

Interconnection between depression and religious attitude in evolutionary terms

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Abstract

The present article deals with the topic of psychology of religion and its association to evolutionary theory. The association which is sought is whether depression and religious attitude could be actually related in evolutionary terms. Depression is mainly examined in the view of the *social navigation hypothesis* concept, as well as the *triune brain* idea understanding. Religious attitude, on the other hand, is investigated in relation to the understanding of the *evolution of the human mind*, as well as its functional representation as *counterintuitive behaviour*. What is being suggested through this endeavour of discussion is that depression and religious attitude can be presented as adaptive dispositions that help humans to face conflicts with con-specifics, as well as to develop community bonds when in difficulty and spiritual elation.

Keywords: depression, religious attitude, evolution, mind, adaptation, counterintuitive concepts.

Introduction

Depression is characterised as the “common cold of psychopathology” (Seligman, 1973; 96; Hall, 2007). It is a state of low mood which may be even caused from situations like the weather, the fear of want or lack of possessions. It starts as a mode of a physical response, an emotional state, and a behavioural reaction to difficulties that affected an individual’s mental activities, such as plans and wishes that did not integrate, or choices taken but not fulfilled, and can be developed to an instability of thoughts, actions, and decision-

making deficit (Spitzer et al., 1983). If depression develops to a mental condition an individual feels sad, worthless, guilty, isolated from others, or moody and uninterested in regard to daily activities (Davison et al., 2004). Depression is often accompanied by emotional inconsistency and grief over known or unknown losses, lack of self-esteem, and personal conflicts with others (Pinel, 2003). Depression, according to the DSM-IV-TR (APA, 2004), is categorised as a mood – affective – disorder, classified as major depressive as well as a bipolar condition. As a major depressive disorder includes mental conditions such as sleep and appetite deprivation, feelings of helplessness, suicidal thoughts, difficulty in concentrating (Kessler et al., 1994; Judd, 1997), whereas as a bipolar disorder is expressed through hyperactivity, cyclothymic behaviour, intense talking, distraction, self-aggrandisement, etc. (Goodwin & Jamison, 1990).

Depression in the evolutionary literature is regarded as a dysregulation mechanism which pervades over human reasoning and emotions (Barkow et al., 1987). In evolutionary thinking, that condition is not simply an array of symptoms that manifest mental imbalance and a disturbing condition, but something related to human evolution and to the survival principle. Religion is considered part of the evolutionary process which assisted humans to survive over centuries (Buss, 1995; Wilson, 1998; Hay, 2006). As such, religion is not understood in terms of dysregulation, but in terms of helping individuals to live and prosper in hostile environments (Barrett et al., 2002). Dysregulation, according to the evolutionary literature (Nettle, 2004), is approached as a host of reactions which humans were showing, living in environments with dangers of almost every nature. Certainly, the latter does not imply that modern social environments are not hostile to individuals; but that dysregulation in depression was employed by our ancestors at times of imminent difficulties so to overcome potential dangers. In such a way, dysregulation in depression was a knock-on-the-door sign for humans to adapt their thinking and feelings in order to survive and reproduce (Cartwright, 2000).

To regard, however, religion as part of the evolutionary process is only half of the story. Attitudes related to religion

may well have a background to depression, and thereby an evolutionary link to it. Religious attitude can be presented with a number of reactions why a religious individual could manifest depressive behaviour (Koenig et al., 2001). The most common of all is that not only social individuals, but religious ones too, live in same social environments; they interact with one another in groups, as well as out-group, and they develop affective conditions such as the aforementioned. In and out group conflicts can present religious individuals with depression very easily (Sosis, 2004). Both social and religious attitude can be associated to depression in evolutionary terms, for the former reveals the conflict an individual has with its environment, and the latter, the struggle an individual experiences at group level in terms of identity-seeking and sense of belonging (Irons, 2001).

