

Dawkins' God Delusion – prophecy or fallacy?

Why scientists can be believers
Why believers can be scientists

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[Note: this essay is a provisional draft. Some references to my own work have been made in the process of writing. References to the work of Dawkins and the extensive literature surrounding the issue will be added. In the mean time I would appreciate any feedback: <nurnberger@telkomsa.net>.]

My motivation for writing this essay

I am Christian, a theologian, a missionary. I feel the urge to witness to what has become, over decades, the essence of my life. I believe that we are meant to be involved in God's creative authority, God's redeeming love and God's comprehensive vision for the world. I am saddened by the fact that increasing numbers of our contemporaries have abandoned any hope of making sense of the Christian faith. What a difference this faith could make to their lives, to society, to our world - if it could only be understood, if it could only jettison the baggage of its manifold failures, if it could again raise enthusiasm for God's redemptive project that was the secret of its historical dynamic!

I also belong to the academic community. I have studied natural sciences before I studied theology. I have done most of my research in the social sciences. I have internalised the basic assumptions of modernity from childhood. Paul thought he should become a Jew to the Jews to win over the Jews (1 Cor 9:20). But he did not have to become a Jew – he was a Jew. Similarly I do not have to become a modernist - I am a modernist. Most of us are: we entrust our bodies to surgeons, drive cars to work and use computers to write our papers.

Being Christians and modernists, can we win over modernists such as Richard Dawkins for the Christian faith? The tables have long turned: Dawkins became a Christian to Christians to win over Christians for (atheist) Darwinism. He is very persuasive in doing so. Why become an atheist? Dawkins argues that the idea of God has no foundation in the real world. It lacks evidence, coherence, explanatory power and utility. It is an illusory, deceptive and counterproductive artefact of our fantasy. It has misled humankind into superstition and irrationality far too long. His book shows almost a pastoral concern: Come on, my friend, you do not have to believe in this trash!

Dawkins is not alone. The majority of people in Western societies have voted with their feet – against Christianity and for modernity. The popular film "As it is in heaven", for instance, displays an unmitigated aggressiveness against the church and its message. And because it uses a much more powerful medium than the printed word, its suggestive impact may surpass that of Dawkins' book by far. The irony is that its naïve kind of naturalism appropriates the essence of the Christian gospel in a secular form: unconditional, liberating, empowering acceptance of the unacceptable, rather than prudish and debilitating legalism. The film offers what Christ promised: "I have come so that they may have life, and life in its fullness" (Jn 10:10). But the representatives of the Christian faith are depicted as the stupefying carriers of precisely what this faith is meant to overcome.

The Christian God delusion

Christians cannot shake off responsibility for this kind of situation. That a faith of this profundity and potential impact can be dismissed so readily did not happen by chance. Nor is it due to the evil motivations of those who have decided to seek true life and fulfilment elsewhere. The question is whether Dawkins should listen to us or whether we should listen to Dawkins. Jeremiah told the Jerusalemites that Yahweh was not the God of Jerusalem but the God of Nebuchadnezzar's armies. They just had to open their eyes to realise that their concept of God was out of step with reality. He offered a deuteronomic interpretation of this fact: Yahweh was a God of justice who punished transgressors of his law. Israel had moved to the wrong side of God's priorities.

Centuries later the book of Job deconstructed the deuteronomic concept of Yahweh. When Judaism continued to be oppressed and persecuted, the message that its predicaments were God's punishment for the sins of those afflicted just did not make sense any more. Those who did their best to fulfil God's law became the victims of those who did not care about God's justice and got away with it. At the end of the book Job only had to look at the majesty of creation to realise that his concept of God was out of step with reality. Yahweh was infinitely more than a handy concept of justice.

Another few centuries later Jesus told the Jewish theologians and believers of his time that the God who demanded ritual and moral purity before he would accept anybody into his fold was not the God they were supposed to believe in. The Sabbath was made for people, not people for the Sabbath. The rationale of the law was redeeming love. Its stipulations were examples of what that could mean in practice, not absolute precepts to be followed blindly whatever the circumstances. For Paul our participation in Christ's self-giving concern for the lost, the outcast and the suffering was the end of the law. It is this kind of faith that puts us right before God, not slavish observance of a pre-formulated set of rules.

Dawkins may be a prophet in this profoundly biblical sense: open your eyes and you will see that your concept of God is out of step with reality as we know it today. Think for a moment and you will realise that your faith in God does not liberate and redeem you, but enslaves and misleads you. In fact, the whole idea of God is an idol that causes nothing but harm. The kind of God you believe in does not exist. It is a delusion.

Again, must we listen to Dawkins? Walter Freytag, a celebrated German missiologist, said that you could not proclaim the gospel to a person of another conviction if you had not been deeply touched and drawn by the 'truth' of that conviction. Does Dawkins propound nothing but nonsense? I do not believe that he does. He may well "continue talking when he stops talking sense", as a sympathetic commentator recently remarked. But no believer should assume too readily that he does not have a point, or that his message does not have a colossal impact.

More than that, I believe that God uses other convictions to challenge and clean out what is not appropriate in our own faith. Such a clean-up must happen before it becomes possible for modern sceptics and cynics to understand and respond constructively to what we have to offer. If our tradition has put insurmountable obstacles in the way of our message, it is *we* that have to change our ways. Make no mistake, therefore: in this essay I will position myself on the side of Dawkins against much of what many of my fellow Christian stand for.

Dawkins' God delusion

Of course, this is only on side of the story. As I will argue in this essay, Dawkins also labours under a delusion. In fighting a delusory God among Christians, Dawkins may have fallen prey to the impression that this delusory God is the God intended by the biblical witness. Maybe this God is something entirely different from what Dawkins thought he was. Maybe he is not the atheist he believes he is. He confesses to be "a deeply religious non-believer". The glories of nature "deserve respect". He would probably not deny that we are totally dependent on a vast constellation of forces that goes beyond comprehension and control. "I am calling only supernatural gods delusional" (15).

In which sense is the God of the Bible 'supernatural'? If God is the Source and Destiny of reality as a whole, he is indeed not a part of the reality that we experience with our senses and make sense of with our rationality. Yet he is the Source and Destiny of precisely the inner-worldly processes and their inherent regularities that Dawkins and his fellow scientists investigate and describe. He is not a giant child wilfully tossing around his toys in the playground of inner-worldly reality. Dawkins justifiably ridicules such a God. But for the biblical faith God's 'activity' does not obviate or thwart

human activity and inner-worldly processes and regularities, but makes them possible and effective. God is not a factor within the network of causality but its Source and Destiny.

In short, the fact that Darwin's theory of evolution led to atheistic conclusions is not due to its inner logic but to a wrong concept of God. What would happen to faith if it could be shown that God does not exist? Not much. Dawkins argues that there is "almost certainly" no God. This formulation is a concession to the fact that science provides provisional rather than final certainties. His intention is, of course, to show that God does *not* exist. Believers can be much bolder and say that God quite definitely does not exist – at least not in the sense that other entities within our range of experience and comprehension exist. He is not part of experienced reality but its Source and Destiny.

Believers can also say that transcendence most certainly 'exists' as the boundary to this range of experience and comprehension. They can also say that apperceptions of the transcendent do exist as part of experienced reality. They can also argue that they are indispensable for human life because they offer a system of coordinates that makes orientation possible. They can also say that the consequences of different apprehensions of the transcendent, including that offered by Dawkins, have momentous consequences in real life. They can also say that such apprehensions may be more or less appropriate and that they must be subjected to critique. Neither science nor faith can afford to avoid the question of truth.

It may just be that Dawkins' own set of assumptions, the assumptions that he wants to take the place of the biblical God, are flawed as well – and that precisely in terms of his own frame of reference, the theory of evolution. I will argue in this essay that his approach would need a fundamental correction before Christians who are committed to the natural sciences could be able to listen to him in a constructive way.

On the meaning of responsibility

In this essay I want to address people who have come of age. Responsible people are people who can be trusted. They have been entrusted with a task, an office, a position. They can account for what they accept, what they think, what they believe, what they do. They are not slaves who blindly obey the dictates of their masters, whether they make sense or not. They are not children who look up to their presumably omnipotent and infallible parents for guidance.

Responsible people see for themselves, think for themselves and opt for what they deem best in terms of their task. They are willing to face the consequences of their decisions. They do not pursue their own individual or collective interests at the expense of the interests of others. They do not fall victim to their own whims and desires. They do not get bogged down by the nitty-gritty of daily chores, but have the long-term well-being of the whole of reality at heart, at least as far it is accessible to their comprehension and under their influence. I want to believe that, in their hearts, all modern people would like to think that they are responsible adults, not slaves or children.

However, I do not think that all representatives of modern science, technology and commerce are responsible in this comprehensive sense of the word. They may be thoroughly emancipated heirs of the Enlightenment. They may believe that they are in charge of their lives. They may pursue their professions with absolute dedication and conscientiousness. They may serve their employers to the best of their abilities. And yet a concern for the well-being of the whole of reality may not be within their horizons. They may not have transcended their specialised area of research, the technological project to be implemented, the profit to be gained or the gadgets to be enjoyed towards the well-being of the greater whole. They may be encapsulated in their proximate area of concern. They may be enslaved by social pressures. They may be victims of their own desires. With the immense powers available to modern leaders of all kinds, such seemingly emancipated people are dangerous.

I am equally concerned that all Christians are not necessarily responsible people. They may be eager to dedicate themselves totally to God. They may want to follow Christ unconditionally. They may want to obey the all commandments without compromise. They may strive for holiness and moral perfection. And yet all these things do not make people free and responsible. Freedom and responsibility are based on the gospel of Christ, who is the 'Son of God', not on obedience to the law (Gal 3:23-4:7). In the Ancient Near East 'Son of God' was the title of a king (Ps 2). The king was deemed the representative and plenipotentiary of God on earth. He was entrusted with the welfare of God's people. He exercised authority and he was accountable. Christ is called the 'Son of God' because he is completely identified with God's project.

The New Testament is entirely clear about the fact that Christians are meant to share this unsurpassable status. The Christian faith is not characterised by infantile dependency or slavish

subservience to authority. 'In Christ', believers have been accepted into God's fellowship, liberated from all demands, pressures and enslavements and empowered to do God's thing. They have been endowed with God's Spirit. They are no longer slaves or children, but adult sons and daughters of God (Gal 3:23-4:7). They participate in God's creative authority, redeeming concern and comprehensive vision for the world. They are those through whose insight, ingenuity and dedication God wants to enact his creative and redemptive designs.

I am convinced that, on the basis of freedom and responsibility, we can talk to each other and find each other. As the sub-title maintains, a responsible scientist can be a Christian and a responsible Christian can be a scientist. But we need to clean out a lot of baggage on both sides. This essay is an attempt to indicate how the project of science and the project of faith could become more appropriate in terms of their underlying rationale if they begin to listen to each other.

I propose to move in four steps. The first is to locate our present intellectual situation in the historical process as a whole. We must do this to understand the background and the arguments of Dawkins. The second is to critique Dawkins from within his own evolutionary paradigm. We must do this because convictions are part of evolving reality, fulfil an indispensable function and cannot be summarily dispensed with. In other words, I want to show why science needs faith to be responsible.

The third step is to re-conceptualise contemporary Christian faith and theology in terms of the evolutionary paradigm. We must do this because if faith cannot translate its message into the modern frame of reference it condemns itself to irrelevance and ultimate decay. In other words, I want to show why faith needs science to be relevant. The fourth and final step is to show that those who abandon the Christian faith deprive themselves of the wonderful possibility of an authentic, meaningful, joyful, fruitful and hopeful human existence.

Section I: Where are we today?

The Enlightenment

During the Enlightenment, medieval certainties about truth, validity and authority began to shake. The rediscovery of the excellence of classical antiquity, competing Protestant and Catholic orthodoxies, religious wars, Copernican cosmology, the challenge of the rising merchant class to the feudal system, encounters with Islam and Eastern religions through trade and journeys of discovery – all these occurrences made people increasingly suspicious of the validity and authority of their inherited traditions. When objective certainties disintegrated into a sea of relativity, subjective experience was the only certainty to go by. As a contemporary philosopher has argued, modernity is narcissistic in the very foundations of its assumptions.¹

Modernity is a mounting rebellion against the authority of the church, the dogma, the Bible, the state, inherited social conventions and classical philosophy in favour of the autonomy of the individual subject. Think for yourself (rationalism). See for yourself (empiricism). Try for yourself what works (pragmatism). Pursue your own interests (liberal economy). Have a say in your government (democracy). Assert your dignity as an adult (human rights). Enjoy fellowship with your personal Saviour (Pietism). In social-structural terms the lure of emancipation moved from the aristocracy to the merchants, the serfs, the slaves, the workers, the colonized, those with alternative convictions, the women, the youth, the marginalized, and - most recently and yet to become serious - the natural environment.

Although the history of modern thought is very complex, philosophical epistemology focused on the observing subject, while science focused on the observed object.² The first was introvert and theoretical, the other extrovert and pragmatic. Philosophy concentrated on the epistemological question: how is it possible that subjective beings can get to know the truth of the objective world? *Rationalism* attempted to gain certainty through reason alone, *empiricism* through sense perception alone. Rationalism got bogged down in logical tangles, empiricism in the question whether our senses can be trusted to reflect objective reality. Concentrating on the observing subject, classical empiricists ended up in scepticism.

¹ Cahoon 1988.

² For a perceptive analysis of "philosophical narcissism" see Cahoon 1988:19ff and 67ff.

In the sense that the Christian faith posits the centre of life outside the human subject, science is closer to faith than philosophical epistemology.³ Theology has not always been aware of this fact. It has engaged philosophical scepticism much more than scientific pragmatism. For the purposes of this paper, I will leave philosophical epistemology alone and concentrate on the pragmatic project that seems to underlie Dawkins' argument. In its crude form, the form we encounter in Dawkins' reasoning, epistemological scruples and niceties are irrelevant, if not silly. Knock your head against a wall and you will know whether the wall exists or not. I will call the culture that takes the reality of what we experience for granted and dismisses whatever does not form part of direct sensual or experimental experience, *experiential pragmatism*.

Science, technology and commerce

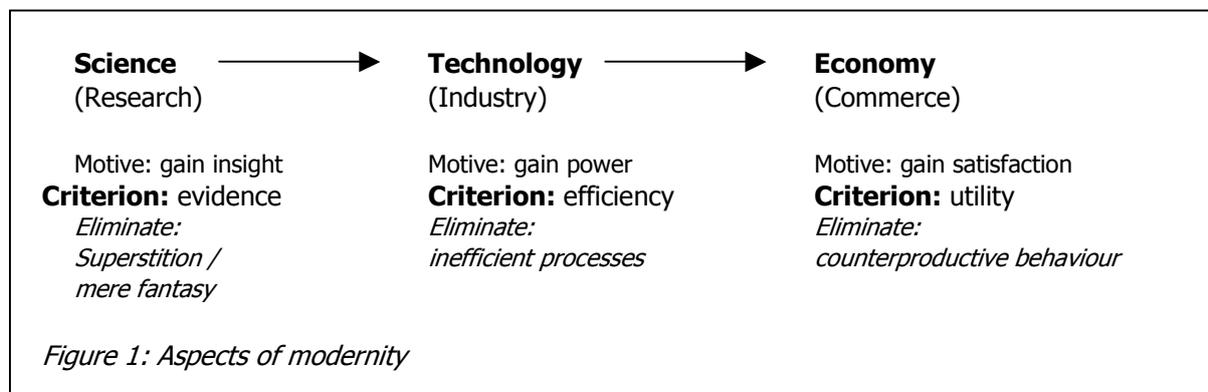
Since the ancient Egyptians, but especially since the ancient Greek philosophers, observation, experimentation and theorizing gradually led to evidential certainties that began to snowball into the massive scientific and technological knowledge of today. Three powerful dimensions determine the modern frame of mind: science, technology and commerce.

