




# Could “The Wonder Equation” help us to be more ethical? A personal reflection

Margaret A. Somerville 

Professor of Bioethics, School of Medicine, Affiliate of the Institute for Ethics and Society, The University of Notre Dame Australia, Sydney Australia; Emerita Samuel Gale Professor of Law, Emerita Professor Faculty of Medicine, Emerita Founding Director Centre for Medicine, Ethics and Law, McGill University, Montreal, Canada

## ABSTRACT

This is a personal reflection on what I have learnt as an academic, researching, teaching and participating in the public square in Bioethics for over four decades. I describe a helix metaphor for understanding the evolution of values and the current “culture wars” between “progressive” and “conservative” values adherents, the uncertainty people’s “mixed values packages” engender, and disagreement in prioritizing individual rights and the “common good”. I propose, as a way forward, that individual and collective experiences of “amazement, wonder and awe” have the power to enrich our lives, help us to find meaning and sometimes to bridge the secular/religious divide and experience a shared moral universe. They can change our worldview, our decisions regarding values and ethics, and whether we live our lives mainly as just an individual – a “me” – or also as a member of a larger community – a “We”. I summarize in an equation – “The Wonder Equation” – what is necessary to reduce or resolve some current hostile values conflicts in order to facilitate such a transition. It will require revisiting and reaffirming the traditional values we still need as both individuals and societies and accommodating them with certain contemporary “progressive,, values.

## KEYWORDS

Values conflicts; “amazement, wonder and awe”; common good; individualism; physical and metaphysical ecosystems

The world will never starve for want of wonders, but only for want of wonder.

G.K. Chesterton, *Tremendous Trifles*

## My Involvement in Bioethics

As this article is a personal reflection, some relevant personal history seems appropriate.

My earliest involvement in the field now known as Bioethics was in the early 1970`s. I had graduated in Pharmacy from the University of Adelaide in 1963 and in 1970 enrolled in Law at the University of Sydney. In the course on Jurisprudence, I wrote an essay entitled *Removal of Tissues and Organs from Living Persons for Transplantation: A comparative legal survey*. Although never published, this essay was cited on several occasions in the Australian Law Reform Commission’s much praised pioneering report *Human Tissue Transplants* (ALRC, 1977). Organ transplantation was at the time a “modern medical miracle”. I suggest that it, especially the first heart transplant, was the precipitating event that gave rise to the research, teaching and professional practice that now constitutes the domain of contemporary Bioethics. (As an aside, it is easy to forget how shocked the world was that a living person was walking around with the beating heart – the symbol of life – of a dead person).

**CONTACT** Margaret A. Somerville  [margaret.somerville@nd.edu.au](mailto:margaret.somerville@nd.edu.au)  The University of Notre Dame Australia, School of Medicine (Sydney Campus), 160 Oxford Street, Darlinghurst 2010, New South Wales, Australia.

As this article is a personal reflection, some relevant personal history seems appropriate.

In 1975, I enrolled in McGill University in Montreal with the goal of more concretely combining my two professions, Pharmacy and Law, through studying for a higher research degree in Comparative Medical Law. At the time, the disclosure of some appalling breaches of ethics by several American physicians in undertaking medical research was in the medical, political and public square spotlight in both the United States and Canada (Snead, 2020, pp. 12–41). My doctoral dissertation was entitled *Medical Experimentation on the Person: A survey of legal and extra-legal controls*. It explored the law and ethics needed to govern medical research, if research subjects were to be protected and respected, and abuses prevented. Because there was almost no legal literature on the topic, most of my research was in literature from disciplines other than law, especially medicine, science and philosophy. Today, my thesis would be classified as being in the domain of Bioethics.

In the 1970's the Law Reform Commission of Canada launched a project called *Protection of Life* to study the major and often unprecedented bioethics issues that were emerging, and to consult Canadians and to advise lawmakers and government bureaucrats on them. These issues included organ transplantation, especially heart transplants and the related issue of the definition of death. A radical change in the physician-patient relationship from physician-centered to patient-centered, implemented by requiring patients' informed consent to treatment or research interventions. Governance of "assisted human reproduction", especially new reproductive technologies – the first "test-tube baby" was born in 1978. The legality of sexual sterilization of people not able to consent for themselves. The ethics of medical research on vulnerable human subjects, for example, babies, fragile elderly people, people of reduced mental capacity, and prisoners. I still vividly remember the shock I experienced on reading, as part of my doctoral research, the evidence of a prison warden in the American South involved in abusive medical research on prisoners. His defense was that he considered that he could volunteer "his prisoners as medical research subjects" – note the possessive pronoun "his" – and that "they had no right to refuse". And so on. As I completed my doctorate in 1978, the Commission saw my transdisciplinary healthcare, law and ethics background as a good fit with their needs and appointed me as a consultant to the Commission on this project. Among other involvements, I researched and wrote their Study Paper *Consent to Medical Care* (Somerville, 1980).