This article will discuss evolutionary accounts of depression in accordance with the models of the triune brain (MacLean, 1990) and the social navigation hypothesis (Watson & Andrews, 2002), and how these two overlap. Religious attitude will be discussed under the evolutionary paradigm as well as regarding its proximity to depression. The arguments discussing religious attitude in evolutionary terms (Alcorta & Sosis, 2005; Eliassen et al., 2005), the evolution of the religious mind (Rossano, 2006), and religious attitude as part of the evolution of culture (Boyer, 2002; Wilson, 2002) will be visited. This article's ultimate goal will be to discover some sort of functional relationship between depression and religious attitude from an evolutionary point of view, as well as whether such an ascertainment is fruitful for the advancement of psychology of religion.

In our discussion of religious attitude in proximity to depression we do not argue that this is the only approach. Numerous empirical studies have been conducted proving that the opposite is also true (Ellison & Levin, 1998; Koenig et al., 2001; Strawbridge et al., 2001). That is to say, that religious attitude has also a positive role towards combating the depressive condition, as well as other affective tendencies associated to it (Maton, 1989; Ellison, 1991; Kress & Elias, 2000). To the objective, though, of this article, religious

attitude and depression will be considered, in view an evolutionary relationship between both to be supported.

In discussing depression via an evolutionary perspective, it means that considerations about the evolutionary background of the condition will be assumed. Depression in evolutionary terms is mainly considered as an emotional state which depends on the influence of personal choices and afflictions of the society (Nesse, 2000; Watson & Andrews, 2002; Carey, 2005). For evolution, depression is an affective state that is interpreted as evident due to experiences people have, and not because it is being evidently originated from our evolutionary past (Nettle, 2004; Wolpert, 2008). What evolutionary theories on depression generally accept about this condition is its emotional presence in the lives of individuals, and how it affects the psychological functioning of human species (Allen & Badcock, 2003; Hagen, 2003).

Two issues about the evolutionary origin of depression had been so far discussed: the issue of depression as an extended mode of normal low mood in cases of goals that are difficult to be achieved (Gilbert & Allan, 1998; Nesse, 2000; Sloman et al., 2003), and depression as an attempt social help to be asked from significant others (Hagen, 1999). In relation to the former, depression represents the attempt of an individual to deal with threatening circumstances when a flight is difficult to be accomplished; the latter, deals with depression as a coping-incapacity mechanism which is imposed upon a person when an effort to meet the criteria of the social network looks impossible.

Depression and the Social Navigation Hypothesis

Depression is an adaptive disposition to circumstances of a social character manifested as hostile to the individual (Watson & Andrews, 2002). The evolutionary assumption behind that thesis relates to the model of Social Navigation Hypothesis (SNH). The social navigation hypothesis examines depression as a condition that is functional in social environments, because it obliges individuals to plan their way out of those environments' destructive influences, as well as that it operates in terms of motivating significant others to help the individual in need. To the first, depression assists

individuals to sketch out ways of keeping themselves out of social and other activities in order to deal with the problem in hand; the second refers to elicit help from con-specifics.

Depression is a condition cross-culturally common to civilisations. It is understood as a state and a counter-reactive attitude that individuals demonstrate in order to face potentially unfriendly environments (Wilson, 1998). However, to be detailed as so, depression should be examined as a condition which is not new, but that it evolved through our ancestors; it should also be regarded as cultivating enhanced fitness for the individuals developed it; whilst should also be investigated in terms of being fixed in the gene pool of a population (Buss et al., 1998). However, since not every individual becomes depressive, as well as that this condition affects only a number of people, it may mean that genetic explanations alone do not account for all that is observed (Nettle, 2004).

An adaptation to become dominant to a population, it means that heritable fluctuations have taken place (Fisher, 1930). By this it is implied that if depression is regarded an adaptation, natural selection had maximised its fitness to the human species for that condition to prevail. However, by considering that individuals who undergo depression suffer minimised fitness, the aforementioned seems unlikely (Treloar et al., 1999). Fitness is maximised when individuals reproduce effectively; a potential which for depressives does not look as plausible (Beck, 2001), for we know that depression is associated with marital difficulties (Reich, 2003), suicidal attempts (Hagen, 1999; 2003), and also low social support – people don't like being around when they come across depressive individuals (Monroe & Steiner, 1986).

