

Evolutionary Explanations of Pain and Suffering: A ‘Gift to Theology’ or a Challenge

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Abstract. Evolutionary studies have provided several explanations about how pain and suffering can be fitted into that framework, which tries to make sense of every biological and human feature in terms of evolution, survival, and fitness. These explanations point usually to how such apparently negative aspects become useful and contribute to an evolution that after all has delivered good outcomes. Such an approach might eventually render the theodicy question less sharp and critical for believers who are trying to cope with the scandal of so great suffering in our world and history. Theologically we can welcome such new insights, less noticed in former tradition, but at the same time we need to be cautious before a development which could render less clear the message of Christian salvation. In any case, the new data and knowledge clearly invite to revise and reformulate the Christian salvific message, to better answer before the mystery of evil and suffering.

Keywords: health, grace, salvation, cultural evolution, altruism.

Introduction: What is at stake?

Theology has tried to offer an inspired and inspiring explanation to the causes and motives involved in pain and suffering along history and in

personal experience. This is a service that was usually delivered by so called salvation religions; it is clearly the case of Buddhism as well: a religion of salvation that aims at exploring their causes and at reducing suffering. Even if religion was not alone in that task of tackling suffering, in more recent times evolutionary biology and other scientific approaches offer interesting explanations and open the field to a new understanding and interventions. When such studies acquire a certain maturity, the question arises spontaneously: do we still need the old religious or theological approach? Indeed, the new scientific explanations render somewhat redundant the traditional religious performance and the theological views, which add very little to the real causes and motives around that seemingly negative feature that share most “sentient animals”. In this article, religion is viewed as the organized provision of salvation related to transcendence, and theology as the reflective or discursive expression trying to make sense of that performance.

The former issue is quite serious. We could nevertheless retort saying that religions are not rendered redundant by the explanations science offers, as they still play an important function: coping with distress and sufferance. However other opinions could say that once we better know the causes, mechanisms and factors involved in that experience, we can address them in a better way than religion does. Take for instance the huge development of painkillers; the expansion of palliative counselling and care; and other therapeutic interventions that simply ignore religion but show some efficiency. The question still looms: do religions still provide a useful approach to deal with suffering, when in many cases their function and performance can be replaced by better means? Is religion still a “stake-holder” when we deal with pain and suffering? A first answer could deeper dig in the distinction between pain – a warning of illness not so bad in itself – and suffering, as an entirely different experience, much more complex and harder to deal with resorting to sheer technical means; however it is not easy in many cases to make such a distinction, as the psychosomatic symptoms indicate.

The questions just raised can be distinguished at two different levels: at the level of study and the provision of better ways to understand pain

and suffering; and the practical level, or the one paying more attention to means to address that problem. Possibly both aspects are quite linked, as a good explanation is the first step towards projecting meaning and, hence, to coping with such issues. A different way to look at this is just pragmatic: it is rather the capacity to cope and to gain resilience despite great pain and suffering what renders the interpretation of that experience more plausible and significant. For many people, indeed, what renders credible a proposal is just its utility or how helpful it is perceived.

The present article tries to explore this complex panorama. In this sense, a first aim, is to better assess to what extent the evolutionist – and by extension the scientific theories – explaining pain and suffering can be received as a challenge or as an opportunity for a theology that does not fear to engage with science. Second, the described panorama should help us to better state what is the specific and interesting contribution of theology in this new context and regarding those negative experiences. And third, we need to connect theological reflection with the abundant literature on religious coping and resilience, to make sense of the theological proposal. Indeed, possibly, a sort of “reverse engineering” could help to regain the meaning of a theology that nourishes and enforces such coping capacity, which is still perceived as necessary, despite all the progress in pain killing and other usual therapeutic remedies trying to address different forms of suffering.