The motivation of **science** is to gain insight into the workings of the objective world. Its leading criterion of reality is *evidence*. It looks at particularities, lists similarities, looks for regularities and analyses relationships. Methodologically it moves from *induction* (empirical facts are established by observing repeated and seemingly regular phenomena and developing models of reality on that basis), to *deduction* (possible inferences or 'predictions' are deduced from known facts and formulated in hypotheses) to *empirical tests* that are designed either to substantiate or disprove the hypotheses.

Models, theories and hypotheses are provisional assumptions that are meant to extend knowledge from the known into the unknown. The epistemological question whether verification or falsification of any assumption is logically possible (Carnap, Ayer, Popper) is not part of the agenda of pragmatic science. It practically verifies or falsifies, and that procedure actually works in the real world. Taking their point of departure from known cosmic constellations astronomers calculate that a hitherto unknown object should exist at a given place, train their telescopes on that position and find it. Extrapolations are used to trace probable future trajectories if present trends and conditions remain constant. Trigonometric curves can reflect both the direction and the acceleration of processes.

The motive of **technology** is to gain power over reality. Its method is to use the insights of science to dismantle reality into its components, combine some of its elements into artefacts useful for human consumption and discard the rest. Its leading criterion of performance is *efficiency*.

The motive of **commerce** (the liberal economy) is prosperity. Its method is to establish which artefacts have a market demand – reflecting a consumer need – and to organise production and distribution accordingly. Its criterion of success is *utility* for the consumer and profit for the producer and the trader. Conversely the pursuit of profit leads to the artificial generation of consumer needs through the advertising and entertainments industries.



Negatively science tries to eliminate superstition and fantasy, untested assumptions, ideas without substance and metaphors without demonstrable referents. Technology tries to cut out inefficient

³ Martin Luther could define 'sin' as being *incurvatus in se ipse* (curved into oneself).

processes. Commerce tries to cut out a behaviour that is deemed counterproductive ('irrational') in terms of profit generation, need satisfaction and the enjoyment of life.

Positively science concentrates not on the observing subject but on the observed object, technology not on the fabricating subject but the fabricated object, commerce not on theoretical value, but on practical utility and the generation of emotional 'highs'.

There is an intimate reciprocal relationship between the three aspects. Technology uses scientific insight for its pursuits and scientific insight depends on technology to extend the capacity of human observation. Industry uses technology to produce goods and without the marketing of these goods by commerce technology would lose its rationale and science would lose its funding. When everything is said and done, it is the consumer culture that keeps modernity going.

The vanquishing power of experiential realism

Philosophical epistemology reformulated the inherited concepts of God when they seemed to serve a useful purpose and abandoned them when they seemed to have become redundant. In the population at large, however, it was not philosophy but the popular movement of *experiential pragmatism* that pushed the concept of God into the realm of fantasy. Geared to practical pursuits it has no immediate use for transcendence, except when things go seriously wrong. We are living today in this general cultural atmosphere. If we cannot express the gospel in terms of this frame of reference, we have no message for the modern world.

Experiential pragmatism has proved to be a highly dynamic and an incredibly successful approach to reality. Its convincing power lies in the simple fact that it is able to deliver the goods. It has dismantled spurious explanations that have determined human behaviour for millennia, such as the objective existence of sorcerous powers, malevolent spirits or demons. It has performed "miracles" that surpass those assumed by religion by several powers of magnitude. It has made it possible for humans to subdue, harness and transform nature to an incredible degree – with all its beneficial and detrimental consequences.

In doing so it has established its credentials as an enlightening, liberating and empowering force. But it also has disastrous consequences. Age-old religious, moral and cultural foundations have made way for disorientation and rootlessness. Traditional social structures have turned into masses of isolated individuals that can be swept in any direction like beach sand by any rising tide. Those who do not manage to survive in the competitive game are being marginalized. In the relentless quest for personal gain and gratification the natural world has become a quarry to be mined, discarded or destroyed at will. Technology has created the means to obliterate life on the planet through nuclear detonation and radiation a couple of times over.

Today nobody in his/her healthy mind will want to go back on the achievements of modernity – traditionalists, religious people and philosophers included. Superstitions, unfounded anxieties, uncanny forces, preventable diseases, famine, divinely legitimated oppression and irrational inhibitions do not serve humanity and should be left behind. Religion has been linked to what has become obsolete and counterproductive. At least in the West, modernity has forced religion to either adapt or die. It has practically wiped out mass belief in Christian doctrine in Central Europe. Where it is still alive, it has forced faith and theology to come to terms with science, technology and commerce, or drop into irrelevance and obscurity. It is the latter rather than the former that has happened among great masses of the population.

The assumptions of modernity have become so compelling that even those who want to defend the traditional belief system try to prove it in empirical and rational terms inherited from the Enlightenment. The notion of biblical inerrancy is based on a *rationalistic* argument rather than on a careful reading of the biblical witness itself. In simple terms, the argument runs as follows: the Bible says that it is inspired by God. God is perfect and cannot lie. So the literal meaning of the biblical text in its entirety cannot possibly contain any contradiction, flawed assumption or historical relativity. Of course, the biblical witness itself says something entirely different, namely that God in his grace picks up people where he finds them – in their less than perfect motivations and their less than perfect interpretations of reality – and leads them a few steps towards greater moral and intellectual authenticity.

The application of the *empiricist* criterion to the biblical witness argues that the biblical witness can only be true if the narratives that want to express God's dealing with humanity have happened precisely as recorded. This approach fails to see that the Scriptures were written in a pre-scientific age with a non-scientific intention. It misreads the historical-contextual character and reifies the

metaphorical language of the biblical documents. It fails to provide evidence for the existence of such reifications, loses the meaning of transcendence and makes the Christian faith vulnerable to justified ridicule. Creationism is the most prominent example of a misguided empiricism applied to the Bible and much of Dawkins' thunder is directed against such futile pursuits.

Of course, there is also widespread disillusionment with the spiritual shallowness, rootlessness and bankruptcy of modernity, leading on the one hand to militant fundamentalism of various kinds and on the other hand to new spiritual movements that concentrate on 'holy power', 'holy community', 'healing', and 'inner change' as part of an envisaged 'cosmic change'.⁴ Alternative spiritualities abound, just as alternative ways to health and beauty and the many 'how-to' recipes in popular culture abound. But this reaction to the felt inadequacies of the scientific-technological view of reality is not part of our agenda in this essay. Hard core modernity is.

Is the biblical faith simply anachronistic?

A powerful argument of experiential pragmatism is that insight evolves in history and that past bodies of assumptions have simply become obsolete. Let us briefly indicate the major phases. For all its excellencies, the *dynamistic worldview*, as found in traditionalist Africa and many other places in the world, takes reality to be determined by uncanny forces. Insight is gained by divination and redress is sought through ritual.⁵ This worldview has proved to be flawed. Modern science has shown, for instance, that infectious diseases are not caused by sorcery, but by viruses or bacteria that can be identified very precisely under a microscope and cured with discreet chemicals.

The *personalistic worldview* that permeates animism, polytheism and theism is equally problematic. Here reality is ascribed to a personal will of some kind, insight is gained through oracle, revelation or prophecy and redress is sought through charms, sacrifice and prayer. But science has shown that a tsunami, for instance, is not caused by a demonic maniac, ancestral wrath or an angry God who punishes wayward humans, but by tectonic shifts in the earth's crust that can be observed, measured and explained very precisely.

Classical science is based on *causality* rather than teleology or intentionality. For quite some time the mechanistic approach of physics was emulated by disciplines as far apart as biology, economics and neuroscience. It has captured the imagination and the loyalty of modernised people the world over. The philosopher Auguste Comte has formulated these vast historical paradigm shifts in a crude but powerful way. He called the modern worldview *positivistic*. Positivism refutes the claim that there is a hidden intention or meaning behind the phenomena we experience. In spite of much criticism, positivism is alive and well. Others have simply assumed that previous worldviews have lost their plausibility and explanatory power and continued with the job. One of them was Charles Darwin who is the mentor of Dawkins.

The question is whether Christian faith and theology did not indeed get stuck in a flawed and obsolete paradigm. Can phenomena such as droughts, earthquakes and cancerous mutations be attributed to a personal will? To a modern scientist the answer is obvious. So why do we stick to such an assumption? Medieval alchemy changed into chemistry, astrology changed into astronomy, theology changed into - what? We seem to be defending our discipline by endlessly restating inherited, obsolete and untenable propositions. For the last 2000 years, an Asian social scientist recently said, the great religions have produced no new insights; they are just re-arranging the furniture in accordance with the mood of the times. Dawkins is less diplomatic.

The argument from revelation does not wash

For quite some time theology found solace in philosophy. Ancient Greek philosophers like Plato and Aristotle based the concept of God on the abstraction and idealisation of experienced reality: God was the ultimate idea, the expression of absolute goodness, truth and beauty. Nominalism, rationalism and Kantian empiricism stuck to the role of God as a guarantor of free will and morality. But soon philosophers realised that they could do without the hypothesis of the existence of a divine being. Hardly any philosopher of rank still believes that they need the concept of God to explain reality. Being left in the lurch by philosophy, theology again concentrated on 'revelation' – understood not as reassurance but as a supernatural impartation of knowledge.

⁴ Pedersen 2002 op cit. 454.

⁵ See Nürnberger 2007, chapters 2 and 5.

However, the appeal to revelation fared even worse. It was based neither on reason nor on observation but on pre-modern literary sources whose historical reliability and intellectual plausibility proved to be problematic. Conceding that science does not yet know everything and may never know a great deal, Dawkins asks what on earth could justify the assumption that an ancient collection of religious documents with their obsolete worldviews, superstitions and contradictions (or the irrational concoction of arguments based on them called theology for that matter) can know any better.

Historical-critical research, conducted by theologians, has long dismantled the claim of these Scriptures to divine inerrancy. The spurious claims of creationism to scientific status are the primary target of Dawkins' contempt. But even the more serious science-religion debate is flawed to the extent that it assumes that God can only be God if he can be shown to be a demonstrable factor in inner-worldly processes. So revelation seems to have lost the argument.

I must add from my side that every revelation – if it takes place at all - must go through the avenues of human comprehension. It is mediated either through intuition or tradition, both of which are not infallible. Moreover, the authors of biblical texts cannot be expected to meet modern criteria of evidence and rationality that were not in operation at the time. They never intended to present scientific accounts of how the world was put together, but expressed convictions concerning the transcendent foundations of reality in as far as they impacted human existence. They did so using whatever linguistic tools they had available: poetry, narrative, legend, myth, parable, metaphor – you name it. The historicity of historical accounts was never meant to be the prime conveyor of truth, but their theological interpretation.

Dawkins' alternative

For Dawkins the evidence, explanatory power and practical utility of faith assumptions are virtually non-existent. In fact he wants to convince us that religious beliefs are positively misleading in terms of insight, paralysing in terms of instrumentality and counterproductive in terms of the enhancement of life. Religion has misled humankind into untold error, conflict and misery. How wonderful would our world be without religion: without Muslim and American fundamentalism, without the warring ideologies in Northern Ireland and Bosnia, without the Inquisition and the burning of witches, without the crusades, without the 30 Years War! Hitler and Stalin too, apart from being inherently evil, were victims of irrational ideologies. Does he have a point or not?

Dawkins offers what he perceives to be a fantastic alternative to religion: evolution. Evolutionary theory is based on concrete, albeit provisional evidence; it has extraordinary explanatory power; it unlocks unheard-of technological possibilities such as stem cell technology. It has demonstrable utility such as cattle breeding and genetic enhancement. It explains why ethical precepts emerge and evolve in human history. It even explains the origin of criteria for what is good and what is evil.

So what on earth could make modern people stick to such a derailment of human imagination as the concept of God? Dawkins offers an explanation, again based on Darwinian evolutionary theory. Genes are self-replicating and mutating information systems that maintain themselves by jumping, as it were, from one bodily manifestation to another. The "selfish gene" is the real carrier of biological evolution. Those genes that weather changing environmental impacts best have the greatest propensity to survive. There is no mystery why it happens, no hidden teleology, let alone intentionality in this process. It just happens naturally - just as water fills lower lying open spaces where they present themselves without anybody particularly wanting it to do so.

According to Dawkins something similar happens in the case of assumptions and perceptions. Dawkins calls them 'memes' in analogy to 'genes'. They too are self-replicating information systems. They emerge in history in response to certain needs, particularly the needs of archaic humanity. They combine into complex and mutually reinforcing systems of meaning called 'memeplexes'. Memeplexes have no impact on ethical values, norms and behaviour. In fact, they are quite useless as such. Ethical awareness follows its own evolutionary path and does so simultaneously across religious barriers - with regrettable setbacks, but generally forward towards greater sensitivity. Good people are good and evil people are evil not for religious reasons. Atheists and believers in God are found in both camps equally distributed.

Memes travel from mind to mind, not through sexual reproduction but through communication. Just like genes, however, they are indifferent to the question whether they are appropriate or inappropriate in terms of reality, beneficial or detrimental in terms of the interests of their carriers. Their only 'concern' is to survive. The analogy used by Dawkins is the common cold virus that has exceptional powers of survival and presents nothing but hassles to its carriers. Religious assumptions

are mental viruses – with the same degree of nuisance value as biological viruses. The problem is how to get rid of them.

Section II: Why science needs faith

My response to Dawkins cannot possibly begin by faulting the basic criteria of experiential pragmatism, because the rationale of my essay is precisely to find an expression of the gospel message in terms of its underlying assumptions. Moreover, being a modernist, I do not believe that the evolutionary paradigm as such is false. On the contrary, I am persuaded that it provides us with the most powerful set of explanatory tools available at present. I have even applied it to biblical hermeneutics and theology in two of my books.⁶ Of course, any scientific theory is provisional. It can be improved or replaced.⁷ But that is no argument as long as we have nothing better to go by.

My approach is, rather, to check whether Dawkins' theory of evolution can be critiqued from within the evolutionary paradigm. To begin with, we cannot simply discredit subjective experiences of faith. Countless people across the globe share them. They have immense consequences in the real world. Dawkins agrees, of course, but wants to replace them – with what? Is science capable of satisfying the needs that religions address?

Science tends to accept only patterns that can be generalised. But human beings experience the flow of reality as sequences of events and switches that are unique in personal, situational and historical terms. Experiences that come into play at the *personal* level are not always intersubjectively verifiable, operationally efficient or particularly marketable. In fact, to subject them to such criteria would seriously distort their very character.

When falling in love, for instance, I may think that my sweetheart is beyond comparison. But my friends may see in her nothing but another odd girl. The moment I reduce my romantic moments to the operation of my hormones, they cease to be romantic moments. Later in life I may experience my wife to be the one person who gives me the feeling of belonging, worth and dignity, while other people may think that she is an ordinary old bitch. Scientists may justifiably interpret my preoccupation as part of the hard wiring of my brain or an obsessional neurosis. And yet, by doing so, they would miss the significance of the phenomenon itself altogether.

Science looks at particularities, finds similarities and establishes regularities. Fair enough. But life does not consist of regularities. Say I am watching a soccer match. If I focus on regularities I will discern that all football fields have the same size, all balls have the same shape, all teams consist of eleven players wearing similar outfits. But these facts are boring. The excitement is provided not by the regularities but by the unpredictable and unrepeatable. An outcome of 3:1 in a match between two particular teams at a particular time and place is also a fact, but it is a fact that is absolutely unique. The flow of real life consists of sequences of such entirely unique occurrences.

If we apply the rule of economics that scarcity determines value, it stands to reason why the uniqueness of entities and occurrences is of fundamental importance. Biological species are valuable beyond their utility because they are unique. Individual human beings are unique, therefore of infinite dignity. Occurrences are unpredictable and unrepeatable. They constitute switches that change the direction of the world process into new directions with never ending consequences. Not to treat them with the utmost reverence is irresponsible and foolhardy.