Social navigation hypothesis examines the assumption that depression is indeed an adaptation, mainly for the reason of eliciting social help from significant others - although that sometimes may prove reversible, and instead of social help depressives to be faced with isolation (Nesse, 2000; Watson & Andrews, 2002). On the other hand, depressed individuals suffer reduced or malfunctioning cognitive abilities, which means they are incapable of thinking properly, to focus

attention, to remember things, etc. (Austin et al., 1992; Tsourtos et al., 2002). In so said, it is not clear whether depression is as adaptive as it is considered to be, although evolutionary psychologists assert that its development can be understood *only* in terms of its being adaptive (McGuire et al., 1997; Watson & Andrews, 1998; Nesse, 2000). What could be concluded from the social navigation hypothesis on depression is that this condition is a communicational deficiency spent as an effort at adapting to present needs that call on adaptive operations of an individual's normal range of activities (Davis, 1970).

The Triune Brain Model of Depression

The triune brain model of depression deals with the condition in relation to frontal lobes (MacLean, 1990; Gardner, 1982; 1988). The three layers or levels of the triune forebrain together and individually select between escalation (fight/conflict) and de-escalation (submission/flight/escapism) in order to tease out a problem that needs immediate action and reaction.

The model of the triune forebrain consists of the level of the reptilian brain, located at the basal ganglia, and concerned with instinctive choices and agonistic interactions; the paleo-mammalian or emotional level, located at the limbic system, and concerned with family life and attachment issues; and the neo-mammalian level, located at the neo-cortex, and concerned with reasoning, conscious decisions, perception, and complex matters needing immediate and soluble attention (MacLean, 1990). This model constitutes a valid attempt to distinguish the role of emotions in the relationship between mind and brain (Panksepp, 2004). It is a theory needed to be considerably taken into account and positively evaluated. It is a contribution to the mind-brain issue in terms of the interference of affective experiences in the everyday life of individuals. According to Panksepp (2002), "MacLean sought to elucidate the overall mind-brain puzzle as a functioning whole" (ix), which under the influence of affects on behaviour, and vice versa, give rise to the disorderly state of depression (Panksepp, 2004).

Individuals in depression look to appease the condition by displaying either escalation or de-escalation. Depressive individuals who escalate attempt to solve a problem in terms of interacting with it in conflict; de-escalation on the other entails that depressives choose to escape from the problem because of the unpleasantness they experience. Depressed individuals in escalation increase the chances of winning as well as of losing; whereas in de-escalation they adopt escapism in order to reduce the cost of losing (Price et al., 2004). Both escalation and de-escalation may enhance or reduce fitness, as well as reproductive effectiveness, concerned with the survival principle (Gilbert, 1992; Stevens & Price, 2000).

The model of the triune forebrain for depression underlines that fight, submission, and escapism may be used interchangeably, so an individual to be in control of its condition, as well to be able to employ its pros and cons in terms of being adapted to the circumstantial character of the environment. In such a context depression as adaptation is regarded as a cultural ritual which keeps con-specifics away from harming unwary individuals (Price & Gardner, 1995). To the latter, depressives simulate the metaphor of sickness in view to deploy submission, to elicit compassion, and to avoid possible damage from others (Price et al., 2004). Low mood expressions also apply to the model of the triune forebrain. In workplace situations, employees submit to their managers, so to avoid aggressive behaviours or unquiet interactions (Lewis, 1947; Beck, 1974).

