

Chapter 3

The psychological development of meaning and issues related to change and development in meaning

The meaning of our existence is not invented by ourselves, but rather detected.

Viktor Frankl¹

Western culture undermines, even reverses, universal values and time-tested wisdom. In making meaning in life more individualised and materialistic, it reduces social cohesion, confidence, trust and stability, and leaves people personally more isolated and vulnerable. This, in turn, reduces a community's moral hold on practice: values depend critically on personal, social and spiritual ties for effect, for tangible expression in people's behaviour towards each other. So there are complex feedbacks in the social effects of cultural trends.

Richard Eckersley et al., 2006²

The previous chapter explored the nature and function of meaning, setting out a basic typology. It also considered cultural meanings as reference points for the individual's construction of personal meaning. This chapter continues in the same vein, looking at how personal meaning develops and at a number of issues related to change and development of meaning. While the sections serve as brief introductions, some of the issues will be explored in more detail than others; as before, it is beyond our scope to investigate the related literature.

The typology of meaning is developed further under the following headings.

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3.1 The psychological development of meaning

3.1.1 The construction of meaning

Inevitably, this topic is controversial because value judgments are needed about which changes in meaning are good and authentic and which are detrimental. It also raises questions about who decides what is good meaning, and on what criteria the decisions are based. What are considered desirable changes inevitably track back to particular views of what it means to be human. Also pertinent is the prevailing view of *healthy meaning* (4.5), and interactions between personal and community views of what this entails. People are naturally dependent on community meanings to some extent; but becoming mature presumes they will increasingly take personal responsibility for their own meaning, whatever its degree of congruence with normative community meanings.

Development of meaning usually occurs through adjustments. As people change with age and experience, they adjust their meanings accordingly; some of this change is the result of choice; some is not – when things happen they have no option but to accept reality. Meaning develops to accommodate these challenges. Sometimes individuals make no adjustment; they feel that there is no reason to change meanings to meet new circumstances. The personal meaning system can be particularly resistant to change.

Some take a more proactive approach to changing their meaning; they can develop it by reading, watching educational television, studying and attending personal development programs – as well as by reflecting on the events of daily life. They are consciously looking for ways of enhancing their understanding of life.

Religions, also psychiatry and counselling, as well as the self-help movement, tap into fundamental human needs for conserving or changing meaning. Individuals may draw on different parts of their religious traditions to update their meaning in new circumstances, to get a more satisfying or fresh interpretation. Similarly, they may access community meanings from other sources – from other religions, philosophy and psychology, popular writings, and the example of heroes and friends – as well as from the media.

Opportunities for the enrichment of meaning are extensive since people have access to ancient and new traditions of wisdom, as well as to contemporary psychological movements. But not all change in meaning is healthy. Where there is great scope for change in meaning, there is also scope for manipulation.

3.1.2 Change and development in personal meaning

Change in personal meaning is not always a smooth process; it may be catalysed by traumatic events calling for answers to pressing new questions. Change in meaning may be positive or negative depending on an evaluation of its content.

On the other hand, development of meaning may take place relatively calmly. Through interaction with others or through their own study people may decide to change their meaning because they have been persuaded rationally to adopt views they believe are worthwhile.

Change in personal meaning is often indexed to change in cultural meanings. New cultural circumstances affect the way people think (see Chapter 2).

3.1.3 Assimilating the meanings embedded in role models

Role models can be a significant source of personal meaning. Through identification with people they respect, individuals can consciously and unconsciously assimilate the meanings of their heroes and heroines. Mentoring can also be influential.

3.1.4 When do you know you have meaning?

People know they have meaning when their understanding of what is going on in their life gives an explanation they find satisfying; this would include feelings as well as judgments. The validity of this explanation seems self-evident when it gives helpful answers to life questions. If it did not give plausible explanations, the meaning would feel deficient.

It is not that personal meaning should be able to provide perfectly satisfying answers for all problems, but it should help people address them in a constructive way, or at least take up some psychological stance that helps them cope. Sometimes their meaning does not give them answers that are comforting or easy to accept; but more importantly, it can help them adjust to reality, especially when that reality is not favourable. What is crucial here is whether their meaning is a 'true' explanation – to this they can be committed, even at some personal cost. For others, particularly when it is a matter of acknowledging responsibility, their meaning does not serve them well when it proposes all sorts of explanations and excuses rather than acceptance of a reality that is painful.

3.1.5 Meaning as the 'bigger picture' contextual framework within which experience is understood

Meaning can be used by individuals as the *bigger picture* that makes sense of their experience by putting it into perspective. Experience is like raw material that becomes meaningful when it is reflected on and contextualised within a personal meaning structure that functions like a 'meaning organiser'. This meaning organiser processes experience in the light of values and goals.

More will be said about this process in general before applying it to questions about human relationships, personal power, and the flight from meaning.

People's distinctive meaning processor will show characteristic ways in which they convert ordinary experience into something that is *meaningful*. Repetition of such a meaning-making or valuing activity becomes a habit and a *virtue* (or vice, if the values are negative). People do this without having to reflect on details and evaluate every item of their experience before judging it meaningful (that is, consistent with

their meaning and values). This can help people make otherwise prosaic experiences into something that has overall meaning and significance. For example, repetitive *labour* can be converted into meaningful *work*. Problems (like sickness or injury, or decisions made by authorities about their employment opportunities) can change or block people's intended path in life; but in time these can be accommodated as temporary, even if major, setbacks that do not change their overall personal goals, and they may even have unforeseen benefits.

Sometimes this process of making meaning is well understood by individuals, while at other times it is not; some have little awareness of its importance for personal wellbeing. For some young people, there is a need to learn how what appear at first sight to be trivial, repetitive or menial tasks may yet have a valuable place within the larger context of personal meaning.

Other pairs of words can be used to convey the idea of experience being transformed into something *meaningful*.

