# Is Religion a Necessary Condition for the Emergence of Knowledge? Some Explanatory Hypotheses

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**Abstract**: By using the general investigation framework offered by the cognitive science of religion (CSR), I analyse religion as a necessary condition for the evolutionary path of knowledge. The main argument is the "paradox of the birth of knowledge": in order to get to the meaning of the part, a sense context is needed; but a sense of the whole presupposes the sense (meaning) of the parts. Religion proposes solutions to escape this paradox, based on the imagination of sense (meaning) contexts, respectively closures of these contexts through meta-senses. What is important is the practical effectiveness of solutions proposed by religion, taking into account the costs of faith and the costs of the absence of religious belief. The hypothesis has the following consequences: religion is a necessary condition for the initial evolution of knowledge and the emergence of religion is determined by the evolution of knowledge. The continuation of the solving of paradox is a Bayesian one, using explorations: a sense of the whole allows cognitive arrangements of the parties, which in turn open the possibility of a rearrangement of the whole. The contribution of religion to the emergence of sense (meaning) could be governed by the rule: any map of the world is more useful than no map; any meaning (of life) is better than no meaning. The human mind fills the perceptual and cognitive gaps, some (religious) filling solutions being true vault keys of the entire cognitive construction called the world. Knowledge is conditioned by the existence of an organized context, as the cosmos created by religion by means of explanatory meta-theories supports knowledge by closing the cognitive context and using meaning networks. The proposed analysis is consistent with a redefinition of rationality from the perspective of evolution: the importance and relevance of knowledge is determined by its practical outcome - survival. In the context of useful fictions, it does not matter what God actually does, but what we have done by believing in God. Existence has provided a pragmatic verification of the cognitive solutions that underlie the survival strategies promoted by religions.

**Keywords:** *religion; emergence of knowledge; evolutionary path of knowledge.*

## 1. Introduction

In the article *The Evolutionist Role of Religion; Some Arguments* (Rotilă, 2018) I tried to suggest, in a complicated manner, something similar to what Taleb (2018: 46) simply sums up: "religions are not quite religions: some are philosophies, others are just legal systems." The reformulation I propose is: "Religion is not just religion, but an essential institution for the functioning of the society." I continue to use this interrogation context, trying to identify the essential roles that religion may have played, this time in the area of knowledge. Discussing the (historical) contribution of religion to knowledge is a form of talking about the cognitive role of tradition, going beyond the rationalist horizon or, better said, outlining an appropriate framework for what might be *evolutionary intelligence*.

In this article I assume a critical view over religion. But it is the inherent criticism of a scientific approach, not that dissolving positioning towards some behaviours that some might find decadent. My attempt is to understand religion from the point of view of its purpose in human knowledge, not to abolish it. I do not hide the fact that I am dominated by a pragmatic hypothesis on the understanding of religion: religion may be the only effective model of socialization, being an essential contribution to the birth and existence of humanity. In other words, even if the analysis of religion reveals the multitude of illusions on which it is based, I am interested in the usefulness of these illusions, or in the dangers that their absence could bring.

In this article I claim the change of perspective specific to cognitive science of religion (CSR), considering that morality is not the most important dimension that religion supports, but knowledge. Even if we admit that the "God hypothesis" is largely devoid of cognitive utility at present, the role it has played before remains important, much of its functions being still found in the space of culture. The hypothesis of the pragmatic role that religion can have for knowledge in the context of evolution is under discussion. I do not intend to prove the existence of cognitive methods specific to religion that could be transferred to science or underpin it, but to investigate the role that religion might have had in the existence and evolution of knowledge.

Religion is a social and cognitive adaptation achieved along the evolutionary path. This article aims at exploring possible cognitive roles fulfilled by religion, starting from the supposition: is religion part of the functional purposes of thinking. The cognitive perspective I suggest involves a wider definition of religious behaviours, not being conditioned by the

existence of supernatural entities, but by the organization of a universe of discourse generating reality that includes abstractions of nature. Besides, it is possible that the very natural-supernatural difference is not applicable to what we might call proto-religions.

## 1.1. Conceptual clarifications

In this article, by *religion,* I refer generally to known religions and social organizations/institutions that can be assimilated to a religion. The concept is a form of simplification of meaning, which brings along with it the danger of hasty generalization: it is possible that some of the effects/phenomena that I consider do not characterize each of the religions. However, to ease the understanding of ideas, I assume the risks, using the concept of *religion* in this simplified form. I cannot consider the use of the term religion in the sense of an identical system of beliefs, practices, and orientations before existence, because I do not think there is such a thing. From the perspective of the mind, the brain and its evolution, the differences between religious systems are large enough to cause various formatting; differences express in fact the diversity of social solutions to identical cognitive problems. However, I use the concept of *religion* due to the methodological need of research orientation. I therefore operate with an extremely general understanding of the term religion, bypassing the claim of rigorous separation between the behaviours and mechanisms of religion, and those that might have a different social structure. The lack of methodological rigor in the definition of religious has, however, a methodological justification: I am interested in the evolution of different cognitive behaviours over time, as these are part of the overall evolution of humanity. In other words, the evolution of humanity is the general frame of reference, religion being a part of it.

In anticipation of some ideas that I will discuss in the article, it is worth mentioning that Guthrie et al. (1980: 120-191) uses the concept of *religion* as an argument for the quality of the model religion using the anthropological perspective (referring to non-human realities using human criteria), indicating that the detachment of the internal perspective specific to each religion allows the observation of this reporting model. Guthrie et al. (1980: 191) suggests that the very use of the term religion generates a situation beyond the specific feelings, pointing out as argument two ideas belonging to Paul Tillich: the use of the term *religion* is perceived as an aggression on its essence by any religion (Tillich, 1951: 28); the term *religion* is a derogatory one (Tillich, 1951: 127). In this context, the concept of *religion* is a form of distancing from religious beliefs, of objectivity of content from a

scientific perspective (or with claims to be scientific) in order to subject it to analysis.