Depression indicates lack of retaliation to life circumstances. Retaliation in depression is concerned with fight/flight choices, so emotional needs of an individual to be calmed and balance to be restored (Davidson & Ekman, 1994). The evolutionary paradigm of the triune forebrain suggests that depression is an illustration of fighting either a reduced status of individuality, and asking for understanding, or flying from criticism and hostility from others. Depression, in order to be understood as a survival condition for the human race, should be investigated both as an emotional state as well as a particular mood. The former applies to depression in regard to regulating an individual's goals and milieu choices; the latter

to comprehending the condition as a pursuit to a goal that is impeded by the contrariness of a rival individual (Champion & Power, 1995; Watson & Andrews, 2002; Price et al., 2004). In the context of both approaches, depression accounts for a submissive understanding which exploits the emotional status of an individual in order to prevail. Sensitive individuals during life events experience difficulty to adjust to social niches and frequently employ depression in order to survive and be accepted. In such a way, the neocortical assembly regulates the choices they make in view to a reduced psychological status as well as prompting fitness – i.e. enduring changes - instead of cultivating imbalance in personality (McKinney & Tucker, 2001). Depression is considered as a by-product of societal requirements that are dependent on cultural development (Miller, 2000).

The models of Social Navigation Hypothesis and the Triune Brain for depression converge on the level of examining the condition as part of the evolutionary process in terms not only to understand how this disorder has developed over time, cognitively-speaking, but also the derivatives it entails in struggle-induced environments. Attention-seeking and submissiveness are the patterns experienced and exercised by depressive individuals, and as far as those models are concerned, they coincide with each other by providing the understanding that depression is both socially-dependent as well as a subversive condition relying on situation contingent effects.

Religious attitude in evolutionary terms

It should be noted that religion and religious attitude constitute an attracting pole for many evolutionary psychological theories (Broom, 2003; Wunn, 2003; O'Brien, 2007). In their accounts about religion and religious attitude, those theories, although they claim about evolutionary evidence, they nevertheless refer to aspects and not facts; speculations and not clear evidence (Gould, 2000; Nelkin, 2000; Panksepp & Panksepp, 2000). What those theories actually do, is to discuss the psychological importance of both terms, and how humans and societies have developed in the course of evolution. To present religious attitude in

evolutionary terms we will take the above into account, and we will integrate it in terms of the needs of our approach to the subject.

Religious attitude can be studied in evolutionary terms through understanding beliefs, concepts, and the ritualistic behaviour of an individual over the progress of time and age (Alcorta & Sosis, 2005). It is generally accepted by cognition researchers (Guthrie, 1993; Mithen, 1996; 1999; Kirkpatrick, 1999; Barrett, 2000; Boyer, 2002; Atran, 2002) that religion and attitudinal behaviour serve the use of cognitive adaptations within societies. Evolutionary anthropologists (Cronk, 1994; Irons, 1996a; 1996b; 2001; Sosis, 2003) argue that religious attitude works for the elimination of behavioural adversities, such as persecution, discrimination, and prejudice, so social balance to be reinstated. Religious attitude is an adapted behaviour which helps individuals to flourish on a social continuum of safety and security (Sosis, 2000; Sosis & Bressler, 2003; Sosis & Ruffle, 2003; 2004). To maintain also that religious attitude has a fitness-maximizing value it means that it has a problem-solving capacity which is activated when threatening situations take place. By 'threatening situations' we mean out-group behaviours which challenge the survival resourcefulness of religiously affiliated members, or of social members belonging to a religious group; in other words, challenging behaviours are entertained by social groups against the fit-enhancing capacity of religious principles that promote the life of a community (Hood et al., 1996; Wilson, 2003).

Fitness-maximizing capacity is a relative term for religious attitude, because does not refer directly to reproduction principles, or only as providing positive effects to individuals, but to beneficial and less costly choices that contribute to individuals' personal religious development in generations to come (Sosis & Bressler, 2003; Wilson, 2003). To use an example, processes such as martyrdom, celibacy, and aspects of altruistic behaviour although they reduce or eliminate the fitness-maximising capability in regard to the biological fitness of the species, they can successfully carry forward the continuation of religious ideas and practices to other

generations via symbolisation and ritualistic attitudes (Slusser, 1992; Wunn, 2003). In relevance to this, commitment theories (Irons, 2001; Sosis, 2004) argue that religious attitude is an activity of cooperation that minimises deception and helps individuals to deal with the costly influences they receive from the environment. Cooperation versus deception in religious attitude terms proves to be an adaptively-beneficial aspect that enhances fitness, for it derives from the devotion of religious individuals to ritual commitments (Alcorta & Sosis, 2005).