Also in qualitative terms, human experience is different from scientific explanation. When I am at the beach, I do not want to analyse the spectrum of sunlight or the composition of seawater, but bask in the heat and battle with the waves. When I am struck with the beauty of a painting, I do not necessarily notice that it is made up of canvass, linseed oil and artificial stains. In fact, these facts are irrelevant.

Obviously Dawkins knows of these dimensions of life, otherwise he could not be struck by appreciation and awe when perceiving the natural world in its beauty and horrendousness. He would not be upset by inappropriate interpretations of reality. He would also cease to be human. The question is how these dimensions of life fit into an evolutionary paradigm. So let us start from the bottom up.

⁶ Nürnberger 2002 and 2004.

⁷ Kuhn 1970.

1. Evolution must be seen within the context of entropy and gravity

The constitutive ingredient of reality is energy and its characteristic behaviour. Energy moves through time and space. The first thermodynamic law states that the total amount of energy, the basic constituent of reality, remains constant. The second thermodynamic law, or the law of entropy, states that the behaviour of energy has a tendency to move from infinite concentration just 'before' the big bang at the 'beginning of time' to infinite dissipation at the 'end of time'. Time and space are constituted, therefore, by the entropic process. Time always moves forward; space always expands. The law of inertia states that, if undisturbed, this movement would have had to follow a totally smooth and uneventful path. The fact that it does not, accounts for the existence of particularities in the cosmos, from galaxies to personalities.

The emergence of specific entities is triggered by tiny irregularities. This is the first and most fundamental level at which certain unrepeatable 'switches' occur in time and space that send linear processes in different directions.⁸ Chaos theory speaks of the 'butterfly effect' or 'sensitivity to initial conditions'. These irregularities are amplified by gravity, the second determinative force found in the cosmos. Gravity is the attraction between energy particles that leads to the compaction of energy into defined entities or energy conglomerations – from the largest to the tiniest.

One can say, therefore, that reality consists of differentials in energy levels that tend towards equilibrium due to entropy and towards compactions due to gravity. Scientists speak of 'low entropy' energy, where the differentials in energy levels are high, and 'high entropy' energy where the differentials are low. A picture can make this clear: water dammed up behind a wall has an immense potential force that can drive turbines and generate electricity. But once the water has levelled out in the shallow lake below its force is spent.

The compaction of energy is a highly dynamic process that brings forth ever new phenomena in the universe, all of which are on their way towards dissolution. All constructs emerge, evolve, deteriorate and decay unless low entropy energy taken from the environment is fed into their systems. Our sun is burning up, providing us with the energy we need to survive and prosper. Life feeds on the death of other life. It also always ends in death. We all live by converting low entropy energy into high entropy energy. Dawkins would probably not dispute the validity and importance of these cosmological observations. But the misery it presents is one of the most important generators of the religious search for meaning and moral direction.

2. Evolution leads to different levels of emergence

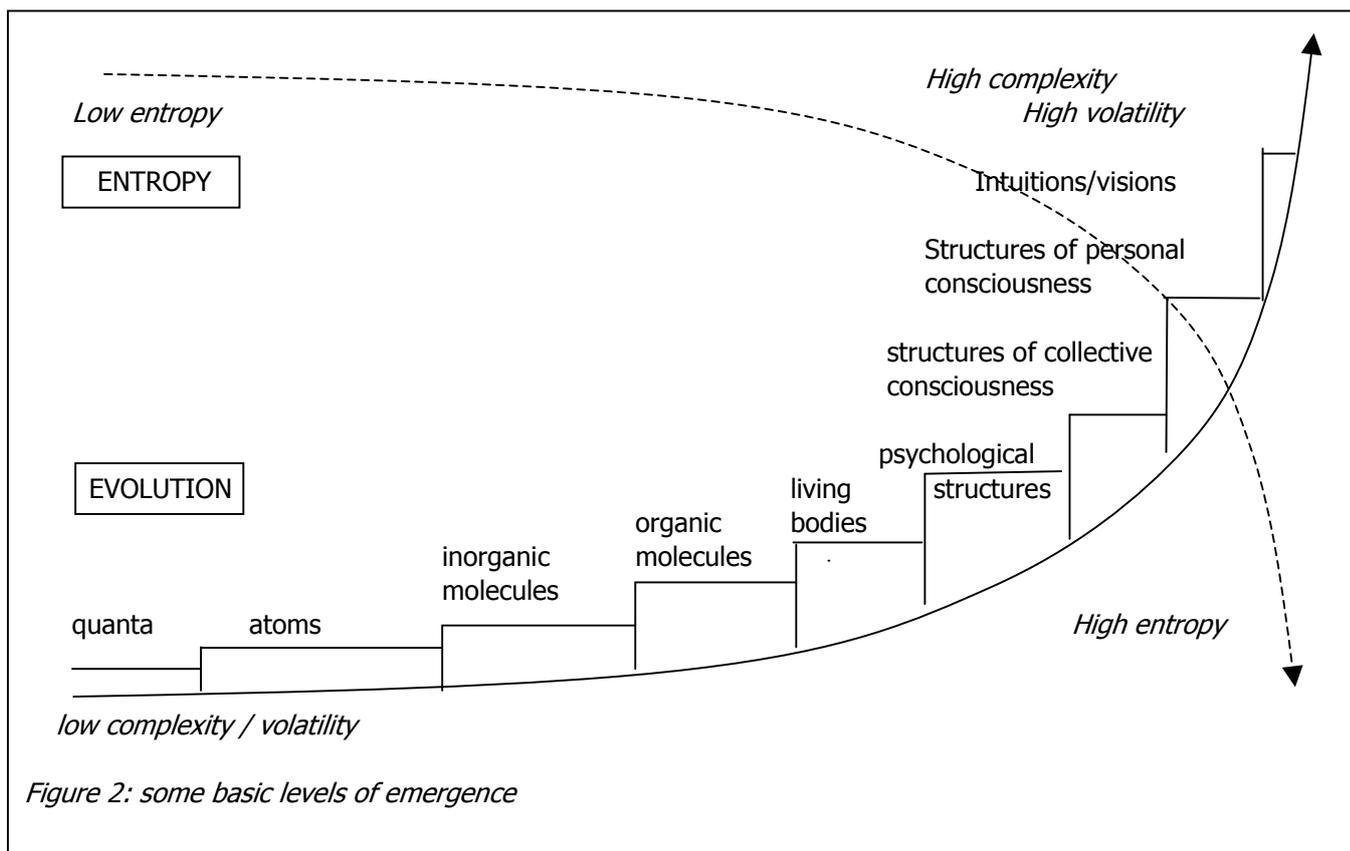
Entropy is the overriding force, but switches, empowered by gravity, led to an infinite variety of constructs. This process involves certain 'jumps' in the level of complexity, volatility and vulnerability, which we call levels of emergence.⁹ The higher you go in the hierarchy, the greater the volatility and complexity of structures and the greater the speed of processes. I speak of a 'hierarchy' of emergences in the sense that any subsequent level cannot exist without the infrastructure provided by all the previous levels, yet the subsequent level is something more than, and something different from, the sum total of its constituents.

An atom is composed of protons, electrons and neutrons, yet it is something different than an addition of these components. A molecule is composed of atoms, but every molecule has characteristics that are different from those of the sum total of its constituent atoms. An organism consists of carbon, calcium, oxygen and hydrogen atoms, among others, and cannot exist without them, but it is something different from the sum total of these substances. These principles are applicable right through the hierarchy of emergences.

Figure 2 is a crude depiction of some basic levels of emergence. Obviously this depiction can be corrected or refined, but it may serve our present purposes.

⁸ I use the word 'switch' as a metaphor taken from the railways. In de Aar, an insignificant town in the Karoo, there is a simple switch that sends a train either to Windhoek or to Cape Town.

⁹ Murphy and Ellis offer a simple hierarchy of the sciences based on levels of complexity: physics, chemistry, biochemistry, botany/zoology/physiology, psychology (1996:19; for detail see 22-38).



3. Different levels of emergence operate according to different kinds of regularity

The evolution of biological species takes place in the context of the evolution of reality as a whole, which leads to different levels of emergence. As a biologist, Dawkins deals with replication, mutation and selection in response to environmental factors *at a particular level* of emergence, namely that of living organisms. Here irregularities are caused by mutations. Mutations are switches that lead subsequent biological processes into different directions, some of which survive their particular environments better than others. According to the Darwinian theory of evolution this is how the great variety of species originated over long stretches of time. But the description of this level cannot cover the entire spectrum of emergences within reality.

The biological level of emergence presupposes non-biological levels lower down and constitutes the preconditions for the existence of supra-biological levels higher up. Different levels of emergence from the quantum level to the personal level each follow their own set of regularities. Different scientific disciplines work at different levels of emergence and therefore have to develop different methodologies. Newton's laws of mechanics are based on straight causality. These laws are applicable at the physical level of emergence, but not at the quantum level lower down the hierarchy. They are applicable at higher levels of emergence to the extent that previous levels provide the infrastructure on which subsequent levels depend. However, these subsequent levels also develop their own regularities.

At the atomic and chemical levels, electric charges interact with each other. There is a *propensity* for oxygen to combine with hydrogen to form water. When water flows into a crevice, there is indeed no teleology, intentionality or agency involved. This is pure *causality*. In the strict Darwinian sense, causality is also the driving force that makes more efficient organisms survive better than more inefficient ones. However, the biological level is not only determined by causality. Organisms behave in such a way that survival is guaranteed, that damage is repaired and that pain is avoided as far as possible. We can call this inherent urge towards desirable outcomes *teleology*. If the 'selfish gene' were the only factor at the biological level, plants and animals would not struggle to maintain their individual lives after they had ceased to procreate. Biological teleology is not the same as propensity or causality lower down. It is also not the same as personal intentionality and agency higher up.

Intentionality belongs to the personal level and is only applicable at that level. A tsunami is not caused by an irate divinity wanting to punish his morally decadent subjects (intentionality), but by tectonic shifts in the earth's crust (causality). A lion does not have evil intentions when it kills an antelope (intentionality), but is programmed in such a way that it does instinctively what is necessary for its survival (teleology). Of course, higher mammals may not be as far removed from human intentionality as this simplified scheme may suggest. The point is merely that we have to distinguish between these levels and their specific kinds of regularities.

At all levels switches occur that send developments into particular directions. At the quantum level one cannot predict the behaviour of energy, yet this behaviour is also not entirely arbitrary. There is a degree of probability for certain outcomes to occur that can be measured by statistical methods. At the molecular and mechanical levels probability solidifies into virtual causality. This solidity dissolves again as we move higher up the hierarchy. The higher we go, the greater the complexity of reality becomes. The greater the number and variety of factors that impact a process the less predictable it becomes. Mechanical processes are reasonably predictable. More complex processes such as the formation of weather patterns present much greater problems. Social processes such as market behaviour can be captured only with statistics and only in retrospect. "As the parameters are changed, a system can pass from simple regular behaviour that repeats itself exactly to the highly complex non-repetitive irregular behaviour described (by chaos theory) as chaotic."¹⁰

Human intentionality presupposes the highest degree of complexity we know of, namely that found in the human brain. It "has about a hundred thousand billion synaptic switches, and the number of states in which it can exist greatly exceeds the number of atoms in the universe".¹¹ It is in this area of emergence that intuition, vision, conviction, volition and agency are located. It stands to reason that their complexity, volatility and unpredictability surpasses that of more simple structures and process such as found in the fields of chemistry or genetics by various orders of magnitude.

The same is true for the occurrence of switches. Mutations form switches at the biological level. They are rare if compared to those at higher levels. Yet they have led to the billions of species found on earth today. Switches at the level of personal decisions are infinitely more numerous, complex and volatile. But even the tiniest switches can lead to unbelievable consequences. A glance in the eye of a person of the opposite sex when on the train going home from work can lead to a marriage, children and endless subsequent generations.

The same is true for the social level. In 1914 the German emperor reacted to a murder in Sarajevo with military rather than diplomatic means. This decision had its antecedents in the experience of relatively positive outcomes of German military interventions earlier on. But look at the consequences of this decision: World War I, the revolutions in Germany and Russia, the peace of Versailles, the failing Weimar Republic, the vulnerability of the humiliated German population for the designs of Hitler, World War II, the holocaust, the end of Germany as a world power, the end of the British and French empires, the rise of America and the Soviet Union, the emergence of the 'Third World', the cold war. A seemingly insignificant switch led the entire world into unforeseeable and completely unintended directions.

Evolution also accelerates as we move from lower to higher levels. The molecules of hydrogen or carbon took millions of years to evolve and are relatively stable. Organisms evolved faster and have short life spans. Spiritual constructs such as worldviews evolve at a much greater speed. This is again surpassed by the speed of technological constructs based on human ingenuity. Just witness the development of computer technology over the last ten years. But the latter is still very slow if compared with ordinary human decision making in daily life.

The 'meme' within the hierarchy of emergence

The phenomenon that Dawkins calls 'memes' belongs to a particular level of emergence. It can belong to the psychological level. Then a meme would be something like the conditioning of our subconscious, or an obsessional neurosis. The infrastructure of such a conditioning is the hard wiring of our brain cells that can be located by means of scanning techniques in the geography of the brain. It can be due to genetic determination or environmental impact.

¹⁰ Barrett 2000:120.

¹¹ Barrett 2000:120 (insert).

Alternatively 'memes' can refer to ideas, conceptions and convictions at the personal level. This level is characterised by a different set of regularity. Convictions are not free-floating irrationalities that follow the mechanical laws of replication, but serve a particular function. To explain, let me use the mechanical analogy that underlies Dawkins' (= Darwin's) theory of evolution. If there are crevices underneath a body of water, the water will flow in. The largest crevices will be filled with the greatest amounts of water. There is no intentionality; it is a matter of gravity.

If we apply the mechanical analogy to the level of convictions, there must be a crevice (a human need) that the water can fill (that the meme can satisfy), otherwise it would not flow in (would not be transferred from one human to the other). Obviously this is only an analogy because a need is something different from a crevice. But the inappropriateness of the analogy only brings us back to the theory emergence. What Dawkins calls a 'meme' is not just any idea or conception, but a conviction. The question is, then, what the 'crevice' is that memes can fill, what the needs are that convictions can and do respond to. I suggest that there are at least three of them: meaning, acceptability and authority.

- *Meaning* consists of an understanding of what reality *has* become and a notion of what reality *ought* to become. What reality ought to become provides criteria of acceptability.
- *Acceptability* is correspondence with the direction towards what ought to become. This again is the presupposition of the authority to act.
- *Authority* is the collective legitimacy and the subjective certainty that form the basis of authentic agency. It manifests itself socially in concrete statuses and roles.

So people are not likely to believe just any nonsense. They believe what satisfies their appetite for meaning, legitimacy and empowerment. Dawkins' idea that sets of 'memes', which he calls 'memeplexes', travel across the world like viruses to infect unsuspecting victims is singularly unconvincing. That does not mean, of course, that all convictions provide valid interpretations of what reality has become, valid visions of what reality ought to become, thus valid criteria of acceptability and valid motivations to act. This is precisely the level at which philosophies, ideologies and theologies struggle to obtain some clarity and plausibility.

This analysis of the personal level of emergence falls solidly within the overall approach of experiential realism. Evolution has produced a creature that cannot live without meaning (orientation, validity, authenticity), legitimacy (acceptability) and authority to act. This is fact, not fantasy. Trees, fish and antelopes do not have to bother about street children, ruthless dictators like Hitler and Stalin, or an ecological crisis. They simply function. But where people lose their bearings, they may turn into monsters, couch potatoes or suicide candidates.

Again, it is at this personal level, and only at this level, that *intentionality* has its place. The personal level *presupposes the entire impersonal infrastructure*, characterised by sub-atomic probability, mechanical causality, chemical propensity, biological teleology and socio-economic probability. But the personal level of emergence is something more than, and something different from, all levels of this staggered infrastructure. It is characterised, among other things, by comprehension, intentionality and deliberate action.¹²

4. Reality is an open process

Evolution moves through successive levels of emergence. In terms of energy, the system is indeterminate at the bottom (the quantum level), indeterminate at the top (the personal level), open to emergence and mutation within.¹³ However, that does not mean that everything is possible. The fact that each subsequent level depends on what happens at the respective previous level is called 'upward causation'. Upward causation moves through the entire system. The personal level is, therefore, by necessity determined by the propensity, causality and teleology that operate at lower levels of its infrastructure. However, there is also 'downward causation' right through the hierarchy.

