). On the other hand, Barrett and Visala advocate for *methodological pluralism*. They argue that no single

method suffices for fully comprehending complex and multifaceted phenomena like religion, emphasizing the need to draw upon all available knowledge and research methodologies for a more comprehensive understanding. In their view, *explanatory pluralism* seeks to offer related explanations at different levels, elucidating the genuine causal relationships between events and processes (Visala, 2022). This methodological approach mirrors the strategy employed by early cognitive scientists such as Paul Thagard, who advocated for a multidisciplinary understanding and explanation of the mind (Thagard, 2019).

In this context, CSR distinguishes itself from *neurotheology* and the *psychology of religion*, leveraging the broader scope of cognitive science to harness its full capacity. In addressing religion, if the focus is on understanding brain functions during religious experiences, CSR can draw upon neuroscience explanations; if the inquiry revolves around individual beliefs, CSR can employ psychological explanations; if the focus shifts to understanding the factors contributing to the widespread adoption of belief within a society, CSR can utilize anthropological explanations. Even CSR does not consider the use of philosophical and theological explanations as impermissible and does not ignore the sacred aspect of religions in this way.

To better illustrate explanatory pluralism in CSR, Visala presents an intriguing example. He poses the question, "Why does John believe in God?" An essential point to consider, Visala notes, is that in seeking explanations, we are consistently searching for the factor that *makes a difference*. In response to the given query, one might assert that "John believes in God because he possesses a normal brain (including its inherent architecture)." While this assertion holds validity—as John certainly couldn't believe in God without a brain—it remains unsatisfactory, considering that all humans have brains, yet not all believe in God. Consequently, it becomes necessary to shift the *level of explanation* to arrive at a more satisfactory answer.

Suppose, for instance, that John had a strong religious experience two weeks prior during a visit to a church. This event could serve as a compelling explanation for John's belief in God, as it identifies the factor that makes a difference in John's case (Visala, 2018, p. 65). In this scenario, we employ both agent-based and event-based explanations, without resorting to metaphysical reductionism. Furthermore, nothing precludes us from acknowledging God and divine influence in the formation of religious beliefs within this framework.

In summary, theological explanations might be reduced and confined to

various disciplines such as neuroscience (e.g., Persinger, 2001), evolutionary biology (e.g., Dawkins, 2006), or anthropology (e.g., Boyer, 2008). Each of them is a ray of light that can shine on religion. However, CSR is not merely one explanation among many; rather, it encompasses all of these disciplines, or more precisely, it serves as the organizing principle that systematically connects these various levels of inquiry.

Revelation and the position of humans

The research conducted by Kahneman and Tversky, particularly their insights into the dual cognitive systems of humans, instigated a revolution in economics, eventually giving rise to the field of *behavioral economics*. Despite Kahneman's background in psychology, his groundbreaking work earned him the 2002 Nobel Prize in Economics. His fundamental premise hinged on the notion that when certain economic equations fail to adequately explain events (such as stock market crashes), the blame may lie in the classical economic concept known as the "*rational actor*" or "*economic person*." Classical economics assumed humans to be rational beings who consistently make logical decisions regarding their economic resources.

In contrast, Kahneman posited that a more accurate and active representation of humans should be incorporated into economic equations to yield more realistic outcomes and predictions. This approach necessitates considering human cognitive biases in decision-making processes, emphasizing that real individuals tend to rely more on intuition (System 1) rather than reason and deliberate analysis (System 2).

Drawing upon the research of Kahneman and Tversky, and acknowledging the epistemological role of intuition and biases in religious beliefs, Justin Barrett asserts that a similar shift in perspective is warranted within the realm of religious studies. He said:

"This cognitive science of religion (CSR) can also be likened to cognitive turns in economics pioneered by Kahneman and Tversky. As human economic behavior is at least partially explained by individual mental representations concerning resource management, so too religious behavior is at least partially explained by individual mental representations (that is, cognition) concerning superhuman agency, the relationship between minds and bodies, death and afterlife, the nature of fortune and misfortune, the origins of the natural world, and so forth." (J. Barrett, 2008)

Consequently, strictly traditional approaches in religious studies prove insufficient for elucidating religious behavior. Adhering solely to

jurisprudence, exegesis, and textual analysis mirrors the classical economist's notion of a "rational man," neglecting the significant impact of human cognitive biases on religious beliefs.

The implications of such a perspective are profound, as it fosters a more nuanced understanding of religion's nature. Here, the Messengers of Revelation do not encounter humans and their followers as passive, blank-slate individuals; instead, they engage with followers of religion possessing diverse inclinations, biases, and interests. Given that religion is fundamentally revealed for humankind's guidance, it cannot disregard these human tendencies and preferences. Thus, religious content should not be perceived as a mere auditory signal or computer algorithm passively received by an inanimate device. It more closely resembles a *Choir (music).* While the written notes are crucial, the musician's talent, skill, and mental and physical readiness are equally vital for an impactful performance.