At this point, there was an explosion of interest in bioethical issues in developed Western democracies and the very small number of professionals identified as medical ethicists/bioethicists were suddenly in high demand. Invitations came in from around the world to publish, speak at conferences, join editorial boards and the boards of ethics societies, participate in all forms of media, consult to governments, international organizations, such as WHO, UNAIDS, UNHRC, UNESCO, charitable foundations, the pharmaceutical industry, and so on. Each invitation generated more invitations and importantly, introductions to others who were early pioneers in bioethics, a few of whom became my mentors and many of whom are still valued friends. The opportunities opening up in North America were so rich and challenging that I felt that I could not walk away from them by going back to Australia and it was another four decades before I returned to live permanently in Australia, where I am now based.

## Nature of this Article

This article is a personal reflection on my past and continuing experience of over forty years as an academic and public commentator in the field of Bioethics. In it, I describe concepts I have tried to develop and questions about values and ethics I have pondered. It is not a logical sustained analysis of any one or more bioethics issues or a sophisticated scholarly philosophical analysis – indeed that would be well beyond my expertise. It is, rather, an attempt to identify some of the challenges facing the field of bioethics today and to offer a different, additional approach that might assist us in addressing them. I formulate this approach through, what one reviewer described as, "a relaxed, roaming overview of many issues". I am trying to map where we are at present in our journey to develop the field of Bioethics and where we need to go in the future.

The approach I take includes identifying relevant concepts, posing questions, drawing analogies, creating metaphors, telling stories and employing all of our “other human ways of knowing”, not just reason, important as reason is (Somerville, 2006, pp. 28–31). These “other ways of human knowing” include “examined emotions”, collective human imagination, collective human memory (Saul, 1995), moral intuition, experiential knowledge and so on. The main new proposition that I derive from this very broad overview, which will need much further in-depth research, is that experiences of “amazement, wonder, and awe”, combined with healthy skepticism, that is, without cynicism or nihilism, can lead to deep gratitude and hope, which, in turn can lead to a stronger commitment to act ethically. I call this proposal “The Wonder Equation”.

“The Wonder Equation” resulted from a combination of my personal experiences of “amazement, wonder and awe”, examples of which I describe below, and the rapidly increasing amount of research literature exploring the roles of wonder and awe in ethical decision making (Fuller, 2006; Haidt, 2013; Hardy et al., 2014; Keltner & Piff, 2020; Piff et al., 2015; Rudd et al., 2012; Schneider, 2005; Sturm et al., 2020; Van de Goor et al., 2020). My personal experiences of the generation and impact of awe are consistent with some of the very recent empirical research findings, which I briefly outline later.

As well, some very recent research on the human brain is relevant to understanding how we make decisions. It has demonstrated the neurological complexity of decision-making and shown how our perception of a situation, especially in terms of the feelings of uncertainty it elicits, can alter the hormonal basis of decision-making and thereby the decision (Bang et al., 2020). I would argue that this helps to support my proposition that having an experience of seeing something as “amazing, wondrous and awesome”, for example, the knowledge opened up by a scientific discovery, can affect our decision-making about the ethics that should govern how we use that science. In addition, with respect to decision-making about ethics issues, researchers have shown that damage to the prefrontal cortex of the brain increases utilitarian moral judgments (Koenigs et al., 2007). In short, we now know so much more about the incredible complexity of how we make decisions about ethics that we know that we know hardly anything. That realization should be cause for moral humility.

On the way to formulating the Equation, I consider also whether giving greater priority to furthering the “common good” when it conflicts with respect for individual autonomy, might assist us in transitioning from primarily or only a “me” orientation, to also include a “we” orientation of concern for both present and future society and for protection of vulnerable people. I also question whether in focusing more on the “common good”, we might move closer to resolving some current hostile values conflicts. Both “progressive” values advocates and conservative values adherents recognize the need to respect individual autonomy and to protect the “common good”, but when these goals conflict they may prioritize them differently.

When a social value relating to an individual person is in issue, such as control over one’s body or life, “progressive” values advocates more often give priority to respect for individual autonomy – increasingly called “expressive individualism” (Snead, 2020, pp. 68–87) – and conservative values adherents more often give priority to protecting and promoting the “common good”. When, however, a social value relating to the collective, such as protection of the environment is the focus, “progressives” may favor giving priority to the “common good” and conservatives to individual rights, when only one or the other can be protected. In short, depending on the nature of the situation in which a choice must be made, a person might favor respect for individual autonomy in one situation and protecting the “common good” in another. This means that we cannot reliably characterize people as “progressive” or conservative and, thereby, accurately predict the individual values making up the overall collection of values that person will espouse. This variation makes it very difficult to make accurate generalized statements about a group’s values in all the situations in which the values are relevant. This article should be read with that caveat in mind. A further source of difficulty for making accurate predictions is that even when everyone gives priority to the “common good” they might not be able to agree on what constitutes that. The COVID-19 lockdowns and other mandatory measures are a rich context in which to explore the ethical issues such measures raise.

A word of explanation. It is likely to be questioned why I place the word “progressive” in quotation marks in referring to certain people or values, but not any other adjective, such as liberal, neoliberal, conservative or traditional, describing other people or values. The reason is I want to draw attention to the connotation of the word progressive. We usually think of progress as beneficial and good, and certainly not harmful. In using quotation marks I am questioning or even challenging whether some, but certainly not all, “progressive” values are such. In comparing “progressive” values and conservative values, especially regarding their differing prioritization of protecting the “common good” and upholding individual rights, I am referring primarily to social values affecting individuals in their personal lives, as this context has been the focus of my research. Such issues include euthanasia, abortion, reproductive technologies and same-sex marriage.