¹² "A cosmic trajectory, which had its origins in what seems to have been mere physical movement or vibration, has gradually developed increasing directionality, ultimately creating a context within which deliberate purposive action could emerge and flourish" Kaufman 2004:46.

¹³ Kaufman speaks of "serendipitous creativity manifesting itself in evolutionary and historical trajectories of various sorts ... a notion that can be used to describe and interpret the enormous expansion and complexification of the physical universe from the Big Bang onwards ... the evolution of life here on Earth and the gradual emergence of human historical existence" (2004:43).

Organisms change chemical compositions; chemical reactions change the relations between elements.

At the personal level, downward causation is called 'agency'. Again agency can move down the entire hierarchy. Personal decisions and actions can change the behaviour of organisms, chemical substances, physical structures, even quanta.¹⁴ Agency can 'hijack' chance causality and channel it into a desired direction. That is the rationale, for instance, of dynamic mechanical engineering. We all know that the powers of downward agency have increased exponentially over the last few centuries and have given humanity "a kind of transcendence over nature unequalled ... by any other form of life".¹⁵ Upward causation is deterministic, downward causation is contingent and agency is intentional.

We observe a similar dialectic in terms of space. Each entity and each event is local, yet capable of moving elsewhere in space. Each specific location is the result of previous movements, yet it opens up a whole horizon of new potential directions. This fact again allows for infinite differentiation. In terms of time, the dialectic expresses itself in the relation between *factuality* (what reality has become through past developments), *potentiality* (what reality could become in the future) and *actuality* (what reality is becoming at present).

Factuality (what has become) is given and immutable. It determines the parameters for what is possible to become in the future.

Potentiality (what might become) is the range of possible futures within the framework of the parameters of factuality. It is open but only within the parameters set by factuality.

Actuality (what is in the process of becoming) is the process in which certain possibilities are realised, thus forming new factuality.

It is in actuality that switches occur, whether by 'chance' at impersonal levels of reality, or through conscious decisions at the personal level. This is where the religious dimension of human life is located, which brings us to the next topic.



Factuality	Actuality	Potentiality
What <i>has</i> become	What <i>is</i> becoming	What <i>could</i> become
Objective dimension The objective situation	Causality / contingency	Alternative futures
Subjective dimension Perceived situation	Agency	Perceived options
Normative dimension What <i>ought not</i> to have become	Immediate priority Ultimate vision	What <i>ought</i> to become

Figure 3: factuality, potentiality and actuality

¹⁴ Murphy and Ellis 1996:24ff.

¹⁵ Kaufman 2004:45.

5. Moral decision making is based on transcendent assumptions

As indicated in figure 3 we can further distinguish between the objective, the subjective and the normative dimensions. The normative dimension merits particular attention. At the personal level it is *possible* to choose between options because factuality does not exclude but opens up potentiality. It is *necessary* to choose between options because the options have vastly different consequences. This fact makes it imperative for humans to contemplate **what ought to become**.

One can argue, therefore, that evolution has produced a living being that, in contrast to other beings, cannot exist without finding its bearings and determining the directions in which it should be moving into the future.

It is at the normative level that humans *cannot help but* have visions, values, norms and priorities that provide guidance in the processes of decision and action. This is where notions such as freedom, responsibility, solidarity, justice and concern are located. The perception of what ought to become normally takes its clues from the experience of what ought *not* to have become, but it goes far beyond quick fixes of immediate predicaments. What ought to become presupposes at least a rudimentary intuition of how the world as a whole is put together and where it ought to be heading.

Perceptions of what ought to become differ widely. But they all agree that ethical decision-making is accountable to an authority higher than the individual or the primary community. Any profound ethic will consider the impact of decisions on the respective concentric contexts in which each person is embedded, and ultimately on the whole of reality as far as we can fathom it. What is the character of the whole? What is its Origin and what is its Destiny? "For humans are condemned to choose, and to interpret the world so as to choose better."¹⁶

It is a particular system of meaning that makes it possible for us to distinguish between what ought not to have become and what ought to become. All worldviews and religions have transcendent foundations, including that of Dawkins' naturalism. We cannot do without at least an implicit concept of the transcendent Source and Destiny of reality. But these concepts differ widely. It is the task of philosophy, religious studies and theology to struggle for clarity and direction in the jungle of possibilities. *The relevant question is not whether assumed transcendent entities actually exist in a 'realm' located beyond what we can comprehend and manipulate, but what they do to us.*

Differences between convictions lead to highly diverse outcomes. Your set of assumptions can pull you back into the past (as in ancestor veneration) or catapult you forward into the future (as in idealist Marxism). It can motivate you to become involved in the world (as in liberation theology) or to withdraw from the world (as in Christian mysticism or Hinayana Buddhism). It can encourage you to endure suffering for the sake of others (as observed in mother Theresia) or to withdraw from suffering into a safe comfort zone (as most of the rest of us do). It can allocate ultimate authority to a leader (such as Hitler), to a primary community and its traditions (as in tribal hierarchies) or to responsible members of such communities (as in participatory democracy). It can make you think that you can master reality on your own or remind you of your dependence on a comprehensive network of relationships.

Convictions can enslave or liberate, disempower or empower. Ethical transformation can be deemed the precondition of acceptance or its consequence. Convictions can determine whether you are concerned with your own eternal salvation, or with the future of humankind within its ecological constraints. These are the topics debated by theology. Most important of all, the foundational prerequisites of freedom from the whole and responsibility for the whole cannot be taken for granted. Today it hardly needs to be said that the enhanced powers bestowed upon people who are uprooted by modernity from their transcendent foundations and thrown into the illusion of unlimited autonomy can have incredibly dangerous consequences. The same can be said of the fundamentalist backlash we witness on many fronts today.

Where Dawkins seems to have missed the boat

The necessity to respond to the ongoing flux of reality in a creative, protective and redemptive way and the struggle for clues concerning the transcendent foundations of reality are both inherent in human nature at the personal level. The simple reason for this phenomenon is that human action

¹⁶ Cahoone 1988:231.

constitutes switches that have consequences, and that humans sense that they are accountable for these consequences. Understanding experienced reality and groping for its transcendent foundations do not exclude but presuppose each other. We should not be surprised, therefore, to find that religion was accompanied by the attempt to understand the rules of the game ever since humans began to reflect on their lives and their worlds. Scientific inquiry is only the latest instalment of an ongoing struggle to come to grips with experienced reality – and it cannot do so without an overarching system of meaning.

Obviously Dawkins also operates within such a system of meaning. His contention that people are simply good or bad (rational or irrational, efficient or inefficient, etc.) and that this has nothing to do with their convictions is one of his most serious misreadings of human reality - and that in purely experiential terms. Human beings do not even agree on what should be considered to be 'good' and 'evil'. Certainly the idealists among Hitler's followers were convinced of the goodness of his designs. Hitler himself believed in his 'historic mission'. The same was true for true believers in Marxism-Leninism or South African racial segregation. Of course, religion does not automatically make people good. I also do not dispute that morality is subject to evolutionary processes. Everything in reality is. But what is the definition of 'good' and 'evil'? Good or evil for whom, for what purpose and for which reasons?

Dawkins' observation that our general sensitivity concerning pain, discrimination and abuse of power has increased over time proves that a change of basic assumptions changes attitudes and behaviour. The impression that this change occurs across the globe simultaneously and independently of one's convictions is simply wrong. Just witness the difference in patterns of behaviour between Western individualist autonomy, the Hindu caste system, belief in sorcery in rural Africa and Islamic observance of pre-established precepts. The fact that there is some convergence among modernised elites is due to the vastly enhanced mutual interaction between convictions through modern systems of communication and the general trend towards modern assumptions as sketched earlier on. But even within modernity you find a great variety, including Christian fundamentalism, experiential pragmatism and postmodernity.

In sum, convictions are part of experienced reality and must be taken most seriously. The hostility of Dawkins against a particular concept of God shows that even he cannot be relaxed when it comes to the definition of ultimate foundations - and rightly so. 'Memes' are not irrelevant mental viruses after all. The basic question is not whether a transcendent being exists, but what a particular perception of the transcendent foundations of reality does to us and to our world.

The seriousness of the problem of transcendence

Obviously believers will not want to believe that they are fooling themselves with a baseless fantasy. We shall come to that in the third section. But even if faith in God would turn out to be nothing but the projection of a collective super-ego, this would not change basic Christian assumptions. The transcendent is, by definition, beyond human comprehension and control. Our *concept* of the transcendent is not. Expressed in theological terms, God is indeed the wholly Other, but he is 'incarnate' in human reality in the form of a living tradition, embraced and enacted by a living community. It conceptualises human authenticity, calls for a decision in every situation of life and empowers human agency.

The argument that humanity did not fare very well under Christian assumptions is a non-brainer. Christians have always realised that authentic Christian faith has not taken root among the masses of the population anywhere at any time in history, least of all among those whose ambitions have catapulted them into leadership positions. It has been compromised by its own leaders, undermined by the tenacity of convictions such as Hellenistic philosophy and Roman institutionalism, and hijacked to legitimate individual and collective self-interest. It has been spiritualised and privatised. Even those who are most ardently committed have realised that faith is a gift and that they are engulfed in a struggle between their own 'carnal' inclinations and the potential new life offered to them in Christ. As mentioned above, Christianity also got stuck in past formulations and left behind by modern developments.

None of these indisputable facts discredits the basic set of assumptions. It only constitutes the demand for greater alertness and accountability. It is by the quality of its basic assumptions and their consequences that the Christian faith should be judged, not by the failure of its carriers. The

Christian faith offers participation in a higher freedom and a more comprehensive responsibility than human nature, left on its own, is able to afford. The question is whether an atheism based on absolute human autonomy has a better record to show.

With due respect, Dawkins' idea that Hitler and Stalin were simply evil and that this had nothing to do with their convictions is hard to defend. Their behaviour was based on very definite ideological presuppositions that can be traced at least as far back as Nietzsche and Marx. They fervently believed in what they were doing. They were also progressively enslaved by the lure of absolute power. The claim to absolute power is made possible by the absolutisation (thus the transcendentalisation) of the human subject. As the examples show, this is not only a deceptive, but also a highly dangerous development.

Of course, atheism does not *have* to take such forms. On the one hand, there are sincere humanists who outperform most Christians in their dedication to social justice, alleviation of suffering and ecological renewal by far. But their motivations are invariably based on definable assumptions concerning the ultimate foundations of reality. It is also a moot point whether their motivations do not subconsciously draw on the internalised Christian value system that, together with other bequests of antiquity, led to modern humanism in the first place.

On the other hand, there can be no doubt that the absolutisation of the individual person as the sole and ultimate point of reference, which is the agenda of modernity, can take the form of uninhibited hedonism, craving for 'highs', instrumentalization of nature and the dehumanisation and commercialisation of everything from human bodies to religious ideas.¹⁷ In view of the collapse of traditional systems of meaning into the melting pot of global pluralism, the reckless pursuit of individual or collective self-interest, the self-aggrandisement of elites, the marginalisation of great chunks of humanity and the destruction of nature on a scale unprecedented in human history, the moral optimism that Dawkins displays seems to belong to another planet.

At no time in human history has the struggle for transcendent foundations been more urgent and more difficult to come by than now. Humans have acquired just too much power for us to allow them to behave like loose cannons. They are prone to causing irreparable harm. They have already done so. Science, technology and commerce have deliberately excluded these questions from their agendas. The result is that they are unable to offer any guidance whatsoever in this respect. I do not blame them. Transcendent foundations have simply not been part of their job description. But this can only mean that they are in need of a profound reflection on human reality that they themselves cannot offer.

6. Transcendence and concepts of the transcendent

We have repeatedly used the word 'transcendent' above. What is the meaning of transcendence in terms of experiential realism? Let me offer a few definitions. ***Transcendence*** is the experience of the boundary of human comprehension and control.

The ***transcendent*** is whatever may lie beyond the boundary of human comprehension and control. However, human interest in this 'sphere' is not a speculative quest for insight into things we cannot know. Existentially relevant is the question of the ultimate foundations of human life in this-worldly, non-human, impersonal context. Where does it come from, where is it going, where is it supposed to be going, and what is our role in all of this?

Our ***concept of the transcendent*** is a particular perception of the transcendent derived partly from experience, partly from tradition, partly from intuition. As a mental construct it is part of 'earthly' reality. It emerges and evolves. It can also deteriorate and decay. It can be hugely inappropriate. It is subject to critique and re-conceptualisation. It is indispensable.

¹⁷ Just consider whether the captains of the oil industry, already wealthy beyond any proportion, reason and utility, would have ploughed millions of dollars into a drawn-out disinformation campaign concerning global warming, corrupting scientists in the process, if they had been motivated by the Christian message (alleged by Sharon Begley. The truth about denial. *Newsweek* Aug 13, 2007, 34ff). Consider whether young men would rape toddlers in South Africa in the belief that such practices immunise them against HIV/AIDS. Consider whether Robert Mugabi would have ruined Zimbabwe's economy in defense of his political and economic self-interest and those of his cronies. One can go on and on in this fashion. Absolutised human autonomy is not designed to serve human well.

The *function* of the concept of the transcendent is to provide a system of coordinates in the ocean of endless relativity. To use a picture: our planet is just a speck of dust among trillions of galaxies, but without a planet to hold us in place we would be lost in outer space. In fact, there would be no observable goal or direction whatsoever.

The concept of 'God' is, therefore, one of the names for the **Source and the Destiny of reality as a whole** – exactly the reality that the sciences investigate, that technology manipulates, that commerce exploits, that consumerism abuses. There is no way humans can avoid reflecting on the foundations of experienced reality.

Four levels of the unknown

This boundary manifests itself in many forms: the nature of the singularity that is assumed to have 'existed' just 'before' the big bang, the mystery of the forces of gravity and entropy, the mystery of time and space, the mystery of the inaccessibility of the past and the unpredictability of the future, the mystery of the consequences of switches in historical sequences that lead to vastly different outcomes, the mystery of the validity of natural laws, the mystery of the validity of mathematical theorems and their partial correspondence with physical reality, the mystery of life, the mystery of personhood, the mystery of free will, the mystery of beauty, the mystery of evil motivations among humans, the mystery of ultimate truth.

It is important to note, however, that transcendence, as I use the term, does not refer to gaps in human knowledge that can be closed, in principle, by the sciences. We can think of four levels of the unknown. The first is that all sciences are confronted with outstanding problems that have not yet been resolved. Examples are the trigger that set off the big bang, the origin of the first form of life and the emergence of intentionality. Some of them may be resolved in the future, some may not.

The second is that reality is extremely complex. Practical necessity dictates that every science focuses on a particular dimension of experienced reality and, as a consequence, deals only with a particular abstraction from reality as a whole. When sciences do not take note of each other's findings they may become misleading in their findings and dysfunctional in their prescriptions. Liberal economics, for instance, ignored the findings of cultural anthropology and produced massive failures of economic development efforts in Third World countries as a result. Similar failures happen where the interface between medical, psychiatric and sociological dimensions of human life are not taken into consideration.

The third level of the unknown is constituted by the fact that human insight and control have boundaries. The window through which we observe reality is tiny because we are tiny. The facts that the positive sciences have unearthed may be entirely valid. We can also expect that more such facts will surface. We may also expect that existing findings will be refined. But all that taken together will not and cannot possibly tell the whole story simply because we are human and not divine.

Even if we were able to set up a streamlined interdisciplinary and multidimensional scientific enterprise that would function optimally in all respects and that took all the dimensions of experienced reality within the entire network of relationships within reality into consideration, we would not remove the mystery of reality as such. The realm of reality that is, in principle, accessible to human comprehension and control is embedded in a much larger multidimensional whole that certainly includes whatever is accessible to our comprehension and manipulation, but goes far beyond what we can ever know or influence.