Table 3.1 Distillation of meaning from experience

| Experience (‘raw material’ experience) | Viewed from the perspective of a ‘bigger picture’ or a personal meaning processor (reflected on and contextualised) | Meaningful experience |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Labour | → —————→ | work |
| provision of services | → —————→ | profession |
| job | → —————→ | vocation |
| action in response to need | → —————→ | a commitment, a perceived duty |
| taking an initiative | → —————→ | taking responsibility |
| particular classroom learning | → —————→ | education |
| act of kindness | → —————→ | altruism |
| making someone a cup of tea | → —————→ | affirmation of friendship |
| daily swimming training | → —————→ | build up for an important swim event |

3.2 Issues related to change and development in meaning

3.2.1 Accessing people's meanings: a central part of human relationships

People learn readily how to identify and process meaning from an early age. In addition, they see how others tend to respond characteristically to particular experiences – it is part of learning to ‘know’ other people, as well as learning ‘from’ other people. They build pictures of other people's ‘meaning processors’ and contrast this with their own. This learning also helps them predict how others are likely to behave. Developing one's own meaning and interpreting the meanings of others are part of forming and maintaining personal relationships; this also occurs when people create psychological distance from others, when they learn to dislike particular people or when a personal relationship is breaking down. Discovering harmony and conflict between meanings is pertinent both to the development and dissolution of relationships.

Many problems in relationships stem from a failure in this process. Some individuals may not learn well enough about what others are really like – until it is too late. They may not comprehend adequately the character of the other with whom they want friendship or love. A good personal relationship would seem to require a healthy exchange of meanings. Without adequate communication at this level, and without some verbal confirmation, both where meanings are shared as well as where they are different, a relationship may remain fairly superficial. Compatibility and harmony in relationships would seem to presume some fundamental common meanings together with respectful acceptance of differences.

There is more to relationships than exchange of meanings. Emotional attachments, perceived beauty and sexual attraction all contribute. However, communication at a meaningful level seems crucial for satisfying, long-term relationships, where commitments endure beyond the initial momentum of mutual attraction and infatuation.

Interpreting relationships in this fashion is useful in exploring gender differences in meanings; that is, how individuals in a relationship may misinterpret what the other says and does. Learning how to understand and respond to such differences and complementarity between the sexes is crucial for effective communication between men and women.

3.2.2 Thwarting of meaning and ‘retreat’ from meaning

The sections above suggest that people have an inbuilt meaning-making ability, and that they are constantly contextualising experience. When for various reasons this ability is impaired, people are likely to suffer in some way. A lack of meaning may lead to unhappiness and feelings of frustration. For some, however, this may not appear to be a problem, especially if their attention is occupied elsewhere; nevertheless, from the value position taken here, insufficient attention given to meaning is regarded as a deficiency in humanness.

Restlessness and boredom can result from an inability to put repetitive actions into perspective; or from not seeing that experience that is neither exciting nor entertaining can have useful meaning (this is also pertinent to education). It may be that a need for excitement and finding things that grab one’s attention have become such a strong addiction for some that looking for a larger meaning is neglected. When faced with what was referred to above as repetitive ‘raw’ experience, they cannot provide any meaningful context for it, with the result that the experience is regarded as pointless. In the extreme, when the usual run of experience has little meaning, and when excitement levels ebb, they can become bored and turn to substance abuse, self-harm and violence. This explains the link Frankl made between youth lack of meaning and boredom.

If young people want to do just what they feel like doing, when and where they want, they can become prisoners to the existential and to fluctuations in their own emotions. Such a narcissistic preoccupation with self lacks adequate reference to meanings from larger contexts; it does not make adequate reference to the individual’s whole life, to the community and the environment. We presume that healthy meaning includes reference to this larger context. Self-centred youth have meaning that tends to revolve almost exclusively around their own needs and plans; others, especially family, are regarded more or less as useful infrastructure to their lifestyle – or, for those who do not fit this role, as threats.

Similarly, this view provides an interpretation of escapism: people may seek to engage in various activities that help them avoid the demands of meaningful commitment. Or they may be completely occupied with trivial pursuits because of a lack of perceived meaning. Either way it is a retreat from meaning.

3.2.3 Range or scope of personal meaning, mental health and propensity to self-harm

An individual's meaning would normally have a range or scope that relates to different aspects of life such as work, leisure, relationships, family, ethnic and national identity, religious beliefs, the environment, and animals.

When people have too few meanings informing their lives, they can get things out of perspective, resulting in a distorted interpretation of what is happening to them. In some instances of mental illness (and this can be caused as much by an imbalance in brain chemistry as by psychological problems), there is a shrinkage in the basic meanings that have previously served to help maintain mental health. They lose sight of the bigger picture to their lives. Normally, they cope with problems by referring to their supportive meanings. But if their meaning becomes 'tunnel-visioned', narrowly preoccupied with particular issues, they can become distressed and paranoid. When sick, people will often concentrate on their own illness to the point where they neglect the wider range of meanings that usually sustain them.

For those who take their own lives, particularly the young, it is difficult to interpret where they stood in relation to meaning, and difficult to propose what community or personal intervention might have steered them away from suicidal action. Logotherapy proposes that many who suicide do so because they did not have enough cogent meaning left to live by; they may have given up on finding adequate meaning. But suicide may be precipitated by strong emotions, depression or a sense of hopelessness where people seem to have had adequate meaning, but in this condition, this meaning is inoperative. What is of great community concern is that suicide seems to be one of the life options that a significant number of the young are considering.

When people are gripped by clinical depression or severe manic episodes, all the meaning in the world will not help. The physiological basis of their condition is such that therapeutic inputs of meaning may have little or no impact. This highlights the complex relationship between the physico-chemical and the psychological. It shows how drug therapy may be important for the mental health of some at particular stages of their lives.

