



Religion and Transhumanism: Introducing a Conversation

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Why a Dialogue between Transhumanism and Faith?

In broadest terms, transhumanism is the view that humans should (or should be permitted to) use technology to remake human nature (Bostrom, 2001, Walker, 2002b). It is believed that through stem cell technology, genetic engineering and nanotechnology the possibility exists that this century we might be able to greatly enhance the healthy life span of persons, increase intelligence, and some would argue, make ourselves happier, and more virtuous (Pierce, 1996; Walker, 2003; Hughes, 2004). Central to transhumanism is the re-contextualizing of humanity in terms of its technology; it represents a drive towards technological exploration into the enhancement of the human condition. In an era of increasing innovations in informational and biotechnologies, transhumanism presents a radical view of our future world: the merging of humanity with technology as the next stage of our human evolution—we have the opportunity to become something more than human.

The idea of becoming more than human is often discussed under the rubric of a “posthuman future”. It is suggested that posthumans will have advanced mental, physical and moral capabilities—beyond anything that humans presently can obtain. Some argue that a posthuman future can be seen *simply* as a logical by-product of our technology driven society; others argue that this is to overlook the enormous ethical implications and challenges of such an event (Walker, 2002b). Not surprisingly, the potential technological modification of humanity especially elicits concern from people who come from a faith perspective or spiritual worldview. At the heart of the transhumanist project is an interpretation (or re-interpretation) of what it means to be

human. This leads to questions about humanity's relationship to other entities, including the transcendent or divine.

On first sight, the proposal to reengineer humans may seem inimical to organized religion and persons of faith. The propositions of transhumanism do present many points of contention with traditional religious understandings of human nature and the place of humans in the created order. One common reaction here is that using technology to re-create humanity is tantamount to humanity "playing god." Also, some transhumanists are quite dismissive of religion. For example, on occasion it is claimed by some that transhumanism is a secular philosophy and that transhumanists ought to be ever vigilant that it is not confused with religious ideas or interpretations. These views create a hostile polarization between religious and transhumanist visions of humanity's existence and future.

So, it hardly seems inappropriate to ask: "Why a collection on transhumanism and religion? Is the point to see the combatants enter the ring like some tawdry academic wrestling match? Or is it an effort to broker peace?" Both questions seem to presuppose that there is necessarily an antagonism, and although this may be the majority view amongst both persons of faith and transhumanists, there are voices from both communities that suggest a more productive dialogue is possible.

Within the past two years a conversation has begun to emerge between members of the World Transhumanist Association and various religious individuals and groups. In part, this has involved transhumanists acknowledging that religion continues to be a significant cultural force, influencing certain public discourses, and so must be taken seriously. It has also involved various theologians and religious ethicists seeing the need to consider and address the emerging technological worldview represented by transhumanism, resulting in a recognition that there is something compelling about the transhumanist vision of the world; touching on a desire for a life that overcomes the brokenness of this world, a place where pain and suffering are eliminated. This is a longing that is articulated in many religious traditions, those that subscribe to a distinctive eschatological belief in a future where humanity is perfected and transformed. However, within these areas of consonance, transhumanism also advocates some notions about the nature of humanity and the role of technology that can be problematic for some (or perhaps many) approaching from a religious worldview.

Heated discussion has emerged within some religious communities about the potential outcomes of a transhumanist worldview. Some images and ideals of the posthuman sit well within discussions of spiritual transformation and other religious longings; while others, such as pursuing transcendence through technology, stir up impassioned debate and concerns. Discussion has also emerged about whether a religious-based or syncretic transhumanism is possible or desirable. This special issue of the *Journal of Evolution and Technology* seeks to bring together a variety of voices in this dialogue on issues related to technological innovation, the human condition and secular and religious worldviews. This is done in an effort to potentially map out a platform for further conversation between transhumanism and faith communities.

Anatomy of a Conversation

The dialogue represented in this issue traces its roots to 2003, when a group who were part of the Templeton Oxford Summer Seminars in Christianity and the Sciences invited the World Transhumanist Association (WTA) president Nick Bostrom, to an informal

conversation on the ideals and values of transhumanism. This meeting provided a helpful interaction, as Bostrom presented the central ideas of transhumanism and its relationship to the idea of a posthuman existence. This discussion also resulted in an informal working paper by this group entitled, "A Platform for Conversation: Transhumanism and the Christian Worldview". This collaborative piece attempted to define transhumanist philosophy and the posthuman vision in order to reflect on the commonalities as well as challenges posed to the Christian worldview. While recognizing shared values within the Christian and Transhumanist narratives (desires for eternal life, humanity being changed into a perfected self and direct involvement in the creative process) it also highlighted the inherent problems of understanding fallible humans acting as co-creators or engineers of their own grace and perfection. This ended with a call to selective use of technology and encouragement that technological practice be informed by principles of justice, care and truth.