Transcendence only refers to the fourth level of the unknown. If we speak of reality as a whole, including what can be known in principle and what cannot be known in principle, we still speak of the same reality, only that it is much greater and more complex than we can imagine. If we take this whole to be the only and ultimate reality, we have a pantheistic view of reality. Because pantheism absolutises reality as such it makes it impossible to transcend reality as a whole. Reality as a whole is the transcendent.

The monotheistic religions and worldviews go one decisive step further when they speak of the Source and Destiny of reality as a whole. Where does everything come from, where is everything going to and where is everything *supposed* to be going? As we shall see below, these are questions that humans cannot avoid and that the sciences cannot possibly answer. That is the level of the truly transcendent.

The necessity of a concept of the transcendent

Dawkins admits that he is a believer who is struck with awe when looking at the wonders of nature that deserve respect. He believes that only 'supernatural gods' deserve no respect. But what precisely do the concepts 'natural' and 'supernatural' mean? His concept of 'nature' seems to include the known and the unknown. But it would seem that Dawkins operates only at the three first levels of the unknown. It may seem that he has no antenna for transcendence. He believes that apperceptions of the transcendent are spurious and irrelevant products of a misguided fantasy. In fact, of course, he presupposes a particular apperception of the transcendent. All human thought does. He absolutises 'nature', while faith transcends 'nature' to its ultimate Source and Destiny. That is the difference.

'Nature' as such cannot fulfil the need of human beings for a concept of the transcendent. Human beings have particular apperceptions of the transcendent precisely because they are human. Animals have no such problems. They take their embeddedness in reality for granted. For all its glories, the capacity of the human person in terms of comprehension, envisioning, evaluation, intention and action is severely overtaxed in terms of the requirements of wholesome life at the personal, the social, the natural and the planetary levels. Even simply meeting the requirement of being human in fellowship with other humans is a tall order. Humans intuitively sense that they depend on a greater Other. This merits some further discussion.

In terms of *factuality* (a) humans become aware of the fact that they do not owe their existence and well-being to themselves but to a vast and evolving network of relationships at all levels of emergence that makes their life possible. This network is under their control only to a very limited extent.¹⁸ Their response to this awareness is gratitude. (b) They also realise that what ought not to have become is partly due to their own failure and the failure of many others. They sense the need for forgiveness, atonement or reconciliation. One cannot be grateful or repentant in abstract, or over against the vast network of relationships in which one is embedded, or over against oneself for that matter. The concept of the transcendent provides an Other to whom humans can relate in these respects.

In terms of *potentiality* (a) humans are painfully aware of the fact that they cannot predict the developments that take them from what has become into the future. They cannot help but be anxious about the direction in which the world process might take them. They feel the need to entrust themselves to a greater power that they hope is in control of the process and willing to direct it in the most profitable directions. (b) They also realise that they are unable to overlook and assess the vast spectrum of options that the future opens up for their decisions and feel the need for a higher power that could give them wisdom and guidance in this regard.

In terms of *actuality* (a) humans have to make decisions and take actions the consequences of which are within their anticipation and control only to a very limited extent. At least some humans realise that their decisions are switches that can lead to the most undesirable short term or long term consequences for themselves and for others. The burden of responsibility is so great that they feel the need for a higher authorisation to take such decisions. The authority granted by social statuses and roles may work in practice, but they will not provide ultimate foundations for human existence when humans sense that they have to move against what is socially expected and acceptable. (b) They also become aware of the fact that their own resources may not provide them with the power to see such decisions through and carry the consequences and feel the need for a higher power that empowers them.

Freedom and responsibility

In contrast with plants and animals, humans are creatures that attain a sense of *freedom* and *responsibility*, not only for their own lives but for their life worlds as well. A life world can be very restricted (say that of a traditionalist mother) or very extended (say that of an emperor such as Alexander the Great). Ideally however, it encompasses the whole of one's respective life world. Responsibility presupposes at least some degree of freedom. To objectivize reality as a whole

¹⁸ Kaufman 2004:45.

including oneself is an indispensable prerequisite for a sense of freedom from the whole and responsibility for the whole.

In terms of space, we have to view reality and our place within it 'from above', as it were, understand our life time as participation in a tiny stretch of cosmic history and see our own power as part of the entire evolving body of energy that is making up reality. For responsibility to materialise humans must see themselves as participants in a greater project that moves towards the comprehensive optimal well-being of the whole – and that in the face of death, destruction, moral evil and the entropic process. The apprehension of the transcendent makes it possible for us to go beyond our immediate self-awareness and see reality 'with the eyes of God'.

Of course, the individual is always embedded in concentric contexts – the body, the community, the society, humanity, the rest of the natural world, the planet, the universe. This fact makes the need for a transcendent reference point all the more important. Moreover, to be free, responsible and accountable, humans must be able to *transcend their own being* - and that precisely as *persons* - towards a higher level of personhood. That is the deepest root of the intuition of, and faith in, a *personal* God. As I have shown in my study on African religion, the lack of access to a personal Supreme Being leads people to take refuge in the assumed power and authority of deceased elders. But because the power of these elders is limited in scope and, the result is fatalism.¹⁹

It is not decisive whether our apprehension of a personal transcendent is the psychological projection of a great parent figure, or whether such a being actually 'exists' out there beyond space, time and energy conglomerations. The effect is the same. The modern alternative to a personal apprehension of the transcendent is the concept of an impersonal and inscrutable fate on the one hand, and the objectivization of *oneself* as the ultimate personal transcendent on the other. The ultimate consequence of unrestricted human autonomy is the arrogance and loneliness of an absolutised self lost in an ocean of relativity and meaninglessness. The god of humanism is also either a god (a concept of the transcendent) or an idol (an absolutisation of something relative).

Absolute human autonomy is self-deceptive in view of the pervasive dependency of human life on the world process as a whole. It is also dangerous, as cases like Nietzsche, Hitler or Idi Amin have shown. Practical evidence seems to indicate that an absolutised self is not free but enslaved to psychological forces, personal desires, social pressures and natural constraints. To be responsible only to oneself is not to be responsible at all. The legitimate modern quest for emancipation and self-responsibility can only come to fruition if human freedom and responsibility become part of an assumed greater freedom and responsibility with universal and comprehensive aspirations.

The immanence of concepts of the transcendent

It should be clear by now that our *concept* of the transcendent is not identical with the transcendent itself. It is *part of experienced reality*. It is a mental construct that achieves, at the very best, only a very limited and imperfect approximation of the transcendent. It can be analysed, critiqued, deconstructed, or replaced. In fact, all this must happen, because our concept of the transcendent can be vastly inappropriate and the consequences can be dramatic, traumatic, even catastrophic. Political and social developments in the 20th century have demonstrated that beyond all possible doubt.

By virtue of being a concept of the *transcendent*, our *concept* of the transcendent can only be expressed in terms of *metaphors* (pictures, parables, myths, legends, stories, interpreted histories) taken from ordinary life. We have no other language. These metaphors are not necessarily appropriate. Their intended referent is also in flux. Not only the immanent world of experience itself, but also our insight in, and interpretation of, this world is subject to emergence, evolution, deterioration and decay. Insights and interpretations form traditions that emerge and evolve in history as new insights are gained through confrontations with new needs. They deteriorate and decay when they become incapable of integrating new insights and responding to new needs. By necessity the same must also apply to our concepts of the transcendent.

Again all these considerations do not lead to the conclusion that the entire sphere of convictions is without consequence and can be ignored. On the contrary, dealing with them in a responsible and critical way becomes only the more urgent. Moreover, because convictions belong to the highest level within the hierarchy of emergences, their degree of complexity and volatility is immense. To deal

¹⁹ Nürnberg 2007, chapter 2.

responsibly with the entire sphere of human assumptions and convictions is, therefore, an infinitely more complicated and demanding task than, for instance, the observation and analysis of chemical reactions or genetic replications and mutations. Natural scientists have no reason to look down upon philosophers, theologians and scientists of religion. However, they are indeed entitled to demand profound, motivated and critical attempts to deal with these issues rather than offering facile, obsolete and improbable answers.

The upshot of our considerations so far is that Dawkins seems to have a truncated concept of evolution, which does not allow him to appreciate the reality and significance of the transcendent dimension of life at the personal level of emergence. As current social and ecological developments show, this dimension is of critical importance for the future of the evolutionary process at all levels of emergence at least on planet earth. Responsible modern people simply cannot afford to ignore or deprecate the sphere of convictions any longer because it will decide what kind of future humanity will have.

Modernity claims to be capable of understanding experienced reality without the hypothesis of God. But this 'hypothesis of God' would have to be the concept of an inner-worldly entity and not the transcendent dimension of reality as a whole. If an inner-worldly entity is deemed divine this is idolatry, not faith. Science has restricted its agenda to the explanation of inner-worldly reality and that for very good reasons. But this also means that it cannot take over the role of faith.

Science needs faith to do justice to reality at the personal level of emergence. We are embedded in a vast network of relationships. On what is this network based? Where does it come from? How is it sustained? Where is it going? Where is it supposed to be going? These are the questions that science cannot answer and that, to be human, humans cannot avoid. That is why science needs faith. In its turn faith needs to integrate the valid insights of science if it is not to be left behind by developments in scientific insight or counterproductive in terms of the vision of comprehensive optimal well-being. This is the topic that we turn to now.

Section III: Why faith needs science

We now turn the tables around and look at science through the spectacles of faith. Christians are Christians because they have been persuaded that God, the Source and Destiny of reality, has disclosed his creative and redemptive intentions in the life, ministry and death of Jesus of Nazareth. They believe that this self-disclosure in Jesus of Nazareth has been made universally valid, accessible and effective as the 'risen Christ'. They are convinced that the reality of their faith is not of their own making but a result of this self-disclosure of God in the Spirit of Christ that permeates, liberates and renews the 'Body of Christ', the community of believers. In sum, to relate with humans, God became a person because humans are persons. This is the essence of the 'Trinity' – God, the ultimate Source and Destiny of reality, disclosed himself in Christ and is accessible in the Spirit.

One should not be put off too readily by historically grown concepts and metaphors. The sciences also operate with particular languages and can become constrained by them. On the one hand theological statements refer to the transcendent as the ultimate Source and Destiny of reality. On the other hand they express the conviction that the transcendent has entered the limitations and ambiguity of human reality. The notion of the 'incarnation' implies that the human concept of the transcendent is a phenomenon in this world. As part of human reality it is ambiguous and fallible and needs to be subjected to critique. As a historical reality it has had a historical origin, it develops in time and it needs constant reconceptualisations. As an expression of the transcendent dimension of reality it needs to cover experienced reality or lose its plausibility, relevance and effectiveness. This is what we have to deal with now.

A concept of the transcendent becomes dysfunctional if it hovers off into the sphere of fantasies and fairy tales. The transcendent must, of necessity, be understood as the transcendent dimension of the reality that is investigated by the sciences, manipulated by technology, traded by commerce, abused by consumerism. For believers, God is the personal Source and the Destiny of precisely the reality they experience, otherwise he is a phantom. If faith cannot integrate the insights of science, however provisional they may be, it has nothing to say to the modern world. That is why faith needs science.

The historical roots of faith

Properly understood, the biblical faith does not claim to understand inner-worldly reality better than the scientists. It only relates reality, however interpreted, to its transcendent Source and Destiny. Throughout the millennium of biblical history believers have utilised the knowledge of the world that was available to them at the time. They have tried to interpret it in terms of their faith. Faith is not a theory about how the world is put together. Faith comes about when one is confronted with the fact of one's inauthenticity and the inauthenticity of one's world. Faith comes about when one is struck by one's dependence on the benevolence of God, the Source and Destiny of one's life and one's life world. Faith comes about when one responds to the invitation to join the creative and redemptive project of the Source and Destiny of reality. The proclamation is not an analytical but a performative statement. It creates what it says.

The proclamation of God's creative and redemptive intentions for humankind is based on the biblical witness. As mentioned above, the biblical witness claims that God became a person for humans because humans are persons. God entered human history at a specific point in time and space. He established a personal relationship with a particular family. When the family became a nation, the relationship was formalised as a covenant. Yahweh would be the God of Israel, Israel would be the people of God. The God of Israel was interpreted by Jesus of Nazareth and his followers as a God with unreserved redemptive intentions. The Christian gospel is the message of God's suffering, liberating, transforming and empowering acceptance of the unacceptable. The implication of this gospel is that God accepts of all of humanity as far as it accepts being accepted. This message formulates the particularly Christian concept of the transcendent.

For scientists, who try to establish universally applicable regularities, it may be inconceivable that the Source and Destiny of reality should have disclosed himself in such an ethnically and culturally particular narrative. But this is exactly where the biblical faith differs from both Greek philosophy and modern science. Greek philosophy abstracted underlying 'essences' ('ideas' or 'forms') from particular occurrences. Science abstracts laws of nature from particular occurrences. But abstractions are not real and human history does not follow universal laws. Greek philosophy deliberately discarded history in favour of ontology, but ontology produces a set of static concepts and misses the "living God" that the biblical faith speaks about. The laws of nature are abstractions from occurrences too.

History is a flow that produces perpetual particularity and novelty. If there was to be a real disclosure of the divine to human beings it had to occur within the context of the flow of history because humans are historical beings. The 'truth' of the Christian message should not be judged by the relativity of its medium, therefore, but by the quality of its contents and the nature of its consequences.

Past contextualizations of the gospel – a reminder

In contrast to the Qur'an, the Bible can be translated. The gospel of God's redeeming acceptance can be expressed in terms of various worldviews. Faith can be contextualised. That is the strength of the biblical faith. If that were not the case it would long have died out together with other ancient Near Eastern religions. If we are unable to express the gospel in terms of modern experiential pragmatism we have had it. The fact that people in modernised countries vote with their feet is an indication that faith and theology got stuck in previous contextualizations. Let us briefly look at what happened.

Early in its history, the Old Testament faith abandoned primeval dynamism (the determination of reality by uncanny impersonal forces that can be explored through divination and manipulated through ritual and sorcery), animism (the determination of reality by roaming spirits), ancestral authority and polytheism. Yahweh, the God of Israel, was perceived to be the personal Source and Destiny of reality as a whole. While inner-worldly causes and agencies were recognised, whatever existed and happened was ultimately derived from Yahweh's personal will. What we have here is pure intentionality. But it is an intentionality that uses inner-worldly causality, teleology and human intentionality for its purposes. This is of utmost importance if we are to understand the biblical concept of God.

At least since the Deuteronomic movement, this approach took the form of a covenant in which Yahweh committed himself to the welfare of Israel, his people, on condition that Israel would obey the law of Yahweh, the God of Israel. Yahweh was a clan God, a tribal God, finally a national God. But as the God of Israel he was taken to be the God of all nations and the cosmos as a whole.

Already in early Judaism the problem of theodicy presented a major problem to the assumption of an almighty intentionality based on covenantal justice. The righteous suffered, the unrighteous

prospered. The problem surfaced most powerfully in the Book of Job. The most consequential solution was offered by Apocalyptic: God's commitment to Israel and to justice in general would be vindicated in the destruction of the current world and the dawn of a new age.

Early Christians followed Apocalyptic assumptions and interpreted the cross of Christ as the prototypical birth pangs of the new creation. They believed that God had vindicated Christ by raising him from the dead as the coming Messiah. He would soon come in power to set up the kingdom of God. When his return in glory as the ruler of the world was delayed, various contextualizations happened. Faith in Christ could have collapsed without these new contextualizations.

The emphasis on continuing discipleship and mission under the guidance of the Holy Spirit was strengthened (Synoptic Gospels). The prime contextualiser of the gospel in New Testament times was Paul. In Jesus Christ God became a Jew to the Jews to win over the Jews for the gospel of God's redeeming grace in Christ. Paul believed he had to do the same if he wanted to become a participant in the gospel of Christ (1 Cor 9:20-23). The doctrine of justification by faith, as spelt out in his letter to the Romans, was a contextualization of the gospel in terms of the Jewish legal concept of righteousness.