1. What has changed for theology after the irruption of evolutionary explanations on pain and suffering?

The old story that has been told for many centuries was that pain and suffering are consequences of human disobedience or sin, and hence not something anterior or precedent that original wrongdoing. Today this position appears as naïf and untenable: we know that, due to biological conditions, pain and suffering were quite common and diffused in the earth much before humans arrived at that scenario. We could retort that such pain was less relevant, as it affected mostly animals or pre-human hominids, or in other words, it was just pain, not proper suffering, which

would be more related to sin. But from an evolutionary look, the idea that such negative expressions might be considered as a disorder, or something that is consequence of deliberate sin, makes today little sense. The account that evolutionary studies offer is quite different: pain – more than suffering – belongs to the evolutionary process as a mechanism that helps to better drive the course of such evolution. Pain works as a ‘signal’ that shows the right path towards more adaptive forms. Indeed, instead of being considered a by-product of evolution or a disorder, these traits clearly show a positive function, aimed at encouraging more fitting behaviours. We can discuss whether suffering, as a consequence of pain, loss, frustration, solitude or other negative experiences, can be understood in the same logic, i.e. as signals showing that something does not work or is taking a wrong path, or needing some fixing. In my opinion these features could be inscribed – in most cases – in the same evolutionary and adaptive pattern.

From the described perspective some gain could be learned, as this view solves – to some extent – the thorny theodicy problem: the perceived negative aspects associated to pain and suffering could be now seen in a more positive light, and once more, as sign of divine wisdom, and less as a scandal. This idea can be further reinforced by more recent studies that clearly showed how the capacity to suffer was linked to more evolved sentient animals, and reveals features very useful for survival, adaptation, and sociality. It is well-known that those people with impaired or reduced capacity to feel pain, are less aware of damaging states in their bodies, and usually they suffer a shorter life expectancy. The list of benefits linked to that capacity to suffer can be enlarged beyond the sheer physical level, as emotional and cognitive states associated with pain, loss, or other negative experiences become indicators assisting in better identifying what is wrong and to address things in a more accurate way. This is a sort of “fine tuning” mechanism that allows humans (and other animals) to recognize what increases life quality, and hence survival, and reproductive ability (Dańczak 2020).

The former explanations could be seen as “good news” from a theological perspective, which now can count on evolutionary studies as

an ally, rendering the apparent non-sense of suffering something more bearable, understandable, and even positive. However, this impression is short-lived: the panorama that these studies offer render the dynamics of creation cruel and requesting a high price to pay as a condition for that model to work. The question now is whether God could conceive a different creation model and evolutionary path that would spare all that misery. From a theological point of view our image of God as wise and very good with its work becomes less convincing. The traditional schema was simpler and rendered a positive image of God that now is mostly lost; it just placed all what is good in the divine side and what is wrong in the human side, assisted by the devil. The creation was conceived as harmonious and peaceful in the prelapsarian state; humans did spoil all that good and beauty, they are to blame. Now the created world as we know it requires a big amount of violence, destruction and suffering from the same moment of life irruption, not at a later stage. Humans are now less to blame; after all, they were born into that sensitive world and suffered and benefited from that same model; they even raised the threshold, and – becoming much more sensitive than other animals – they could develop capacities helping them to move further the former stages characterised by lower sensitivity levels. For instance, some authors point to awareness or consciousness, moral sense, and compassion and prosocial instincts as a consequence of such development: negative traits turned out to render feasible very positive human features (Ayala 2007, 105–105; Dańczak 2020, 21–22). This narrative just inverts the traditional one: it is not that we were nearly perfect creatures and through sin we lost many of our preternatural gifts; it is just the opposite: through suffering humans learned to be aware of their place and meaning in the world, their need to respect and help, and rendered them sensitive towards other's suffering. Probably the evolutionary dynamics described by Tomasello leading towards joint attention and coordination would become impossible without intense levels of suffering, giving place to compassion, and nourishing a sense of help and solidarity (Tomasello 2016). Definitely, we would rather loss than gain in a world without suffering, in terms of creativity, character formation, moral sensitivity and caring capacity towards oth-

ers, and even to develop virtue and divine revelation, points that are not new for theology (Dańczak 2020, 23–24; Gregersen 2001).