Although I often operate with an obvious separation between the facts that might belong to the field of religion and those that would go beyond its scope, the approach is rather one destined to facilitate understanding rather than the exact description of reality. From the perspective of knowledge, I do not believe in the existence of precise boundaries between religious and non-religious, both in relation to the beginning of religion and to its end. The relation with religion of some of the cognitive mechanisms which I explore may have emerged concurrently with the development of religion, the causal link being difficult to identify.

## 1.2. The definition of rationality can determine the fate of rationality of religion

In the area of the pragmatic analysis of religion, where my interrogatory approaches may be included, the importance of an idea is given by its contribution to the survival of those who assume it/display it. The pragmatic approach implies a redefinition of rationality from the perspective of survival interests, justifying the discussion about *evolutionary rationality/intelligence.* By evolutionary rationality we consider the evolutionary sense of rationality, namely the redefinition of rationality from an evolutionary point of view. The concept closest to my intentions is that of *ecological rationality* as defined by Gigerenzer, Todd, and The ABC Research Group (1999: 18-21).

## 1.3. Some research hypotheses

Religion has been part of the cognitive system for a significant period of time in human evolution, this being a sufficient reason for the importance given to the role of religion in human knowledge. The main hypothesis that I analyse in this article is the following: *religion is a necessary condition for a certain part of the evolutionary path specific to knowledge.* Through the arguments I try to present in favour of this hypothesis, I do not intend to say that an evolution of the current knowledge would not be possible in the absence of religion, or that religion would have always been a necessary condition for the evolution of knowledge. From the point of view of the present moment, I believe that religion could be considered a necessary stage in the evolution of humanity, its character as a necessary condition for the evolution of knowledge being currently outdated (there are several moments that can be considered as benchmarks for overcoming this condition).

The ontological argument, *everything that exists, has reason in its own existence,* provides the framework for another research hypothesis: since we can see the existence of religion as a quasi-universal social fact, we have to accept the possibility of a rational justification for the existence of religion. "Exists" here has a general meaning, encompassing all types of societies. Prudence leads me to point out that this argument can be subject to at least a well-founded critical approach: religion may be the concept we use in a much too extensive way, including social practices that might be designated by another concept. The ontological argument is actually just a research hypothesis.

From the perspective of observing the two methodological conditions specified by Sosis (2009: 321-322) in order to be able to talk about a religion analysis from the point of view of its adaptability, namely the *identification of the functions* and *the indication of the pressure of the evolutionary selection* to which it corresponds, the response scheme which I propose in this article is the following: a) functions are *metasense-specific closure* and *sense (meaning) context generation*; b) the evolutionary pressure to which it corresponds is the *operating conditions of thinking.*

## 2. Methods of research

In the article I mainly use three complementary research methods: the phenomenological method, the identification of the essences / vault keys and the pragmatic investigation, which analyses the meaning from the perspective of the results.

The phenomenological method is based in particular on the eidetic variation: I try to identify the contribution that religion might have imagining how things could have shown in its absence. Obviously, the method is imperfect, having to operate with counterfactual variants of history. In a pragmatic approach of the phenomenological method, we can identify the role that religion has in the existence of knowledge by using the eidetic reduction, namely observing the fate of knowledge when we eliminate religion. In the same logic, one might ask us what the fate of knowledge would be in the absence of each of the elements that are part of our existence: clothes, food, etc. But in the case of religion, it is a privileged connection, of co-belongingness of religion and knowledge to a common existential domain.

The identification of vault keys addresses the possibility of cognitive purposes essential to certain contents of religion or determined by religion. The method can also be used to investigate religion. For example, I share the

perspective of Sosis (2009: 320-321) on identifying the parts of religion and the evolutionary analysis unfolding from the perspective of their fusion in a system (with the reserve that the parties also require an analysis from the same perspective); the vault key principle is applicable to the parties while the system targets the context.

Identifying purpose in terms of results requires an approach to the contribution of religion to knowledge using am approach similar to the scientific one, based on provisional explanations and their practical contribution. The approach must be seen from the perspective of the evolutionary selection of survival strategies: evolution implicitly selects the cognitive methods underlying those survival strategies. In other words, effective survival strategies contain adequate cognitive behaviours, thus providing a practical way of verifying the effectiveness of religious solutions.

However, I would like to point out that in this article I do not assume the claim of certain arguments that cannot be countered, the ideas having rather the status of some research assumptions that require further investigation.

## 3. Some possible explanations (cognitively relevant) for the emergence of religion

### 3.1. Evolutionary function or by-product?

In this article I explore the hypothesis of religion as an indispensable route for our cognitive evolution, trying to identify the arguments that could justify this hypothesis. From the perspective of evolutionism, I believe there are only two variants that could explain the emergence of religion: a) religion has an evolutionary function; b) Religion is a by-product of social evolution. Both variants raise an essential question: why would evolution allow the emergence and perpetuation of something as costly as religious behaviour? The theory of the signalling system proposes some explanations to justify the costs. From the perspective of the *by-product* character, there is at least one solution: *religion could be a by-product with useful effects*. Obviously, in this case, the discussion moves on to the adaptive role of religion, in the absence of its adaptation character. My perspective on religion excludes the variant of explanation by "accidental social mutations," looking for the arguments that could demonstrate the evolutionary role that it had/has.

### 3.2. Abduction – index of agency

One of the possible explanations of religion can be understood starting from the role that *abduction* in relating to the work of art according to

Alfred Gell: looking for the creator's intentions (Gell, 1998: 14-16). Distributed personhood can be included in a similar category (Gell, 1998: 96-153), by which Gell indicates the remote presence of people's intent through their creations: people become remote agents, namely invisible, the mediation of such an attendance being provided by artefacts. The possibility of invisible agents generated by "the distribution of the person" is an indication of how we are turning to the world when we assign it meaning: anything that falls under the sign of a possible creation sends us to the invisible creator. The concept is reproduced in a similar way by the idea of implicit implications existing in the world, visible especially through artefacts but present and in the way in which we assign meaning to those encountered under the influence of the cultural context.