Suicide is the extreme indicator of disconcerting levels of youth anxiety; other indicators are high frequencies of depression, and substance abuse. At an international conference on young people and drugs in Sydney in 2006, disturbing data was aired about young people's participation in excessive drinking and use of recreational drugs.³ The conference director from the Australian Drug Foundation noted that:

We're not downplaying the impact of illegal drugs such as ecstasy and amphetamines, but it's too easy to ignore that alcohol is not only a potentially dangerous drug, but one that is most accessible to young people and the one most commonly used ...

[The level of] liquor consumption by young girls was disturbing ... Higher admission rates to emergency rooms for young

girls is objective proof that young girls are drinking far more than they have in the past.

Drug and alcohol education is thought to be one of the front-line defences against these problems; this presumes that pertinent information and meanings will help the young both identify and avoid them. But the power of reason, good information and even counselling to change young people for the better should not be overestimated. These community interventions can be expected to help, but not to perform behavioural miracles. Enhancing and repairing meaning is an important way of helping people overcome psychological difficulties and avoid potential health problems, but not an infallible remedy; it can, however, be a valuable precursor to personal change. Thus there is important scope for an education in meaning that can contribute to the personal development of young people (see Chapter 10).

3.2.4 Manipulation and power through meaning

Understanding the meanings of others is a part of being sensitive and caring. But responding to the meanings of others also puts the individual in a position of vulnerability if this attentiveness is uncritical; it can be a pathway for manipulation. Whoever has access to the contextualising principles people use to construct their personal meaning has some power to enhance their lives or to manipulate them. For example, those who want to keep others subservient in particular roles can impose their will in a subtle way by proposing the meanings that suit their purposes; this would be a classic exercise of ideology. Particular frameworks of meaning can be sources of liberation or of domination. There is no escaping the need for a critical evaluation of criteria used for assigning meaning and for uncovering the sources of cultural meanings, in the process exposing their political and economic interests.

For example, a particular meaning may be helpful for accommodating necessary, repetitive labour. But if this condemns someone to remain in such a station, it becomes dehumanising; justificatory meaning can support manipulative practice.

The manipulation of people's meanings is an abuse of power; it can occur as much in a household as in the workplace and government. These dynamics are evident in social problems such as sexism, racism and 'social class-ism'; and they can be detected in policies related to globalisation of markets, casualisation of employment, economic competition, workplace agreements and industrial relations.

Social meanings can be developed and utilised for all sorts of purposes. Both classic propaganda and classic advertising draw on the same psychological dynamics (see Chapter 15). Even the apparently harmless notion of 'what it means to be *cool*' has been orchestrated by commercial interests so that young people's desire to be cool can be steered in consumer directions that will turn a profit; this 'conditioning' of meaning preys on their identity vulnerability (7.3).

Cultural meanings can provide the impetus for revolution as well as reasons for quietly accepting and never challenging the status quo. Appraisal of cultural meanings often initiates cultural and political change. The Brazilian educator Paulo Freire illustrated this dynamic: the development of critical literacy was instrumental to helping peasants break free from social and political oppression.⁴ The first step towards freedom from manipulative power is to stop using the language and meanings of the oppressive group; now, where image consciousness is a driving force in

marketing and consumerism, the critical evaluation of cultural meanings also needs a deconstruction of commercially proposed images.

3.2.5 Political meaning and social justice

What has just been said about the use of meaning as an instrument of power describes the dimension that can be called *political meaning* (see also **2.10.8**).

Detecting political meaning involves tracing the exercise of power. It asks questions about who makes the decisions that affect people's lives. It seeks to uncover the real motives and social meanings that inform these decisions. It tries to identify whose interests are best served by decisions and policies. As noted in Chapter 15, social or political documentaries on television have done much to alert people to the existence and influence of political meanings in events that were originally understood in simpler terms.

A readiness and skill to detect and evaluate political meaning is one of the goals of a political education. It has links with the notion of the 'hermeneutics of suspicion' that probes the nature and power of political meanings, even if these are not immediately evident (**2.10.14**); it also has links with education in social justice.

3.2.6 Strengthening the meaning system

If people's meaning system is important to personal security and mental health, it is not surprising that they will want it to be strong and not something that will easily buckle under pressure. It is therefore understandable that people will react to perceived threats to their meaning system – they will want to protect it; and it is understandable that they will look for ways of bolstering it and shoring it up. Threats to the belief system can be dismissed or attacked. As will be considered later, what might be a challenging opportunity for one person to extend their meaning is for another a threat that appears to undermine it.

One way of strengthening the meaning system, especially a religious one, is to appeal to miracles, portents or signs of fate. Some feel that the performance of particular religious rituals reinforces the assurances they get from their beliefs.

Some will bolster their meaning system by appealing to an external authority. If there is great trust in, and respect for, leaders (whether they are religious, political, or business leaders, or even trusted friends), individuals can come to depend on them as guarantors of meaning. Such leadership can give plausibility and credibility to personal meaning. For some, the authority of a revered institution underpins their meaning.

3.2.7 Dependence on institutions and authorities for meaning

While reliance on legitimate authorities can be a natural and valuable source of meaning, there is also a danger in making one's meaning too dependent on others or on authorities and institutions – particularly if this is done for a long period of time. A mature meaning needs to be well assimilated and personalised where individuals take responsibility for it. Normally, trust in authorities and commitment to institutions can be healthy parts of personal and social life. But this does not mean the surrender of personal judgment and informed choices. Institutional meaning needs to be appropriated critically, countering the possibility of manipulation through what is proposed for allegiance.

In a culture that is exceptionally critical of institutions and where there is a widespread sense of cynicism about the relevance of religion, there is a danger that the valuable contribution to personal meaning from institutions can be ignored. Many young people do not need much encouragement to be sceptical of institutional meanings. They may be adrift from the basic meanings that their religion can give them as a starting point in their individual construction of meaning; but they are either unaware that they lack useful religious meanings or they are pleased not to have institutional connections; many do not look for meaning in their religion. For some, religion may have such a bad press that there is perhaps a need to demonstrate for them the case for religion and what it offers in the way of meaning.

