

Stories of Faith & Science I

Faith and the Fear of Death

Jonathan Jong

The making of a priest takes many years. A calling must be discerned, not only by the individual but by the Church also, who will test him repeatedly by observation and interview. The candidate must be trained and formed in sanctuaries and seminaries and soup kitchens. He must be examined and found—in the words of the ordinal—“to be of godly life and sound learning.” Some of us wonder how we got through; many of us wonder how other people did too. At the end of this process, the act of ordination itself takes no time at all. In the parish church of a medieval Oxford village one mild English summer’s afternoon a few months before my thirtieth birthday, the bishop, his hands like a veil upon my head, his voice grave and tender in equal measure, invokes the Holy Spirit to come down upon this servant of God for the office and work of a priest in the Church. Done. Priest made.

I had known since I was sixteen that I was going to be ordained, but neither when nor how. It came to me when, in a Methodist church in my hometown on the northwestern tip of Malaysian Borneo, I asked to hold the pastor’s collar in my own hands, a request he had never heard before but fulfilled anyway. Much has happened since. I moved to New Zealand not long after and majored in experimental psychology—rather than theology, as might be expected of an aspiring cleric. There I cultivated the craft of experimenting on people to figure out how their minds work. By the time I left for the United Kingdom, I was eager and ready to study religion in, of all places, a laboratory—a career I have indeed continued to build alongside my practice of the priesthood. The making of a scientist takes many years too, spent in labs and lecture halls, writing examinations and grant applications. The Academy is no less fond of ceremony

Jonathan Jong, an Anglican priest, is a research fellow and the deputy director of the Brain, Belief and Behaviour Lab at Coventry University in England. He is also a research associate at the Institute of Cognitive and Evolutionary Anthropology and the Ian Ramsey Centre for Science and Religion at the University of Oxford, and the co-author, with Jamin Halberstadt, of Death Anxiety and Religious Belief: An Existential Psychology of Religion (Bloomsbury, 2016). An earlier version of this article was presented at a 2017 conference of Think Write Publish, a creative nonfiction program focused on the harmonies between science and religion.

SPRING 2018 ~ 85

than the Church: The chancellor waves the cap around your head, and presto—Ph.D. conferred.

If a new priest's inaugural rite of passage is his first Mass—the first time he leads his congregation in the celebration of the Eucharist—the equivalent for an academic novitiate might be the publication of his first paper, typically transubstantiated from some part of what will become his doctoral thesis. My entrée into the world of academic research described three studies that formed the core of my doctoral work, designed to test a simple and widely held hypothesis: that religion is born of the fear of death.

Religion as Terror Management

The line *primus in orbe deos fecit timor*—"fear first made gods in the world"—appears in at least two Latin poems in the first century. Earlier it was expressed with great aplomb in Lucretius's poem *On the Nature of Things*. For Lucretius, as for many thinkers since, what terrifies us is nature—the fickleness of seed and season, the wrath of storm and sea. At least since Freud, however, the fear of death, or cessation of the self, has been a more common theoretical fascination—"Man's tomb is the sole birthplace of the gods," according to Ludwig Feuerbach. I picked up the idea from a group of psychologists working on what they called "terror management theory," an attempt to explain human behavior in terms of responses to the fear of death. They in turn had picked the idea up from Ernest Becker, an American cultural anthropologist working in the Sixties and early Seventies.

Becker's book *The Denial of Death* won the 1974 Pulitzer Prize for General Nonfiction just two months after he died of cancer, aged forty-nine. The book advanced the theory that the knowledge and fear of death is humanity's central driving force, underlying civilization and all human achievement. According to Becker, we are unique among animals in our awareness of our mortality. This knowledge leads us to construct systems of values—theological, moral, political, cultural, scientific—through which we can deny our finitude. All endeavors within these systems are attempts to obtain immortality, whether literal or symbolic.

The terror management theorists turned Becker's sweeping analysis into a scientific theory amenable to empirical testing. One experiment in a 1989 study involved twenty-two municipal court judges who were asked to set bail in the case of a hypothetical woman charged with prostitution. The judges were given identical prosecutor's notes describing the case, but half of the judges, randomly selected, also received instructions to imagine

and write about what dying would be like and how these thoughts about death made them feel. The other half were spared any prompted thoughts about mortality. While the judges in the neutral condition set bail at an average of \$50, the judges who were asked to contemplate death set bail at \$455, over nine times higher. The researchers concluded that this showed that thinking about death made the judges more punitive against someone accused of violating a moral norm, confirming the idea that strengthening moral norms is part of what we do when we are anxious about our finitude.