Theology is trying to adapt to this new scenario. A traditional answer was that these negative episodes need to be seen as individual or exceptional circumstances, but the final outcome presents a well-functioning world; the final gain will overflow the actual pain we still perceive. However, this explanation appears as less convincing when the amount of suffering we can still witness and bear, hardly compensates and justifies the achievements in the final stages of evolutionary history, including those just described at the anthropological level. In truth, all the traditional Christian narration has changed under scientific pressure, and we need to adapt to the new representation of that evolutionary process signed by an unavoidable suffering which can – nevertheless – be seen as a condition for a positive evolution. It is better to retake the argument later, after developing some strategies, especially in the anthropological level (Southgate 2008; Sollereeder 2016; Edwards 2019).

In short, theology needs to rethink the central tenet of original sin according to the scientific representation of human origins and evolution. This does not mean to get rid of such doctrinal principle, but to reformulate it in a way that keeps its salvific meaning – pointing to the evil and frailty in us – and at the same time paying attention to the scientific standards. This is an effort already undertaken, giving place to many attempts to update the traditional doctrine (Oviedo 2022).

In my opinion the problem and challenge for theology runs deeper. If evolutionary science manages to provide a satisfactory explanation about pain and suffering, whose positive effects could even exalt the human condition to some new heights, then theology could appear as a redundant discourse. Whatever it can say on this issue could be seen as irrelevant after applying the Ockham's razor or the principle of parsimony: if we have a convincing explanation of a phenomenon, we do not need to provide other reasons. This is the true challenge for theology, which could find out that its contribution to these issues appears now as outdated and rightly replaced by other forms of wisdom, providing better clues to understand and to tackle that thorny issue. Now, it is up to theology to offer

some development or complementary text that allows to rediscover the reach and utility of its own view or approach. But such intervention will necessarily require assuming another reference point; or, in other words, we need to build on this new ground that science has rendered quite stable and open, not just based on old traditions. Indeed, as a recent book suggests, theology can qualify itself just in conjunction with scientific development, not aside or in concurrence with it (Finnegan et al. 2023).

2. What is still left to theology after scientific explanations?

This is not a rhetorical question. Theology can continue to do business as usual, and to deliver its own narrative about the dynamics between sin, suffering, death, and salvation. Or it can try a different path, exploring the recently open horizons. Indeed, a consistent theological tradition that starts in St. Paul's Letter to the Romans, insists in the idea of sin, and its consequences – suffering and death – as a condition that allows to perceive the salvific power of Christ, through his death and resurrection. But we need to move more gradually if we intend to offer an updated theological argument.

A starting point might resort be some observations or phenomenology around the experience of suffering, which can be linked, more or less, to physical pain. The first and obvious, raised many times in analysis about that issue, is that in more cases, suffering does not seem to bear any benefit, and ends in a fatal destiny, not in some lesson to be learned: entire populations are wiped out in natural disasters or through human malevolent actions, and we can hardly learn or get any positive input. Existential despair and a very pessimistic stance are the expected reactions for those who witness such disasters and an unconceivable amount of misery and desolation. No justification could be provided by any scientific view on that. The worse is that this tendency could even bring humans to the edge of extinction, by using available means of mass destruction. The dynamics of counter-adaptive behaviours and evolution, displayed in recent years by some evolutionist scholars (Boyd and Richerson 2011), still looms in human horizon, despite the syren chants of those who bid for

a positive evolution that would render all of us more peaceful and collaborative (Pinker 2011).

The second observation concerns the previously suggested benefits linked to suffering. Several studies point out to links between that negative experience and empathy processes leading to compassion and prosocial behaviours, among other benefits which could be associated to the capacity to suffer (Staub and Vollhardt 2008; Wu and Han 2021). Probably that link makes sense. What is less accurate is to conceive a sort of automatic dynamic that links suffering to empathy and altruism. All of us can witness about persons who perceiving other people's discomfort or even acute pain, do not react or feel moved towards assisting them. The same can be claimed regarding other features, like consciousness, moral sense, or creativity: they could arise after negative experiences, but they could become rather repressed or hindered by suffering, causing depressive states, despair, or deep anxiety, among most common symptoms we can register, and becoming the dark side of that experience. Naturalists could answer that suffering is a condition that might nourish positive reactions, and advance the evolutionary clock, but this does not mean that always the mechanism works in the same positive way. Indeed, it works rather in an exceptional way: the amount of suffering we must bear, just in some cases allows for evolutionary or adaptive progress. This is the same logic as in broadly conceived natural selection: many variations get extinct, only few are selected and give place to fitter adaptations. But this is just how biology works, except that we humans – and not only – introduce another adaptive clue: culture; and this changes sometimes radically the game's rules and conditions.

