

This post was first published in 2006 on the Alphapsy blog.

In a recent post on the psychology of religion, Hugo judged “dubious that we should be endowed with a fear of death so strong that we need to have other mechanisms to hold it in check”. Actually, [Carlos Navarrete](#) and [Dan Fessler](#), two evolutionary psychologists, have already suggested that existential concerns are not an ecological category but rather can be subsumed under a larger category of adaptive challenges that prime [coalitional thinking](#). There is a relation between death and religion, but it is not an adaptive one. People support religion when they are threatened not because it helps them alleviating their anxiety but rather because they advertise their adherence to their own group’s social norms in a situation where allies are potentially useful.



[Liberation](#), as many others, recently noted that it seems to be more and more difficult to criticize Islam. The situation is not that different than in the U.S. shortly after 9/11 when 25 to 35 millions people wanted to buy an American flag while on an average year, consumers purchase about 2 million house flags. The Terror Management Theory (TMT) explains the increase in patriotism and the concomitant decrease in tolerance of dissent since September 11 as defensive reactions against existential fear elicited by the images of death. Navarrete and Fessler challenge this explanation and report experiments that contradict TMT’s predictions. In doing so, they provide an entertaining and pedagogical example of how evolutionary psychology can enlighten social psychology.

At least three points deserves to be mentioned. First, TMT relies on the concept of a "survival instinct", which is far too general to be an adaptation. As Navarrete and Fessler note : “if Alaskan salmon were oriented towards self-preservation and driven by a survival instinct, they would remain in the ocean during the breeding season, safely distant from the gaping jaws of the predatory grizzly bears lining the banks of the streams that lead to their breeding grounds.” They quickly generalize: “Organisms respond to specific stimuli in ways that have consistently been associated with fitness-enhancing outcomes over evolutionary timescales (Dawkins, 1989; Tooby and Cosmides, 1992; Williams, 1966). Organisms such as salmon might be afraid of predators, but almost certainly not death, hence it may be sensible to talk about a “predator-avoidance instinct” (if one must use that under-specified term), but it makes no sense to talk about organisms having a survival instinct.”

Second, like many non-evolutionary theories (psychoanalysis for example), TMT sees anxiety as a problem rather than a cognitive device to deal with specific adaptive challenges (there would be much more to say about an evolutionary [approach to medicine](#): pain or fever for instance are solutions, not problems !). As Navarrete and Fessler put it : “It would be quite astonishing were natural selection to produce a psychology in which, instead of orienting the organism to pressing adaptive challenges and motivating behavior that addressed them, anxiety regularly produced a paralytic state that could only be relieved through time-and attention-consuming mental gymnastics.” If the function of anxiety was to push us to create and entertain warm thoughts about an afterlife in order to forget a danger, we would all be dead!

Third the authors emphasize, as others like Pascal Boyer, that religion often generates as much anxiety as it allays: vengeful ghosts, nasty spirits and aggressive gods are as common as protective

deities. But one need not look to such exotic examples to illustrate this point. "Protestant evangelists in the Calvinist tradition have long emphasized the doctrine that humanity is naturally depraved, and is headed for an eternity in torment, save for the few "elect" whom God has called; for the true Calvinist, one can never know whether one has been so selected, and no degree of virtue will save those who have not. Catholic Christianity is equally ambiguous as to the assurance of a secure afterlife, arguing that even believers can never know if they are eternally secure until judgment day. According to the New Testament, even Jesus Christ, rather than exclusively providing comfort to his followers, taught: "Many will say to me in that day, Lord, Lord, have we not prophesied in Thy name? And in Thy name have cast out devils? And in Thy name done many wonderful works? And then will I profess unto them, I never knew you: depart from me" (Matthew 7:22-3, King James Bible)."

Note that here, the naïve adaptationists ("folk functionalists" would be more appropriate) who haunt the social sciences and the strong adaptationists (like Sober & Wilson who think that religion is a biological adaptation) get together. They both would reply that, maybe, death is not the relevant elicitor. However, they would add, religion helps to secure social cohesion. And again they would miss a crucial point : cultural phenomena do not need to be functional to exist. For sure, there's a relation between religion and coalition, but it is not a functional one, it is an epidemiological one. Because of our particular psychology is seeking cues of coalitions, religion - being very culturally variable - often becomes a particularly salient signal of commitment. But since coalition can create social fission (secession) as often as group integration, religion is not strongly linked to social cohesion.

Chris, of [Mixing Memory](#), commented on this post: Perhaps this is one of the dangers of thinking about things through evolutionary lenses (it's always seemed to me that evolutionary psychologists have a habit of missing points), but just because anxiety is adaptive doesn't mean that it isn't a bad thing to the people who feel it. That's all that TMT actually says: when we feel anxiety or fear at thoughts of death, we don't like it, and so we try to get rid of it. The fact that the anxiety itself is adaptive doesn't change that. In fact, it's only adaptive because it's bad to us, if we take Navarrete and Fessler seriously.

Having read this post twice, I'm not really sure anything mentioned in it is critical of what TMT actually says, or even inconsistent with it. For one, TMT isn't about religion specifically, and nothing TMT says rules out the other reasons why people are religious, or the idea that people go to religion when they're anxious about death because it reaffirms social alliances (in fact, that fits quite nicely with TMT's main thesis, which is about culture more broadly). TMT has its problems (it's too broad, it's proponents tend to overreach, etc.), but these ain't them.

Nicolas's reply: I totally agree with Chris when he says that the fact that « anxiety is adaptive doesn't mean that it isn't a bad thing to the people who feel it ». The divergence between Navarrete and Fessler and TMT is about the fact that religion really reduces anxiety.

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> That's right, I just wanted to criticized the foundations of TMT. But N & F also gives some experimental data to doubt of the relevance of TMT :

« a number of findings in the terror management literature are problematic for TMT, but fit well

with our perspective. TMT research has shown that (1) mortality-salience enhances ingroup bias even in minimal groups having trivial between-group differences in worldviews, and (2) mortality-salience increases affiliative behavior even towards those who do not share the worldview. »

« Challenged by these claims, we conducted a series of investigations in which participants contemplated scenarios that contained an adaptive challenge but did not elicit thoughts of death. Whereas advocates of TMT explicitly predict that the worldview defense effects found in their studies are uniquely caused by death thoughts, our perspective predicts that fitness-relevant stimuli unrelated to death can produce similar results, provided that the eliciting stimuli indexes an adaptive challenge that could be effectively addressed through social support. (...) Experimental manipulations that are unrelated to death but which share conceptual links to personal uncertainty or to threats of physical bodily-integrity have been found to increase ideology defense as well (Burris and Rempel, 2004; McGregor, Zanna, Holmes, and Spencer, 2001). »