### 3.3. Cognitive science of religion (CSR)

Because I believe that knowledge is an adaptive function occurred on the evolutionary path and, at the same time, knowledge is the context in which religion occurs, the general framework of investigation of this article is *cognitive science of religion* (CSR). As a guideline, I present you next a brief introduction to the matter, using particularly Teehan's synthesis (2018) - which provides an excellent synthesis of the evolution of religion from a cognitive perspective - indicating the links to my investigations.

In order to understand the evolution of the mind it is necessary to understand the knowledge as *enactive*. Enactivism involves the active character of knowledge, which is carried out by a body interacting with its environment. Within this interaction the meaning is generated, respectively the world specific to that organism. Within certain limits we can consider enactivism as a transposition of the theory of the object from phenomenology, the theory of the aesthetic object developed by Roman Ingarden (1978) being the closest to such an approach. The activism of the mind in generating meaning and the construction of the world is one of the important perspectives proposed by this article to understand the cognitive role of religion.

Among the human cognitive mechanisms is also the agent-detection orientation, Shults (2014), calling it "god-generating mechanisms." This is a hyperactive agency detection device (HADD) (Barrett, 2004; Guthrie, 1993). The mechanism has two characteristics: a) it operates even under minimum records and b) it is a risk strategy, the effect / consequences of the false-positive stimuli being lower than that of the false-negative ones. Agent perception involves anticipating/ understanding his intentions. Understanding intentions is based on the Theory of Mind (ToM), which

involves attributing mental states to perceived / presumed agents. HADD and ToM are part of the overall strategy (of mind) to detect significant patterns. This implies the same cognitive / existential risk strategy: *it is better to conclude that a pattern has purposes rather than miss indications of an agent's intentions.* By studying the presence of this mechanism in the case of children, Kelemen (2004) gives it the name of *promiscuous teleology.* Orientation towards agent detection (intentionality) is one of the examples of useful cognitive illusions that I present in a later section. Explaining the perspective of Guthrie (1993), Sosis (2009: 317) shows that the preferred signification patterns are the anthropomorphic ones, being visible in the ways in which we read nature: "Guthrie (1993) argues that our tendency to anthropomorphize deities arises out of what has become known as our hyperactive agency detection device (HADD). We are inclined to see faces in the clouds and creatures in the closet because natural selection favoured a response system that actively perceives agents and agency in events". HADD is an evolutionary cognitive mechanism that offers a competitive advantage. It is a cognitive bet included in the biological structure of the human being that has proved to be a winner in a global analysis. Teehan (2018: 274) considers that this capacity is coupled with the theory of mind.

The discussion is about the cost of confusions and the cognitively appropriate risk strategy. To the extent that belief in gods is triggered by this cognitive mechanism, as indicated by a number of authors (Kelemen, 2004; Teehan, 2018: 274), its extension is part of the useful illusions. Social orientation towards the search for the gods may also include some useful content.

## 4. Some cognitive roles of religion

### 4.1. The argument of the beginning of knowledge as ordering

Knowledge means ordering, in the absence of order, of rules of association, knowledge would be impossible. Religions are primarily creators of order, of cosmos. From the point of view of the relationship between the order proposed by religion and knowledge, the following rules apply:

*Any map of the world is more useful than no map.*

*However, from the perspective of pragmatic effects there are significant differences between maps.*

At the same time:

*Any system is better than no system.*

*Any system is a start for a better system.*

As we can see, the ordering function allows entry into the "hermeneutic circle of chaos". Further:

*Any meaning (of life) is better than no meaning.*
*Any meaning is a beginning for a more appropriate meaning.*

Religion can be understood here as part of the hermeneutics of existence.

## 4.2. Religion was the first framework for the construction of cognitive communities

If we assume that from the perspective of knowledge, societies are cognitive communities then we must bear in mind that religions could be systems coded by the social organization that contain the results of significant series of "longitudinal social experiments". These social codes have been subject to evolutionary pressure, the most appropriate one surviving for an effective social organization. Non-adapted systems have perished along with the societies that have developed / adopted them. In the social field experiments have the same duration as humanity.

## 4.3. The Gettier effect or about the intervention of the hazard in the effective action of religion

In summary, the Gettier effect (1963) implies being right, but for the wrong reasons. What matters most in this context: the correctness of the reasoning or the suitability of the result to the needs? In other words, in cases where people have good / useful knowledge, but it is derived from wrong reasoning in what situations are we? If we try to answer this question by referring to *evolutionary intelligence*, we will notice that the result is important, not the underlying reasons. It is a form of considering both the role of hazard in the evolution of humanity and the purpose of useful illusions.

In the case of religion, the Gettier effect can be summarized as follows: if we admit the possibility of being right in some cases for wrong reasons then in religion we must seek the role beyond the surface (considering that "reasons" are the surface of religion that often prevents us from passing to its profound meaning), respectively the (possible) part of the truth concealed by erroneous appearances. It is an attempt to show that Gettier issues offer a special meaning to the knowledge of religion: we do not have to look directly at the dogma, but to the cognitive implicit matter that religious tradition / mediated by religion carries with it.  In addition, from the point of view of social efficiency, we must bear in mind that, according to A. Comte (1830), the people may remain - as a community  - at

the religious stage, the normative systems camouflaged in religious appearance being like to obtain a greater success than the allegedly rational organization offered by state institutions.

For a categorical judgment of the impact of the Gettier effect on religious cognitive communities, we should demonstrate that religion offers correct solutions, even if the judgments that lead to these solutions, often in the form of explanations, are wrong. Such an approach goes beyond this article, my intention being to suggest the opportunity of this research direction. I could use a form of the "ontological argument in the theory of knowledge" ("since it exists, it has its justification in its own existence"), indicating the present as a result of the evolution of humanity: if we admit the contribution of religion to the evolution of mankind and if this conviction includes the contribution of religious cognitive communities, then we must admit that the cognitive solutions of the religious type, including those displaying the Gettier effect, contributed to this outcome of evolution of humanity. Obviously, such a formula is far from being a strong argument. I will try to complete the argumentation table in the following sections.