Through these initial interactions, an online discussion began between the two guest editors of this issue on religious interpretations of the transhumanist project. By exchanging papers each had written on this topic, a discussion began to grow on how transhumanists might react to Christian reflection on transhuman goals, and conversely the concerns Christian theology might pose to a religious argument for becoming posthuman. Through email and an informal meeting in Toronto, it became evident that there was interest in seeing this conversation develop. Wider discussions emerged on the WTA list and within the executive that resulted in plans for a special issue of the *Journal of Evolution and Technology* on "religion and transhumanism". The desire was to bring together a collection of papers dealing with issues related to technological innovation, the human condition and secular and religious worldviews.

As well, the World Transhumanist Association announced plans for a one day conference on the theme of "Transhumanism, Faith and Hope" preceding the 2004 Transvision conference in Toronto. This was to bring the conversation to a more public forum. Alongside this event a "pre-pre-conference event" was organized at Green College in Oxford (UK) to enable individuals unable to attend "Transhumanism, Faith and Hope" the opportunity to join in this emerging dialogue between religious and transhumanists' perspectives. The idea was that these events would generate interest and critical thinking in this area.

The Oxford event was held in July 2004 as a small workshop event aimed at facilitating a discussion between WTA members, individuals interested in transhumanist values; and Christian theologians, ethicists and philosophers. The workshop, involving two main discussion sessions, maintained an open candor. The first session considered "A Christian Response to Transhumanism", a critique of Transhumanism by a moral theologian. Here concern expressed about the notion of technological immortality was explored arguing that the stated transhumanist goal of extending life span is different than the idea of eternal life or not dying. It also raised the question of the need for an articulated social justice for the community, and not just the individual relations to transhumanist desires for "morphological freedom".

Session two "Towards a Religious Transhumanism" offered the personal reflection of a WTA member on how his religious belief intersects with his being a transhumanist. This was by the discussion of a paper on theological inquiry and philosophical justification for one possible account of a religious transhumanism. This provided helpful insight, one participant commented, into transhumanism as a "thought experiment, demonstrating of values and visions informing our engagement with new technologies". However it also

raised debate around the potential problems in reinterpreting traditional theological understandings of what it means to be human; and how this may or may not apply to transitional humanity in a digital, biotechnological age. In the final session it was agreed that the workshop brought better understanding to the breadth of positions held by transhumanists as well as the diversity of religious positions within Christianity. Several areas of common interest surfaced for transhumanists and those from a Christian religious perspective. One was the belief that technology is a value-laden enterprise leading to common concern for social justice, so the benefits of technology would be available to more than merely the social and economic elite. Another was the idea that while life extension raises problematic issues; it is not completely contrary to a belief in God or a higher reality. Through discussion it was also agreed that more work needs to be done in joint exploration of human identity, role and importance of embodiment, as well as teasing out distinctions between therapy and enhancement and what "spiritual" enhancement might look like.

In August 2004 the "Transhumanism, Faith and Hope" conference was held at Trinity College, University of Toronto. It was viewed in some respects as uneven, with new highs and lows set in terms of dialogue between faith and transhumanism. The nadir occurred during the latter stages of the conference when there was an open discussion amongst all attendees. At this point several transhumanists turned the conversation to the question of how to manipulate persons of faith in a manner that they might overcome their ignorance, and so help swell the numbers of transhumanists. Whatever else is wrong with this line of inquiry, it reveals the tendency of some transhumanists to see persons of faith as naïve and also in need of embracing secularism before becoming transhumanists. This seemed to ride roughshod over the view of many transhumanists that transhumanism need not exclude persons of faith. But what was painfully embarrassing for some participating in the conference was the suggestion that persons of faith are weak-minded. It must be pointed out too that the attitude expressed during this part of the conference is not an isolated incident, e.g., occasionally discussion on transhumanists' email lists turn to the question of religion, and here again the (offensive) view that persons of faith are weak-minded is often expressed. Nevertheless, it was fortunate that most of the "Transhumanism, Faith and Hope" conference was able to be conducted at a much higher level than this. Several of the presentations that day were revised for inclusion in the present volume. Collectively the presentations that day were able to challenge and overcome the simplistic view that transhumanism must lie in opposition to any religious perspective; that is, to extinguish the view that to the extent that transhumanism succeeds in the world, it will necessarily mean the decline of religion.

In reflection on these beginnings, and the current journey of this dialogue, it is evident that if transhumanism and religion are to intersect for a worthwhile and integrated dialogue each must acknowledge this is not a straightforward task. Each tradition brings a unique perspective to the discussion table, and a distinctive view of the nature of the world and humanity. However, we believe this is not a fruitless exercise, but rather, a challenge to push forward.