Theology can find here a new advantageous ground and some opportunities. The question now is, after recognizing the huge role culture plays in a process now designed as co-evolution (Laland 2017), to what extent Christian faith can render our approach to suffering more constructive, or less destructive, and can correct trends that the biological dynamics could not correct or would need “deep time” to improve; in the meanwhile, we would be left to a dark and miser destiny, waiting for some progress. If we assume this new view in biological studies, possibly we

can rescue and insert a more fitting role for religious faith and praxis, as cultural dimensions that assist in the way we can deal with pain and suffering. The central point is that biology is not enough to tackle that reality, and that other forms of wisdom can contribute in an efficient way to address this huge challenge for us humans.

The question arose in other forms in contemporary theology. For instance, Johann Baptist Metz proposed in the seventies a theological model able to rescue from oblivion the millions of victims – often anonymous – in a history of progress, or we could say, an evolutionary history (Metz 1977). Making sense of that immense crowd, and providing hope for them, was conceived as a theological and Christian function nobody else could provide, in a time when many intellectuals could design a future in which all religious functions could be assumed by secular means, and where social and moral progress could be entrusted to better policies based in better knowledge. Despite all the progress we could conceive, those “left behind” in that long and terrible history risked being neglected and drawn into the dark hole of evolutionary dynamics. This level needs to be vindicated as a minimal condition helping to cope with meaningless suffering and loss, or to project meaning into what is apparently so meaningless.

This is just a first level. Theology offers more resources to deal with suffering in a proper way, or a way that does not overlap with scientific approaches but complements them and provides a better understanding. The points I consider worthy to reflect are: a better approach to suffering and love; the traditional idea of redemptive value of suffering; its moral treatment under the assistance of grace; and the healing effect of Christian grace. The aim is to propose a theology of pain and suffering that takes into account the scientific advances, and so it connects with them, and at the same time, it tries to develop a program able to vindicate the use and relevance of the Christian approach; it becomes in this way less affected by the logic of redundancy and looks for some sort of ‘conjunction’.

2.1. A better approach to suffering and love

Starting with the question of suffering and love, it is worth to explore further that link to better conceive the role that religion in general, and especially Christian faith, can play. Some expressions of contemporary phenomenology have pointed to the revelatory character of other's face and bodily presence (Levinas). It is legitimate to think that that dynamic increases in cases of other's suffering, as studies on empathy and compassion have shown. However we cannot discount the efficiency of those dynamics that could ensure a positive reaction of care and attention towards another hurting person. The empirical observation tells us about the insufficient factor that such perception means for most people. Studies on altruism confirm that it is rather a minority of sensitive people who show compassion, care, or solidarity (Fischbacher 2003). Last years have known a growing number of studies on religion and prosocial behaviour (for an extensive review see Oviedo 2016). The irony is that those studies have been encouraged by a biological and evolutionist program that tries to show why religion has survived or tries to spot its adaptive characteristics, linking it to some social advantage: those populations carrying the right beliefs and practices would outperform at the social level those which were lacking them. The irony lies in how biology can at the same time dismiss religion as redundant when studying pain; and justify it as an engine for sociality. It is quite clear that in the second case, those studying religion implicitly assume that prosocial behaviour is still far from being the default condition or what we can expect from every evolved population, even if this is the point several other authors are trying to further in the last years (Wrangham 2020, Bregman 2020; Christakis 2020). In more technical terms we can express the situation as follows: pain and suffering can potentially elicit altruist caring reactions, but other factors are required to ensure that such process materializes or does not derail. In some cases, certain personality traits are enough to encourage a caring behaviour, in many others alternative conditions are expected, such as family relatedness, or reciprocity expectations. In other cases, still, some kind of catalyser is needed to bring the expected process to its end, and Christian faith appears as one good candidate, as

many testimonies and data clearly show. That religious model weights at the cultural level to correct and improve other tendencies that would otherwise render less effective the stimuli born from suffering experience. In any case, it seems convenient to connect the Christian impulse to the conditions of pain and suffering that scientific study expose, to better show its functionality and how much it is entrenched with the described dynamics. The theological view gains deeper insight when attached to the scientific research on suffering.

