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Understanding Perpetua

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Abstract

Martyrdom involves a public sacrifice of one's own life in favor of a higher or transcendental cause. Acts of martyrs can change the world. The martyrdom of Vibia Perpetua in 203 can be seen as an act of Christian faith that overrode concerns for family, material security and individual survival. Perpetua was put to death for refusing to renounce her Christian faith and her diaries written in the days leading up to her execution are the oldest surviving texts by a Christian woman. Perpetua's story reflects the leadership role some women played in the early Christian church and gives insight into why Christianity came to take hold in the Roman Empire. Her story can also be interpreted as the effects of evolutionary psychology and memetics on human behaviour, effects so powerful that they can overcome even the interests of "the selfish gene." Perpetua's martyrdom may tell us as much or more about the power of memes as about the power of religious faith.

Introduction

Vibia Perpetua was a Christian martyr whose story lends itself to interpretations from evolutionary psychology and memetics as well as Christian theology. Evolutionary processes shape people's psychology and behavior through genetic, physiological and memetic mechanisms, and influence them as individuals and social beings. Understanding these processes helps us understand Perpetua's story.

Perpetua and her slave Felicitas were martyred together with three companions, in Carthage on 7 March 203[i]. Perpetua wrote a prison diary in the days leading up to her martyrdom – the earliest known surviving text by a Christian woman[ii]. Perpetua's own words are recorded (see Dronke, 1984), her story is symbolically important within Christianity, and it allows the key tenets of evolutionary theory and Christian philosophy to be tested, and hopefully better understood.

Darwinian evolution

All life has evolved through “Darwinian evolution” or natural selection, and human psychology, having biological origins, is one of its products. Natural selection means that genes with a greater chance of survival are more likely to survive and be passed on to future generations. While selection takes place at the individual level, individuals are agents of genes – mortal bodies through which immortal genes are conveyed through to future generations. Evolution lacks foresight and genes are selfish in the sense that they are “interested” only in their own perpetuation, not that they have any conscious intent.

Selfish gene theory has been reconciled with “altruism” in nature. Bill Hamilton showed that altruism in social species such as bees, prairie dogs, some bird species and dolphins can be explained as “inclusive fitness”. That is, individuals in a social group act for others in direct proportion to the extent to which those others share or perpetuate common genes. In other words, this altruism to others is driven by the interests of selfish genes that are passed on by others in a social group rather than by the individual itself. Reciprocal altruism (whether in vampire bats or humans) involves individuals assisting each other in the expectation of “favors” being returned. Altruism can also take a generalized form where one gives something back to the community rather than to the specific individuals that have benefited one self.

Reciprocal altruism and associated social cooperation emerged in early human evolutionary history, for example through sharing of meat. Meat typically comes in large, perishable quantities and much would be wasted if it was not shared. Sharing with others in the expectation of a reciprocal return in a later time period was a survival advantage for early humans because it smoothed out lumpy meat supplies and avoided both waste and shortage.

People cooperated in hunting because success required cooperation and men and women had complementary food-gathering behaviors; men hunting meat and women collecting plant food. The survival of the selfish gene was dependent on the survival of individuals and this depended on the survival of the group. The natural size of a group was determined by the meat and plant food resources that were available over the geographic area it was practical for a group to hunt and harvest from and still hold a discrete social group together in. There is some evidence that in Pleistocene times this would lead to a natural group size of around one hundred people – a size that was a direct function of the meat and plant food available within a small enough geographic area to be sustainably harvested by a social group.

These groups invariably came into conflict with others over resources. Chimpanzees, our closest relatives, engage in violent conflict with other groups and, with humans, are the only species that hunt and kill members of their own species. The hard-wired tendency of people to identify in groups (including

different religious groups) involves a double standard of morality between in and out-groups. Human violence is an evolutionary adaptation that must be constrained in the social group, though not necessarily outside it. Religious commandments such as “thou shalt not kill” were confined to in-groups and did not constrain violence against members of out-groups. This double standard is clear in the Old Testament. It is evident in classical Greek writings. In *The Iliad of Homer*, the shield of Achilles is decorated in both peaceful village and in battle scenes: the in-group harmony being balanced and in a subtle way created by “the external snarl”.