From an empirical point of view it is suggested that religious attitude makes individuals susceptible to depression (Eliassen et al., 2005). This is drawn from evidence about discontent people experience from institutional religion, as well as the *importance* given to the issue of sin by religious leaders instead of the aspect of love (Andreasen, 1972; Ross, 1990; Ellison et al., 2001; Schnittker, 2001; Coleman et al., 2004; Hay, 2006). To this account are being added discussions about the correlation between religious upbringing and social challenge (Schnittker, 2001). The association between the two is regarded as an important factor to the onset of a depressive behaviour (Shaver et al., 1980). Studies being conducted conclude that upbringing in an oppressive religious environment does not assist individuals to cope with social challenges, as well as that social challenges manifest an imperative intensity upon people coming from a religious milieu (Musick, 2000). But, does the association between religious upbringing, religious attitude as an outcome, and social affiliation demonstrate an evolutionary predisposition to the issue of depression?

Religious attitude and the evolution of human mind

“Religion is a natural and human phenomenon” (Dennett, 2006: 24ff; Braxton, 2007). Religious attitude is an outcome of the cognitive development of the human species. It is known to include agency perception and cause and effect ascription; social and emotional affiliation of group living; formulation of narratives and stress over existential needs (Rossano, 2006). The evolution of human mind constitutes cognitive understandings about agency description, cause and effect

relationships, feelings about social commitments, and narrations of ideas and concepts that are connected to expectations individuals struggle for in their lives (Lewis-Williams, 2002; Hayden, 2003). In view to the latter, human minds have evolved in order for individuals to receive and transmit information as well as to extract inferences relevant to the issue of religious attitude. Such information and inferences refer to concepts, stories, and belief systems that derive from the cultural manifestation and have a counterintuitive value, and a principle-laden importance for the individuals concerned (Kelly & Keil, 1985; Norenzayan & Atran, 2002).

Counterintuitive concepts about persons with extraordinary powers or supernatural agents are acceptable by the human mind, not because there is no logical answer regarding their attributes, but because the oddities they refer to keep the human mind engaged in questioning, describing and representing inferences about such entities without claiming that they cannot be put under scrutiny (Broom, 2003). However, scientists (Boyer, 2002, Dawkins, 2006) who argue about the impossibility of such entities to exist, as well as by discussing the faulty impact of counterintuitive thoughts do not seem to comprehend clearly that such thoughts play a significant role in the evolution of human mind; in other words, counter-intuition supports the assumption about religious cognition in terms of approaching ideas that do not fall in the realm of tentative proofs. Religious attitude, according to cognitive theories (Boyer, 2002; 2003; Atran & Norenzayan, 2004), is seen as a manifestation of mental models that have evolved in order for individuals to explore the world around them.

Religious attitude and the evolution of culture

Religious attitude is an 'enlisted' aspect of cultural evolution (Boyer, 2002; Wilson, 2002). This indicates that religious attitude is a parallel manifestation, an outcome, and a prerequisite of the evolution of culture throughout the

centuries¹. Religious attitude is a human prerequisite exercised in social environments. The latter does not mean that every human society is a theistic or religious one, but that religion is an evolved adaptation manifested in humans who are descendants of evolution (Cartwright, 2000). Generally speaking, religion and religious attitude are investigated in terms of societal development and the emergence of culture (Dennett, 2006). Religious attitude indicates a cultural form of development not only by noting facets of art, such as sculptures, icons, temples, but also societal achievements in terms of institutions, civil rights, social mores, etc. (Broom, 2003); for, as far as ecological regulation theories are concerned (Rappaport, 1999), religious attitude has evolved as an adaptive mechanism so interactive processes between human groups and their environments to take place.