### 4.4. The Costs of Belief

Edis and Boudry (2019) bring into question another relevant perspective in analyzing the impact of religion, namely *the cost of religious beliefs* versus *the cost of the absence of religious beliefs*. The authors propose a change of perspective in the analysis of knowledge by moving from the emphasis on truth / suitability of knowledge to reality towards the assessment of the effects of knowledge and, in particular, of faith in different narratives. Starting from the idea that often the "possession costs of true beliefs are high" (Edis & Boudry, 2019: 147), the authors take into account both the costs of acquiring beliefs and of their possession (Edis & Boudry, 2019: 149), trying to identify cases where the wrong beliefs generate a competitive advantage (they are more rational from the perspective of ecological rationality).

### 4.5. Alternative cognitive solutions

There is the risk that such a title might suggest a profound inadequacy, being a form of bypassing the problem through conceptual redefinition. I am thinking of another meaning of knowledge (different from its current meaning) based on a pragmatic approach: the practical results of a cognitive reasoning are more important than its correctness. We are talking about the assumption of certain limits of universal rationality doubled by a

cognitive prudence, which guides a conservative attitude especially in the social space. To these we can add the importance of goals and context in the decision on the rationality of a step. There are several alternative proposals to the universal rationality model that deserve a careful analysis: intuition, ecological rationality, evolutionary intelligence.

The unconscious deductions automatically deployed by our brain, which underlie what we call *intuition* (Gigerenzer, 2007: 63-65), may account for the many ways in which religious constructions emerge. In this hypothesis, certain religious entities could be the result of an unconscious cognitive need. This would indicate the existence of a link between knowledge and religion in a dimension additional to the macro one, represented by the closure of the discourse universe.

The cognitive role of tradition is also situated in the area of alternative models of knowledge. The difference between the actual limits of social knowledge and the magnitude of human interventions generated amid the illusion of knowledge is an example of a field in which humanity continues to face the aleatory. The Law of unintended consequences is one of many arguments in favour of prudent approaches to social intervention. If we recognize the role of tradition in developing prudent approaches of progress then we must take into account the tradition incorporated in religion and the prudent solutions that it brings along with it. Being situated on the side of tradition, religion, as a system of experimentation and preservation of existential experiences, can ensure a proper layout in front of the aleatory, especially of the wild one. The extent of knowledge-based conviction used to defeat the conservative resistances that religion incorporates is part of the necessary dialogue between traditional rational approaches and those that seem to relate to the faces of social intelligence.

The approaches to identifying simple and quick heuristic solutions (Gigerenzer, Todd, & The ABC Research Group, 1999) in religious content are one of the ways of arguing the ecological rationality that religion might contain. Researches in this direction can be driven by an essential question: Are there religion contents that would correspond to rationality / evolutionary intelligence? I can provide a good answer for the beginning: knowing and practicing the religion of your neighbours is about environmental rationality. In other words, signalling the adherence to the same religious beliefs through religious practices is a form of adaptation to the social environment.

### 4.6. The Contribution of Religion to Predictability

The religious components existing in the structure of knowledge could be the result of the struggle of the mind with the uncertainty. The discussion is about either a collective sense of mind or constructions that mostly satisfied the majority of individual minds, thus determining their maintenance. This hypothesis brings with it the change of the structures of the world along with the major changes occurred in the cognitive structures of the members of the community. This hypothesis seems to be confirmed by history: the mind and institutions have evolved together (Gigerenzer, 2007: 81). (Gigerenzer points out Hayek as the promoter of this vision, Hayek (2013) accepts the idea of cultural evolution but believes that this evolution does not take place within Darwin's evolutionary framework.) The essential argument of this section is that the struggle with the uncertainty against the background of the need for predictability, has benefited from the institutional support of religion.

### 4.7. Religion generates predictability within society

Religion generates predictability in the sphere of the humanity because we can easily infer the behaviours of the followers of a religion in different circumstances if we have a reasonable knowledge of the rules to which they are subject. The increase in the likelihood that the person encountered adopts the behaviours prescribed by the community religion is supported by the forms of externalization of the monitoring of rules observance, carried out continuously by the community through the religious institutions. The identical shaping of behaviour is a condition of social (predictive) knowledge. By stabilizing reality, religion generates confidence in the structure of the world, cancelling fear (of cognitive origin) in the face of the chaos / the unknown. Religion creates (social) reality while allowing cognitive adaptations to this reality. The identical shaping of behaviour improves control and predictability, which in turn improves health.

From the perspective of social organization, the role of classification of the humane that religion brings along with itself / imposes it is obvious. The categories of the humane and its organization criteria have an important role in social existence. The social adherence enjoyed by pseudo-scientific organizations such as zodiacs is proof in this respect.

### 4.7.1. Better safe than sorry

It is a survival strategy in which ambiguous stimuli are interpreted by giving priority to safety. Guthrie et al. (1980) suggests that this is the reason why we tend to see existences where these do not exist. We can imagine a

model (one of the many possible) of the development of religion determined by such reporting: at micro level, the consequence is a deduction of the existence of spirits, about which we could say that at the macro level converge and generate what we call the religious perspective.

In the field of religion-specific risk strategies, one of the best-known approaches is Pascal's Bet. What is the relationship between Pascal's Bet and the strategy the type "you better mistake a rock for a bear, than a bear for a rock?" Taleb (2012: 406) and Guthrie et al. (1980: 190-191) consider that both are part of good risk strategies. Religion brings with it a similar bet in the general plan of filling the environment with meaning (creating a world), in this case the following rules apply: a) Any meaning is better than no meaning. b) Humanization as a signification strategy (anthromorphism) is better than non-human meanings.

### 4.7.2. Theory of Mind and prediction

The basic idea of this approach is that a generalization of the theory of the mind (its excessive/inappropriate use) leads to the identification of a mind (causal agents) even where it does not exist. However, the pragmatic results of such an approach would be important. There is also an additional direction of investigation, starting from the question: Does ontogenesis repeat phylogenesis in the domain of the theory of mind? The multitude of religions tells us the magnitude of the innovations and experiments carried out, including in this area, of the identification of cognitive tools useful for an effective theory of mind.