3.2.8 Bolstering the meaning system through fundamentalism

One way of strengthening the meaning system is to stress its claims to truth. In a culture where truth has come to have strong associations with ‘evidence’, ‘proof’, ‘history’ and ‘science’, it is not surprising that some religious believers want to reinforce the truth of their faith with what they consider to be historical events and scientific facts.

For example, Christians who are said to be ‘fundamentalist’ interpret the Book of Genesis and the gospels literally. They see no reason why the texts should not be interpreted that way. That the world was created in six days, that Eve was created from Adam’s rib, and that Adam and Eve were the progenitors of the human race in a place called the Garden of Eden, are believed as factual and historical. A strict historicity of the Bible is one of the foundations of their belief system – verifying its truth. In one sense, their faith is historicised.

For fundamentalists, scriptural meaning is not problematic. It is absolute truth: ‘The Bible says this’, and it has absolute authority. It is as if there were a universal, ready way to determine which interpretation of particular texts was the correct one. In practice, it is the interpretation of their particular group that is presumed to be correct. By contrast, although critical biblical scholarship presumes that the meanings of scriptures are problematic and need careful study, this does not detract from their importance for believers.

Biblical scholarship over the last hundred years has questioned claims to literal biblical historicity; it proposes that the scriptures are primarily theological. This implies that much of the Hebrew Bible and the Christian New Testament are about theological truth; history is not missing, but because it was not the primary concern of the biblical authors, there was no special interest in recounting historical facts with precision; poetic licence was taken with inherited oral and written traditions in the writing of theologically embedded narratives. Verification by history, eye-witness accounts and documentary proof is more a 20th-century phenomenon – a mentality with which the biblical authors were unfamiliar.

The faith of ‘Evangelical’ Christians is centred on the Bible. But this does not equate with fundamentalism. Just as for members of the mainline Christian denominations, Evangelical Christians draw on biblical scholarship to varying extents; a proportion of all of these groups retain fundamentalist notions of scripture. And it should not be forgotten that fundamentalist interpretation of religious texts is evident in other world religions.

Fundamentalists appear to be reluctant to take modern biblical scholarship seriously because it seems to threaten the historical basis of their meaning system. There are other psychological characteristics of fundamentalist meaning systems that warrant attention (in Christianity and other religions), but this is beyond our scope here.

3.2.9 The different meanings of scripture

The previous section on fundamentalism points towards the larger, pivotal importance of different interpretations of scripture in Christianity and Judaism (also pertinent in other religions.) Scripture scholarship, and associated historical and philological studies, have not only affected the hermeneutics of scripture, but they have influenced theological meanings, as will be considered below.

New understandings of biblical authorship within their original religious and socio-political contexts have brought to light views about the historical Jesus that contrast with understandings of the ‘Christ of faith’. The Christian gospels were more about the latter than the former; the gospels presented narratives through the theological lens of belief in the post-resurrection Jesus.

3.2.10 Changing theological meanings

Change in personal meaning can involve different theological interpretations. This has long been an area of controversy, particularly as it relates to religious authority and what is regarded as orthodox belief.

For previous generations in Western countries, theological and scriptural meanings tended to be perceived by believers as historical, relatively fixed and unchangeable. Increasingly, for those who are better educated theologically, these religious meanings are now being understood more in hermeneutic terms: they need to be interpreted with respect to the context in which they were originally developed. Take for example the evolution of ideas in Christology. Scripture scholarship and studies of the historical Jesus have uncovered more of the complexity in understandings of the Christ of Christian faith. In turn, this has affected what it means to be ‘saved by Christ’. Formerly, many lay Christians would not have probed the theological meaning of these doctrines, even though they had great emotional significance and were cornerstones of their religious faith. Debating their meaning was the province of theologians and clerics, and latterly of educated lay people. Now the wider culture raises so many questions about interpretation that ordinary believers find it difficult not to think more critically about the meaning of their religious beliefs. They are affected by the modern tendency to appraise meaning in terms of personal experience: what a belief means for them personally, and what bearing it has on their lives. There appears to be widespread concern to find satisfying psychological insights into theological beliefs. But for those who draw little meaning from their religion, these questions will not attract much attention.

One controversial example of change in theological meaning in Christianity will be considered here. The traditional, ‘popular’ interpretation of Jesus for many centuries is now questioned by scriptural and theological scholarship.⁵ It is not questioning the importance of Christian belief in Jesus, but it draws attention to the complexity and problems in understanding the three central questions about Jesus: his *identity*, his *mission* and his *message*. The traditional interpretation had clear answers to these questions: He was the *Divinely Begotten Son of God*. His mission or his purpose was

to die for the sins of the world. And his message was *primarily about himself* and about the importance of believing in him. This image of Jesus as Divine Saviour was crystallised in the well-known phrase from John's Gospel, 'For God so loved the world that He gave his only begotten Son that whosoever believes in Him should not perish but have everlasting life' (John, 3:16).

In relation to these three questions, scripture scholarship suggests that the historical Jesus (or the pre-Easter Jesus) in all likelihood did not think of himself as the Messiah or with any of the other exalted terms ascribed to him in John's Gospel. Also, this scholarship proposed that the historical Jesus did not see his own purpose as dying for the sins of the world. In addition, it considered that Jesus' principal message was not about himself or the importance of believing in him. This interpretation comes as a shock to many believers because it seems contrary to their cherished beliefs and to traditional images of Jesus. But its proponents argue that it is not undermining Christian faith, but moving towards a better understanding of the complexity both in the historical life of Jesus and in the way early Christians came to believe in him as the Christ.⁶ It considers that today's believers have access to insights from scholarship that were not available throughout most of the history of Christianity. With a better account of what the historical Jesus was actually like, it suggests that a better interpretation of Jesus' identity, mission and message is possible; and that in turn this can enhance Christian faith. Also, this scholarship tends to highlight scripture as the theological documents of the early Christian communities; Christians today stand on the shoulders of their forebears in faith.