One view is that spirituality and religiosity is a product of natural selection. Hamer, (2004) argues that people have a genetic predisposition to spirituality. This spirituality is different from specific religious beliefs that are the result of cultural influences. There is undoubtedly a genetic component to at least spirituality and associated phenomena such as empathy and possibly also to religiosity. The prefrontal cortex is associated with increased self-control, sensitivity to the feelings of others, and long term planning. Genetics that predispose to self-transcendence and spiritual beliefs code for a monamine transporter – a protein that controls chemicals involved in brain signals. Monoamines are biochemical mediators of emotions. Some of the genetics involved may be associated with disorders. The Apostle Paul’s experience on the road to Damascus has the hallmarks of an epileptic attack. However, there is nothing suggesting that Perpetua had epilepsy and she describes her dreams lucidly rather than finding them ineffable and inexpressible.

While religiosity does seem to have a genetic component, this has a much weaker effect than that for spirituality Hamer (2004, p. 13) contends that “Religion, unlike spirituality, is transmitted primarily not by genes, but by memes…”

The idea of “God” or a higher inspirational power may have evolved in evolutionary times and is associated with the comfort arising from a placebo-type effect. History suggests that people facing extreme privation or stress who might otherwise give up on life are often spurred to greater efforts by a sense of a higher presence or power.

Feelings of transcendental and superhuman inspiration could therefore be biochemical phenomena that have evolved due to their fitness or survival advantages. These spiritual feelings transcend the sense of narrow human limitations. They may well be associated with the psychology of belief in miracles and acts of martyrdom, both of which were important in Christianity’s rise. Miracles seem to break “iron laws” of nature, overcoming the laws of biology (death) or physics (walking on water). The subliminal message of a miracle is that, if a law of nature can be broken, is it not then possible to overcome death and all the other afflictions imposed by the products of natural selection? Martyrdom is an individual’s public sacrifice of his or her life to advance a cause

or belief system that transcends the individual. It is a statement that something is more powerful than individual and genetic self-interest.

The death on the cross is the original symbol of Christianity. Crucifixion was designed to be a cruel, prolonged and public form of punishment – that is, the opposite of Christian compassion and "doing to others as you would have them do to yourself". Martyrdom drew on and subverted the symbolism of the cross, using a public forum to allow pain to be inflicted on oneself rather than others, and in so doing, to work in the interests of the "spiritual" wellbeing of others as well as of one's own self.

Evolutionary psychology and consciousness

The brain is a biochemical and physical system which evolved through natural selection to solve problems our remote ancestors faced during our species' evolutionary history. The human mind is a product of the brain's processes rather than the mind and brain being separate. There is no physical location within the brain for an "I" or self, nor a "central theatre" in which an "I" views a stream of consciousness.

Human psychology includes agent detection, causal reasoning and a "theory of mind". People assume that things have a cause because this confers a survival advantage, and they assume a narrative, cause and effect logic. The theory of mind or "intentional stance" is about understanding that others have minds and their own motivations and feelings.

Much human psychology evolved to outwit and out-compete rivals for the fundamentals of survival such as access to food and sex. Because people competed with others they had to anticipate how others were likely to behave. This evolved into an ability to mentally picture how others may think. One view is that an individual's own sense of self evolved as a mental model that allows the simulation of how others think and behave and therefore how they can be outwitted. The "I" or sense of self is not something real and irreducible but is rather a representational model that is used for a purpose, that is, achieving a survival advantage. This ability to mentally model evolved from selfish gene drivers and formed a psychological basis for social cooperation where individual and group interests coincided. It led to cruelty that requires a mental picture of how others can be made to suffer, and also to empathy through which another's pain can be felt so that comfort can be given.

A key strategy in competition with others is deception and this can lead to self-deception. A number of anthropologists have pointed out the benefits to someone of causing other people to have religious beliefs. Religion may involve elements of deception of others, and by extension, of self-deception. Self-deception can arise because the mind's unconscious dwarfs its conscious

elements. Reality can be misrepresented to the conscious mind while in the unconscious is kept a more accurate (and perhaps fully accurate) view of that which is misrepresented to the conscious mind. Robert Trivers observed that all of us have a motive to portray ourselves as more honorable than we really are, and since the best liar is the one who believes his own lies, the mind could be "designed" by natural selection to deceive itself. He argued that:

> "…the hallmark of self-deception in the service of deceit is the denial of deception, the unconscious running of selfish and deceitful ploys, the creation of a public persona as an altruist… the creation of self-serving social theories and biased internal narratives of ongoing behavior which hide true intention…The general cost of self-deception, then, is misapprehension of reality, especially social, and an inefficient, fragmented mental system[iii]."