Our choice of words matters in ethics decision making, including the words we use as labels. “Progressive values” is an attractive and positive term. Moreover, most people do not want to be considered as anti progress, which, as I know from personal experience, is how they can, although unfairly, be characterized if they oppose some of these values. Therefore, might a more successful approach in persuading people with “progressive” values to at least consider traditional values be to characterize them as “retro-progressive” values, rather than conservative ones (Somerville, 2009)?

Among the questions I ask are why have traditional/conservative values been rejected, especially by young people many of whom are “progressive” liberal values adherents (Haidt, 2012), and what is being lost by rejecting some of the traditional social values and what might be gained by reaffirming some of them. That said, people, who have values more on the traditional or conservative section of the values spectrum than on the “progressive” section, have been spectacularly unsuccessful in persuading many people that they should not abandon some of the more conservative values. Examples of outcomes resulting from these values changes that come to mind include, just since the 1970’s, the legalization of euthanasia, of abortion, of same-sex marriage and radical changes in the definition of what configuration of people constitutes a family.

## **What is Happening With Values?**

### ***Rejection of conservative values and adoption of “progressive” values***

Public square dialogue and media indicate that many people, especially younger ones, are “progressive” values adherents (Levin, 2019; McElwee, 2016; Parker & Igielnik, 2020). In my experience of many decades of teaching both law students and medical students, many of them are moral relativists and utilitarians. In short, they argue, respectively, that there are no absolute rights or wrongs, rather, what is ethical or unethical all depends on the circumstances and that what is ethical depends on the good achieved outweighing the harm in any given situation (Singer, 2011). Showing that the implementation of some “progressive” values, such as legalizing euthanasia, carry serious risks and harms to individuals, communities and society, are dismissed as antiquated or just an out-of-date religious belief or simply ignored as irrelevant. In short, the “negative content” arguments against some “progressive” values, namely, that some of them are harmful and carry serious risks and are ethically wrong, have been a major and obvious failure in convincing many people to reject them and the conduct which they validate (Somerville, 2015, pp. 111–156).

Traditional values adherents, who want to see at least some of their values retained, need to ask themselves what they might have done or not done that has led to this rejection. In other words, what might they have done or not done that has allowed the dominance of some “progressive” values to become so ubiquitous? To respond we need to understand how values evolve.

### ***Evolution of values: a helix model compared with a pendulum model of values change***

Neither traditional values nor “progressive” values are static; they both evolve.

A pendulum, which swings from conservative values to “progressive” values and back again, with nothing having changed in relation to either group of values in the interim, is not the most accurate image for understanding how societal values change. Rather, we – especially those who want certain conservative values retained – can imagine moving upwards on a helix as knowledge about ethics and values evolves. We should then look to the past below us on the helix and bring forward from it the wisdom that is still needed and meld it with the new insights gained on the journey. The helix model allows, indeed requires, taking into account what our “collective human memory” – philosopher John Ralston Saul’s term for history (Saul, 1995) – can teach us. It is noteworthy that many “progressive” values adherents expressly reject the past as having any worth or validity in informing our contemporary values (Haidt, 2012).

The helix, with its upward trajectory, also images the future and can carry the message that we need to engage our “collective human imagination” to assess potential risks and harms, including to future generations, of what we do in the present. Failures to consult both our “collective human memory” and our “collective human imagination” result in outcomes such as, for example, legalizing physician-assisted suicide and euthanasia (Somerville, 2015, pp. 32, 195).

As well, the helix model images better than the pendulum one that we need to be careful not to take our values positions to an extreme where they would do more harm than good. At a certain point on each side the helix starts moving to the other side, in contrast, the pendulum has no such inherent reversal function. It is sometimes said that all advocacy movements go too far – indeed, they might need to in order to be effective. However, when, at a certain point, they are highly likely to do more harm than good, then, no matter how meritorious their claims, they must be pulled back, even if only for an interim period. The helix messages such a corrective mechanism.

Moreover, the pendulum model images two mutually exclusive sides with respect to the values we espouse and conflict between them, a winner and a loser as to which values will prevail. The helix model captures more nuance and possible diversity in the values it can accommodate than the pendulum. It also better suggests that many values lie on a spectrum rather than existing solely at one or other pole.

In addition, the pendulum model does not image a mixed package of conservative and “progressive” values, which mixture is true of the values packages of many, probably most, people in post-modern, Western democratic societies, whether they consider themselves, overall, to be a conservative or a “progressive” values adherent. The helix model can better accommodate this reality and, in avoiding an image of polarization, it also makes it more likely than the pendulum model that we might find some unexpected alliances, in that while we might not be *ad idem* with another person on all our values, we might find that we are on some. We can accommodate this possibility by imagining a double helix with intermittent connections between the two strands.