Rossano (2006: 347) suggests that the theory of mind is one of the indicators of evolution, and it is relevant to the emergence of humanoid social groups.

The ability to read the other's intentions, to discover their beliefs, desires and goals, is a condition of social cooperation. The use of this social adaptation for other purposes would in this case be part of the mechanism of detection of intentionality, being one of the possible explanations for the emergence of religion or at least one of the causes that contributed to its emergence. The exaggerated / extended use of agency detection seems to have an adaptive role: "Survival is better served by overassigning agency than underassigning." (Rossano, 2006: 347). Taleb (2012: 406) resumes the idea in a similar formula, suggesting the importance of conservative approaches before the aleatory as a survival strategy.

The specific anthropomorphism of many religions generates predictive models. The call to spirits or the different forms of construction of reality based on mental forms / mind theories can be interpreted from

the same perspective. The game contains the cognitive interest of the human, followed by the behavioural one (including socialization).

In subsequent phases, religion has contributed to the predictability of the behaviour of other members of the group. Predictability is augmented by the observance of common rules, common values (periodically reaffirmed through participation in rituals) and the display of symbols of this belonginess. All three are present in case of religion (which does not mean it could not be outside of it). From this perspective, however, it is not clear what the role of religion would be in the initial stages. The problem is also the necessity of a model of synchronizing the development of religion to the evolution of the humane, the first associations of the theory of mind having to be thought of as forms of proto-religions. Models of the evolution of religion are therefore needed as part of the evolution of humanity (obviously the present religions are the least concerned about such approaches).

Predictions on people's behaviour are significantly relieved by their prescription by means of rules: the degree to which they adhere to certain rules is a good predictor, as the cognitive role played by this form of rules transposition is obvious. The normative solution used to generate prediction capacity in the humane field has not yet been overcome. The more extensive the normative framework in relation to the aspects of existence is, the more it can generate a higher level of confidence. Religion, however, simultaneously provides for an extremely comprehensive normative framework and a universal reference system, according to which every member of the community has access to meaning. These are conditions for generating a level of "joint thinking" (social mind), able to provide the degree of trust needed for the survival of these communities.

The orientation towards agent detection / intentionality could be one of the great evolutional benefits that comes along at a significant cost: presuming it even in cases where it is missing. The supernatural could be the "cost of causality," or a side effect of the cognitive mechanism called causality. The causal orientation of the mind gets provisional answers through religion. Animism is one example which indicates the causal attempts of the mind and the imagined religious solutions. In a certain sense, questions about the birth of religion are questions about the emergence of causality as a mind-orientation. Causality is something essential in the mind's existence.

### 4.7.3. Cognitive economy

In this article I operate with the hypothesis of a fundamental metaphysical need of man, intuited as an attempt to understand everything.

It would be inherent in acceding to meaning. Adherence to a religious belief includes the advantage of being able to invest reliably in the explanations provided by religion in order to escape the burden of seeking answers to one's own existential questions. It is a form of investment with confidence in the religious community that contributes to its operation. Religion, through the meta-existential narratives it delivers, frees individuals from the burden of searching for meaning, generating cognitive availability that can be oriented in more pragmatic directions. Knowing is an existential task that involves high costs, the distribution of energy consumption among the various organs seeming to be the most intuitive example of cost assessment. In this equation of efficiency evaluation, the explanatory systems constituted by religions could generate a powerful evolutionary advantage through the cognitive economy they bring along with it. These economies are accessible through cognitive shortcuts or "cognitive suspensions": they cancel potential questions through totalizing explanations.

### 4.8. "The paradox of the birth of knowledge" / "the evolutionary paradox of knowledge"

I will begin by presenting in a synthetic form what I understand by the paradox of knowledge: in order to get to the meaning (a sense of) of the part we need a meaning context (a sense of the whole); But, in order to have a sense of the whole, the sense of the parts is needed. The paradox resists as long as we recognize the following universal rule: an existence can only get its meaning through/within a context of meaning (sense).

This is an apparent paradox, generated by the attempt to explain knowledge from the current point of view. I will continue to indicate some possible evolutionary explanations that would invalidate its paradox status. What matters, however, to this topic is that religious mechanisms appear to provide the most appropriate explanatory solutions. To the extent that this hypothesis is correct, its consequence is the necessity of religious explanations so that the evolution of knowledge to be possible. In this case, religion would be a necessary condition for the evolution of knowledge, and we may consider that the emergence of religion is determined by the evolution of knowledge (religion emerged out of a cognitive necessity).

Within the paradox of knowledge, we must consider the possibility of a vicious circle of knowledge: the absence of a (provisional) explanation of the whole generates the impossibility of identifying its components. The solution to exit from this circle is the cognitive exploration starting from the whole towards the party: a sense of the whole allows the cognitive arrangements of the parts, which in turn open the possibility of rearranging

the whole. It is a close-to-close method, but it requires the courage to propose a meaning for the whole. To the extent that this hypothesis is correct, the main cognitive advantage of religions is to break the vicious circle of knowledge by taking forward proposals for the whole. At the same time, we discuss one of the explanations of the emergence of religion, the meta-narratives that support the daily knowledge are both cause (for the birth of meaning) and effect (the need for context for the birth of meaning). Given that the entry into this vicious circle is gradual (the vicious circle actually being born on this route), the hypothesis is consistent with the evolutionary path.

The evolutionary solution to the paradox of knowledge was represented by the provisional senses and a Bayiesian update of probability. However, the following issues need to be remembered:

- The provisional sense of the part comes along with putting one's skin in the game (it has direct consequences): if it is inappropriate it brings a cost to those who have joined it.

- Absence of meaning for some of the parts does not have the same consequence as the absence of meaning for the whole:

o If there are no links between certain parts and humans that impact on the humane then the inadequacy of meaning does not have consequences. In other words, from the perspective of the consequences, the parts have different cognitive difficulties. Archaic centre-periphery organizations may be proof in this respect. Mircea Eliade (1961) considers that this spatial model is one specific to sacred-profane dialectics at the same time.

o If there is no meaning of the whole (a plausible explanation that closes the universe/sense network) then the cosmos is missing. The consecutive chaos is automatically reflected on the parties. The asymmetry of the whole-part relationship generates the space for the possibility of the emergence of different closure solutions, the most known (and effective until now) being the religious one.