The dangers of self-deception are recognized in early Christian writings. The admonition in Mathew to "judge not…" is really saying, "deal with your own self-deception before you project your own faults onto others".

Memes and memetics

At the end of *The Selfish Gene* Richard Dawkins (Dawkins, 1989) coined the term "meme" to describe ideas, skills, songs, cultural behaviors and so on that are passed on from person to person by imitation. In the same way that genes themselves are the ultimate "beneficiary" from biological evolution, memes are the beneficiaries from memetic evolution.

There are vast numbers and types of memes and they compete with each other to be selected for imitation and be passed on. Memes are subject to copying error and change over time, whether by degradation (as occurs with errors of perception, memory, or reconstruction) or by creative recombination (as when different memes are put together to produce new self-reinforcing combinations). Such combinations of memes are often termed "memeplexes". The consciousness is shaped by memes and some argue these dominantly or wholly create our sense of self. Arguably, memes create the illusion of self because this helps them survive. Memes promote themselves as personal beliefs, desires and opinions, or through their association with particular objects or symbols. So, an "I believe" statement is more likely to survive because it conflates a belief (that is, a meme) with one's own identity or self, or rather the illusion of self. The conflation means that the sense of self and the memes become indivisible.

Some argue that the self is purely a creation of memes, however another view is that individuals have a unique underlying consciousness that is encrusted by memes. The sense of individual self could well result from memes and

underlying consciousness working together. Advocates of meditation sometimes claim it clears the underlying consciousness of memes and eliminates the highly individuated self, laying bare one's deep consciousness, the meme-free self. This can be seen as a form of authentic spirituality associated with the ability to see things as they really are, unencumbered by other's beliefs or memes – rather in the manner of truly original scientific thinkers such as Einstein. Belief in an afterlife, in an existence independent of physical existence, might reflect the difficulty a meme-cluttered mind faces in simulating its non-existence.

Memes emerged very early in human evolution, effectively when archaic humans or even ancestors of *Homo sapiens* began to imitate. The first memes imitated were likely ones that conferred a practical, survival advantage, such as a hunting skill. Imitating a useful skill aided survival and the ability to imitate was probably a factor in sexual selection. Genes that assisted imitation of useful memes would therefore increase in the population over time, leading to meme-gene co-evolution.

However, once imitation of memes was possible, "useless" memes could spread for reasons other than their value to the genes that made them possible in the first place. One critique of religion is that it is akin to a memetic "virus of the mind" that spreads not because it aids the host or is "true" but because religious memes are successful in getting themselves imitated. Religious memes include faith ("belief without evidence"), and extreme reactions to heretics and apostates. The view that religious beliefs are beyond criticism and should somehow be "respected" works in the interests of religious memes that would not survive skeptical critique.

The memetic appeal of religion also works through beautiful cultural achievements. Many were converted to Islam by the literary quality of the Koran, irrespective of its revelatory and spiritual power. Great music, cathedrals, art and literature are akin to memeplexes that enhance religion's appeal. The theological scholar Elaine Pagels wrote of the wonders, inspiration, transformative elements and community spirit of a religious service and then reflected, in effect, that "we've made it all up."

Memes help to explain behaviors that appear unrelated to or even in conflict with the interests of selfish genes, for example Perpetua's decision to forgo her life rather than her faith. Memes such as martyrdom that are fatal for practitioners may still be acting in their own memetic interests. In effect, memes may cause the death of their individual repositories (and the individual's genes) to benefit their own perpetuation over time through having a much wider demonstration effect.

An act of martyrdom lends itself to imitation, and is inherently a public act that aims to influence others' views. A private or unrecorded death, even for a "higher cause," cannot be described as martyrdom. The 11 September 2001 Al

Qaida attacks were martyrdoms because they aimed at very public and symbolically important targets to achieve a global political impact. Likewise, the early Christian martyrs chose for their sacrifice the most public of all Roman forums – the coliseum. Perpetua died, however her martyrdom and that of others had an influence on people far greater than what she might have achieved if she had lived. She could indeed be seen as sacrificing her life in the interests of the Christian memeplex.