### **“Values packages”**

While it is convenient to speak of people having either conservative/traditional values or “progressive”/liberal ones, as just noted and discussed previously, most people have a “mixed” values package with some values from each group. For example, as is true of me, a person might have mostly conservative social values, but liberal fiscal ones or, *vice versa* if they are a “neo-liberal”, that is they will have mostly liberal social values, but conservative fiscal ones. Or they might have a mixture of “progressive” and conservative social values or even such a mixture of fiscal ones. Moreover, even among “progressives” neoliberals or conservatives as separate groups, not all the group members will agree on which values are valid or which should take priority when there is values conflict. It is important to keep these infinitely variable combinations of values in mind, because it opens up the possibility of agreement on certain values, while disagreeing on others. That agreement can result in having valuable experiences of belonging to the same moral universe as those with whom we are in conflict on other values issues. For example, most people with conservative values disagree with

feminists with “progressive” values regarding the ethical acceptability of abortion on demand, but, in Europe, Catholic conservatives and left-wing feminists have agreed that surrogate motherhood is unethical (Momigliano, 2017). Having had such experiences of belonging to the same moral universe can also lead to a reduction in hostility when our values are in irreconcilable conflict.

## Finding Our Values

### *Experiencing “amazement, wonder and awe”*

This article seeks to identify and articulate some of the positive features of certain traditional values, a term used to describe contemporary conservative social values, which incorporate the learning and wisdom we have accrued as communities and societies throughout millennia and that each of us has accrued as individuals as we live our lives.

As a first step toward that goal, I propose that in relation to formulating our values, we should be open to experiencing “amazement, wonder and awe” in as many situations and as often as possible.

Such an experience can occur in a myriad of settings. For instance, for me, in the Flinders Ranges in the Far North of South Australia, standing in a dry creek bed full of huge, hundreds of years old River Gums, which seem like tiny specks beside the 650 million years old, incredibly high, towering rock faces behind them, which contain the oldest fossils ever found on Earth. Or watching a video resulting from pointing the Hubble Telescope at a seemingly blank patch of sky and detecting over three thousand galaxies at the edge of the universe, each containing billions of stars. Likewise, in recognizing that all life, in its infinite variety, is composed of only four nucleotides or in learning that all the atoms in our body come from stardust and are billions of years old. Or just in musing on how beautiful my Bengal cat’s movements are.

In a fascinating recent empirical research project, involving novel “nature walks”, Professor Virginia Sturm from the University of California, San Francisco, and her colleagues studied the impact of experiencing awe (Sturm et al., 2020). They point out that experiencing wonder is a necessary precursor to awe and define awe as a positive emotion that people feel when they are in the presence of something vast that they cannot immediately understand (Keltner & Haidt, 2003). They found that awe is often accompanied by a feeling of being very small – of being a “small self” – in comparison to what the person perceives as awesome (Sturm et al., 2020). They also found that the participants who experienced awe, as compared with those who did not (the control group), benefited in their sense of mental wellbeing and that their “joy and positive prosocial emotions” were augmented

Here are some of the researchers’ conclusions: “Feelings of awe help us to put our problems into perspective and to prioritize the needs of the collective above our own. By shifting attention away from the self and onto the outside world, awe diminishes feelings of self-importance and makes people feel smaller, yet more connected, to a larger community and purpose (Horberg et al., 2011; Keltner & Haidt, 2003; Piff et al., 2015). Elevated feelings of social connection, in turn, may help to elevate prosocial positive emotions such as compassion, admiration, and gratitude, emotions that draw us toward others, encourage interpersonal engagement, and foster empathy” (Sturm et al., 2020).

The prosocial effects of experiencing awe are likely to result in greater emphasis on the “common good” and concern to protect and promote it. Might religious experience to the degree that it generates awe also have that effect? It is often claimed that religious people are more philanthropic than are religious ones. Importantly, the researchers suggest that it is possible to “cultivate awe” and a disposition to feel it (Sturm et al., 2020, pp. 12–13). Human creativity in music, art and poetry – which I believe is the language of ethics (Somerville, 2006, pp. 53–93) – can also elicit “amazement wonder and awe”. Both my maternal and paternal families come from the Northern Flinders Ranges. The heritage protected Yourambulla caves with their ancient Aboriginal drawings are on my maternal family’s sheep station. As children, my father would take us to visit the caves, with strict warnings that we must not damage them in any way. I now believe that Aboriginal Elders and their Dreamtime

stories and culture can enrich our post-modern bioethics (Stockton, 2015). Here is how I described in a poem I called “Ancestral Home”, the feelings that the Cave art elicited:

...  
 Caves beyond time our playground  
 Protecting home of ancient imaginations  
 Making visible Dreamings of prehistoric artists  
 Creatures of meteor-ships  
 Immortalizing beings of the cosmos  
 Myths of the past beyond memory  
 Inspiring and fertilizing our imaginations  
 To conceive and give birth  
 To humanly bonding stories for the present  
 Myths, beliefs, stories, genes mingle and meld  
 Emergent imaginations are lit  
 From Big Bang star-fire seen backwards  
 Through the forward lens of mind-altering science  
 Warning of values perils  
 And generating virtues  
 For a future world  
 ...

In short, as our Aboriginal Australians have done for at least 60,000 consecutive years, we stand in “amazement, wonder and awe” before Nature/Creation of which we humans are an integral element.