## 4.9. About cognitive solutions proposed by religion

The purpose of religion in society is also given by the cognitive models it makes available to the community members. An example of a cognitive model is given by Guthrie et al. (1980: 184): human-like model. To the extent that Guthrie's definition is correct, religion being a systematic extension of the model of inter-human relations to the non-human area, we are either in the situation of a reductionist behaviour or of a totalizing behaviour. From a cognitive point of view, it can be considered a form of

reductionism, similar to the one specific to the elaboration of theories. In this interval religion could be considered as a part (and precursor) of the theoretical attitude put on the stage by societies. The cognitive stabilization achieved by this kind of simplification is essential, and it also subject to several types of practical checks.

We can ask ourselves, for example, what answers the religion gave *(avant la lettre)* to the *Prisoner's Dilemma*. "Eye for an eye" and solidarity are just a few of the many examples. These can be considered examples of preventive cognitive solutions.

In the context in which Cacioppo (2018: 216) shows the importance of cognitive shortcuts in our struggle with the bundle of information, we may consider religion to be a cognitive meta-shortcut, a system of shortcuts that we rely on in order to ensure our peace of mind. "Believe and not doubt!" could actually mean making a recommendation to use the shortcuts that religion brings with it.

Simple and fast heuristics proposed by Gigerenzer et all. (1999) demonstrates that there are situations where less is more, showing the efficient areas of simplification. Religion, however, operates with many cognitive simplifications, facilitating social and individual decisions. These are either forms of codification and generalization of the experience or hypothetical solutions originally proposed and experimentally confirmed by evolution (we know especially those which survived), all expressing possible benefits of cognitive simplifications brought along by religion. The argument implies a suggestion: too much freedom of choice in the initial periods can be a cognitive burden and a risk for survival. In other words, freedom, in its contemporary sense, could not arise in any historical period.

### 4.10. The reality thesis

As I have shown elsewhere (Rotilă, 2013), from the point of view of the structure of consciousness, religious consciousness exists only in the sense of an area of consciousness. The reality thesis of the world can apply to the domain of religious consciousness, like in case of all fields. The reality thesis of the world is a schematic model of the world that allows us to understand and act within it. It is simultaneously, individual and intersubjective. The reality thesis of the world should not be based only on data and facts, the utility (for survival) of the causal reasoning that it allows being essential. Beyond the now obvious scientific inadequacy, a reality thesis of the world based on religion has some cognitive advantages: a) closes the speech universe, thus generating the (cognitive) possibility of the world; b) allows reasonable causal explanations for everyday life; c) generates

the possibility of the social and, at the same time, the possibility of social knowledge because the reality thesis of the world is a thesis of normality of the world; normality, standard, model are essential cognitive landmarks for the functioning of the social.

## 5. Religion is a meta-narrative with a cognitive role

The problem of *Meaning* can be the ways in which we us, humans accede to meaning: the context in which our existence acquires meaning must also make sense. Because we display the stories to the greatest extent, the meaning of the context is given by the set of stories from which its existence is made.

Since it has a systemic character and (quasi) exhaustive, religion generates confidence in the structure of the world in that it is cognizable. Trust is generated by the function of stabilization of the reality that religion has (its most important intervention being in fact in the area of stabilization of social reality). In a way, religion is a society, understood as a way of organization of individuals as a form of removing social chaos.

Religion is a system of narratives that allows for adequacy to realities and creates reality. According to John Searle (2005: 168), religion mediates the two directions of adequacy specific to intentionality: the adequacy of the mind to reality and the adequacy of reality to the mind. Language is formed in these frames of thought, calling, in turn, the mind towards them. The formation of language and memes within religious meta-narratives, meant to generate the necessary meanings for the birth of some worlds, explains the success of stories in relation to our attention. Narrative is the first cognitive framework of mankind.

### 5.1. Religion supports donation of meaning

The success of religions (especially of the monotheist ones) in assuring the meta-senses of thinking derives from four essential functions that they fulfil: a) provide causal explanations, explanatory foundations in the emergence of existence; b) generates explanatory mechanisms in the "ontological current" area ("persistence of the world"); c) provides final, integrative significations (salvation, immortality, Heaven, etc.); d) intervene in regulating the functioning of the society through morality (a function closely linked to the first three).

The Need for Meaning (now understood as a philosophical concern) could be the secondary product of thinking, religion being one of the solutions to reconcile this need. The hypothesis takes into account the negative consequences of leaving this demand without a plausible response.

Religions are "clearings" in terms of M. Heidegger (2000: 72-75), namely specific ways of opening for the birth of meaning, specific forms in which every element of existence gains its meaning. We better understand their purpose if we compare it to the absence of meaning, to the impossibility of acceding to a common sense, the latter being a source of disputes / war (in later phases) or of the impossibility of a broader social clotting.

The more the roles and the purposes of a meta-sense are, the more strengthened it is, contributing to a greater extent in providing the context necessary for everyday thinking. This is one of the reasons why religion retains its character as a competitor in providing the explanatory context necessary for daily thinking (and existence), being situated at a level comparable to Science. In this context, there is also a practical interest: the closing of the cognitive horizon cancels the anxiety.

### 5.2. The role of religion in the construction of the existential universe

The universe of discourse is also conditioned by the need for meaning of the personal existence, emphasized in the context of the awareness of one's own death. It is one of the directions of effective action (donation of meaning) of religion. Also, the ability to give meaning to altered states of consciousness is also part of the list of interventions meant to cover meaning voids. Rossano (2006: 354) even considers that the ability to obtain and use these states would be under the sign of pressure of evolutionary selection, religious visions having an adaptive role. This direction of investigation is not new. For example, the importance of the role of religion in giving meaning is also addressed by Inzlicht, as he thinks about things from the perspective of the benefits that religion might have within it "(…)people are motivated to create and sustain meaning (i.e., a sense of coherency between beliefs, goals, and perceptions of the environment, which provides individuals with the feeling that the world is an orderly place)…" (Inzlicht, Tullett, & Good, 2011: 192).