In addition, this perspective holds significant implications for proselytization, as considering individual and societal biases, along with interests, should influence the content of religious promotional messages. Enumerating various scientific theories that can benefit theistic traditions, Nancy Murphy posits that one of science's gifts lies in "enhancing religious preachings and encouraging church attendance" (Murphy, 2013, p. 74). Within the Islamic tradition, recommendations highlight the importance of acknowledging diverse mental states in worship. In this regard, Imam Ali Ibn Abi Talib's Hadith is instructive: "Sometimes the hearts move forward and sometimes they move backward. When they move forward get them to perform the optionals (as well), but when they move backward keep them confined to obligatories only." (Imam Ali ibn abi Talib, 1015, Hadith 312).

Religious pluralism and inter-religious communication

Over the last 50 years, *religious pluralism* has emerged as a central topic within the philosophy of religion. One of the reasons is the re-emergence of the opposing viewpoint, religious *exclusivism*, in the modern era. Historical, social, and epistemological developments, following Hume and Kant, have significantly impacted exclusivist religious views, notably within Christianity. Several prominent contemporary philosophers and theologians in the Christian world, including Karl Barth (Barth, 2010), William Alston (Alston, 1988), and Alvin Plantinga (Plantinga, 2000), have sought to explore this view, primarily basing their arguments on the context and teachings of the New Testament.

In Christianity's scriptural teachings, it is essential to acknowledge that

"action" holds secondary importance in human destiny and salvation. Faith is the key decisive factor, with a particular emphasis on faith in Christ as the source of grace, innocence, peace, and freedom.

This exclusive view exists in some interpretations of Islam and other religions. This perspective hinders dialogue between religions and between believers and atheists, as it posits the sacred text as the absolute truth for religious followers. Consequently, individuals who do not adhere to the teachings of these texts are seen as having no common ground for dialogue or discussion.

Besides scriptural fundamentalism, another basis for religious exclusivism lies in contemporary epistemological theories. Some philosophers of religion, relying on foundationalist theories of justification, argue that propositions such as "God exists" can be regarded as a basic belief, accepted without the need for proof. This theory is exemplified in Plantinga's reformed epistemology. According to Plantinga, a belief can be considered "warranted" or accepted without reason if it satisfies three conditions: "1) This belief is created by cognitive faculty that functions properly; 2) This cognitive faculty designed to produce that belief has the purpose of generating true belief; 3) There is a high statistical probability that the belief formed in such a situation is true" (Plantinga, 1993, pp. 46, 47). Plantinga proposes that this cognitive faculty should be perceptive abilities operating in a suitable environment—meaning the appropriate conditions for producing true belief—and that they should be directed toward truth, designed with a specific purpose in mind.

Plantinga's foundationalist approach can lead to a more radical form of exclusivism. According to Plantinga, the belief in God is a result of healthy cognitive functions in humans. By extension, this suggests that individuals who do not believe in God possess impaired cognitive abilities. Drawing from Christian traditions, Plantinga argues that our cognitive structure for forming beliefs has been damaged by Original Sin (Plantinga, 2000, p. 213). He posits that those who have faith in Christ—and are thus touched by the Spirit of God—have their cognitive impairment corrected (Plantinga, 2000, p. 285), allowing them to hold a warranted belief in God without the need for justification or reasoning.

This perspective not only obstructs dialogue between religions and between theists and atheists, due to the non-acceptance of the basic proposition "God exists," but also fosters a sense of pessimism, humiliation, and animosity.

Contrary to the exclusivist view, CSR focuses on the shared aspects of religious experiences, presenting religion as a natural and universal

phenomenon in human societies. This approach bridges the gap between religious and non-religious individuals by highlighting common rituals, such as burial practices (White et al., 2017), shared beliefs like the concept of an afterlife, and comparable encounters with sacred texts, including the recognition of their authority or reverence (Malley, 2022). Additionally, CSR identifies common components of religious experiences (Sears, 2022), which further emphasizes the shared elements across different faiths. By concentrating on these communal features, CSR possesses the potential to foster dialogue and collaboration between various religions by revealing common ground and facilitating mutual understanding.

Furthermore, CSR can provide a basis for reducing differences and tensions between religions. For example, I can mention the issue of "Islamophobia" that arose in America and Europe, especially after the September 11 incident. Here, cognitive science can show with its analytical tools that the fear is not related to the religion of Islam itself.