Some people see amazement, wonder and awe as synonyms, but they can be differentiated, although they lie on a spectrum and merge into each other. Amazement is an emotional reaction elicited by deep surprise, astonishment or admiration. It generates a response of wonder, which contains an element of puzzled interest or curiosity. It bears keeping in mind that curious people are more open to considering the views of those who disagree with them with a resulting reduction in conflict and hostility. Awe is an overwhelming feeling of reverence, admiration or fear, produced by that which we see as grand, sublime or extremely powerful (Dictionary.com, n.d.).

I propose that experiencing “amazement, wonder and awe” can enrich our lives whether as individuals, communities or societies, can help us to find meaning (Van de Goor et al., 2020), and can change how we see the world, the decisions we make, especially regarding values and ethics, and how we live our lives.

### ***Bonding communities and societies***

Take, for instance, encouraging people to act responsibly to protect our environment and its ecosystems. If we stand in “amazement wonder and awe” before Nature and the natural world, are deeply grateful for them and see ourselves as having obligations to protect them, we will act accordingly. We will behave differently, however, if we see ourselves as entitled to exploit Nature and its ecosystems just for our own benefit, no matter the consequences for others, especially future generations.

The feelings elicited by the experience of standing in “amazement, wonder and awe” before Nature/Creation were traditionally expressed through religion and as a collective religious “We”. A shared religion and shared fundamental values made us a “We”, whether as a family, a community or a nation. However, starting in the 1960’s, with radical individualism and its mantra of “choice, control, and change”, we became an “I, myself and me” society with respect to personal rights. This development is captured in the statement, “It’s my life and my body and no one else, especially not the state through law, has any right to tell me what I must not do or limit what I may do in that regard. What I choose to do does not affect anyone else and is no one else’s business.” Seminal to this development was both a belief that change was always for the better and the expanding prioritization of the value of individual autonomy over that of protecting the “common good” when they were in conflict with

regard to individuals' claims to control their own lives and what happens to them personally. (Somerville, 2015, pp. 34–35).

Might acting ethically be dependent, however, on each of us recognizing our self as part of a “We”, which is composed of others like and equal to me? In other words, has radical individualism in relation to personal rights, as compared with “balanced individualism”, caused us to lose a sense of belonging to a “We”? And has that, in turn, diminished our sense of the need to protect the “common good”, especially regarding vulnerable and fragile people, when claiming individual rights? Does acting ethically require “balanced individualism”, that is, recognizing both that we are part of a “We” and, at the same time, the immense importance of each individual person and wisely balancing the claims of the collective and the individual when they are in competition?

There seems to be a paradox in that radical individualism is often accompanied by ubiquitous and frequent claims to implement equality. Might this focus on equality be, however, a compensatory response to the diminished influence of the concept of the “common good” caused by the almost absolute priority given to individual autonomy by “progressive” values advocates in relation to personal social values? The “common good” used to be a much more prominent consideration in our collective ethical decision-making regarding social values than it has been recently (Scruton, 2001). That said, might realities, such as the consequences of global climate change and of the COVID-19 pandemic, shock us into recognizing that we are all interdependent, that “we’re all in this together” in that we and our loved ones are all at risk of serious harm? Moreover, might that, in turn, move us forward toward a new “We”, which places greater emphasis on protecting and promoting the “common good”?

Experiences of “amazement, wonder and awe” can also elicit an existential perception that differentiates those who have this experience from those who do not in terms of what they regard as ethical or unethical.

For instance, it would affect how we see the transmission of human life and what respect for human embryos that result from that transmission requires. If we see that transmission and the resulting embryo as requiring the utmost respect, we are unlikely to agree that it is ethical to set up human embryo manufacturing plants for the production of human embryo stem cells to be used as therapies, which involves killing the embryos from whom the cells are harvested (Somerville, 2015, 109–110).

Likewise, if we perceive a fetus as a unique new human being and regard it, and subsequently the newborn child, with “amazement, wonder and awe”, we are likely to see it as involving a mystery that we must respect, which will usually exclude abortion and certainly excludes infanticide (Somerville, 2015, p. 192).

If we do not look at both the unborn child and the newborn one with “amazement, wonder and awe” simply because they exist, we are much more likely to see abortion or, as has become apparent from the recommendations of some bioethicists, even infanticide, as morally and ethically acceptable (Giubilini & Minerva, 2012).

In the same vein, if we are fearful of mystery, for instance, the mystery of death, we may deal with our fear and the free-floating anxiety it elicits, by trying to take control of death. Taking control reduces fear; it is a suffering reduction strategy. By converting the mystery of death to the problem of death, we can seek a technological solution to that problem and feel that we have death – and our fear of it – under control. Those who do this are likely to see a lethal injection, euthanasia, as an ethical response to their fears (Somerville, 2015, pp. 40–41).

In short, as the above examples show, experiencing “amazement, wonder and awe” can make us more likely to adopt conservative social values in relation to such issues, rather than “progressive” ones.

Valuing experiences of “amazement, wonder and awe”, and sometimes having them, can also cause us to choose differently, to rearrange our priorities, on an everyday level, for instance, in relation to choosing our area of work.