Scripture scholarship has led to significant change in Christian theological meanings. But there is a considerable range of views. At one extreme is a strictly literal interpretation of the gospels. Then there is a spectrum of theological opinions that should not be represented simplistically as a polarisation between fundamentalist and liberal positions. Some scholars accept the need for good contextualised biblical analysis, but are wary of interpretations that seem to move in the direction of questioning the uniquely revelatory nature of the gospel record and the particularism of Christian truth claims.

One of the consequences of scholarship is an increasing significance of the relationship between the biblical texts and their originating communities. The plausibility of the religious message in scripture is linked with the fidelity and credibility of its religious community. The same might also be said about the teachings of contemporary communities of faith.

Because of the diversity ranging across the areas of normative church doctrines, scholarly theological opinions and personal interpretation or beliefs, conflicting views are inevitable; meanings perceived by some as not orthodox will inspire new faith insights for others. Different churches define what they regard as orthodoxy as a guide for their adherents. This sort of diversity has always characterised religions. In school religious education, there is the problem of deciding how extensive a range of interpretations should be studied – about which particular meanings from a religious tradition should be included, about what level of theological controversy is to be introduced for different age groups, and about what how much attention should students give to the appraisal of religious truth claims.⁷

3.2.11 Scientific meanings

The function of science is to explore and explain the workings of nature through what has been called the ‘scientific method’. Scientific explanation, or scientific meaning, contrasts with explanations and interpretations of life from personal, aesthetic, spiritual and religious perspectives. It proceeds within the framework of physical and chemical laws, and by hypotheses that can be tested. By strict definition, science is non-personal and value-free – but this is not saying that *scientists* can ever be value-free. A fundamental condition for the validity and reliability of scientific explanation is that the personal and spiritual dimensions are necessarily excluded. The noted physicist Erwin Schrödinger pointed out that because the very success of science depended on the exclusion of these spiritual dimensions, science could never be used legitimately to deny their existence and importance. Science as such has nothing to say about human meaning, purpose and values, even if neurophysiology succeeds in locating specific wave-like patterns of firing in neural tracts that seem to be the physical location of thought.

The key principle of science is empirical verification; strictly speaking, it is empirical falsifiability, because it is through the disproof of null hypotheses that scientific knowledge progresses. Given this view of science, it would seem to be an unlikely candidate for proposing human meaning, let alone a source of ultimate meaning. Nevertheless, science has had a great impact on human meanings. It has been spectacularly successful in its achievements in the 20th century, particularly in applications to technology and medicine that have affected lifestyle and life expectancy, especially in the developed countries. Human meanings can become dependent on this success, as if science can deliver aspects of human salvation.

Scientific theories about the origin and end of the universe, the morphological development of planet earth and the evolution of carbon-based life-forms have changed human perspectives on the nature and origins of life. For most of recorded history, without a scientific perspective, people’s views about life’s origins naturally drew on the readily available religious interpretations of cosmology. Religious creation stories were interpreted literally because there was no reason to do otherwise. Inevitably, the rise of scientific explanations resulted in conflict between religion and science because both were concerned with explaining the world, even if this was done from different perspectives and with different methods. Further attention will be given to this conflict below.

As one individual commented: ‘My God has to have at least a PhD in quantum physics’. Understandings of the complexity of nature cannot but impinge on thinking about creation. A mechanistic or atomistic interpretation of reality that dominated science for a long time has given way to discoveries about the sub-quantal nature of matter and about the origins, age and evolution of the universe. A built-in uncertainty exists at the most basic levels of wave and particle physics. Issues raised by the New Physics have created an interesting agenda for philosophical and theological meanings.

3.2.12 Clashes between scientific and religious meanings

Given the strict view of science outlined above – scientific and religious meanings have different natures, purposes and functions – it could be expected that science and religion should never be in conflict. Since the time of Galileo, however, there has been a continual history of conflict that at times has been violent. The reasons for the conflict are important because in principle, according to the view of science taken

here, it will be because either religion or science (or both) has in some way been faulty or wrongly applied.

If the notions of creation and creator are important for religion, then scientific interpretations of the origin of the universe and the evolution of life will inevitably have to be accommodated in some way within religious meanings. This accommodation works in different ways as explained later.

In the case of Galileo, the science/religion conflict derived from a faulty religious view. The theological conviction that humans were at the centre of God's universe had spilled over into a view of this world as the physical centre of the solar and celestial systems. This physical view was disproved – just as was the earlier view of the world as flat – showing that religious interpretations of human purpose should not absolutise particular presumptions about the structure of the world that were in cosmological vogue at a particular time. It was not the Christian Church's prerogative to pronounce in the areas of physics and cosmology.

However, conflicts like this were inevitable because in earlier pre-scientific times people did not have sufficient reason to differentiate between religious and scientific interpretations, or between the superstitious and the scientific. For many centuries, there was no compelling reason why the Genesis stories of creation should not be interpreted literally, while their theological significance remained paramount. Then, when astronomy and the Darwinian theory of evolution made it clear that the six-day creation of the universe and the origin of humanity were unlikely to have occurred in that historico-physical way, a more sophisticated theory for these complex origins emerged. At the same time, this stimulated a more sophisticated scriptural and theological interpretation of Genesis. In effect, emerging science had helped refine theology. If the Bible was read as a scientific text on human origins, the reader would be in error – not the Bible.

There is now a scientific story of human origins. For those who relied on Genesis for little more than a story of human origins, and for those who did not have a good conception of the relationships between religion and science, or where the divisions were blurred, the scientific story might also have a religious function: providing a plausible account of human origins going back billions of years to the cosmic Big Bang.

For some, the scientific story is a more attractive and realistic alternative than a literal reading of Genesis; so they dismiss the latter as myth in the negative sense, and as a result, dismiss Christianity (and religion generally) because its validity was presumed to be dependent on the historicity of Genesis. For others, this interpretation helped justify an already established view that religion was irrelevant to their lives.