Since this study, hundreds of further experiments have explored the much broader effects that thinking about death has on our desire to achieve some form of immortality. For example, studies have demonstrated that thinking about death increases our desire to have children and even to name our children after ourselves. It also increases our desire for fame, including the desire to have stars named after us (the astronomical objects, not celebrities). It seems clear from these studies that we want to live on through our offspring and others' memories of us. This would all be fairly innocuous, except that the vast majority of the research has also shown that thoughts about death can lead us to be more nationalistic, xenophobic, homophobic, ageist, and otherwise prejudiced about those different from us. Confronted with our mortality, we dig our heels in and defend our own communities over and against others.

If death drives us to pursue oblique ways of outliving ourselves, surely it would also make us yearn for more literal versions of immortality. After all, symbolic immortality is not really immortality. We will not be around to see our descendants many generations hence. We will not know if our names will be on anyone's lips long after we are dead, nor would we personally benefit from posthumous fame even if they were. In contrast, most religions offer some way of defeating death directly, whether through reincarnation, resurrection, or an afterlife. Compared to the promise of paradise—or Jannah or Svarga or Akanishta or Valhalla—the prospects of fame or genetic propagation are pale facsimiles. But even if religion is the best immortality project, it is an immortality project all the same: a human attempt to assuage our existential anxiety. The gods, strong as they may be, are ultimately born of our mortal cowardice. Or so the theory goes.

Faith of our Fathers

My mother started going to church not long after her father died. I have never asked her if the two were connected, but I have always thought so.

As we drove away from the funeral, she asked me if I thought he would have liked how it went. The house was so full of people: ten sons, three daughters, and a host of grand- and great-grandchildren. The coffin lay open, an invitation to pay our final respects. I found little that was respectable in the husk of the man I had loved and feared, the sagacious patriarch with whom I had somehow found favor, even though I was only a daughter's son. This was not to be the way I remembered him; it is not the way I remember him now. I remember him with that lightning of white in his otherwise black vault of hair, just in the center, right above his forehead. I remember the large moles, all over his body, fiercely dark, like Dalmatians' spots. Perhaps one day my own nevi—all over my body, though barely noticeable now—will grow too, and I will be glad to be more like him. There was much loud chanting and wailing, as is our custom, the custom of our people.

"I don't know," I say. "I think he might've preferred a quieter, more peaceful thing." My mother nods. I reassure her that we did well by him. I say that we were with him when it mattered. She brought me to visit him every weekend of my childhood—an unusual thing for a daughter to do, married off out of the family into another patriarchy. I say that we were with him in the hospital, and then by his own bed at the end. I say that we did all we could. "You Christians," she says, "your funerals are better."

My parents weren't particularly religious. They were self-styled "freethinkers," which was as close as one got to being atheists when I was growing up in Malaysia in the 1980s. They often expressed their views about the silliness of certain religious beliefs and practices, but they weren't too dogmatic in their godlessness. They had, in any case, no aversion to my learning about the world's pantheons. Among my childhood reading material were paperbacks from the Fifties and Sixties by Roger Lancelyn Green, one of the Inklings along with C. S. Lewis and J. R. R. Tolkien. The books introduced me to a panoply of myths and legends. There was one about the gods of the Greeks, one about the Norse. But my favorite was *Tales of Ancient Egypt*, which told of Ra and Horus, Isis and Osiris, Khnemu and Thoth.

Of course, I was encouraged to learn about the gods of my own people too, enshrined in classic Chinese works like *The Journey to the West*, a favorite among children. *The Journey to the West* is a redemption tale of the Monkey King, born of a stone atop a mountain, who wreaked havoc on earth and in heaven until he accompanied a monk to India on a quest for sacred texts. I have long suspected that my early childhood education in the world's religions was my parents' sneaky strategy for inoculating

me against future encounters with more dangerously believable forms of religion. They have never confessed as much.

With the exception of converts to Christianity—the faith of our colonial oppressors—religion among the Chinese diaspora was an inchoate mélange of Buddhism, Confucianism, and Taoism that had minimal impact on our daily lives. In practice, religion consisted mostly of ancestor worship with inflections of animistic superstition. The animism mostly involved asking permission from tree spirits before we passed urine in the jungle. The ancestor worship was more elaborate.