Perpetua and her historical context

At the time of her martyrdom Perpetua was a twenty-two year old woman from a prosperous and respected Roman family. She was fluent in Greek and Latin. Contemporary accounts mention she was "reared in a liberal manner, wedded honourably…". She had living parents, two brothers, one of whom was a Christian, and a baby son. She had everything to live for, yet was shaped by the historical context in which she was born.

Perpetua's story is best understood in the context of the impact early Christianity had on her society. Christianity began as a sect within a Jewish community that was divided in itself and in conflict with Roman imperial power. Christianity competed for adherents with the Jewish establishment and with sects such as the Essenes. Jesus rejected the Jewish political and spiritual leadership of the time and found himself in conflict with the Roman authorities. After his death his followers competed to place their own interpretation on his words and actions and inherit and shape his legacy.

It is difficult to get an accurate picture of Jesus' teachings from the Bible. Scholars agree that the Bible was written over several hundred years by many authors and the New Testament is a highly selective compilation from a vast array of writings recording the words of and stories about Jesus. It is internally inconsistent and its ambiguity has ensured the adaptiveness of Christianity to different circumstances and its fragmentation into different sects.

The New Testament came together about 180-200 CE. The early church fathers selected gospels and suppressed others for a range of reasons, including aversion to factionalism and because they were concerned to build a Christian community that could ensure the survival of the church itself. The New Testament gospels were shaped by conflicts within the Jewish community, with the Romans, and theological conflict within the Christian community itself. The first gospel was probably that of Mark and was likely written during the last year of war between Jewish rebels and Rome, a rebellion that began in 66 CE, around 35 years after Jesus' death. The Gospel of Mathew broke away from ethnic identification with the Jews and in effect blamed them for Jesus' death. This in turn may have laid the seeds for later anti-Semitism within some branches of Christianity.

The suppressed Gospel of Thomas encouraged people to seek the divine light within rather than accept beliefs imposed externally (see Pagels, 2003). Among suppressed writings, the *Testimony of Truth* reverses the Genesis creation story such that God becomes the devil and the serpent the bringer of truth. The serpent could be seen as Christ-like in opening the eyes of Adam and Eve to knowledge and spiritual enlightenment. Humans are seen as inquisitive truth-seekers, whether through "eating the apple", from inner self-knowledge, or from the skeptical doubt manifested in later history by Copernicus, Galileo, and in modern times by systematic scientific enquiry. The *Testimony of Truth* could be read as warning against those who seek to take over the church and substitute their interpretations for original teachings, revelations and the search for new truths. Significantly, studies in the evolution of aesthetic sense show that humans are attracted to savannah landscapes that feature a river or valley vanishing into the distance and conveying a sense of mystery and "undiscovered country," inviting exploration by Pleistocene-era wandering bands and in modern times under-girding the thirst for knowledge and for stretching the frontiers that drives scientific endeavour.

Mark was in some respects a response to the individualism of the Gospel of Thomas, and John can also be read as a rebuttal of Thomas, arguing that Jesus rather than one's own self is the centre of belief. Gnostic writings were suppressed by the early Church fathers because Gnosticism emphasized personal experience, continuing revelations and new scripture. Gnosticism was humanistic in the sense that ethics, compassion and self-knowledge was seen to transcend even the powers of a monotheistic God. In effect, to know one self is to know God, and the individual self and the divine are identical.

It was important to the early church fathers to focus Christians on the external figure of Jesus and on those who interpreted his teaching, rather than have Christians focus on their inner spiritual life and the independence of mind that flowed from that. In effect, the emerging memeplex of Christian orthodoxy was struggling to control individuals by suppressing their inner consciousness and personal volition. In the eyes of the church fathers, Gnosticism and the Gospel of Thomas placed too much emphasis on individuals and their inner spirituality, not on the community and on moral codes that could turn Christ's teaching into enduring institutions and communities. Letters attributed to Peter and Paul such as First Peter and letters of Paul to Timothy were constructing a moral code and were incorporated into the New Testament, even though elements of them were at odds with what we know of Jesus' teaching, or at least had no explicit basis within it.