Still others reacted differently. Their religious beliefs were bolstered by reading Genesis literally; this historicised the creation stories, interpreting them as scientific facts. This view read Genesis as if it were like a science text, dictated by God to the biblical author. Ironically, this approach seemed to want historical or scientific verification of beliefs (as explained in **3.2.8**). It did not differentiate the theological message from the literary form. The stories took such strong historical roots in their religious meaning system that any questioning of the stories' historicity was experienced as a threat that might undermine religious faith. The logical alternative for this group was to dismiss the scientific account of human origins as false. And as far as scriptural meanings were concerned, a fundamentalist position was taken.

Another variant of the fundamentalist position is evident in the Creation Science movement. It began with a rejection of generally accepted scientific views of the origins of life and of humans in particular. But in its place, bolstering their religious interpretations, was a 'new' scientific theory for the origins of life. It was called Creation Science and it sought to establish a scientific case for creation as described in Genesis. It is well established in the United States and Australia and from it has arisen the Creation Science magazines *Ex Nihilo* and *Creation Magazine*.⁸ While the group has exerted some political pressure to have Creation Science included in the public school curriculum, generally this has been rejected on the grounds that it is not 'science'.

We consider that the Intelligent Design movement is a 'softer' version of Creation Science. It accepts a limited view of evolution, suggesting that there are points in the diversification of life where the direct intervention of the creator is needed to explain the emerging complexity. The 'scientific' case for Intelligent Design proposes that there are gaps and inconsistencies in Darwinian theory; in particular, it claims that some organs and organisms are so complex they must have been created at a particular point in time by an intelligent designer independent of other influences.

Part of the popularity of Intelligent Design theory is the affinity it has with teleology (the philosophy of purposes) in medieval philosophy. A number of philosophical arguments were developed as demonstrations of the intelligibility of the existence of God; they were often, but mistakenly, referred to as 'proofs' of the existence of God. The argument from 'design' (contrasting with arguments related to God as prime mover and first uncaused cause) proposed that the purposes that humans discern in the adaptation of animals and plants to the environment, and in other complexities in nature, are intelligible and are thus consistent with the idea that God as an intelligent being designed this complexity into creation; the purposiveness and splendour of the development of life in all its forms point to the existence of an intelligent cause. This philosophical interpretation of the role of God in creation remains compatible with evolutionary theory because it interprets God's role as *immanent* and not physically interventionist; it is different from the Deist interpretation which saw God as setting creation in motion and then letting it run according to the laws of physics in a mechanical fashion; it regards evolution as a distinctive 'signature of creation', considering that God can be purposive even through an evolutionary process that involves chance and natural selection. By contrast with these views, Intelligent Design considers that God plays an *interventionist* role, especially at key points in the development of life-forms.

Hence Intelligent Design, from this point of view, is not science because it sees divine intervention in the emergence of life as a good *scientific* argument, and not just as a philosophical or religious interpretation. Its contemporary prominence needs to be understood within the historico-political controversy about the teaching of evolution in schools. It was only in 1968 that the US Supreme Court overturned earlier laws prohibiting the teaching of evolution in schools. Lobbying for the inclusion of Creation Science, and now Intelligent Design, within the school science curriculum has continued. So far these moves have been resisted. Our concern is that Intelligent Design, particularly as represented by Phillip Johnson, the Discovery Institute and the Centre for Science and Culture, as well as in the writings of Dembski and Behe, is something of a cover for propagating a conservative religious and political view; it sees the scientific theory of evolution as dangerous because it is considered to be necessarily anti-theist and in conflict with the Bible and the Qur'an.⁹

It seems to be a subtle way of getting around the prohibition on teaching Creation Science in American schools.

Ironically, Creation Science and Intelligent Design could well be investigated critically and appropriately within school subjects such as religious education and philosophy; they can more readily deal with the ambiguity of the claims to be scientific, or mixtures of science, religion and philosophy. This question could be located within a broader study of the perceived conflict between science and religion.

To conclude this section we refer to a contrasting interpretation of Genesis. A theological and symbolic approach reads the Genesis account theologically, with an appreciation of the literary form of creation myths. And it reads the scientific theories about the origins of the universe, earth and human life strictly as such.

3.2.13 Young people's perceptions of relationships between religious and scientific meanings

If adults can confuse religious and scientific meanings, then it is likely that children and adolescents will do so too. Hence the importance of learning about the distinction between religious and scientific interpretations.

Research studies have indicated that measures of young people's attitudes to belief in God changed markedly during early adolescence. In the United Kingdom, while 44 per cent of a sample of 11-year-olds agreed that 'God is very real to me', the level dropped to 18 per cent for the 15-year-olds.¹⁰ Repeated surveys between 1974 and 1986 showed a continual decline. Correspondingly, the percentage of 11–15-year-olds agreeing with the statement 'I find it hard to believe in God' increased from 36 per cent to 50 per cent. There is no reason to believe that the situation in Australia is very different from this.

In 1964, Ronald Goldman in his book *Religious Thinking from Childhood to Adolescence*,¹¹ suggested that two prominent factors making their attitudes to belief more liable to change were:

1. the problem of evil and suffering and how this is to be reconciled with a God who is all-powerful and all-loving;
2. a perceived conflict between what was taught in science lessons and what is thought to be involved in holding religious beliefs.

Another British study of young people's beliefs in the mid-1970s suggested that if young adolescents did not make a transition from a simple literal view of Genesis to a more theological interpretation, it was increasingly likely that they would give up their religious beliefs at about the same time they stopped believing in fairy stories:

Childhood belief is breached with incredible ease on the basis of a simplistic scientism ... the first incursion into a simple Biblical literalism seems to be the automatic death blow to 'belief'. There is in fact a complete vacuum at the point in intellectual development where the 'fairy story version' ends and anything more 'grown up' might take its place. What takes over is a vocabulary of empirical science. Any sort of idea, however fantastic, will be given house room if it can be dressed up in a scientific, or more accurately perhaps, a 'science fiction' garb.¹²

A study by Francis (1990) looked at the perceived clash between religion and science.¹³ Only 20 per cent of the sample of 11–15-year-olds disagreed with the

statement ‘True Christians believe the Universe was made in 6 days’. Nineteen per cent thought that Christians could not believe in Darwin’s theory of evolution, while a further 65 per cent were unsure whether Darwin’s theory was compatible with Christian belief. Twenty-eight per cent considered that ‘Nothing should be believed unless it can be proved scientifically’, while a further 22 per cent were unsure whether this was the case. Forty-four per cent thought that ‘Theories in science can be proved to be definitely true’, while a further 37 per cent thought this might possibly be true.