Early in April every year, I would be roused before dawn and ushered into the car, already packed with baskets of food, gardening implements, and more esoteric devotional paraphernalia. The *Qingming* festival falls on the fifteenth day after the spring equinox. The name translates to “clear and bright,” which seems an ironic description for the day we traveled in the dark to the outskirts where our ancestors had built their cemeteries and my father’s grandparents were buried. There were weeds to be hacked down and dirt to clear to reveal the once vibrant and now weathered mosaic tiles that adorned the pious monuments. The names were carved into stone, but I was never told what they were. To me, they have always been ancestors to be revered rather than persons to be known. Revere them we did, with two kinds of offerings. The food offerings were real: meat and cake, which we brought home and ate together later, and strong rice wine, a libation poured into the earth. The paper offerings were painted and folded to resemble objects mundane and opulent: taels of gold, money, clothing, even houses. These were to be burned—fire is the portal to the afterlife.

Measuring Belief

I do not often get to observe people in their final moments, and when I do, it is as a priest, not as a scientist. I am holding hands and wiping brows, saying prayers. I am not conducting interviews or administering cognitive tasks. The same is true of funerals, though I will confess that the temptation there is greater to hand out questionnaires as mourners file out of the church, heads bowed, hands clasped. Laboratories are rather unlike churches, during a funeral or otherwise. It may be true that people can experience God anywhere—not just in a church but on a mountaintop or in a forest or a concert hall or, indeed, a science facility. But still, I think people are right to be skeptical of research on prayer or religious experience that occurs in so foreign and incongruous a context as a laboratory or, God forbid, a neuroimaging machine.

Religious belief is much more amenable to laboratory research than is religious experience; it is, after all, not that unlike other kinds of beliefs we routinely study—social, political, and moral. The big challenge is that people tend to be reluctant to talk about their beliefs—except when they’re not, in which case they can be hard to stop. Religious belief can also be difficult to *measure*, at least as a single factor, as the aspects of belief can be so diverse, particularly across cultures. Many people don’t believe in God but do believe in an immortal soul. Some people believe in angels but not demons. It is hard to say whether some of these people are “more religious” than the others.

I tried to come up with a small set of questions based on what anthropologists think are the most common religious or spiritual ideas around the world. The idea of a supreme deity is quite common, even among polytheists, while even the major monotheistic religions feature figures like angels and demons and local deities with minor supernatural powers. Saints are minor gods in all but name and doctrinal insistence. Most cultures have accounts of the soul and of a spiritual realm beyond the physical one. Human intermediaries—prophets, priests, shamans—are also found the world over. These were the sorts of beliefs I asked about, trying not to phrase things either too generically or too specifically. Translating these questions into other languages has proved difficult, but there are now over a dozen versions of this “Supernatural Belief Scale” that allow me to conduct research not only in the English-speaking world but also in China, Indonesia, Russia, Japan, Thailand, and elsewhere.

The first experiment of my doctoral project was inspired directly by classic studies of terror management theory. Like earlier researchers, I wanted to know about the psychological effects of confronting people with the idea of their own death. But instead of looking at moral attitudes, as early studies had done, I was interested in religious beliefs. So, my collaborators and I recruited about a hundred participants—university students, as is the common practice for underfunded scientist whelps—and asked half of them to think and write about what they thought dying would be like and how it made them feel. The other half completed a similar task, but about a neutral subject: the experience of watching television. After the writing task, each participant answered the same set of questions, including the ones on my Supernatural Belief Scale. We could therefore directly compare the effects of these two writing tasks on how participants answered questions about their religious beliefs.

We found that thinking about death affected religious and nonreligious people differently. Having contemplated their mortality, people ran to

their respective camps and dug their heels in: Religious people expressed belief more confidently and nonreligious people expressed disbelief more confidently. It was as if people were trying to take comfort in the certainty of their current commitments. The attraction of an afterlife—or at least an overtly religious afterlife—seemed not to be universal after all.

Memento Mori

I remember the day I realized I was mortal. I was thirteen. My friends and I were monkeying around in our classroom before the morning bell rang to start the school day. A small, wiry man came in, whom we recognized immediately.

“Karina is dead,” he said. He had chauffeured her family around for as long as we’d known her.

“What do you mean?” That was when we noticed his eyes were red with tears.