Paul offered another, equally persuasive contextualization with his juxtaposition of the 'flesh' (the existing world) and the 'spirit' (the age to come). Christ had come into the realm of the flesh to pick us up where we are. But he died to the flesh and rose into the realm of the spirit. Faith in Christ means that believers identify with this transition and thus anticipate the new creation (Rom 6).

Paul's disciples moved the proclamation of his lordship from the eschatological future to his already existing authority in the 'heavenly realms'. This authority had been established from before the creation of the universe (Col and Eph). For John Christ was the authentic human being who lived in unblemished fellowship with God. 'Eternal' (authentic) life was constituted in the existential encounter of each person with Christ and the decision for him or against him (John 3, 5).

When the gospel crossed over to the Greek speaking world it was contextualised into Hellenistic metaphysics. Because of their unmediated juxtaposition of matter and spirit, not intentionality, but ontology presented the fundamental problem for those believers. The result was classical orthodoxy as agreed upon by Ecumenical Councils such as those of Nicea and Chalcedon. It was formulated, for instance, in the Nicene Creed and the theology of the so-called Church Fathers. A further contextualization expressed the gospel in terms of Roman feudal society and its legal foundations. The result was Roman Catholic institutional authority, the episcopal hierarchy, headed by the papacy, its dogma and canon law.

During the Middle Ages, Christian theology was expressed first in Platonic (Augustine), then Aristotelian (Thomas), then Nominalist terms (Duns Scotus). The Reformation focused on the biblical witness, but its frame of reference was strongly influenced by Nominalism, especially in Calvin. When the so-called Protestant Orthodoxy of the 17th Century attempted to set up a counterpart to Roman Catholic dogma, Aristotelian rationality again became highly influential.

As mentioned above, 'Protestant Orthodoxy' of the 17th century based its theology on a deductive doctrine of Scripture: The Bible is God's Word, God is perfect and cannot lie, so the Bible must be the inerrant, clear, sufficient and effective Word of God. This dogma reached us through Pietism, the revival movements and the missionary enterprise. The inerrancy of Scripture formed the counterpart of the infallibility of the pope as representative of an infallible Church. It is still the central and non-negotiable doctrine of most Evangelical Christians. It is this presupposition that informs American 'creationism'.

A new frame of reference for faith and theology

In the mean time we have gone through the Enlightenment with its rationalist and empiricist approaches. Our inability to contextualise the Christian gospel in terms of the modern worldview led to the inability of many of our contemporaries to make sense of the Christian faith. The gospel offers the option of an authentic human existence in fellowship with God. The demand to sacrifice one's capacity to observe and think, given by God, makes it difficult to hear the gospel. The scandal of the cross is replaced with the scandal of having to accept superstitions and irrationalities. As a result many modern people are put off rather than attracted by the proclamation of God's power and benevolence in our lives.

How do we contextualise the gospel in terms of a modern set of assumptions? Contextualizations are re-conceptualisations. Because religious conceptualisations are experienced as foundational, the challenge to change or abandon them in favour of alternatives can be traumatic. It is

understandable, therefore, that a change in assumptions and formulations will be resisted. Yet, because reality is in flux and our interpretations of reality are in flux, re-conceptualisations cannot be avoided. The alternative would be to remain behind at the airport, staring at the empty blue sky, while the Boeing 747 is roaring away to new lands.

Contextualisations are also tricky because the context may take over and corrupt the intended meaning. This has happened on a large scale in the past and one can sympathise with those who are wary of 'heresies' of any kind. Yet the biblical faith has taken this risk in biblical times. It had no choice. Where it has not taken essential clues from its contexts throughout its history it has become stagnant and moribund. If faith and theology are to become plausible in the modern world they have to take account of the valid insights of modernity and filter out what does not serve its vision of comprehensive well-being. There is no theological merit in confusing faith and superstition.

We should not be fazed by the accusation of conservative Christians that we depart from the explicit Word of God as found in the Bible. The Bible is not composed of a set of static propositions. On the contrary, it witnesses to a dynamic process of cumulative and transformative discernment over a whole millennium of human history. It is characterised by traumatic crises and transformations. God always picks people up where they are – with their limited insight and their problematic motivations - and leads them a few steps towards where they are meant to be. This process increasingly differentiates into various sub-traditions without losing track of a basic redemptive vision.

We can either board the train and reach other people in other situations or remain behind at the station. For faith to cling to a rigid orthodoxy is a stale and ultimately suicidal attitude. It is out of step with the biblical witness itself. It closes us up in an intellectual prison. It is not liberating and empowering but enslaving. It does not understand that the Word of God enters human reality to change it from within.²⁰ The plausibility of the worldview underlying our proclamation is a prerequisite for the scandal of the cross to do its work. It confronts people with the option of spiritual rebirth or authentic existence within the contexts of their life worlds. A gospel that does not present people with their own potential authenticity is both deceptive and ineffectual.

In what follows I assume that the theory of evolution is the best set of explanatory tools available to us today. It is a provisional theory, as all scientific theories are. All the successive worldviews in the Bible were provisional as well. We are on a journey; we are not there yet. But in the mean time we have a task. We have to present the gospel of God's creative and redeeming love in Christ to our contemporaries in a language they are able to understand. So let us get on with the job.

1. The unattainable ideal of perfection

According to current scientific insight reality is an evolving, ever differentiating network of relationships between energy conglomerations. That reality is in flux and differentiated has always been known. However, the traditional reaction to this fact has been to arrest the movement, to gain stability, to find something that would last. Traditionalists in Africa and elsewhere uphold the authority of their deceased elders. The ancient Egyptians built their pyramids and mummified their bodies to give expression to their belief in a life beyond death. They studied the seemingly eternal movement of the stars to get to the roots of reality.

Ancient Greek philosophers tried to find the principles that seemed to underlie the phenomena. Plato abstracted and idealised the ideas that he thought gave shape to things when they merged with matter. He believed these ideas to be perfect, pre-existent and eternal. One wanted to get out of time into eternity, out of diversity into universality, out of energy differentials into harmony. In Aristotle the form of things took the place of ideas. These forms had an inherent urge towards perfection. The concept of perfection implies that history has come to an end. There is nothing more that can happen when reality has reached its ultimate goal.

Roughly at the same time Jewish thinkers were confronted with devastating national catastrophes. They had believed in a covenant between Yahweh and Israel that would last throughout the ages. When calamity struck, prophecy and the Deuteronomic movement attributed it to Israel's transgression of the covenantal law. The prescription was to attain moral perfection. Jewish believers

²⁰ "Transformation is the most stable (eternal) phenomenon in the world" (Pedersen 2002:451).

took the torah to be the perfect and everlasting expression of the will of their God and did their utmost to keep the law to the letter. This is the bedrock of biblical fundamentalism and legalism.

However, it did not help. Ongoing history led them into one calamity after another. After the exile the restoration of the cult in Jerusalem developed another concept of perfection: ritual purity. Yahweh was holy. He would not tolerate any blemishes. He dwelt in the holiest of holies. Priests had to be sanctified. Sacrifices had to be without fault. The population was forbidden to eat foods deemed unclean. Taboos defined objects, animals and behaviour considered unclean. Yet the temple was destroyed a second time. The biblical God cannot be imprisoned in time and space.

These insights are important for the relation between science and faith. Science does not depict a perfect natural world, but a world in flux. We have mentioned the fact that evolution occurs within the entropic process, that there is no life that does not live off the death of other life, that reality is characterised by different levels of emergence and that intentionality is only characteristic of the highest level. The shape of the earth's crust does not suggest that it has been drawn up according to the beauty of a mathematical design. One cannot claim that the different species found on earth are perfect in all respects. One can only claim that they are structured in such a way that they were able to survive. The gospel says that God accepts this reality the way it has become.

The biblical concern for transformation

We have to recognise today that the different historical ideas of perfection do not do justice to the elementary spiritual experience found in the biblical faith. The Bible does not focus on perfection but on transformation. The people of God, and all biblical heroes, including Moses, David, the priests, the prophets and the disciples of Jesus, are depicted as being imperfect and unworthy, yet used by God for his creative and redemptive purposes. Jesus is depicted as having entered into the 'flesh', which is human reality (Jn 1:14), that he was made subject to the law (Gal 4:4), that he took up our predicament to change it from within (2 Cor 5:21), that he was tempted and afflicted (Mt 4:1ff), that he had to learn obedience during his life time so as to be able to enter into eschatological perfection (Heb 5:7).

As can be perceived by any unbiased reader the biblical scriptures themselves are not perfect and do not claim to be. Two texts speak of the inspiration of the Old Testament, but inspiration does not imply inerrancy or perfection. Even the eschatological vision is subject to constant change as new realities enter the horizon. The realisation of the eschatological future of God remains outstanding. In ancient Israel not moral perfection but a fulfilled life set the tone. A fulfilled life was only possible when healthy relationships with God and with each other could be attained and maintained. The Hebrew word for righteousness (*zedaqah*) means trustworthiness. The word for eternity (*ad olam*) means reliability throughout the ages. The expression for universality was validity of God's redemptive intentions even for the far-flung islands in the sea.

The Christian gospel proclaimed God's unconditional, suffering and transforming acceptance of the unacceptable into his fellowship. This formulation presupposes that all humans are unacceptable, thus imperfect. God commits himself to be present when his people get themselves into impasses and calamities. In his redeeming love, God invites them to a pilgrimage of transformation. Nothing in creation is perfect nor will it ever be. But everything in the world is capable of development, renewal and optimisation.

We can translate this insight into our reflections on time. Factuality is given, potentiality opens up a wide range of possibilities and options within the parameters set by what is given. Factuality has to be embraced and potentiality has to be scrutinised, prioritised and enacted. This is an ongoing process. Biblical realism does not allow for static structures. It deals with the flux of time, the variability of situations, the changing distributions of power.

In the Bible God is never reported to have gone back in time to rectify what has gone wrong in the past. He always takes reality where he finds it and opens up the future at that point in time and space. The biblical concept of divine mastery does not refer to an abstract and absolutised kind of omnipotence. It is meant to reassure people in need that God is capable of assessing available options opened up by factuality and willing to guide developments in the direction of comprehensive optimal well-being.

Forgiving reality its imperfections

Psychological studies suggest that the drive for perfection is deeply ingrained. When we were born, we left the near perfect environment of the womb. It was perhaps the greatest shocks our subconscious ever had to deal with. We were thrown out of paradise through no fault of our own. We cannot forgive ourselves, our parents and our world its imperfections.²¹ We want to recreate ourselves, our peers and our world. Resentment against the present condition of people and circumstances is the root of much anger, frustration and spiritual misery. The attempt to gain a more perfect situation is the root of burning ambition and competition at all costs.

The biblical message tells us that God, the highest authority and judge, is ready to forgive us. This message liberates us from the unattainable goal of perfection. Reality as we know it is not perfect and it cannot be. Gen 1 says that God looked at his creation and found it to be very good as it was. The fall into sin in Gen 3 belongs to another narrative, which does not deal with creation but with the relationship between God and humanity. The combination of the two stories led to the idea that the imperfections found in nature were the result of human transgressions. This idea is clearly ludicrous. It takes humanity and its own imperfections far too seriously. Cosmic reality clearly surpasses anything humans could do.

If we gear our concept of God to the ideal of perfection there is no way we can conceptualise God as the Creator of the universe we know. Life depends on the death of other lives. Reality is an evolutionary process within the context of the entropic tendency towards annihilation. The way our world is constructed cannot be undone. Suffering and death cannot avoided. But it can be ameliorated. Meaningless death and unnecessary suffering can be overcome. Our vision for our society, our natural environment and ourselves must be geared to optimal conditions, relationships and processes rather than perfect entities.

This insight is of incredible importance. Once we know that we are not perfect and that God accepts us all the same, we can relax, jettison our anxieties and get on with our tasks to make this world a better place to live in. God uses all our faculties for his creative and redemptive purposes. This message enables us to be both relaxed and dedicated. We do not have to achieve our authenticity, or our eternal salvation, or the perfection of our world. God takes us, our social context and our natural environment along on a pilgrimage towards what they are meant to be. What is more important for the relation between faith and science, we do not have to claim that God has created a perfect world in one fell swoop and that all imperfections we experience today are the consequence of human sin or a fallen creation. God can indeed have wanted to create the world through a long process that is heading towards fulfilment in the sense of optimal well-being.

Once we know that we are not perfect and that God accepts us all the same, we can also accept people whose patterns of behaviour, cultures or religious convictions seem to be unacceptable from our personal, communal or a Christian point of view. Potentially all human beings can reach their authenticity and our mission is an invitation to make use of this possibility. All congruencies found in other convictions with our message of unconditional acceptance and our vision of comprehensive well-being can be appreciated, confirmed and supported. All avenues to find a common understanding of the human condition can be explored. All attempts to find the way forward into a better future can be critically assessed and supported.

2. The concept of a personal God and its impersonal infrastructure

We must realise that apperceptions of the transcendent have to be expressed in metaphors taken from the reality we experience. We have no other language. The apperceptions of God as a personal God are expressed in **metaphors taken from experiences of human personhood**. In the biblical faith God is understood as a comprehending, assessing, intending, envisioning, acting, empowering being because we are comprehending, assessing, intending, envisioning, acting and empowered beings. In theological terms: The Word of God has become flesh, that is, human reality. God is a person for us because we are persons. In cosmological terms we can speak of the (weak) anthropic principle: only humans can perceive and comprehend the entire evolutionary process including the personal dimension – at least to some limited extent.

²¹ Cf Cahoone 1988:76ff.

However, that does not imply that God is nothing but a person, thus 'pure Spirit'. The idea that God is a pure Spirit is an anthropomorphic reflection of the idea that the human being is, essentially, a bodiless soul. The soul may accidentally have fallen into the realm of a material body from which it needs to be redeemed.²² This idea is Platonic, not biblical. It is also thoroughly misleading. The human person is the highest level of emergence known to us, but the personal dimension presupposes the entire impersonal infrastructure of emergences from quanta upwards. If that is true, it is inappropriate to derive one's perception of the transcendent from only the spiritual level of emergence. God must be perceived to be **the transcendent Source and Destiny of the entire hierarchy of emergences.**

On the one hand, this insight solves the age-old problem of theodicy. Theodicy is the theological attempt to explain how a benevolent and omnipotent God can allow sin and evil to prevail in his ostensibly good creation. This problem has never found a satisfactory solution. It is clearly caused by an over-personalisation (spiritualization) of the concept of God. The insight that reality is constructed as a hierarchy of emergences can show theology a way out of this dilemma. A tsunami is not due to God's personal wrath, but to tectonic shifts in the earth's crust. On the other hand it repudiates mere naturalism. The biblical witness attributes even such blatantly natural occurrences as droughts and floods to God, demonstrating that the biblical concept of God refers to the Source and Destiny of reality as a whole, which includes natural networks of propensity, causality and teleology.

God is a person for humans because humans are persons. Traditional theology expresses this fact in terms of incarnational and sacramental assumptions. As a person, God does not intend a tsunami, just as we as persons do not purposefully intend to develop cancer in our bodies. On the contrary, we try to get rid of it. As persons we are in charge of our lives, but the impersonal processes that make up our bodies qualify this mastery. The dualism between body and soul can no longer be upheld. The personal level presupposes the entire infrastructure of impersonal emergences.

In the same way God's personal intentionality is qualified by the propensity, causality and teleology operative at lower levels of emergence. There can be no dualism in an anthropologically informed concept of God. Today this insight has become critically important. It makes it possible for believers to deal with ecological, physical, biological, psychological and social issues in a factual and pragmatic way. It rids us of inhibitions imposed by the idea that God could have wanted an untenable situation the way it is. It dismantles the spiritualistic perception that this realm lies outside divine vision and human responsibility. It obviates fatalism and despondency.