In these British samples, now some years old, a simple scientism seems to have influenced adolescent thinking. Just how pupils in Australian schools stand on this question remains to be determined. In any case, the science–religion interface remains an important one for education. Young people need to be helped to become more aware of the range of meanings that contribute to their emerging worldview. An adequate understanding of science and of the possibilities and limitations of scientific explanation are pertinent.

3.2.14 Meaning systems and religious claims to truth

At this point, some of the sections above will be revisited briefly to list generalisations about change in meaning and relationships with claims to truth. This will show five different ways in which people react to or accommodate potential new developments in their meaning.

1 Strengthening the meaning system with truth claims

Where this occurs, truth is often perceived as simple, factual, historical, and invariant; it is also thought of as scientific. From this viewpoint, truth is authoritative and is to be obeyed. Authoritative statements tend to be direct: ‘The Bible says’, ‘The Pope says’. There is a tendency to label differing views as unorthodox, or perhaps heretical. Individuals can feel besieged by the spirit of questioning and moral relativism perceived in contemporary Westernised societies.

2 Rejecting conflicting truth claims as false

New information with implied truth claims can be rejected as false if perceived as a threat to the meaning system. Both scripture scholarship and evolutionary theory have prompted change in religious meaning for Christians, and both have been rejected by fundamentalists. This thinking, also evident in groups that are not fundamentalist, tends to be intolerant of deviations from traditional meanings (deviants are treated as subversive). They can be emotional in expressing beliefs and convictions. Truth tends to be perceived in ‘black and white’; ‘complexity’ in truth or ‘degrees of uncertainty’ in truth are not ideas with which they are comfortable. They feel that if only people would go back to what happened in the good old days, problems in the Church would go away.

3 Reasons for rejecting religious meanings

For some, their understanding of scientific theories about the origins of the universe and life, however limited, are reasons for rejecting religious meanings; traditional religious meaning is perceived as superseded by science, which is thought to undermine religious truth claims. Others may not reject religious claims to truth, but in the light of their knowledge of science, and taking into account their own experience, they feel they cannot come to a satisfying resolution, wondering if it is possible to resolve the problem at all; they may take an agnostic view, that the difficulties with truth claims remain unsolvable.

4 Not interested in religious or scientific meanings

Some have no time for any of these questions. They feel they have no need for truth claims from religion or science because neither of these has any impact on their lifestyle and interests.

5 Discovering and accommodating the complexity of meanings and levels of uncertainty in truth claims

Initially, the response to new meanings may be cognitive dissonance – it clashes with current understandings. It can be disconcerting. But the response is not rejection; reflection helps with the accommodation of new perspectives and information; the meaning system changes to take the new data into account. It is not a matter of accepting or rejecting counterclaims to truth; neither is it a feeling that truth is relative, or that absolute truth is not accessible. Rather, the interpretation is that life meanings and religious truth claims are more complicated than they were previously thought to be. It recognises a natural inability to know all of the complexity in meanings and truth; but it is not a classic agnostic position. This approach has the capacity to acknowledge polarities and inconsistencies in meanings, but without the need to collapse the tensions; it can accept and live with natural levels of uncertainty in meanings. The response to potential change in meaning by being open to new levels of complexity is experienced as satisfying by those who adopt it, because the explanation often seems more realistic: life is usually more complicated than one initially suspects. All of the components of a meaning system may not fit perfectly, but overall, they can point the individual forward in a fairly coherent way.

3.2.15 ‘Earthquake’ in the meaning system

A meaning system can be imagined as the individual’s ‘psychic geography’; key beliefs, values and commitments highlight the topography of their meaning. For some, the geographical image is apt. Their meaning system is felt to be almost physical and solid like the earth beneath their feet; its solidity is linked with apparently incontrovertible evidence and proof of its truth; it is rigid, authority-dependent and relatively non-negotiable. Hence, where an event or view challenges the plausibility of the meaning system, it can provoke a strong, and at times violent, reaction; the secure meaning is felt to be at risk. If critiques or new ideas are correct, it would cause an ‘earthquake’ in their meaning system. New ideas may not even be considered because of their threat.

The picture painted here is an extreme one. But to varying degrees, resistance to change in meaning is something that all people experience. Being aware of possible challenges to students’ meaning is an important question for education. Teachers need to be wise enough to understand that new ideas that can be accommodated comfortably by some young people may be distressing for others. This does not mean that all potentially controversial content should be omitted from the curriculum to avoid stressing pupils’ meanings; rather, the average school curriculum is probably too non-controversial. But it does suggest the need for care in thinking through in advance the difficulties that challenges to meaning can cause for children and adolescents. This is an aspect of the teachers’ code of professional ethics. When students are studying meaning, teachers need to ensure that the investigation does not pressure them to resolve the questions then and there in the classroom.