Given this context, it is impossible to discover "the real Jesus" from New Testament accounts. However, we can gain quite a rich picture of Jesus when the writings of the New Testament and suppressed gospel and Gnostic writings are taken as a whole. The picture emerges of a Jesus who was dismissive of

dogmatic Jewish customs, dietary laws, and social, political and theological hierarchies. He rejected Jewish nationalism and the temptation to lead Jewish people against their Roman masters.

The sect Jesus led appealed to many of those excluded from competing sects that were more restrictive. The Essenes, known to us largely from the Dead Sea scrolls, lived a celibate, male-only and strictly monastic existence in isolation from wider society. This sect sought to maintain strict Jewish ethnic and cultural purity in the face of Roman and other assimilationist pressures and attacks on Jewish identity or memeplexes. Jesus also rejected selfish gene drivers and instead counseled others to abandon their families and therefore their genetic interests and follow Christianity. However, unlike other Jewish sects, Jesus rejected double standards of morality between in and out-groups, whether applied to Gentiles, Samaritans, women or adulterers. "Turning the other cheek" and doing to others (including members of other groups) as you would do to yourself was a philosophy that challenged what we now term "identity politics" and allowed people hitherto in conflict and divided into hostile sects to cooperate socially. Among Jesus' early followers, Paul of Tarsus broke with the Jewish worship of Jesus that was led by Jesus' brother James and preached instead to Gentiles, in effect declaring that Jewish customs and laws had been superseded by Jesus' death and its spiritual meaning to humanity more widely.

Given the sectarian and social tensions in the time of Jesus and early Christianity, the Christian martyrs had first to overcome sectarian hostility. In the New Testament, evil is often seen as arising from Satanic (other-worldly or non-human) powers, not from other *people* and out-groups. It is as if Christianity as a philosophy transferred aggression away from other people in out-groups and towards otherworldly and non-human identities, thereby disarming aggression towards people and extending Christianity to all.

Pagels (1995) argues that the concept of Satan is an invention to cast Jesus' story in eschatological terms, that is, as a struggle between good and evil. Satan in the Bible is an insider not an outsider: he is an intimate, a family member, a virtuous (by the governing social rules) citizen who suddenly turns jealous and hostile and erodes inclusive fitness and social cooperation because he fears no higher power. Christianity challenged the bonds of family and saw society, the Roman power structure and its law as inventions of demonic forces. In the Gnostic tradition there are links between Satanism and the powers of the state and institutions such as churches. Perpetua's diary records a dream in which she fought with a Satanic figure, and in ascribing her imprisonment and death to the forces of Satan rather than to people of different beliefs or identity she avoided out-group hostility and blame.

Jesus was not alone in creating a phenomenally successful religious movement by breaking away from existing social constraints and power structures. Mohammad and early Islam also recruited from the poor and challenged powerful

people and their "extended phenotype" of institutions and moral codes, their materialism, and their indifference to the poor. Jesus and Mohammad rejected extremes of wealth and poverty and this tapped into people's innate dislike of hoarding and concern for equity that has origins in evolutionary psychology. Islam emerged in the 6th and 7th century in response to social and economic inequalities in Arabia and a desire to strengthen Arab identity in the face of Judaic and Christian communities that were psychologically more confident and socially cohesive and had a more coherent "story of themselves" to bind the social group and differentiate it from out-groups.

Significantly, Muhammad's early revelations rejected polytheism with its fragmentation of identity and urged belief in one God, and by extension one group of believers. Muhammad's preaching brought him into conflict with the leaders of the Quaraysh tribe who were custodians of a polytheistic, pagan religion and who had interests in the power and revenues they received from their cult center in Mecca. Islam broke early with tribal identity and replaced it with loyalty to the community, the *umma*. In effect, blood relationships were replaced with faith-based and memetic relationships.