The insight that the concept of God must relate to the entire hierarchy of emergences does not imply that God can be identified with the world process as such. This would be pantheism. A pantheistic God does not lift us beyond experienced reality into the sphere of freedom and responsibility. For freedom and responsibility to materialise, God must be conceptualised as the Source and Destiny of reality as a whole in all its dimensions, including the personal.²³

If one wanted to stick to the assumption that God is omnipotent, one could argue that God himself has instituted the 'initial conditions' and the regularities that led to the present world and will probably stick to them. While he could have constructed a different world, fact is that he hasn't. But all this is pure speculation and faith does not depend on speculation. Biblical statements that witness to the power of God are meant to reassure believers in crisis that God is in charge and will seek a way out. As demonstrated above, such assumptions can be accommodated much more readily in our analysis of factuality, potentiality and actuality than in an abstract doctrine of omnipotence.

²² Cf Kaufman 2004:34-42.

²³ There is a pantheistic implication in Kaufman's identification of God with what he calls "serendipitous creativity" that drives the evolutionary process forward (2004:53ff). Kaufman posits a difference between God and the created order (2004:69), but he can only do so because his metaphor is an abstraction from the process itself. The abstraction is also inescapably anthropomorphic, though Kaufman tries to define it otherwise (2004:55). That is fine because one cannot have a personal relationship with a process, however dynamic it might be. And that is critically important for the biblical faith. So why not stick to the anthropomorphic metaphor of a Creator God? On the other hand the metaphor may be able to forge the (impersonal) notions of the Source and the Destiny of reality together. The theological version of the anthropic principle should say that God is a person for us humans because we are persons, but he is much more than a person, just as we are much more than persons.

Such an experiential realism is the presupposition of the statement that at the personal level God suffers with the suffering, grieves with the grieving and envisions their comprehensive well-being. The concept of the personal includes vulnerability of the person to the upward causation of its impersonal infrastructure. Entropy and death are beyond our control. According to the biblical witness, God does not prevent even the death of Christ, who is taken to be God's own Son and Representative at the personal level of reality. That does not imply that there is no downward causation. Potentiality opens up options. And God channels this catastrophic development in the life of Christ into a redemptive direction.

But this again does not invalidate the assumption that God is the Source of the whole of reality, including its impersonal levels of emergence. The dialectic between the personal and the impersonal dimensions of the concept of God cuts both ways in the debate between science and theology. On the one hand, if the transcendent is perceived to be nothing but causality, it is impossible to account for intentionality higher up, as well as probability lower down. On the other hand, if the transcendent is perceived as nothing but intentionality (God as absolute personal will), it is impossible to account for impersonal dimensions of reality lower down, such as cancers or tsunamis. In short, a purely materialistic or naturalistic worldview is as ill informed and counterproductive as a purely personalistic worldview.

Luther's experiential realism

How do these reflections link up with the theological tradition? The dialectic mentioned above has always been at the heart of a Christian theology. The belief that he is the Creator, yet also the Redeemer, and that as a Redeemer he was in Jesus of Nazareth and is among his people in the Spirit led to the formulation of the doctrine of the Trinity. Unfortunately this doctrine has expressed the underlying faith experience in terms of a static ontology. Modern people are no longer capable of thinking in metaphysical terms – and why should they in the first place? Faith is about life, not about abstract concepts.

Among the classical theologians only Martin Luther followed a consistently experiential approach.²⁴ God was for Luther, as for the Old and the New Testaments, the Source and Destiny of experienced reality as such. Experienced reality is in flux. To deny the existence of God would have been quite ludicrous for Luther. We could just as well deny that reality exists. Reality comes from somewhere and goes somewhere. For Luther nothing whatsoever could exist and happen without the creative power of God. In modern terms we could say that God is the power behind the evolutionary process or, as Kaufman has it, "serendipitous creativity".

We encounter God, therefore, in ordinary life as the transcendent dimension of reality, wherever we go, whatever we experience and whatever we do (*Deus in vita*). Luther calls this unmediated experience of God's power in reality the naked God (*Deus nudus*), because it displays all the beauties, but also all the horrors of reality. It is ambiguous, even demonic at times. It is impossible to gather God's intentions from the experience of reality. The naked God is the hidden God for us (*Deus absconditus*) because experienced reality hides God's intentions before our eyes.²⁵ These insights are important today because they allow a theological interpretation of entropy and death that is not linked to human sin.

According to Luther, God's intentions can only be gathered from the proclamation of the gospel. It is here that God reveals his heart (*Deus revelatus*). The gospel says that, in spite of all appearances, God is for us and with us, and not against us. This is nothing but a promise. A promise it an inner-worldly reality with all its ambiguity and uncertainty. It can either be trusted or doubted. Faith is not assent to doctrinal propositions; faith is trust. If you trust the promise, you have a graceful God and the world opens up for you. If you doubt it, God becomes an unpredictable monster or a merciless judge and the world closes in upon you. The gospel is not an analytical, but a performative statement. By reassuring, it creates reassurance.

The proclamation of God's unrestricted benevolence is based on the paradox of the cross of Christ. The cross of Christ is an unmitigated disaster, yet it is proclaimed the single most important manifestation of God's redeeming love for humanity. In the cross of Christ God exposed himself to

²⁴ For the following see Nürnberger 2005, chapters 2 and 3.

²⁵ The concept is taken from Old Testament texts: calamities are expressed as God (understood as the benevolent God of the covenant) hiding his face.

human sin, suffering and death. In his love, he draws humankind into his fellowship, suffers its present condition and changes it from within. If he can turn the most horrific calamity imaginable into a redemptive event, he can do so with the smaller calamities that we encounter in life as well. The future is open and God is in charge. The gospel creates assurance, courage, love and hope. No person and no situation is beyond redemption.

Application to the modern worldview

It is easy to interpret Luther's dialectic between God's creative power (*Deus absconditus in vita*) and God's redemptive intentions (*Deus revelatus*) in terms of our reflections on modern insights above. The hierarchy of emergences culminates in intentionality at the personal level, but intentionality presupposes the entire impersonal infrastructure of emergences. It is also embedded in the entire impersonal supra-structure of society, natural environment and cosmic reality. For faith the relevant question is not whether God can have intentions. If he had not, he would be a sub-human kind of God, thus a God who is not the Source of reality at all levels of emergence. There are two more relevant questions.

The first question is what the contents of these intentions are. Is God a jealous and vindictive tyrant (as Dawkins interprets Yahweh of the Old Testament), or a judge who owes merciless justice to his own holiness, or is he the caring Father that Jesus proclaimed him to be? Jesus interpreted and enacted God's intentions as unconditionally benevolent, creative and redemptive. His followers interpreted the cross of Christ as God's willingness to expose himself in his representative to human enmity and depravity – and that up to the extreme of rejection, derision and a shameful execution. God is light and there is no darkness in him (1 Jn 1:5). Following this clue, the Christian gospel proclaims God's suffering acceptance of the unacceptable to change it from within. This has always been the core area of Christian theology.

The second question is how these creative and redemptive intentions relate to the non-intentional levels lower down in the hierarchy of emergence. God is more than a person with intentions; he is the Source of reality at all levels of emergence. God is the power that has led to factuality and that opens up potentiality. Potentiality includes all possible future scenarios at all levels of emergence. At the impersonal levels, propensity, causality and teleology are operative. That is also true for the human being. As a person, the human being has characterised by intentionality, but the personal presupposes the entire impersonal infrastructure from quanta to a functioning organism.

At the personal level, God takes factuality as his point of departure, but seeks out transformative options among the possibilities that potentiality has opened up. He accepts reality as it has become, including human moral derailments and predicaments, but intends to channel human existence and the world process as a whole in the direction of his vision of comprehensive well-being. Being the Source of reality God enacts his intentions through inner-worldly events and human actions. He reveals beneficial directions for the ongoing process to those whose sensitivities are sharpened through prayerful alertness, and acts through their decisions and actions.

This is fundamental. If God, the ultimate authority, is willing to suffer reality, as it happens to have become, it is legitimate for us to do the same. I am allowed to be what I have become, I can allow others to be what they have become, I can accept the circumstances, as they happen to be. I can accept that there are regularities in the world process, including evolution and entropy, prosperity and calamity, life and death. But acceptance is the basis for creative and redemptive transformation within the parameters of potentiality inherent in factuality at any given point in time and any situation at hand.

3. The concept of creation in the light of an evolutionary paradigm

Both the concepts of creation and eschatological transformation must be re-conceptualised in terms of modern insights. To begin with, our short life spans were brought into being and sustained through vast sequences of causes and switches that go right back to the big bang. Faith attributes this comprehensive overall dependency to the one ultimate Source and Destiny of reality as a whole. "For from him and through him and to him are all things" (Rom 11:36). "For in him we live, move and have our being" (Acts 17:28). Existentially speaking that is precisely what creation means.

But does the theory of evolution not contradict the doctrine of creation? No, it does not. According to the biblical witness God created the world variously with his hands (Gen 2); by means of a series of imperial decrees (Gen 1); in a violent conflict (Is 51:9 – referring to an Ancient Near Eastern myth of creation); by means of subduing the forces of chaos (Is 40:12); through his wisdom (Sir 1; Wisdom of Solomon); through the Logos that was incarnate in Christ (John 1), or through Christ as the pre-existent messianic representative and plenipotentiary of God (Eph and Col).

It is clear that the biblical witness used whatever interpretation of reality seemed to be plausible at the time to express the majesty and power of the Creator.²⁶ None of these conceptualisations of ultimate dependence is meant to prescribe to God how he had to go about creating reality. In fact, the biblical witness often testifies that the attempt of the creature to prescribe to the Creator what to do and how to do it would constitute quite a cheek (Is 40:12ff; Jer 18:2ff; Job 38:1ff; Rom 9:19ff). Biblical statements about how reality came into being are not revealed truths, but retrospective attempts to make sense of what can be observed in reality. Their common denominator is that that whatever might have happened must be attributed to God, the ultimate Source and Destiny of reality.

There is absolutely no reason, therefore, why we cannot say today that God created the universe by means of an evolutionary process. On the contrary, the classical concept of 'continuous creation' (*creatio continua*) captures the mood of the biblical witness much better than the alternative concept of a once-off creation of the world at the beginning of time. As mentioned above, a myth is a narrative that projects an existential truth to the beginning of time to underscore its validity for all times. We are all Adam, we all owe our existence to God, we all fall into sin, we all forfeit the kind of life that God intended for us.

Faith in the Creator is faith in the Source of our being as it unfolds in the course of time. The existential root of the doctrine of creation is the humble recognition that we do not owe our lives and our life worlds to our own effort and design. The idea of a creation out of nothing (*creatio ex nihilo*) is a late development in theology. It turns an existential awareness of ultimate dependence into an abstract truth. It gives the impression that divine creation happens at the point of the big bang, or at the point when inorganic material turns into a living cell, or when an ordinary mammal becomes a human being. In fact, it is not the extraordinary jumps in the hierarchy of emergences, including the big bang, that exemplify dependence of reality on an ultimate Source, but the entire network of relationships and sequence of events that constitute reality.

The God of the Bible is not a "god of the gaps". It is Deism, not the biblical faith, that eradicated the existential immediacy of the recognition of ultimate dependence and that led to the scrapping of the 'God hypothesis'. Deism is the result of a theological and philosophical misinterpretation of what the concept of divine agency is meant to express. Divine creativity does not obviate or exclude human agency or inner-worldly causality, but brings them forth, sustains and empowers them. God is not one factor within the network of inner-worldly causal relationships but the Origin of the entire network in its dynamic unfolding. Deism would have been impossible if one had defined God as the Source and Destiny of actually experienced reality as Luther did.

I believe that God has created me together with all creatures; that he has given me and sustains my body and soul, eyes, ears and all my limbs, my reason and all my senses, together with clothes and shoes, food and drink, house and yard, wife and child, field, livestock and all my property, that he provides me daily and abundantly with all the necessities of this body and life, that he protects me from all danger, and preserves me from all evil. All this he does out of his pure, fatherly, and divine goodness and mercy, without any merit or worthiness on my part. For all this I am bound to thank, praise, serve and obey him. This is most certainly true (Martin Luther: Small Catechism, my translation).

4. Eschatological transformation in the light of an evolutionary paradigm

What is the rationale of eschatology? The eschatological future is a conceptualisation of what reality *ought to be*, formulated in response to concrete experiences of what reality *ought not to be*. It is not some other world. Similar to the concept of God, the eschatological vision is a mental construct that has to correspond with experienced reality and its current interpretation. If not, it will degenerate into an irrelevant, even counterproductive fantasy.

²⁶ For detail see Nürnberger 2004, chapter 12.

The vision of comprehensive well-being is of necessity a provisional and constantly shifting horizon. It is not an envisaged condition that was fixed by God in eternity. It retreats as we approach it. It constantly opens up new vistas, challenges and opportunities. It can easily be shown that biblical eschatology underwent an evolutionary process that responded to changing insights and constellations of need. I have done so in my books on biblical hermeneutics and theology mentioned above.²⁷

The anticipation of comprehensive, optimal well-being is a dynamic, ever unfolding vision that gives direction to personal existence, social processes and reality as a whole. It deliberately transcends the given towards the possible and the desirable. Where every future seems to be blocked, eschatological hope becomes a defiant protest against the inauthentic character of reality, a courageous nevertheless, a refusal to accept meaninglessness, futility and frustration. This is how it emerged and this is how it continues to lift people out of desperation and fatalism.

But what about the biblical notion of the "age to come"? Does this not imply a future paradise, a never-never land of bliss and plenty? We have to recognise that the concept of the 'age to come', just as the parallel concept of the 'kingdom of God', is a late development in biblical history. It has had its own historical antecedents and was formulated in response to definite historical circumstances. It belongs to the so-called 'apocalyptic' strand of late Jewish prophecy. It is a conceptualisation of God's vision of comprehensive well-being formulated in protest against the continuing misery of the Jews as the 'people of God'. It posits a radical alternative to existing circumstances.

The notion of a divine vision of comprehensive well-being is indispensable for faith and theology. It provides a North pole, as it were, to which all compasses on all ships can zero in wherever they might find themselves on the high seas. However, for us it is important to realise that, in spite of its exuberant language, the apocalyptic idea of a reconstructed universe was not meant to draw the attention of believers away from a cruel reality to visions of paradise. It was meant to open up the future for people undergoing unbearable and seemingly meaningless suffering. Its rationale is reassure believers that their God wants to overcome their desperate situation.

It is the protest against an inauthentic reality that underlies the vision of an authentic reality in biblical times. It still provides the overall frame of reference for faith in God as the Destiny of reality today. But to be able to do that, it must articulate what experienced reality ought to become and not indulge in speculations about an imaginary alternative reality.²⁸ We have to try and eliminate irrational fantasies about life after death and alternative worlds that have caused havoc in the past. These include bizarre and pathological forms of Christian eschatological expectations as much as the suicide bombings of Muslim fundamentalists. They also rob the Christian faith of its plausibility in modern times.

The Christian concept of an eschatological future must be re-conceptualised in line with insights into the entropic process. Modern science posits an end of the universe, but not the transformation of this world into a better world. For science there is only one reality, the one that we experience. Even if there were other and completely different worlds, which science cannot and does not want to exclude in principle, they would be irrelevant for us because we cannot go there. Or if we could go there, we would no longer be what we are here and now. Similarly what 'preceded' the big bang and what could possibly come 'after' the end of our universe is totally beyond our imagination and none of our business. What matters is that we are oriented towards comprehensive optimal well-being of the world that we live in now.

Of course, this cannot possibly be a final verdict. Human insight is limited and there may be dimensions of reality of which we know nothing at all. We may be surprised at the end. And we should keep ourselves open for surprises. Even in the natural sciences, visions of the seemingly impossible have often led to new insights and previously unheard-of solutions. Christians who want to believe in an alternative world that is come are entitled to do so. They have the apocalyptic parts of the New Testament to back them up. However, in terms of the agenda of this essay, it is important to state that the Christian faith does not stand or fall with such assumptions and expectations.