Notes

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- 1 Accessed from the Viktor Frankl quotations website, May 2006
[http://www.worldofbiography.com/9124-Victor per cent20Frankl/quotations.htm](http://www.worldofbiography.com/9124-Victor%20Frankl/quotations.htm)
 - 2 R Eckersley et al. 2006, *Flashpoints and signposts: Pathways to success and wellbeing for Australia's young people*, pp. 36–7.
 - 3 M Wood 2006, Young at risk from binge drinking, *Sun-Herald*, 21 May 2006, p. 25. Before the conference this article reported the following: 19% of 12-year-olds and 20% of 17-year-olds in the survey sample were drinkers; 31% of 15-year-olds and 44% of 17-year-old drinkers consumed levels of alcohol that were considered risky for adults [indicating the tendency to ‘binge drinking’] Source: Cancer Council of Victoria. Figures for admission to emergency wards for excessive drinking show that from 1998 to 2001, the hospitalisation rate for teenagers (15–19-year-olds) increased by 4% and for young women (2–24-year-olds) increased by 7%.
 - 4 P Freire 1971, *Pedagogy of the oppressed*; P Freire 1980, *Education for critical consciousness*.
 - 5 This example is paraphrased from a public lecture on the historical Jesus by Dr Marcus Borg at the Smithsonian Institute in Washington DC in 1997 as part of a seminar on Jesus conducted by the Society for Biblical Archaeology.
 - 6 The following is a sample of references on the academic debate about the historical Jesus. Crossan & Funk would represent a more ‘radical’ interpretation; both are members of the ‘Jesus Seminar’ group of scholars. M Bockmuehl 2001, *The Cambridge Companion to Jesus*; MJ Borg 2003, *The Heart of Christianity: Rediscovering a life of faith*; MJ Borg 2001, *Reading the Bible again for the first time: Taking the Bible seriously but not literally*; JD Crossan 1991, *The historical Jesus: The life of a Mediterranean Jewish peasant*; JD Crossan 1994, *Jesus: A revolutionary biography*; JD Crossan & JL Reed 2002, *Excavating Jesus: Beneath the stones, behind the texts*; JD Crossan et al. 1999, *The Jesus controversy: Perspectives in conflict*; R Crotty 1996, *The Jesus Question: The historical search*; RW Funk 1996, *Honest to Jesus: Jesus for a new millennium*; W Herzog. 2005, *Prophet and Teacher: An introduction to the historical Jesus*; B Witherington 1997, *The Jesus quest: The third search for the Jew of Nazareth* (2nd edn).
 - 7 **[NO IT REALLY NEEDS TO GO IN BULLET FORM OTHERWISE IT LOOKS UNREADABLE. I DO NOT LIKE IT FOR REFERENCES, BUT WILL HAVE TO PUT UP WITH THAT BUT HERE IT REALLY NEEDS A FRESH START ON EACH LINE. SAME FOR THE PIECE IN BLUE EARLIER IN THE TEXT. Are you OK with having this not in bullet format?]** In studying theological diversity in religious education, other pertinent issues include: Finding a wise balance in covering orthodox religious teachings while identifying areas of difference and controversy; teaching critical skills in interpretation; sustaining a ‘critical’ study of scripture and theology while not exceeding the intellectual capacity of children and adolescents; avoiding the use

of theological controversy in a sensationalist fashion, as if this might promote student interest in the topic; being sensitive to the potential within a critical study to make some pupils feel that their personal interpretation of religious beliefs is being threatened, while honouring the commitment to educate students in critical interpretation; avoiding references to theological controversy in a way that might appear to promote agnostic interpretations; if students do not learn about theological controversies in religious education, later, when they find out what happened they can feel that the truth was concealed from them at school; students need a basic knowledge of the theological views that unite and divide the Christian churches (as well as of key similarities and differences between world religions); as part of the evaluation of religion, students need to learn how beliefs can enhance personal and community life while they can also be used to justify violence (For example, the use of Christian beliefs as a so called justification for the killing of Muslims during the Crusades; terrorists claiming that suicide bombing is justified by Muslim faith, although they would prefer to use the word 'martyrdom'.)

- 8 For example, The *Creation science foundation*, Box 302, Sunnybank Qld; Creation Industries International, http://www.creationontheweb.com/component/option,com_frontpage/Itemid,1/ and writings by K Ham, A Snelling and C Wieland; *Creation magazine* <http://www.creationontheweb.com/content/view/3871/> (similar to the former journal *Ex nihilo*).
- 9 The following examples present the case for Intelligent Design: WA Dembski 1999, *Intelligent Design: The bridge between science and theology*; WA Dembski 2004a, *Signs of intelligence: Understanding Intelligent Design*; WA Dembski 2004b *The design revolution: Answering the toughest questions about Intelligent Design*; MJ Behe 1998, *Darwin's black box: The biochemical challenge to evolution*; MJ Behe 2000, *Science and evidence for design in the universe (Proceedings of the Wethersfield Institute)*; J Wells 2002, *Icons of evolution: Science of myth? Why much of what we teach about evolution is wrong*; PE Johnson, various writings on <http://www.origins.org/pjohnson/pjohnson.html>. The organisation *Origins* features resources on Intelligent Design and philosophical theism: <http://www.origins.org/menus/design.html>. The *Discovery Institute* (<http://www.discovery.org/>) and its subsidiary *The Centre for Science and Culture* (<http://www.discovery.org/csc/>), based in Seattle, promote Intelligent Design. A supplementary biology textbook for students outlining the case for Intelligent Design is P Davis & DH Kenyon 1993, *Of pandas and people: The central question of biological origins*; see a critique on http://en.wikipedia.org/wiki/Of_Pandas_and_People. An account of the 'wedge' theory used to get a conservative religious agenda into public education is B Forrest & PR Goss 2004, *Creationism's Trojan horse*. For critiques of Intelligent Design on the Web, see http://en.wikipedia.org/wiki/Intelligent_design.
- 10 LF Francis. 1989, *Drift from the churches: Secondary school pupils' attitudes to Christianity*.
- 11 R Goldman 1964, *Religious thinking from childhood to adolescence*.
- 12 M Hare Duke & W Whitton 1977, *A kind of believing?*; see also B Martin & R Pluck 1977, *Young people's beliefs*.

13 LJ Francis, HM Gibson & P Fulljames 1990 Attitude towards Christianity, Creationism, Scientism and interest in science among 11-15 Year Olds.