“Karina is dead,” he repeated impotently.

I had already worked out that older people were mortal. But surely that did not apply to me. When I was younger, the thought of my mother dying would upset me so much that I would run into her bedroom sobbing, pleading with her never to leave me. She would laugh warmly and assure me that there was nothing wrong with her. Of course, there was no indication that my mother was going to die anytime soon. But now my friend Karina was dead—incontrovertible evidence that death was real, and that someday it would be my turn. I do not remember feeling afraid at the discovery; that would come later, as would the realization that the world would carry on just as well without me as it had before I arrived. Nor is it obvious to me that this awareness of mortality spurred me toward religion. There was, however, a lot of religion about.

Karina was a Muslim, and so had to be buried as soon as possible. Most Muslims believe burial should occur within twenty-four hours after death. She would be buried facing Mecca. We were all allowed to go to her house to pay our respects. I don’t remember whether the corpse was actually there in the room, but it feels vividly now that it was. Her father wept bitterly as he recounted how she died, how she had woken up in the middle of the night, attacked by asthma, and crawled to her inhaler but failed to reach it in time. She must have been so scared, so scared and by herself, the poor and beloved daughter.

We shuffled out of the room, the reality of what had happened eroding our tacit assumption that we were all invincible, the birthright of youth.

Returning home, my mother forbade me from entering the house, or perhaps my grandmother did. I was to wash my hands and face in a basin. Cheap, pink, and plastic, it was filled with water and flowers—a cleansing ritual to ward away evil spirits. But Karina wasn't evil, I thought numbly. Why would I want to exorcise her presence if she had indeed followed me home? I was too tired to object. It felt like I was washing my friend away into the garden soil. Psychologists tell us that rituals are comforting, but this one wasn't.

What We Really Believe

It doesn't take a psychoanalyst to work out that my interest in theories of religion is in part an attempt to understand myself. Underneath my wondering about how religion evolved in *Homo sapiens*, and what role the fear of death plays in it, are questions about why I believe the things I believe, how I caught this thing that Richard Dawkins calls a virus of the mind, and how my parents failed so spectacularly at transmitting their own secularism to the next generation. I am well rehearsed at providing reasons for my religious commitment—the mystery of existence, the moral force of Jesus's teachings, and so forth—but the reasons we articulate are rarely the actual causes of our beliefs. Decades of research demonstrate that our powers of introspection are very limited indeed. Religion may or may not be a fantasy, but misplaced confidence in our self-knowledge certainly is. Where introspection falls demonstrably short, the promise of psychological science steps in: By careful observation and experiment, we can sift through the contradictions and self-serving delusions in the stories we tell ourselves about ourselves.

Had I been a participant in my first experiment when Karina died, I would have been categorized in the “nonreligious” category. In that first study, I found that thoughts of death led people to dig their heels in, further committing to their existing identities and ideologies. My inherited freethinking should have flared up. I don't know if it did, but there was certainly no indication of any future piety. Then again, somewhere between Karina's death and my grandfather's, I would find myself in a church holding a Methodist minister's collar in my hands and knowing that I would one day wear it too.

There is one important limitation to my first study: It relied on what people said they believed. People's utterances—including how they respond to questionnaires—can be performative, even if it's a performance for themselves. When we express a belief, it is sometimes to send

a signal to others: “Hey, experimenter, I see what you’re doing, and I’m not going to play along.” Sometimes, it’s a kind of self-assurance: “I do believe, I really do.” In other words, sometimes people lie, and sometimes they don’t know themselves as well as they think. So self-reported measures can be misleading, or at least can fail to capture the whole picture.

For the past twenty years, psychologists have been trying to find ways to get at beliefs that people might otherwise be unwilling or unable to share. One simple method is to measure how long people take to answer questions as an indication of how confident they are in their answers. Asked whether God is real, an atheist might say no—but she might hesitate on some days, under certain circumstances. This is a crude method, but it can be useful. The widely used Implicit Association Test is more sophisticated. It was originally developed to assess people’s prejudices, but has since been adapted for many other kinds of attitudes. It essentially involves measuring how difficult multitasking is for participants. For example, they might have to press a key—the same key—if they either see the word “God” or the word “True.” Then later, “God” is instead paired with “False.” This allows researchers to compare how long someone takes to perform the first task, which associates religion and truth, versus the second task, which associates religion and falsehood.