Jesus' sect attracted many women, Jewish and later Roman, and women such as Perpetua, Felicitas and Blandina figured prominently in early Christianity. Perhaps significantly, the modern psychological evidence is that females are more likely to experience feelings of self-transcendence than males. Perpetua was very conscious of her femininity and was a leadership figure for Christian men as well as women. In opposing the stoning of adulteresses Jesus over-rode a "selfish gene" view of morality that focused on confidence in paternity. Only later did "Christianity" stifle Jesus' original teachings and the spirit of early Christian women and develop views on gender and sexuality that have no basis whatever in Jesus' views or those of his early followers.

Early Christianity appealed to people's deeper instinct for meaning, and still does. Justin Martyr, also known as Justin the Philosopher, came to Rome from Asia Minor in about 140 CE to study philosophy, seeking to identify fundamental spiritual truths among the competing philosophies of his time. Justin rejected cultural relativism and the view that morality was a matter of subjective personal opinion and wrote that:

> "The worst evil of all is to say that neither good nor evil is anything in itself, but that they are only matters of human opinion." (Pagels, 1995, p. 122).

Justin identified the source of "good" as something on a higher spiritual plane. He met Christians and observed how their communities functioned. He wrote of his admiration for how Christians embraced chastity, common ownership and how they rejected selfish materialism in favour of sharing with those in need. Roman society was highly stratified by social class and was oppressive and cruel compared to modern values and to what we can infer from classical Greek

literature, philosophy and social norms. People enjoyed the pain rather than shared the joys of others and this formed the basis for coliseum “entertainment”.

However, the empathy and compassion that are strong themes in “pagan” Greek literature such as Homer are also echoed in Virgil and Seneca. In the later age of Shakespeare when social inequality was still extreme and life was harsh a theme in plays such as *King Lear* was of human feelings, empathy and a sense of compassion often arising more among people such as servants and other lower class citizens than those in power. Love that traverses sectarian or family boundaries is of course the central theme of such stories as *Romeo and Juliet*. Great literature and art, including great religious texts, allows humanistic feelings and philosophy to be subtly conveyed even where they conflict with hierarchical norms. Literature also allows people to get inside the minds of others, to feel in the presence of great minds and this itself is self-transcendent and enhances empathy.

Empathetic feelings may well have been strong at the level of Roman families and friendships and yet Roman society lacked the philosophy, institutional and social rules and memeplexes that could mandate empathy and compassion as wider rules of civil society. Justin rejected a society that allowed infants to be abandoned to die and children to be raised like herds of sheep or goats to be sold into slavery and prostitution. He observed the bravery and discipline of Christian martyrs who were slaughtered in gladiatorial games. He was struck by how Christians facing death seemed to draw on a new source of power.

Religious beliefs are influenced by humans’ higher needs for meaning, which partly arose after psychology and consciousness led to a sense of self and the ability to contemplate one’s own death. Religious beliefs help people cope with the inevitability of death, something that Romans dwelt on frequently. Death came often and early in Roman society, even for the wealthy and powerful. Life was cheap, to the point of its loss being entertainment.

Tatian, Justin’s student, also attacked the pagan indifference to human life displayed in public in gladiatorial competitions, writing:

> “I see people who actually sell themselves to be killed; the destitute sells himself and the rich man buys someone to kill him; and for this the spectators take their seats, and the fighters meet in single-handed combat for no reason whatever; and no one comes down from the stands to help!...Just as you slaughter animals to eat their flesh, so you purchase people to supply a cannibal banquet for the soul, nourishing it with the most impious bloodshed. Robbers commit murder for the sake of loot; but the rich man buys gladiators to watch them being killed!”

(Pagels, 1995, p. 134)

Groups of people who cooperate with each other will typically win out over those who don't. Christians organized themselves into communities and these thrived because of their secular utility as well as their spiritual power –the two being interrelated. Early Christian communities harnessed emotions that were good for the group such as belief in a higher power that lifted people above their individual limitations.

At a practical level, Christian groups looked after each other during times of poverty, disease and oppression while other groups did not. As a result, Christian communities grew because more of their members survived difficult times and because their example attracted new recruits. The Christian codification of social rules reduced the costs that would otherwise need to go into maintaining order in the community. Persecution also strengthened Christian communities by deepening the cohesion of the in-group against the hostility of out-groups.