One analytical tool in CSR is the separation of *context biases* from *content biases* regarding a belief. Context biases refer to cases where the acceptance of a belief is primarily influenced by surrounding circumstances, such as the people who hold it. On the other hand, content biases pertain to instances where the acceptance of a belief is mainly due to the specific characteristics of the belief's content (Barrett, 2011, p. 53). Applying this distinction, it can be argued that the inclination towards Islamophobia in the West is predominantly driven by a context bias. Following the events of September 11, Western society experienced a profoundly negative emotional impact, and Muslims were largely held responsible.

Conclusion

Since its inception, CSR has intersected with various topics discussed in the philosophy of religion. Most contemporary philosophers of religion have actively engaged with this field and attempted to reinterpret previous theories in light of new CSR findings. Most discussions about CSR and the philosophy of religion focus on whether they agree or disagree with each other. Even when looking at more specific issues related to how cognitive science and religious belief interact, most articles only talk about either supporting or debunking religious beliefs, without exploring other possibilities.

In contrast, this paper aims to outline a third approach, which proposes a *reformation of religious beliefs* by integrating the foundations and theoretical advancements of CSR. Adopting this perspective necessitates acknowledging

two critical points: first, CSR is not exclusively tied to its methodology. In other words, scientific explanation and methodological naturalism are not the sole avenues for research in CSR, and as argued by scholars such as Justin Barrett, Aku Visala, and others, explanatory pluralism can be embraced. Second, and more importantly, religion is a complex, multidimensional subject, with certain dimensions, including social, psychological, genetic, and neurological aspects, that can (and should) be investigated using empirical knowledge and scientific methods to better understand religious belief and behavior.

In this paper, I aimed to elucidate the broader implications of CSR on the philosophy of religion and theology. By moving beyond the simplistic dichotomy of strengthening and weakening religious beliefs, I highlighted from four perspectives how CSR can enhance both beliefs and actions by offering precise conceptual tools to deepen our understanding of religious phenomena.

Future studies can build upon this method by utilizing CSR findings to investigate specific areas, including how it influences religious conversion, improves our understanding of holy texts and their perspective on human nature, examines various religious belief systems, and uncovers the reasons behind religious disbelief, among other potential research directions.

Conflict of Interests

The author has no competing interests.

References

Alston, W. P. (1988). Religious diversity and perceptual knowledge of God. *Faith and Philosophy*, 5(4), 433-448. https://doi.org/10.5840/faithphil19885442

Alston, W. P. (2019). Divine nature and human language. In *Divine nature and human language*. https://doi.org/10.7591/9781501733161

Atran, S. (2002). *In gods we trust: The evolutionary landscape of religion*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195178036.001.0001

Barrett, J. (2007). Cognitive science of religion: What is it and why is it? *Religion Compass*, 768-786.

Barrett, J. (2008, June 18). *Which cognitive revolution?* https://tif.ssrc.org/2008/07/18/which-cognitive-revolution/

Barrett, J. (2011). *Cognitive science, religion, and theology: from human minds to divine minds.* Templeton Press.

Barrett, J. L. (2012). *Born believers: The science of children's religious belief.* Atria Books. https://books.google.nl/books?id=CspnUR9Mx10C

Barth, K. (2010). Church dogmatics. In *Church dogmatics*. https://doi.org/10.5040/9780567690722

Benton, Ted., & Craib, Ian. (2001). Philosophy of social science: the philosophical foundations of social thought. In *Traditions in social theory*. Palgrave Macmillan.

Boyer, P. (2001). *Religion explained.* Basic Books.

Boyer, P. (2008). *Religion explained.* Random House. https://books.google.nl/books?id=O2yijB19N44C

Buckareff, A., & Nagasawa, Y. (2016). *Alternative concepts of God: Essays on the metaphysics of the Divine.* Oxford University Press.

Clark, K., & Barrett, J. (2010). Reformed epistemology and cognitive science of religion. *Faith and Philosophy*, 174-189.

Craig, W. L., & Sinclair, J. D. (2009). The Kalam cosmological argument. In *The Blackwell companion to natural theology*. https://doi.org/10.1002/9781444308334.ch3

Darvish A., J. (2022). A comparative study of cognitive science of religion and reformed epistemology. *Journal of Philosophical Theological Research*, 24(1). https://doi.org/10.22091/jptr.2021.7115.2569

Darvish A., J., & Mousavi Karimi, M. (2017). On the continuity of Divine Grace:

an empirical argument and a philosophical analysis. *Philosophy of Religion Research*, 15(1), 23-39. https://doi.org/10.30497/prr.2017.1962

Dawkins, R. (2006). *The God delusion*. Bantam Press.