2.2. The redemptive value of suffering

The second relevant point is the traditional view on the redemptive character of human suffering. This is a lesson deeply impressed in the theological view and learned at the foot of the cross where Christ was tortured, a cross still being suffered by many. The Christian understanding identifies that terrible experience with a dynamic of redemption and atonement, or substitution for the sins and faults of all humans. The issue is to what extent this narrative may be connected with the current scientific views on pain and suffering. Some answers come to mind. The simplest is that pain and suffering can have a redemptive character today too for those who endure such struggles. This is something we can hardly naturalise, since it belongs clearly to the theological code, and its distinction between sin and grace. Sin is a broad condition rendering people unhappy and selfish, unable to love. Redemption means a dynamic able to overcome that fatal logic: it allows us to get rid of sinfulness and its negative consequences. This process could work in a mysterious or anonymous way: as many people who suffer, they experience at the same time an interior healing, for them and for others. However, once more, this dynamic cannot be discounted. We need in most cases a cognitive and practical Christian framework able to transform the undesirable and uncomfortable experience of pain and suffering into a way to heal our moral wounds. To grow, or – using a contemporary term – to flourish as humans. This is possibly the deepest and more original experience Christian faith can provide and moving in a different field as the social and moral: through faith, prayer and sacramental life, Christians learn that suffering can be

transfigure into a way to rescue us and others from sin and hardship. Possibly this point can be better understood as we move into the practical realm, to analyse how that faith becomes instrumental in processes of healing and resilience, as I will show later.

2.3. The moral treatment of suffering under the assistance of grace

The moral effect of suffering through grace is already included in the first described point, on love, but it can be expressed in a broader sense, connected with many other issues that move besides loving. For instance, the formation of character or flourishing, or – in other words – the pursue of virtues. It is almost a truism, to claim that a person's character is better formed through hardship, trials and struggles, and that those who were spared such negative experiences will find more difficulties to mature and flourish. This widely assumed experience cannot be taken for granted and automatic: hardship brings in some cases to formation of a more resilient life, and in many others to despair, depression, and isolation. Again, some catalyst is needed to complete the expected reaction. In some cases, having good friends or family support will suffice, but in others, failures, loneliness, breaking hearts and loses of any sort will require some special treatment as a condition to provide the expected good outcomes, enhancing maturity and virtue. I am talking about grace, forgiveness and blessing, or a specific religious context in which that process works and is not deemed to further failure. Once more, the cultural evolution is needed to enhance the biological course of things.

2.4. The healing effect of Christian grace

The fourth suggested dimension points to healing as something clearly involved in the Christian approach to pain and suffering. This could be the most obvious when we talk about salvation, but it becomes fuzzier in recent times, as we have often lost the healing dimension of faith before pain and suffering. The most obvious expression of that capacity is physical and mental healing from illness and distress. Recently, some studies have done research on physical healings that were attributed to

intercessory prayer (Kruijthoff et al. 2022). In many cases that positive performance is identified in the field of mental health, in which the effects of grace can be traced more effectively; an extended praxis provides convincing evidence (Emmons et al. 2017; Bassett et al. 2020; Judd et al. 2010). The point is that psychological suffering is very widespread, and consumption of antidepressants and other drugs to cope with them are not always enough. In that context, religious coping systems or religiously inspired therapeutic assistance – not just professional psychotherapies done by some church linked personal – show clearly its functionality and help. In this more practical context, Christian faith and theology are not limited to offer a hermeneutic framework to better understand and accept hardship and suffering, but an effective way to cope and tackle those negative states. Possibly here lies the great difference today between new scientific study of religion, with its rather limited heuristic power, and the theological approach to that same experience: theology points to effective healing, it is not just describing features. For some exponents of the so called “cognitive science of religion” the only healing they can conceive is to get rid of religion as a plague that prevents better human development and flourishing. If that manoeuvre would success, millions of people who today feel the healing effects of Christian grace would be deprived from such source of life and hope. This is not just a theoretical issue about who can better explain religion: the naturalist and reductive models of our colleagues or we theologians and philosophers of religion. The issue is very practical: it is about what can help better to deal and cope with suffering. Probably in this case too, a conjunction of science and theology, of reason and faith will provide the best answer (Finnegan 2023).