Going back to the previous question we should note that religious attitude and depression are developed in cultural environments – familial and others -, and refer to religious affiliations and societal niches. When we search for an evolutionary analogy between depression and religious attitude in social terms, we search for an understanding of

¹ Christianity would not have existed if Christ was not present; Christianity would not have flourished if Christ's disciples did not spread the word to Jews and Gentiles; Christianity would not have been considered as part of the human life and society, if it did not employ the tool of language so to pass its message to the world; if it did not make use of the arts for its rituals; if it did not elaborate as a social investment strategy to the objective individuals to work as partners and nurture together. Christianity 'suggested' a religious attitude on the basis of the given culture and civilisations of people, however changing and evolving them further (D'Arcy, 1962; Shutte, 2006; Smith, 2006; Adeney, 2007). On the other hand, religions such as Islam, Buddhism, Hinduism and other Eastern traditions purported a religious attitude already existed in the cultural reality of the interested parties with which they have also evolved. The former means that religions such as Christianity and Judaism either became part of the cultural reality of the people, or they influenced the religious traditions of the nations which constituted part of their culture; the latter underlines the fact that religious traditions of the Mesopotamia, Near, and Far East were already part of their existing cultures, and in such a way they followed the development of the traditions concerned, an issue that applies also to the development of Christianity in those traditions (Hume, 1777; Billiamin, 1975; King, 1980; Bishop, 1984; Wilson, 2002; Mase-Hasegawa, 2003; Dennett, 2006).

both experiences in the domain of evolution. As noted before, depression may be regarded an adaptation in terms of an individual resisting to a hostile environment. In such a way an individual saves energy and prepares to deal with the difficulty in hand; this energy-saving may refer to a low mood attitude, or a personal detachment from what is going on in one's life, or by considering oneself hopeless and helpless and not worth fighting for about anything.

Religious attitude is an understanding of personal affiliation and social belonging to a particular group that is regarded able to protect the individual from potential dangers of the outer environment (Klaus, 1964a; 1964c; 1965). By arguing the above, does not mean that religious individuals may escape from the net of depression. There are many examples claiming that the opposite is also true: individuals belonging to religious groups 'exercise' attitudes signified as "ecclesiogenic neuroses" (Klaus, 1964a; 1964b; Cumbee, 1980; 254ff; Wulff, 1997). Illustrations include feelings of guilt; justification of self-righteousness; fears of persecution by God, the Uriah syndrome, the 'worm' theology stance², etc. (Tournier, 1962).

Religious individuals submit themselves to a deity by using their neocortical assembly and assuming incapacity before the Absolute (Price, 1988); that indicates, that religious

² The Uriah Syndrome comes as an idea from the Old Testament, where Uriah, a General of King David, was instructed to lead the army against enemy positions. There in the forefront, while he was fighting, the army deserted him – according to King David's plot – and Uriah surrounded by the enemy and died (II Kings 11:1-27). The syndrome refers to experiences of vulnerability, helplessness and hopelessness individuals feel when they are betrayed, abandoned and isolated. The term 'worm theology' comes primarily from the book of Job (25:6) where a 'friend' of him who went to 'comfort' him he referred to man as a "maggot, and the son of men, who is a worm". Worm theology implies that men because of their fallenness are unable to reach God, and feel like they will end up in hell instead of meeting with Him. Worm theology is cultivated in many religious groups leading their members - whose perception of God relates to adverse theological convictions - to a cognitive dissociation of religious mentality (Dorahy & Lewis, 2001). Churches that not meet the deeper needs of their congregations contribute to a worm theology stance and a Uriah syndrome disposition.

people are as 'liable' to fall to the realm of depression as individuals who do not manifest any religious attitude (Cumbee, 1980; Miller, 2000). Adaptation, therefore, in religious attitude terms means that relevant environmental conditions can be acquired from information an individual receives through traditional forms, or through personal or group experience. In this vein, religious attitude as an adaptive process promotes psychological and sociological efficiency to the individuals concerned, at the prospect of inquiring transcendent and supernatural ideas (Antes, 1992). In that understanding, religion and depression are not only interrelated, but differ as well. Religion is the conductor of spiritual experience, whereas depression the culmination of inter-individual failures; religion contributes to the progress and growth of intra-psychic integration, depression to the onset of compulsive activities; religion advances human interaction, depression deals with it as a conflicting issue (Shafranske, 1996; Wulff, 1997; Koenig et al., 2001; Hay, 2006).