Perpetua's story

The rapid growth of Christianity in the two centuries after Jesus' death alarmed the Roman authorities. Christianity was particularly popular among illiterate people who in many cases were socially marginalized and who, lacking literacy, may have been less affected by the memes around them and more open to influence in non-traditional ways. Septimus Severus (193-211) had prescribed severe penalties to discourage the conversion of Roman citizens to Christianity. Perpetua and her companions were imprisoned because they refused to pay homage to the imperial Gods and they threatened a Roman society based on the conflation of political power and divine authority.

Perpetua's sufferings in prison were exacerbated by concern for her baby son, not yet weaned, and for the suffering of her father who visited her in prison seeking her renunciation of Christianity. Two of Perpetua's supporters were able to bribe the jailer and bring her son to prison so she could nurse him, after which the baby was passed to relatives who cared for him. Perpetua believed she would ascend to a heavenly state through martyrdom – a form of "self-interest" in a death she faced willingly and to some extent desired. Perpetua's slave, Felicitas, was pregnant when imprisoned and because Roman law forbade the execution of pregnant women she was anxious she would be denied martyrdom. However, she gave birth to a baby in prison, the baby was adopted by another Christian woman and Felicitas was able to face martyrdom.

Perpetua had dreams in prison that strengthened her faith. Some of the symbolism in her dreams reflected pagan, including Virgilian rather than Christian imagery. She dreamt of treading on a dragon's head and ascending a perilous ladder to green pastures where sheep were grazing. She dreamed of her brother Dinocrates who had died unbaptised of a terrible disease at seven years old.

She dreamed he was in a place of distress and darkness and she prayed for him, and later dreamed of him as a healthy child at play.

Perpetua's father visited her in prison and pleaded with her. Perpetua wrote in her diary that her father:

> "…continually strove to hurt my faith because of his love. 'Father,' said I, 'Do you see (for example) this vessel lying here, a jug or whatsoever it may be?' And he said, 'I see it.' And I said to him, 'can it be called by any other name than that which it is?' And he answered, 'no.' So can I call myself something other than that which I am, a Christian?"

Later Perpetua wrote that her father returned again:

> "…spent with weariness; and he came up to me to cast down my faith saying: 'Have pity, daughter, on my grey hairs; have pity on your father, if I am worthy to be, called father by you; if with these hands I have brought you into this flower of youth and I have preferred you before all your brothers; give me not over to the reproach of men. Look upon your brothers; look upon your mother and mother's sister; look upon your son, who will not endure to live after you. Give up your resolution; do not destroy us all together…'. This he said fatherly in his love, kissing my hands and groveling at my feet; and with tears he named me, not daughter, but 'lady.'"

Perpetua's father was very concerned about how her fate would affect his social standing. He was concerned about his genetic and emotional interest in his daughter and grandson. Subject to this intense pressure Perpetua clung to her faith - hardly the weak and submissive woman of a later Christian mold. This strength seemed to elevate her in her father's eyes, so she became not 'daughter' but 'lady'. Asked again to make sacrifice for the Emperor's prosperity, Perpetua answered: "I am a Christian."

An eye witness account survives of her martyrdom in the coliseum. It records her presence not as a passive victim but as "a true spouse of Christ and darling of God; at whose piercing look all cast down their eyes." The account records that, after initially being injured by a wild animal, she felt no pain and could not believe she had been physically injured. She was fearless and showed concern for others: when her slave Felicitas was knocked over she went and offered her hand and raised her up. The account records she called her Christian brother to her and said 'stand fast in the faith, and love you all one another; and be not offended because of our passion.' The account records that "when the swordsman's hand wandered (for he was a novice), she herself set it upon her own neck." That is, Perpetua was in control of her life to the end and could only be killed when she herself chose to die.

Perpetua describes herself as a "Christian," not as a person who subscribes to Christian beliefs, and is martyred because it was impossible for her self to

describe itself as something other than “a Christian”, in the same way it is impossible to describe a jug as anything other than “a jug”. A memetic interpretation of Perpetua’s behavior would argue that the sense of “I” or “the self” is essentially “a story about oneself” that has genetic and environmental (including memetic and cultural) shapers. People live in an ocean of memes and memeplexes that conflate with their sense of personal identity and self. Children who are brought up in a Muslim or Christian environment are seen not as individuals (with their own right to accept or reject others’ beliefs) but as people whose self-identity and sense of “I” are indivisible from the beliefs or memes themselves. So, young babies who cannot even talk let alone understand theology are described as “Muslim” or “Christian”.