3. Back to the main issue: the theological approach vindicated in an age of scientific explanation

Perhaps we are posing the wrong question. It is not whether theological explanations can still provide useful information when dealing with pain and suffering. In my opinion, the right question is to what extent Christian faith, prayer, and its sacramental praxis contribute to an effective

coping and healing before very negative and painful experiences. The question, as previously indicated, is much more practical, and much less about having a good theory. In other words, a pragmatic approach about what works when dealing with pain and suffering is what should in the last term qualify a proposal and an approach to an issue at stake.

Such axiom allows us to return to the big issues that impinge in our treatment of that mystery: the scandalous presence of great evil and its painful consequences, plus other forms of negativity or contingency that cause people and many nature swats to suffer.

We are gathering evidence in the last years about positive effects of religious faith and praxis in coping, resilience, health, wellbeing and flourishing, including achieving a virtuous life. Hundreds of studies are now being published every year showing the therapeutic and virtuous effect of religion. Obviously Christian faith clearly belongs to that category of salvation religions, with other well-known expressions. Now, if we can allow ourselves to practice a theology “from below”, and not just top-down, *a priory* and speculative; if we can ground our theological study in the data we collect from empirical studies showing how helpful our faith is to improve the lives of many people in many different contexts, then we can apply a sort of “reverse engineering” to trace back which are the contents and practices that nourish and render effective that benign influence. From such positive effects we can build a theology of sin and grace, and a realistic theology of suffering and salvation able to speak a more concrete and convincing language, as it builds on data, and not just on traditional texts and views, which in any case provide the right framework to make sense of those data.

The suggested method can sound quite new and with scarce traditional anchoring. Indeed an inspiration for that is the need to overcome the split between lived faith and a distant reflection unable to account for the true issues, worries and challenges that experience believers and those moving far from Christian faith. If theology gets its inspiration from real life and concrete situations of those believing and those who find it hard to believe, we could better learn about which version or presentation can become more convincing or endow with better meaning the Christian mes-

sage. The point is that we can hardly address several challenges arising from scientific development without resorting to empirical data showing the effectiveness of Christian faith and practice, more than just theories, to cope and flourish. Theology needs to become in that case a post-hoc analysis (not in the sense of a fallacy), a reflection on what really works. The proposed ‘reverse engineering’ tries to reconstruct the process that results in the best ways to assume and live the Christian message.

From the described experiences and the number of new studies devoted to describing the effective value of our faith in the salvific meaning of the Cross, we can offer a new version of the Pauline analysis of sin and redemption in the Letter to the Romans. Evolution has required pain, suffering and death to deliver its positive effects of greater adaptiveness and the emergence of superior sensitive species, reaching higher levels of consciousness, moral conscience and self-transcendence capacity. However, the high price evolutionary impulses pay to reach their ultimate goals is paid and redeemed by Christ’s own death and resurrection, as able to rescue those who were victims of all that hardship and fell in that long process; and it provides through the Church salvation and health to those that need them. Theology should then offer less theories and more a review of the practical effects of such healing grace, as the best way to answer the question about what is this faith for. As Jesus answered to those asking him whether he was the Messiah or they needed to wait for somebody else: “Go back and report to John what you hear and see: The blind receive sight, the lame walk, the lepers are cleansed, the deaf hear, the dead are raised, and the good news is preached to the poor” (Mt 11: 4–5). Theology needs to learn this lesson too: to start with the salvific power of divine’s grace to then go back to an analysis about what renders possible that healing. Pain and suffering will continue to be a mystery, even if the scientific gaze helps to lighten some meaning to it and allows to appreciate some constructive effect from those negative phenomena. Theology can contribute to illuminate this same mystery pointing to the coping and healing from our faith, rendering all those negative experiences a condition to salvation.

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