The accounts discussed so far draw attention to findings about the functional relationship between depression and religious attitude in evolutionary terms. Depression exhibits evolutionary starting-points on the basis of its psychological interpretation as a consequence of the social struggle. Religious attitude, on the other, is associated to experiences drawn from a hostile environment in order to be dealt with in a milieu less unfriendly. By noting 'less unfriendly' we mean that religious attitude is cultivated in particular groups where the danger of feeling low mood may also be evident. For one to be part of a social niche, one is required to adapt oneself to that niche in order to be accepted and come to terms with its difficulties. That kind of the need for adaptation to an environment does not take place without grief or loss, common denominators of depressive feelings, or depression in general (Robins & Guze, 1970).

The functional relationship accounted for between depression and religious attitude presents these manifestations as matters of circumstantial neediness and issues of self-protection. Some empirical evidence in support to the above refer to studies that were conducted in the US and

have shown that religiously affiliated individuals are prone to depressive states in terms of committing to a religious attitude which does not fulfil the spiritual objectives individuals have expected (Sanua, 1992; Kosmin & Lachman, 1993) In particular, they have found that among religiously committed groups the Jews in the States seem to have an increment to depression in reference to feel accepted in the community they belong to (Ross, 1990, Yeung & Greenwald, 1992). Others (Meador et al., 1992) have found that among protestant groups in the US, individuals affiliated to them did not feel secure as well as they had a sense of abandonment when due to their circumstances asked for help and was not granted to them. What researchers have also found in the association between depression and religious attitude is that the latter was negatively related to coping and well-being efforts in a religious setting, gradually *guiding* religious individuals to the realm of depressive states (Koenig et al., 1992; Koenig et al., 1995; Grosse-Holtforth et al., 1996).

Final views

Depression and religious attitude form needs of survival and adaptation. Depression is an individual's counter-reaction to societal practices seen as uncongenial; religious attitude is mostly exercised in groups and affiliation practices, which can also disintegrate an individual and make it fall into low mood feelings, or experiences of worthlessness. However, both depressive and religious individuals adapt to their environments, for they wish to ask for help; to feel contented; as well as to experience some kind of equilibrium from obstacles that supervene in their lives. That means that they look forward to be assisted from others, in social or religious terms, so to carry on with their lives. Whether they decide to face their condition, or to assume helplessness, so to elicit assistance from significant others; both depressive and religiously committed individuals embark on respective attitudes in view to feel protected and safe; something that is regarded both as a physical inclination and a cultural need that has helped humans to come to terms with their surroundings.

The interconnection between depression and religious attitude in evolutionary terms is significant for the topic of psychology of religion, for it provides the discipline with new insights about the clinical understanding of the condition in terms of its social importance for the development of individuals. Evolutionary accounts of depression and religious attitude exhibit an important hermeneutic value for the psychological realm of man. Depressive behaviour can be regarded as an affective disorder as well as a physical counter-activity which assists the survival of the human species; religious attitude as a socially focused activity which influences the development of personality. The evidence that they are also functionally related implies an overlap which is both scientific and experiential. Scientific, because the evidence supporting the above findings is finally at hand; experiential because psychology of religion can delve into an undetected field where no psychological theory has ever been before, that of the research of the religious life of a depressive personality under the evolutionary viewpoint. For psychology of religion, the interconnectedness between depression and religious attitude is ground-breaking in terms of opening this branch of psychology to new enquiry horizons which are yet to be discovered.