This conflation between the sense of self and one’s beliefs helps explain the violent reaction from some religious people who feel an attack on their beliefs is equivalent to an attack on their deepest, inviolable sense of “self”. In effect, to attack a belief system is equivalent to attacking a person whose identity and sense of self is conflated into that belief system. In this interpretation Perpetua – that is, Perpetua the physical being and her “selfish genes” are overridden by the interests of Christian memes which “trick” her into conflating the memes with her “I.” This stops her acting in her interests and instead to act in the interests of the memes that controlled her. Martyrdom is an expression of memetic forces so powerful that even the fear of death is overcome, as is the selfishness of the gene and survival of one’s own children. The death of an individual self therefore becomes nothing but the death of the illusion created by the interaction of inner consciousness and memes and memeplexes. Since this separate self is an illusion how can death sting something that does not exist?

The memes then perpetuate themselves by the public nature of the martyrdom and the likelihood of imitation by others, and by transmission through Perpetua’s diaries.

Concluding comments

Coliseum entertainment had its origins in the evolution of the psychology that allowed people to mentally model others’ minds, including the cruel emotion of pleasure in another’s suffering. However, evolutionary processes also gave rise to empathy that went beyond the selfish gene’s concern for offspring to extend to a wider circle of social cooperation. This circle may have first encompassed reciprocal altruism, generalized altruism to a community and then more pure altruism and empathy for other individuals. These processes in turn created conflict between different memeplexes such as those of the Roman empire and Christianity.

Perpetua’s consciousness was shaped by memes. Her understanding of Christianity rested on the distorted interpretation placed on Christian teaching by early Church fathers, their suppression of alternative teachings and in some

cases their outright fabrications. Memes seduced her into believing that martyrdom would lead to heavenly salvation. This aspiration was selfishly individualistic given the pain and deprivation she was bringing to her father, son and no doubt others. However, at some level of her consciousness she was advancing a wider purpose or cause that explicitly rejected "selfish gene" pressures. She was compassionate for others in her dream of her brother Dinocrates and her concern for Felicitas in the coliseum. Among her last words was an invocation to fellow Christians to love one another. Her sacrifice and those of other martyrs rejected the world they were in to favor a world unfolding in the future, a world wider than themselves that they had some influence over.

Theistic religions such as Christianity and Islam helped the transition from the interests of selfish genes and the callousness of societies such as ancient Rome and the Arabia of Mohammad to levels of consciousness, social organization and culture that over time have given us social cooperation, civil society, blood and organ donors, animal welfare and concern for other species.

Over time, scientific understanding has eroded literal belief in theistic religion, at least among educated people. However, predilections to religious or at least transcendental beliefs are innate and resting on this genetic bedrock are memeplexes that mandate socially cooperative behaviors.

Modern behavior and civil society have evolutionary roots and also rest on memes, beliefs and rules for life we ourselves have created, including those based on how we see through the eyes of others, if only through imperfect representational models. People favor empathetic behaviors in their marriage partners, they admire virtue, and they imitate memes that support living for others and for future generations as well as for oneself and one's own. People will increasingly transcend the limitations of selfish gene behavior and reject dogmatic religion and beliefs that involve double standards of morality between in and out groups because these conflict with the needs of modern and future life.

Human behaviors that are virtuous, empathetic and which transcend individual and genetic self-interest are universally admired among cultures, though their specific anchoring points, symbolism, cluster of belief systems and rationale differ. They are a product of evolution, including of evolutionary psychology and of memetics. They are as real as the laws of physics, chemistry and biology because they give rise to actual behaviors that have real effects and are built on the bedrock of genetic and memetic evolution.

Over time people may become more and more empathetic to each other and to other species. After all, we now understand that all life began only once from a single source, that all species have this shared origin and are closely related and that humans have a stewardship role in relation to nature.

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Notes

[i] There is some debate over the exact date of Perpetua's martyrdom, however 7 March 203 is most commonly accepted.

[ii] There are a number of translations of Perpetua's diary and other source material. Good summaries are in Dronke, 1984.

[iii] For a fuller discussion of self-deception see Trivers (2000).