The idea that religion can be a practical solution in providing meaning for the context of individual existence seems to be supported by the significant number of scientists who declare themselves as being religious. If there is a significant need for the meaning of existence and the context of significance specific to science fails to satisfy it then we can consider that religion somehow supports knowledge. In other words, if scientific knowledge is not enough every time to ensure the context necessary for the profiling of the meaning of existence, then we can consider that religion participates pragmatically in knowledge, especially if those who seek their existential significance in the arms of religion are people of

science. Paraphrasing Edis and Boudry (2019), in this case we can talk about avoiding the cost of the absence of religious belief.

## 5.3. The vault keys

The human mind fills the perceptual and cognitive gaps. Both the gaps and the structures used to fill them are of equal importance; some filler solutions are true *vault keys* of the entire cognitive construction called the world. The *vault keys* are simplifications that are named values. Simplification no longer requires reasoning and understanding, thus relieving the cognitive burden.

If we are referring to the phases of the emergence of the religion proposed by Rossano (2006: 356), in historical order the vault keys seem to become necessary along with the emergence of narrative formations and existential preoccupations, respectively along with the emergence of social stratification, with the possibility of a correlation between the importance of closings and those of people who are at the top of the community hierarchy. This stage is seen as one of border, marking the end of the egalitarian communities of hunters-gatherers and the beginning of the social hierarchy and property. In this interpretation, a dimension of religion legitimates a social model.

The misunderstanding / absence of meaning is a nonsense of the mind, the persistence in this way endangering its existence. The misunderstanding affects both those above and those near us, the explanatory mechanisms being used for all categories of the unknown. The closing of the cognitive universe by covering the unknown with deities or correlates of the divine represents the mechanism of building the most frequently and most cognitively efficient vault keys. Its use is based on the topic of the unknown mind/ fear of chaos. *The ability to understand the world is a thesis of reality of the mind*, religion providing for millennia forms of support for the persistence of this cognitive-existential structure.

The establishment of cognitive hierarchies represents one of humanity's responses to chaos. The transformation of the nothingness in the field of privileged knowledge, that is, in the Mystery, is the most common cognitive solution adopted by religion. The purpose of the occurrence of mystery is purely cognitive: it is the provisional name given to the unknown. The mystery is not a failure of the cognitive approach, as John Saliba suggests in the commentary to Guthrie et al.'s article (1980: 198), but an argument in its favour, indicating a solution to the question of the rest that risks escaping from knowledge. One form of the mechanism of replacing the unknown with the Mystery (the strong form of closing the knowledge

universe) is the formula "We do not know what this is, so it must be God!". Divinity, in its various faces, has within these mechanisms a powerful cognitive role, allowing for the provisional closures of the cognitive universe. In the absence of these closures (that is, in the absence of the cognitive role of the Divinity) the meaning would be deficient or could not even exist.

These cognitive mechanisms were intended to establish order, to create the Cosmos. An important part of the intervention was the establishment and maintenance of social order. We can consider the intervention of evolutionary rules within the various cognitive religious solutions adopted. Which would mean an argument for the meme type approach.

### 5.3.1. Two Vault Keys: the Soul and the Self

Religion operates with fiction useful in an explanatory plane, an example being *the soul*. From Harari's perspective (2017: 94-95), the soul is the most important political / moral tool in the struggle of man for supremacy: the possession of the soul is the essential criterion of establishing the existential order, giving man the freedom of discretionary behaviour. The soul is the central element of the narratives that have prepared the birth of humanism, its shadow then taking the image of consciousness. The difference between man and other creatures is a mixture of reality and discourse.

*The soul* (or its correspondents in the various religions) is the vault key that closed the self-understanding horizon. The invention of the soul, with all its dimensions, represents a significant evolutionary leap. The soul became the standard meta-narrative in which all existence, the crucible of self-image, namely of the forms of individualization and culpability, could be placed. The soul has prepared the ground for what we consider to be *the self* at the moment. If the self seems to be (in the first instance) a throw of the individual over time, the soul seems to support it in transcending time. However, the different forms of the ideology of progress project to the individual different forms of salvation either from time or (only) from today (through the orientation to the future).

Because they have similar structure and utility, both the soul and the self are forms of assurance (forcing) of the identity of various experiences over time. However, the method used for the donation of identity also brings along with it a form of throwing the individual over time, namely the meaning of one's own death. The birth of the individual comes with the feeling of death. A lot of the content of religion talks about fighting this

"side effect of life". A similar mechanism is currently encountered in the field of medicine, many of the treatments being directed against the side effects of other treatments. The problem of "basic interventions" in existence and of the side effects that require curative measures is one of man's paradigms.

To take away the new creation, *the soul* from the temporal precarious area, the attribute of eternity was added, as this is the second closure dimension (unitary organization) of the meaning horizon that it represents (what we call now) individual existence. Closures did not always have the same structure as today, the actual emphasis on the individual being in fact the result of Christianity, remodelled by liberal meta-narrative (ideology). It is reasonable to believe that history was dominated by collective, community-based closures. But when the conflict between the individual and the collective seems to be a characteristic of evolution (the omnipresence of morals being one of the proofs), the present may be closer to the nature of the humane. It remains to be seen if we can postulate a rule of increasing the degree of closeness as time goes by. If the answer is yes then we need to see what the consequences of the meeting might be.

## 5.4. The meaning (sense) network

The adepts of the same religion constitute a powerful meaning network, as this is the essential feature of the creation of a cosmos. The adherence to similar meanings and to identical mechanisms of meaning donation generates the social identity indispensable to cooperation. The organization of the social on wider and wider levels was first made within religions, the moral norms in their content being the regulators of social relations. One can observe here the role of creating a discursive context (a space of common dialogue) played by religion.