Depression and religious attitude are interconnected in evolutionary terms, for both are regarded as adaptations that have evolved via measures of change - unfulfilled interactions, ecological losses, commitment withdrawal (Dow, 2008). Measures of change for depression and religious attitude in terms both to prove adaptive can be maintained that appear in the following accounts:

1. Depressive individuals call for social support and help from con-specifics; religious attitude increases communication and cooperation: *Both depression and religious attitude promote self-balance, so to control psychological distress.*
2. Depressive individuals ask for interaction and coalitions; religious attitude is exercised in groups and congregations: *Depression and religious attitude demonstrate social adherence.*

3. Depressive behaviour is triggered by hostile attitudes, whereas controlled by feelings of care others express to the sufferer; religious attitude separates the sacred from the profane, for the one is beneficial and the other costly: *Depression and religious attitude ask to reinstate a fitness which has been damaged.*
4. Depressive behaviour is a conflict-resulted experience; religious attitude is a host of activities against social instability: *Depression and religious attitude have evolved to solve ecological challenges which refer to a personal or social level.*
5. Depressive behaviour is a maladaptive condition of an individual's struggle with the environment; religious attitude can be a dysfunctional stance if in-group relations don't integrate: *Depression and religious attitude form aspects of costly elements when an individual in the presence of others feels unable to communicate with them.*

Conclusions

Evolutionary accounts of depression and religious attitude include:

1. Adaptations to environmental requirements: individuals to survive and feel accepted should adapt themselves to social and congregational environments.
2. Fitness-maximizing for the individuals concerned: people feel able to prosper in social or religious environments when they are satisfied in the communities they live.
3. Predispositions imposed on people by the social reality: a hostile social or religious milieu obstructs the development of people living in it.
4. Cultural inclination of both: individuals in societies and religious groups learn to develop attitudes whether useful or destructive.

Although, social navigation hypothesis does not convince about the adaptationist account of depression, it does not mean that depression cannot work as such. Apart from its

destructive elements as a condition, it does elicit social help and interest to those in need, and in such a way it functions as an affective experience, in order individuals to be protected from unfriendly life circumstances. The model of the triune brain could be applied to social navigation hypothesis in view for the latter to become more applicable as an evolutionary theory of depression. The triune model mainly indicates depression as adaptation in terms of seeking for emotional calmness and acceptance from others. Both claim that depression is part of the cultural development. In such terms, the simplest frustration because of societal in-group or out-group conflicts can be affective and disorderly to the individual. Evolutionary accounts to depression do not regard it only as detrimental, or an irreversible condition to the human psyche, but also as a low mood emotion, and an easy-going attitude of the struggle with the environment.

Religious attitude can be understood in the evolutionary paradigm in terms of an adapted behaviour and the evolution of human mind. Humans to be adapted in hostile environments have developed religious attitude enabling them to feel protected from potentials dangers in their milieus. In such a remit, religious attitude became part of the 'adaptation program' of the human brain towards coming to terms with difficulties at hand. Religious attitude relates to the evolution of human mind in terms of looking for answers to unanswered topics. Counterintuitive concepts related to religion, or explaining religious attitude, do also assist human mind to explore fields beyond imagination and grasp. Finally, religious attitude is also an outcome of the societal requirements exercised in affiliation groups. That means that religious attitude constitutes part of the cultural evolution, and as such it assists culture to grow and integrate.

The interconnection between depression and religious attitude in evolutionary terms is supported in the vein both of theoretical and empirical evidence, most notable of which are regarded the relationship of an individual to its environment; the need to adapt to it in order to survive; the personal balance issue in order to control it; the counter-intuitive elements that shape human cognition in the search of the Ultimate. Psychology of religion can be benefited from that

interconnection in innovative terms. It can apply the scientific and experiential evidence supporting such findings via offering to the clinical understanding of the condition, as well as to the theory of evolution, an interdisciplinary perspective discussing the functional relationship of both depression and religious attitude. That interdisciplinary perspective could be the tool for psychology of religion to interlink clinical and evolutionary evidence of depression and religious attitude to an extent both to be regarded as helpful insights for the development of personality.

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