So, as a next step in my research, I swapped out the direct questions for these subtler tasks to sidestep the self-deceptions of confession. The results indeed differed from the original study: People who were asked to think about their own death became slightly but perceptibly more religious, regardless of how they identified themselves beforehand. The effect was mild—deathbed conversions are mostly the stuff of pious fiction, and in everyday life especially I don’t think people spontaneously and dramatically find God in the face of death—but there it was, measurable, quantifiable. Maybe it’s not so crazy to associate my mother’s turn to Christianity with her father’s funeral. Karina’s death may have affected me more than I can tell.

New Life, New Knowledge

I have never been a subject in my own experiments, but these results imply that when I am confronted with my own mortality, my religious beliefs are strengthened. This didn’t seem true when I was thirteen, but back then I didn’t have much belief to strengthen. I lack the objective distance to assess whether this is true of me now, all grown up and a paid-up

member of the Church of England, even a clerk in holy orders. I can, however, see the spiritual value in the act of contemplating death.

As a priest, I am canonically obliged to say my daily prayers, in the morning and in the evening. In the evening, my preference is to sing the service of Compline, which opens, “The Lord Almighty grant us a quiet night and a perfect end,” and maintains this ambiguity between sleep and death throughout. Death is made explicit in the *Nunc dimittis*, which begins, “Lord, now lettest thou thy servant depart in peace.” My regular spiritual practice also involves saying the Rosary, and each of the fifty-three Hail Marys ends with a request that she “pray for us now and at the hour of our death.” And although I cannot exactly say that I enjoy ministering to the dying or committing bodies to be cremated, these are the most humbling moments, for which I always give thanks. Perhaps I should not be surprised at what I found in a laboratory, for I encounter it daily in a chapel.

No human behavior can be reduced to a single cause, even when the cause is as existentially significant as the fear of death. But science is intentionally and necessarily myopic. We break a complex world into elements and inspect them one at a time—one fear, one brain region, one gene, one molecule. Progress is made this way, uncertain baby step by baby step. It is rare that we allow ourselves the luxury of stopping to admire how far we have come. More clearly than I had before, I now see how death features in Christian belief and practice, how so many things whisper *memento mori*. It is not for nothing that burial grounds are often just next door and that plaques and monuments in the church are constant reminders of those gone before us, and that Christianity’s central symbol, the cross, is an instrument of death.

On my more cynical days, I interpret the Church’s reminding us that we must die as a ploy, a means to sell to the faithful their opiates. But this runs contrary to my own experience of Christianity. The Bible is much less interested in what happens to us after we die than in what Christ’s defeat of death means for us here and now. It is clear, for example, that baptism—our rite of initiation—is meant to be a kind of death: it is a symbolic drowning. The point is not that we will one day die but that we are already dead, men and women walking unencumbered by the trappings of life in an often cruel and vicious world, red in self-protective self-destruction. The famous ethical injunctions—to turn the other cheek, to sell our possessions to give to the poor, to love our enemies—flow from this basic premise that we are no longer our own but have given ourselves up for the sake of a world in desperate need of love.

Ordination is death again. At the celebration of my first Mass, I laid thirty-three red roses at the feet of a statue of the Virgin Mary, one for each year of her son's life before he was crucified. At the same time, my own mother received twenty-nine roses, one for each year of my life. The symbolism is stark. I am dead to my mother just as Jesus was dead to his, no longer my own or hers, but belonging now to God. We do not live up to this ideal, of course, neither priests nor anyone else. Absolute moral goodness is beyond our reach in much the same way that absolute scientific truth is.

Just as most saints are found wanting, most scientific theories are eventually proved false—from geocentrism to phlogiston to Newton's theory of gravitation—and there is little reason to believe that our current theories are any more absolutely true. We believe them—the theory of evolution by natural selection, the expansionary model of the universe, Einstein's explications of gravity and relativity, even psychological theories of how religion arose in *Homo sapiens*—but we also believe that they will eventually be improved upon, if not entirely superseded, and that this quest for knowledge is never-ending. None of this ought to lead us to give up trying, striving to know more or to love better. Science and Christianity are, in different ways, quixotic enterprises calling us to tilt against the windmills of our own natures and limitations. Perhaps this explains why I find both lives, the Christian and the scientific, worth living. Both plumb the depths of our unknowing. Both involve cycles of failure and forgiveness, conjecture and refutation, *reformata, semper reformanda*. More research—and more grace—is required, world without end.