We can think that the strong meaning of the present is given by the most adherent brands. They are knots of meaning networks specific to certain times, faces of intersubjectivity in which people recognize the meaning of their own existence. In such a context, Jesus is the social brand with the highest number of adherents and with the longest duration. It is a centrally located network node, through which the vast majority of existence signification paths pass.

Only with the emergence of a form of separation of moral norms from the religious system, emerging in the form of the law, the possibility of a society without religion appeared. The great challenge of the new model is the overlapping of common meaning networks (legal norms) with different ones, this being the image of the contemporary cosmopolitan society.

### 5.5. The need for meaning is the need for order

One of the cognitive mechanisms the contributions of which must be considered for the appearance of religion is *ordering* as a specific type of relationship (signification). The order of understanding is transposed by the enactive mind into the many hierarchies of the religious world. Space ordering solutions often become models of structuring meaning contexts. Any ordering, however, requires a point of reference, according to which it is made, that is, a centre. The need for the centre is related to the role of divinity.

If the essence of the mind is the organization of perception, and thereby the organization of external data in the form of a world, then its obvious orientation to ordering patterns will presume more order than it actually exists. A higher level of organization (an organizational leap) is put into the scene through religion.

## 6. Practical Effects of Imagination

### 6.1. Useful fictions

The sign underlying the perspective over religion in this section is the practical effects of imagination. In an irritating simplification we could say that these are *useful fictions*. The problem is that in this formula the term fiction must not be understood in its weak sense of distance / separation from reality, but in the strong sense, as a generator of reality through the world it creates *through* the specific meaning network. The idea is partly known to us in the field of legal fiction, understood as institutions specially designed to help us deal with an increasingly complex reality. In particular, we talk about the fictions useful for social cooperation. Affiliation to a common meaning network brings with it the possibility of cooperation, thus mediating success in the second layer of evolution.

The endless string of "Whys?" practiced by children can highlight the need of certain closings of the speech universe in the form of final explanations. If the hypothesis is correct then fictions (for example religious ones) are actually cognitive institutions, and they need to be judged according to their role and their practical effect, and not according to the relationship they have with the truth. In a strange way, they are true (acknowledged) by their consequences. Thus, ontogenesis may also repeat phylogenesis in the context of social knowledge. This type of closure seems to be specific to the fourth aspect of the religious mind, as this one presented by Rossano (2006: 356): the formation of narratives and the

appearance of existential preoccupations. The closure through useful fiction is specific to a stage in the evolution of religion. In the context of *useful fictions*, it does not matter what God actually does, but what we have done by believing in God. Continuing an idea of Harari (2017: 147), there is nothing to prevent us from believing that God has done what constitutes the consequences of faith in the Divinity.

Survival strategies need to be analysed from the perspective of practical outcomes, and can be viewed as "cognitive institutions," abstractions that make capacity prediction more effective. Insofar as they include the results of imagination, they are useful fictions. Which means the use of useful fictions is part of our evolutionary path. From the perspective of the "ontological argument", the possibility of a causal link between useful fiction and the existence of humanity cannot be ruled out without evidence; the burden of proof lies with those who want to exclude useful fictions.

According to Harari (2018: 127-139), illusions promoted by religions can often have pragmatic efficiency. If at least in some cases the pragmatic influence is exerted on knowledge then the hypothesis of a cognitive role of religion deserves to be discussed. We can conclude, therefore, that religious fictions have often proven their usefulness. Obviously, we also have to admit that many of them have proved harmful.

## 7. Illusion of Knowledge

Sloman indicates another illusion present in cognitive communities, namely the *illusion of knowledge*: "The knowledge illusion occurs because we live in a community of knowledge and we fail to distinguish the knowledge that is in our heads from the knowledge outside of it." (Sloman & Fernbach, 2017: 82). Cognitive illusion, as a form of confusion between personal knowledge and that of society we are interested in, is a necessity for the functioning of thinking. It is, at the same time, a support for the reality thesis of the world (another "useful illusion") and a help in closing the universe of speech necessary for the birth of meaning. However, for the topic we are addressing in this article, it is important that this knowledge support structure has been at least developed, if not even structured, within religion. The hypothesis of an all-knowing Divinity, in whose knowledge we can trust, being cognitively related to it, seems natural.

## 8. A few conclusions

In this article, I maintain my initial hypothesis (Rotilă, 2018): religion requires an evolutionary approach in order to understand its meaning. As the

appearance of human is based on the whole evolutionary path up to him, in which different solutions were tested, in the same way, the present society needed the religious period to identify appropriate social solutions. The evolutionary perspective must also draw attention to the relationship between the solutions that have arisen over time: the new ones do not replace old ones, but are added to them. In other words, religious structures, once used, remain in the same place of mind / mentality, being just overtaken by the new approaches. In addition, we cannot exclude the possibility of any evolutionary path of socialization of some individuals with comparative cognitive possibilities to pass through the religious stage.

Religion is a cognitive meta-discourse. For rigor, religion defines specific types of meta-discourses with a cognitive role. Religion opens up a cognitive universe in which things, events and people acquire meaning, being saved from the dangers of meaninglessness. Religion simultaneously provides an extremely comprehensive normative framework and a universal reference system, according to which each member of the community has access to meaning.

Religion is a theory of reality. Its checks are pragmatic. The survival of religion depends on its practical results. To a certain extent, to talk about the contribution of religion to knowledge means to check the practical results of its proposals. Equating to know with to succeed is only partial. If we look at religion from an evolutionary perspective, then the measure of God's knowledge is actually a form of assessing the closeness of religious discourse to society's expectations, using relevant indicators (and relative in relation to human understanding of each age) such as the degree of social stability, common success, individual welfare, the level of suffering, etc. In the hypothesis of people imagining the Divinity, we must observe that the Divinity and the adjacent social rules say something essential about the expectations of people, about their attempts to create their reality in response to their needs that burden them.

We can also remember other types of contributions of religion to thinking. For example, through the abundance of clues and symbols that religion vehiculates, it opened the way for abstract thinking. The utensil dimension of the language was thus brought to a different level. Religion is also the first predictive system of human behaviour based on normative prescriptions. A pattern of ordering of the social that has not yet been overcome.

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