For instance, let us imagine we have a choice between taking a position in an area to which we are passionately committed – one where our heart is – and one in an area to which we are not committed,



but pays much more money. If we want to maximize our chances of experiencing “amazement, wonder and awe”, we are more likely to choose guided by our heart. We cannot manufacture these experiences, but our choices can make them more – or less – likely to occur.

To have a small, personal experience of the axiom that “one person can make a difference” gives meaning and purpose to one’s work and life. This unique human characteristic of seeking meaning is a manifestation of what can be called the “human spirit”, which is common to all human beings. That leads to the difficult task of describing the “human spirit” in such a way that everyone can accept it regardless of whether they are religious and, if religious, no matter which tradition they follow.

## Some Concepts and Experiences Informing Our Values

### *The human spirit, the sacred, transcendence, hope*

The “human spirit” is our capacity to experience the intangible, invisible, immeasurable reality with which we need to connect to make life worth living, to feel that life has a purpose and to find meaning in life. It is a deeply intuitive sense of relatedness or connectedness to other humans, to all life, to the Natural world, the cosmos, and the universe in which we live (Somerville, 2000, pp. xi–xii, 2006, pp. 56–57, 166, 2015, p. 93). Everyone can experience it; some do so through religion, others in different ways.

We also need a concept of the sacred. The sacred identifies those entities, whether corporeal or incorporeal, which we must not destroy or lay waste, but hold on trust for future generations. For some people that is a “religious sacred”, for others a “secular sacred”. Everyone can accept the secular sacred whether or not they are religious, because it does not exclude the religious sacred and it applies no matter which tradition a religious person follows (Somerville, 2000, p. xii). As an aside, when I first suggested a concept of the “secular sacred”, it evoked very angry reactions from both people who were religious and people who despised religion seeing it as seriously harmful or even as “the world’s most dangerous idea” (Somerville, 2015, pp. 170, 276). Those who were religious accused me of denigrating the religious sacred. Those who were anti-religion accused me of trying to foist religion on them.

In the last few decades, we have recognized that our *physical ecosystem* is not indestructible – indeed, it is vulnerable and can be irreparably damaged – and that we have obligations to future generations to care for it and hold it on trust, that is, to treat it, at the least, as “secular sacred”.

The same is true of what we can call our *metaphysical ecosystem* – the collection of values, principles, attitudes, beliefs, shared stories and so on, that we all buy into and on the basis of which we form our society. One of the problems in post-modern Western democracies at present is that this base has developed multiple cracks and is fracturing, as evidenced in our legislatures every day and in the protests on our streets. Holding our metaphysical ecosystem on trust will require wisdom, wise ethical restraint (the old virtue of prudence) and courage on all our parts (Somerville, 2015, pp. xiv, 196). Might experiencing “amazement, wonder and awe” bond us to others who also have this experience and thereby help us to find, as a “We”, the wisdom, restraint and courage we need? That leads to my next point.

In what order should the words “amazement, wonder and awe” be placed? It probably does not matter because they are not necessarily a linear progression, but three different, although connected, entry doors into an experience of transcendence. Transcendence is the experience of feeling that you belong to something larger than just yourself and that what you do or do not do matters more than to just yourself, including to future generations.

Rather than feeling that we are just an individual and only what is happening in the immediate present matters, we can feel that we are a member of a “We” consisting of past, present and future generations and that we do have obligations to those future generations. Recognizing that can change our decisions about ethics because, as mentioned previously, “human memory” and “human imagination” are “human ways of knowing” in applied ethics and factoring that knowledge into our decision-making can affect our decisions about ethics (Somerville, 2006, pp. 28–31).

First Nations, Aboriginal and other indigenous people have much to teach us in this regard. They consult “collective human memory” and, through “collective human imagination”, look to the future they will leave to their descendants – the tribe or “the mob”. They are not stuck just in the present as many of us in post-modern Western societies are. This intense focus only on “the now”, to the exclusion both of what the past can teach us and of the warnings that could be provided by contemplating what the future might hold can be seen as a new type of “presentism”. It goes beyond the error of interpreting history through contemporary social values glasses, to dismiss history altogether as a valid source of wisdom. As well, Australian Aboriginal philosophy and spirituality, known as the Dreaming, is based on the inter-relation of all people and all things and is strongly communitarian. It looks beyond assuming that most often priority should be given to individual autonomy – that is, “radical or intense individualism” – to what is needed for protection of the “common good” – “the mob”. The Aboriginal culture and contemporary Western society culture can be viewed, overall, as having opposite default positions with respect to social values relating to the individual person, the former communitarian, the latter intensely individualistic. They are, however, overall *ad idem* that the “common good” must take priority in relation to protecting our environment.

As I have argued already, in making immensely important societal decisions, post-modern societies, such as Australia and Canada, which are adopting “progressive” social values, are largely rejecting wisdom from history (Haidt, 2012) and failing to look to long-term, broad societal consequences. As can be seen in both the Australian and Canadian debates on legalizing euthanasia, the focus was primarily just on the present and only on the impact on the individual (Somerville, 2019). Questions, such as “What warnings might history provide? What impact will legalizing assisted suicide and euthanasia have when they become a normalized way to die?”, were dismissed, including by courts (Carter v. Canada, 2012, 2013, 2016) and legislators, as hypothetical. There are valid arguments on both sides of the euthanasia debate and others of the same kind, but in both countries the “progressive” values arguments were overwhelmingly dominant in the public square and most mainstream media (Somerville, 2019).