²⁷ Nürnberger 2002 and 2004 chapters 12 respectively.

²⁸ Process theology has moved in this direction but as far as I can see it has not achieved a non-speculative solution yet.

The historical origins of the concept of resurrection

The same is true for the expectation of life after death. It has always been known that all living organisms emerge, evolve, deteriorate and decay. The biblical faith has been exceptionally realistic about the finality of death and the end of the world. Pre-exilic Israel had no concept of life after death at all. Yahweh was the "living God" who was the God of the living. He gave life and he took life. What mattered most in these ancient cultures was the survival of the clan, not the survival of the individual. The deceased lived on in their descendants and God related to the ongoing clan. He called for responsibility because transgressions had consequences for the offspring and all subsequent generations.

The implication is that everything of importance happened in this life. Those who lived according to the will of God would be blessed; the transgressors would be punished. Deuteronomy 28 and 30 formulate this assumption rather powerfully. But this theology did not work out as envisaged. The Jews who kept the law became the victim of a whole series of pagan oppressors who did not care about God and his law at all. Even within the Jewish community blessing and curse did not follow upon righteousness and unrighteousness. The end of the Book of Job attributes the reason for this anomaly to human ignorance of God's ways. The post-exilic notion of an eschatological resurrection offered an alternative interpretation: if a God of justice did not reward righteousness and punish transgression on this side of the grave, he would certainly do so beyond the grave. God is the Creator of life, and death cannot set an absolute boundary for his power and justice.²⁹

This assumption, informed by Egyptian and Persian antecedents, remained highly controversial in late Judaism. Job 7:9ff reiterates the pre-exilic Israelite tradition unequivocally: "Those who go down to Sheol will never come up again." (cf Job 14; Sir 41:3ff). The dead cannot praise God (Ps 115:17; Sir 17:26, 41:3f). God has no advantage when he allows his people to perish. Wisdom of Solomon, in contrast, ferociously maintains in chapters 1-3 that God has not created death but made us in the image of his own eternity and that the denial of resurrection is a cover-up for evil.

It is important to note that the Jewish notion of the resurrection from the dead was based very solidly on the assumption that Yahweh was a God of justice, not on the longing for an indefinite prolongation of life. This is also true for the Wisdom of Solomon. The idea of the immortality of the soul as found in classical theology is of Platonic rather than biblical origin. Plato and his followers believed that there was an indestructible spiritual essence of the human being (the soul) that had fallen into a material encasement, that had rendered human existence inauthentic and that would be restored to its original purity and beauty by death. This body-soul dichotomy is quite foreign to the biblical witness. The New Testament envisages the demise and resurrection of the entire person, or a transformation of the human being, including body and soul, from an earthly (fleshly) existence into a 'spiritual' existence.³⁰

The narratives of the resurrection of Christ from the dead clearly meant to posit the universal validity, accessibility and transformative effectiveness of what Christ had stood for (or that God had done through him) in the face of his condemnation by the Jewish leaders of the time. It was Christ, not Moses, who was the cosmic representative of the God of Israel. He was the royal 'Son of God', that is the messianic plenipotentiary of God on earth through whom God upholds the cosmic order and channels his blessings (Ps 2).³¹ Luther concluded that when Christ was seated 'at the right hand of God' he became accessible everywhere and at all times as the prime manifestation of the 'revealed God', the God of redeeming love, because God was everywhere as the Source and Destiny of reality.³²

The meaning of resurrection in modern terms

The hierarchy of emergences depicted above makes it impossible to uphold the Greek idea of an immortal soul that could exist apart from the body. The personal level depends on the entire

²⁹ See Nürnberger 2002:330ff (or 2004:185f) for greater detail.

³⁰ Paul's concept of the resurrection, for instance, distinguishes between a 'fleshly' and a 'spiritual' body, but it had to be a 'body' because the human being does not have a body but is a body (1 Cor 15).

³¹ For the use of the royal metaphor in biblical times see Nürnberger 2002 or 2004 chapter 9.

³² Nürnberger 2005:224f.

impersonal infrastructure of the hierarchy of emergences and cannot subsist without it. The New Testament concept of the 'resurrection of the body' rather than the immortality of the soul seems to be in line with this insight. But then 'resurrection' cannot possibly mean that a corpse has come to life again and continues to live without ever facing death. This 'realistic' understanding of resurrection is implausible from a scientific point of view and inappropriate from a faith point of view. But how should one understand it then?

As I have argued elsewhere, African assumptions about the continued existence of their deceased ancestors within their communities are a *formal* parallel to the notion of the bodily resurrection of Christ.³³ Ancestral presence is *the continued spiritual presence of a deceased bodily person*. The indispensable bodily infrastructure of this presence is that of the living community in whose spirit and for whose benefit the deceased continue to be present. In the African case it is not the *vitality* but the *authority* of the deceased that continues to be recognised by the clan. In the Christian case it is the *Spirit of Christ* that permeates, liberates, transforms and empowers the *Body of Christ*, which is the community of believers (1 Cor 12:1ff).

A few texts may illustrate this observation. "The Lord is the Spirit" and we are to be transformed into his likeness (2 Cor 3:17ff). Believers are "in Christ" or "in the Spirit". The 'cosmic Christ' is the collective participation in the way of being authentically human that manifested itself in Jesus of Nazareth. Participating in his new life in fellowship with God, believers become the "members" of "the Christ" (1 Cor 12:12). Just as in the case of the ancestors in Africa, the 'risen Christ' is not present without the infrastructure of impersonal levels of emergence. But it is that of the followers of Christ who share in his spiritual presence.

Paul's disciples (the so-called Deutero-Pauline letters) make this point clear when they state that the risen Christ has been enthroned above in the 'heavenly places' and that the believers have been raised with him out of the death of sin into the new life of Christ (Eph 1:20; 2:1-10; Col 1:13-20; 3:1ff). The 'resurrection of Christ' denotes the possibility for us to participate in God's creative authority, God's redeeming love and God's comprehensive vision for reality as disclosed in the life, ministry and death of Jesus of Nazareth.

It is clear that what matters for the Christian faith is the anticipation of the transformation from an inauthentic into an authentic life in the power of the Spirit. The depiction of the last judgment in Mat 25 reflects the critical importance of what we have done during our life times in terms of God's creative and redemptive project. For the Gospel of John the current decision for or against this project, as manifest in Christ, determines whether we have "eternal life" or not (John 3:16, 5:24). Both these texts (and many others) show that biblical eschatology is essentially about authenticity, not about the resuscitation of corpses or the endless prolongation of life.

The cosmic dimension

The New Testament concept of the resurrection from the dead was embedded in the apocalyptic anticipation of a transformation of reality as a whole. Resurrection is seen as the personal dimension of a cosmic renewal. Our modern insight into the world process does not confirm the possibility of such a cosmic transformation, just as it does not confirm the possibility of a new bodily existence. However, that does not mean that the underlying concern must be jettisoned. Just as faith in the resurrection of Christ anticipates personal and communal transformation from an inauthentic into an authentic human existence, faith in the eschatological 'age to come' (or the 'kingdom of God') anticipates God's vision of comprehensive optimal well-being for reality as a whole.

The cosmic dimensions of reality are of incredible importance for authentic human existence. Just as the antecedents of our short life spans go right back to the big bang, their consequences will impact future developments right down to the time when the earth as we know it will cease to exist. For a brief period between the antecedents and the consequences of our lives we are individual persons with the *freedom* to act and the *responsibility* to act in a constructive and redemptive way. This personal agency ends when we die. But death does not spell the end of our significance in terms of the creative and redemptive project of God. In this sense our limited lives cannot ever 'get lost'. They remain within the great embrace of God's own life out of which they proceeded and into which they shall merge when we die.

³³ Nürnberger 2007:91ff.

It has always been understood in the Christian faith that this anticipation reaches out beyond the comprehensible and manageable spheres of reality into the transcendent foundations of reality. It provides human existence with its ultimate frame of reference. It grants meaning in the face of meaninglessness. It opens up the future in the face of hopelessness. It calls for responsibility in the face of frustration, cynicism and futility. It makes it possible to accept the unacceptable and love what cannot be loved. It is altogether indispensable for a life committed to the welfare of the whole and peace with the whole.

4. Our concept of God is part of worldly reality

The concept of a personal God who enters into a personal relation with humanity is a **mental construct** that has emerged and evolved within a particular historical time span, among particular people, sharing a particular culture and having had to face a particular history of needs. As such it forms a particular tradition that has distinctive and historically motivated features. Responding to new situations, it has formed and will continue to form sub-traditions. It can also deteriorate and decay. It could not be otherwise if the message of God's creative and redemptive intentions was supposed to reach human beings and transform human reality. However, this fact does not make it invalid as such. Whether it is valid or not depends on its performance in terms of meaning, acceptability and authority. It must be assessed against the criteria of coherence and plausibility. Its consequences must go in the direction of comprehensive optimal well-being.

God stands for the Source and Destiny of reality as a whole. For a perception of the transcendent to be valid, its frame of reference must cater for the comprehensive optimal well-being of the whole of reality and the place of each entity within that whole. It must reflect the optimal condition of all levels of emergence. It must place the power of each individual or group into the context of the entire network of relationships. It must place life spans into the context of the whole of historical time. It must place decisions into the context of their consequences for the whole of ongoing history. It must be able to integrate experiences of frustration, failure, guilt, fateful suffering and death into the world process. It must be able to account for evolution within the context of the entropic process. If it cannot, it is deficient and must be overhauled. That exactly is the task of theology.

Section IV: Why Christians should stick to their faith in modern times

Having jettisoned the baggage of obsolete and untenable worldview assumptions, we are free to explore, enjoy and be witnesses of the real treasures of our faith. If these considerations are valid, Christians have no reason to feel ashamed of their faith, even as scientists. On the contrary, they are carriers of a priceless message for all people, including scientists. At least, this is how I have experienced it and continue to experience it. Here are a few **random characteristics of the Christian faith** that in my view make it irreplaceable.

God is the Source and Destiny of reality as a whole. Nothing that exists and happens falls outside his great embrace. At the personal level of reality, he has become human for humans. He has disclosed his creative and redemptive intentions through Jesus of Nazareth in the context of the history of Israel. Christian believers are *never alone*. There is always that great all encompassing Other. His presence as a person is felt in the worldwide fellowship of believers wherever they go. Even when on their own, there remains the consciousness of a loving embrace, whether in joy or in sorrow, in normality or in crisis.

The assurance of the presence of a higher freedom in which they are meant to participate leads Christian believers to an *inner freedom* from the constraints and pressures of their spatial embeddedness, their limited life times, their restricted allocation of power, their vulnerable bodily functions, their inhibiting social context, the vicissitudes of their natural environment. It also leads Christian believers to a *sense of responsibility* in particular contexts as participants in a larger responsibility for reality as a whole.

When faced with *meaninglessness and futility*, faith enables one to visualise the greater creative and redemptive project in which one is meant to participate. When being *frustrated*, one is assured of the existence of a way forward. When faced with *uncertainty*, not knowing the available options,

one can ask for enlightenment and guidance. When feeling *powerless, threatened or intimidated*, one can ask for strength. When being *oppressed and exploited* one can pray for redress.

When feeling *redundant and useless* one is assured of a calling and an empowerment within God's greater project. When *marginalized, despised and rejected*, one is reassured of a higher acceptance in spite of one's lack of acceptability. When being *wronged*, one can become part of a greater motivation to forgive and reconcile. When having *become guilty*, one can ask for forgiveness. When having *failed*, one can be granted a new beginning.

When *haunted by selfish desires*, one is enabled to see the consequences of one's action for others and the whole. When lured into the pursuit of *collective interests* at the expense of others, one is called to responsibility for the victims. When confronted with the prospect of eternal *nothingness* because the end of one's life has become close, one is reassured of a greater embrace, whatever that may mean.

The core

Let me come back to basics. The most fundamental assumption of the Christian faith is that God, the ultimate Source and Destiny of reality as a whole, has disclosed his creative and redemptive intention for humanity in the *ministry and death of Christ on the cross*. Christians take this human, historical event to be the prototypical expression of God's self-giving, suffering, liberating, transforming and empowering concern for humankind.

They believe that this manifestation of unconditional love in the crucified 'Son of God' has been elevated to universal validity and accessibility in the 'resurrection of Christ from the dead'. The 'risen Christ' is the new and authentic humanity in fellowship with God, in which all humans are invited to participate. Expressed in Paul's terms, the risen Christ is present and active as the 'Spirit of Christ' that permeates, renews and empowers the 'Body of Christ', the community of believers (1 Cor 12-14; 2 Cor 3:17f).

If redeeming love is taken to be the ultimate definition of what ought to become, the consequences must be considerable. We live at a time when scientific acuity, technological ingenuity, economic competitiveness, professional achievement, bodily strength, sparkling youthfulness and radiant beauty have become the conditions of acceptance, worth and standing in society.

In such a culture, the gospel of God's suffering, liberating, transforming and empowering acceptance of the unacceptable presents healing to the social failures, the guilty, the dropouts, the marginalized, the neglected, the oppressed, the exploited, the sick, the addicted, the unemployed, the spurned and the hopeless of this world.³⁴ They have a right to exist; they have gifts that can be developed; they have a role to play in the community; they have a future.

Let faith remain faith

Such assumptions and reassurances are empirically not verifiable and they cannot be. But the needs to which they respond are part of the human condition and experienced in one form or another by all human beings. And what a difference these reassurances can make to life! What incredible consequences can they have in objective terms! How miserable life can be if they are not forthcoming! Nobody would think that such a message is irrelevant in terms of experiential realism.

Its effects can indeed be expressed within a psychological frame of reference, but unless this expression is rooted in transcendent validity it will lack authority and substance. In my view, those who laugh off these 'subjective' preoccupations have no idea of what they are missing. Hailing from a secular family and wider social background, I have known some alternatives to the Christian faith and I am more than grateful that I could leave them behind. For me faith in Christ is the most precious set of assumptions that humans can ever be gifted with.

³⁴ "Today's highly efficient life style (that) opens up an ocean of fascinating possibilities to those who master the 'global game' but ... also casts thousands of people into a state of uncertainty and meaninglessness ... exactly the soil that nourishes radicalism and fundamentalism ..." Pedersen 2002:449 quoting Krause.

Of course, this is where faith becomes tricky: you cannot force yourself or anybody else to believe. Transcendent 'truth', of whatever kind, must impose itself on our consciousness. It cannot be constructed or achieved. We cannot catch hold of it; it must catch hold of us (Phil 3:12). As believers throughout the centuries have known, faith is a gift. This is not a dogma; it is a fact.

Moreover, faith is created by the proclamation of the 'Word of Christ' (Rom 10:14-17). It does not fall into one's heart out of the blue sky. The 'Word of Christ' is not an analytical but a performative statement. It creates what it says. There is truth in Dawkins' idea that faith is a 'self-replicating virus' that spreads through communication. Those who do not expose themselves to this Word cannot expect faith to materialise in their lives.

As Dawkins also rightly points out, faith can go wrong very badly. There is something like the pathology of faith and it is widespread indeed. But that is no reason to think that faith is redundant and should be discarded. On the contrary, this fact presents the challenge to treat faith with critical alertness, circumspection and responsibility. To try and sort what we can stand for in life and in death constitutes the calling of a theologian. The theologian is meant to serve and be served by the community of believers as a whole, and challenged by alternative interpretations of reality.³⁵

In sum, the Christian concept of a personal God who interacts with humans in a personal and loving way is not the obsolete, dispensable and counterproductive invention of a superstitious fantasy. It is firmly rooted in the prerequisites of human existence *at the personal level of emergence*. If subjected to critique and adjusted to current insights, I believe, it might be capable of outperforming its alternatives - most certainly that offered by Dawkins.

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³⁵ Cf the principle of the Reformation: *ecclesia semper reformanda* (the church must constantly be subject to reformation).

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