De Cruz, H., & De Smedt, J. (2015). A natural history of natural theology: The cognitive science of theology and philosophy of religion. In *Angewandte Chemie International Edition,* 6(11), 951-952. The MIT Press.

De Cruz, H., & De Smedt, J. (2017). Intuitions and arguments: Cognitive foundations of argumentation in natural theology. *European Journal for Philosophy of Religion*, 9(2), 57-82. https://doi.org/10.24204/ejpr.v9i2.1934

Dennett, D. C. (1996). *Darwin's dangerous idea: evolution and the meanings of life*. Penguin Books Limited. https://books.google.co.jp/books?id=bn-isXoTZmUC

Draper, P., & Nichols, R. (2013). Diagnosing bias in philosophy of religion. *Monist*, 96(3), 420-446. https://doi.org/10.5840/monist201396319

Horvat, S., & Roszak, P. (2020). Is religion only utilitarian? Evolutionary cognitive science of religion through a Thomistic lens. *Theology and Science*, 0(0), 1-15. https://doi.org/10.1080/14746700.2020.1786222

Imam Ali ibn Abu Talib. (2015). *Nahj Al-Balagha (Peak of Eloquence)* (Sharif al-Radi, Ed.; Vol. 2). Tahrike Tarsile Qur'an.

Kahneman, D. (2013). Thinking, fast and slow. In *Thinking, fast and slow* (1st ed.). Farrar, Straus and Giroux.

Kelemen, D. (1999). Why are rocks pointy? Children's preference for teleological explanations of the natural world. *Developmental Psychology*, 35(6). https://doi.org/10.1037/0012-1649.35.6.1440

Lawson, E. T. (2022). The historical Ggnesis of cognitive science of religion. In *The Oxford handbook of the cognitive science of religion*. https://doi.org/10.1093/oxfordhb/9780190693350.013.1

Malley, B. (2022). Scripturalism: a theory. In J. L. Barrett (Ed.), *The Oxford handbook of the cognitive science of religion*. Oxford University Press.

McNabb, T. D. (2018). *Religious epistemology*. Cambridge University Press. https://doi.org/10.1017/9781108558365

Murphy, N. (2013). Naturalism and theism as competing traditions. *How Successful Is Naturalism? 1957*, 49-76. https://doi.org/10.1515/9783110328950.49

Nakissa, A. (2020). The cognitive science of religion and Islamic theology: an analysis based on the works of al-Ghazali. *Journal of the American Academy of Religion*, 88(4), 1087-1120. https://doi.org/10.1093/jaarel/lfaa059

Persinger, M. A. (2001). The neuropsychiatry of paranormal experiences. *Journal of Neuropsychiatry*, 13(4). https://doi.org/10.1176/appi.neuropsych.13.4.515

Plantinga, A. (1993). *Warrant and proper function*. Oxford University Press.

Plantinga, A. (2000). Warranted Christian belief. In *Warranted Christian belief*. https://doi.org/10.1093/0195131932.001.0001

R. Hinnells, J. (2009). Why study religions? In J. R. Hinnells (Ed.), *The Routledge companion to the study of religion* (pp. 19–34). Routledge. https://doi.org/10.4324/9780203868768-6

Sears, R. E. (2022). Conceiving religious dreams and mystical experiences. In *The Oxford handbook of the cognitive science of religion* (pp. 215-236). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190693350.013.11

Shapiro, J. A. (2021). Why the third way of evolution is necessary. *Theoretical Biology Forum*, 114(2), 13–26. https://doi.org/10.19272/202111402002

Taylor, A., Roberts, R., Hunt, G., & Gray, R. (2009). Causal reasoning in New Caledonian crows. *Communicative & Integrative Biology*, 2(4). https://doi.org/10.4161/cib.2.4.8224

Van Eyghen, H. (2022). CSR and religious belief: epistemic friends or foes? In *The Oxford handbook of the cognitive science of religion*. https://doi.org/10.1093/oxfordhb/9780190693350.013.18

Visala, A. (2018). Pro-science rhetoric or a research program? – Naturalism(s) in the cognitive-evolutionary study of religion. In *New approaches to the scientific study of religion* (vol. 4). https://doi.org/10.1007/978-3-319-90239-5_4

Visala, A. (2022). Philosophical foundations of cognitive science of religion. In *The Oxford handbook of the cognitive science of religion*. https://doi.org/10.1093/oxfordhb/9780190693350.013.2

White, C. (2021). *An introduction to the cognitive science of religion: connecting evolution, brain, cognition, and culture*. Routledge.

White, C., Marin, M., & Fessler, D. M. T. (2017). Not just dead meat: An evolutionary account of corpse treatment in mortuary rituals. *Journal of Cognition and Culture*, 17(1–2). https://doi.org/10.1163/15685373-12342196