Hope is a central requirement in our search for ethics. It is the oxygen of the human spirit. It is to our human spirit as breath is to our bodies. Without hope our spirit dies, with it we can overcome even seemingly insurmountable obstacles. Hope allows us to believe that we can do something to prevent what we see as unethical from happening and to have the courage to act accordingly. Hope requires and elicits a sense of connection to the future, a feeling that what we do now will matter in the future. It makes us feel that we will be part of the future, even after our death. (Somerville, 2006, pp. 216, 234–240). Because of its connection to the future, hope is relevant to the issue of our obligations to future generations, discussed above, and its presence can make us more likely to fulfil those obligations. The destroyer of hope is cynicism (Somerville, 2015, p. 194).

### ***Obligations to future generations***

Concern for the future raises the issue of our obligations to future generations, which is a central question in protecting the ecosystem of our planet Earth. As proposed previously, “amazement, wonder and awe” can bond us to others who also have this experience and thereby help us to find, as a collective, the wisdom, restraint and courage we need to hold our world in trust for future generations. To fulfil that trust we each need to feel that we are a member of a community consisting of past, present and future generations. That feeling can help us to be grateful for the sacrifices our ancestors made for our benefit and to pay that debt forward to the benefit of our descendants.

I note here that not everyone agrees that there are obligations to future generations. These dissenters argue that non-existent persons cannot have rights and, therefore, we cannot owe them any obligations (Somerville, 2015, p. 259). This is a legalistic argument rather than an ethical one and the latter should inform our actions.

## ***Searching for a new societal paradigm***

Somewhat paradoxically, a contemporary challenge is for each of us to be able to see ourselves, simultaneously, as an amazing phenomenon – a genetically unique, thinking, feeling, and creative being – and, yet, at the same time, as a mere, temporary speck in an overwhelmingly vast, complex, almost unimaginable universe. Our science and technology, and the knowledge that this has brought us, means that we need to accommodate these two realities in new ways. Using that science and technology to explore both vast outer space through astrophysics and space exploration, and vast inner space through genetics and molecular biology, has elicited a massive change in our perceptions of reality, including that of ourselves. This has created the need for a new societal paradigm to hand on to future generations and for which we must search (Somerville, 1997).

Might the “access code” to this new paradigm be comprised, certainly, at least in part, in or of the search for ethics? Might that current search represent a revolution in consciousness? Our legacy to future generations is not only in the form of genes, but also “memes” – that is, units of cultural information that we pass on to future generations (Dawkins, 1976). Most important among these, are ethical memes. The late Knut Hammarskjöld, an international diplomat, once told a meeting of international lawyers, “You are the Sherpas (the bearers and guides) of the new ideas for the next generation”. We need to consider the obligations of Sherpas: to lead others to new heights and visions; to take responsibility for the safety of those they lead; not to seek recognition and to accept not always to be recognized; to carry burdens for others; to explore; to move forward on a basis of trust, loyalty, honesty, courage and integrity (Somerville, 1989). We must evolve this new paradigm and the ethics to inform it, both of which we so clearly need in our troubled, conflictual and uncertain times. In short, we need to ensure that ethics guides our behavior.

## **Some Developments Affecting Our Values**

### ***Advances in science: the relation of science and religion***

So how might the ideas and concepts, which I have proposed, apply to some current ethical issues being debated in the public square? Might experiencing “amazement, wonder and awe” allow us to find a larger “We” who share values, for instance, regarding the unprecedented ethical issues opened up by the new science? What impact does our view of the relation of science and religion have on our values?

It is a popular belief that science and religion are antithetical and in conflict. That is not necessarily correct. It depends on how we experience and perceive what we learn from each of them. They are linked because they both involve, or at least should involve, experiences of “amazement, wonder and awe”.

I noted above that we can experience “amazement, wonder and awe” at Nature/Creation and that some people express that experience through religion. What 21st Century science reveals about Nature, however, should massively augment our “amazement, wonder and awe” in whichever way we experience and express it. Likewise, the astonishing new powers that science gives us, which no humans before us have ever had, should elicit the same response, especially because that response has an important role to play in making ethical decisions about what we should and, even more importantly, should not do with this science.

Socrates said that wonder is the beginning of wisdom and we certainly need wisdom in governing the new science. Depending on how we use science, it can generate hope or despair. We need ethics to guide science to ensure that it generates hope.

Unlike any humans before us, we hold the essence of life itself, including human life, in the palm of our collective human hand and its future is more and more under our control.

Think about the massive expansion in the spectrum of our knowledge in the last 50 plus years. For instance, as mentioned previously, deep outer space exploration with astrophysics and deep inner space exploration with genetic research have increased enormously the spectrum of what we

know, but in doing so they have even more vastly expanded the area of what we now know that we do not know.

A Japanese saying explains that phenomenon in this way: As the radius of knowledge expands the circumference of ignorance increases. Imagine what we learn from science as being like a laser beam piecing the darkness of our unknowing. The further out that beam goes the larger the circumference of our unknowing it opens up. We now know so much more than previously, that we know that we know hardly anything. There are two opposite reactions to this experience.

Oxford University's former Professor for Public Understanding of Science, evolutionary biologist Professor Richard Dawkins, for example, believes that eventually science will be able to explain everything, that is, that there is no ultimate mystery (Dawkins, 2006).

In contrast, for other people recognizing this vast and ever-expanding Mystery of the Unknown which science reveals can elicit amazement which leads into an experience of wonder and awe which, in turn, can elicit in all of them, whether or not they are religious, gratitude and hope that fosters ethics.

We can summarize this proposal in a formula that could allow us to form a larger, more cohesive, more powerful, more ethical and more hopeful "We". I call it "The Wonder Equation":

$$AWA + (S - (C + N)) \rightarrow G + H \rightarrow E$$

"Amazement wonder and awe" (AWA) plus (healthy) skepticism(S), that is minus cynicism(C) and minus nihilism(N), can elicit deep gratitude(G), including for life, and hope(H) the oxygen of the human spirit, which, in turn, can lead to ethics(E) – a concern to act ethically – and, I would tentatively add, to joy.

Cynicism is defined as "believing that people are motivated purely by self-interest; distrustful of human sincerity or integrity; ... [one is] concerned only with one's own interests and typically disregarding accepted standards in order to achieve them" (Oxford English Dictionary). Such cynicism is extremely dangerous. It could result in a future world in which no reasonable person would want to live. Experiences of transcendence can be a powerful antidote to cynicism, in particular, about whether values and ethics matter or will be implemented, in practice. Cynicism needs to be distinguished from skepticism, which is an essential open-minded questioning of ideas and purported facts. Differentiating nihilism, the rejection of all religious and moral principles in the belief that life is meaningless, from healthy skepticism is also essential.

One of the attitude problems we have in post-modern Western democracies, whether as individuals, families, communities, societies and even globally, is an unjustified "sense of entitlement". Gratitude is an antidote to the risks and harms that sense sets in train. Take, for instance, encouraging people to act responsibly to protect our environment and its ecosystems. If we are deeply grateful for Nature/Creation and see ourselves as its stewards holding it on trust and as having obligations to protect it, we will act very differently from how we might if we see ourselves as entitled to exploit it for our own benefit, no matter the consequences for others. And that might lead to an experience of joy, an emotion which, in contrast to pleasure, cannot be sought directly.

### ***The importance of a few "ethics fellow travelers": "rats and lemmings"***

Sometimes, it is very difficult to be ethical. Nevertheless, we should not give up in despair – ethics can prevail, even if only in the long run. A notable experiment by some philosophers of science, described by philosopher Professor John Bigelow at a history and philosophy of science conference at the University of Melbourne in 2001, demonstrates this (AAHPSSS, 2001). We used to refer to philosophers as spending their days counting how many angels could sit on the head of a pin. Today, they are using computers to create sequential, computer-generated, decision-making sets. They generate, for instance, five thousand consecutive decisions or ten thousand consecutive decisions.

In one of these experiments, the philosophers divided a computer screen into two halves and then each half into two equal-sized groups of tiny squares, each square representing a decision maker: one group they called rats, the other lemmings.

The rats (the unethical decision makers) were represented by red squares. They always decided just in their own self-interest and without regard to the welfare of others. The lemmings (the ethical decision makers) were yellow squares. They did the opposite; they tried to protect others, their relationships and the community, as well as themselves.

Professor Bigelow’s presentation was based on a complex mathematical concept called “Simpson’s Paradox” (Malinas & Bigelow, 2017). As a non-mathematician, my understanding of this concept as applied by Professor Bigelow, is that in order to move forward overall, we must also drop back, but not as far back as the starting point of our last step forward, before we can move forward again. The old folk wisdom that progress occurs through a process of making two steps forward and one-step back reflects the same insight and concept.

The sequential computer decision-making showed that at first the rats won easily. Initially, the yellow squares disappeared very quickly; the lemmings were losing badly. Eventually, however, the lemmings started to come back; yellow squares began to appear among the red ones.

A very important message, which can be derived from this study, was that as long as a small cohesive cluster of lemmings remained, they were not lost forever; they came back – eventually ethics was spreading again throughout the society. If, however, that small group were lost, if their number fell below a small critical mass, the whole screen turned red and could not be reversed. Consequently, one ethical person plus a few ethical friends really matters ethically.

It is a message that is both hopeful and fearful. A few ethical voices crying in a moral wilderness do matter and can make a major difference. However, loss of those voices causes a complete loss of ethics. We must make sure that does not happen, which requires, among many factors that we do not despair, but maintain and “make” hope.

## Conclusion

In conclusion, individual and collective experiences of “amazement, wonder and awe” have the power to enrich our lives and to help us to find meaning. They can also allow us to bridge the secular/religious divide, reduce conflict about values and change how we see the world, the decisions we make, especially regarding values and ethics, and whether we live our lives as just a “me” or also as a much larger “We”. No small power. No small responsibility.

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## ORCID

Margaret A. Somerville  <http://orcid.org/0000-0002-0850-4778>

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