Walker:

When Transhumanism Engages Religion

Both religion and transhumanism offer responses to the philosophical question: “How should we live?” Cogitated on by philosophers and theologians from Ancient Greece to the present, reflection on this question involves attempting to understand the nature of humanity, our obligations to ourselves and others, and inquiry into the question of the good life. Among the papers in this volume you will see transhumanist and religious answers to this very question, and this common interest in this important topic seems sufficient to raise hope for a productive dialogue. On a personal note, I should say that it is a pleasure to participate in the early stages of what I hope will be a long and productive discourse between these groups. And while there is much that I agree with in this volume, my purpose here is to evaluate what I see as a certain consensus among our contributors; namely: there is inevitably at least some divergence between Transhumanist and religious replies to the question of how we should live. Specifically, I want to explore the (admittedly somewhat radical) thesis that transhumanists and persons of faith can provide the *same* answer to this question; what is more, that a case for a transhumanism-religious hybrid can be made. That is, one can consistently be religious and transhumanist.

To see how this might be so, let us think first about transhumanism. Transhumanism, I believe, is best seen as a species in the genus of Western philosophy. In this sense it is to be understood as the latest variant on a tradition initiated by the Ancient Greeks. It is true that transhumanism makes much of the potential of emerging technologies to transform our world and ourselves, but it asks us to reflect critically on this potential. Such critical reflection I take to be the hallmark of philosophy. So, transhumanism—or at least those more noble aspects of transhumanism—do not jettison the demand for philosophical clarification and insight.¹ Transhumanists, for example, call our attention to potentially negative consequences of emerging technology; the possibility that advanced forms of technology might wipeout all life on this planet is one that transhumanists have long maintained merit our attention. It is wrong, then, to think of transhumanists as mere apologists for any and all uses of technology. Transhumanists are for the *ethical* use of technology. Naturally, there is disagreement as to what exactly constitutes ‘ethical use’, but what is not controversial is the idea that we ought to reflect on how technology can be used in ethical and unethical ways. Of course, this is not to say that transhumanism is neutral on the more general question of technology, for it is committed to the view that at least some uses of advanced technology can contribute significantly to the goal of living better lives by altering our biological make-up.

An obvious question here is, better by what standard? Transhumanists offer different answers; but, interestingly, their responses fall along pretty traditional lines. Some argue that allowing persons to use technology to redesign themselves is better because it respects people’s fundamental right to decide for themselves the constitution of their physical make-up—what has been dubbed “the right to morphological freedom” (Sandberg, 2001). It has been argued by others that using technology to alter humans (and non-humans) is the best and only means to obey the Utilitarian imperative to maximize happiness for the greatest number of beings. (Pierce, 1996). Another possibility is to understand transhumanism in terms of a perfectionist ethic. (Walker, 2001) Perfectionism is the philosophical view that we have a duty to develop excellence in our

¹ I discuss different understandings of ‘transhumanism’ in Walker (2002b).

lives. It says that developing our minds and bodies are intrinsically good things to do. While we may gain a certain amount of happiness from achieving some level of cognitive or physical excellence—completing a university degree, or competing in the Boston marathon—such achievements are intrinsically good. In other words, this good is independent of all subjective feelings of happiness such accomplishments might bring. Think about how we react to persons who do not strive to develop their talents, or societies that do not allow their members to seek such achievement (e.g., Huxley's *Brave New World* is the classic example here), and you can see the intuitive appeal of perfectionism. For even if people are perfectly happy with lives of little or no achievement—as is the case with the denizens of the *Brave New World*—we might still be inclined to think that something important is missing from their lives.

Perfectionism has had a long and illustrious career in Western thought, with such luminaries as Plato, Aristotle, Augustine, Aquinas, Kant, Hegel, Marx and Nietzsche, among its members (Hurka, 1993). One connection with transhumanism is this: transhumanists think there is no *principled* difference between moral improvement through nurture and attempting to alter our nature to achieve the same ends that we strive for in our nurture. Thus, if we spend years training to achieve a certain level of physical health and athletic proficiency, and we could achieve this same level or more through the application of technology to enhance our biological nature, then transhumanists say we should.² Similarly, if we spend years or decades in schools seeking to nurture ourselves to be wiser and more knowledgeable, and altering our biology could also be used to this end, then transhumanists say we should (Walker, 2001).

In what direction and how far should we pursue excellence? A very traditional perfectionist's answer is that we should seek to become as godlike as possible. Plato, Aristotle and Hegel all enjoined us to become godlike, and indeed, argued that in our wisdom at least, we could become godlike. So their answer to the question, "How should we live?" is straightforward: we should become as godlike as possible.

Admittedly, to contemporary ears, the idea that we should strive to become godlike may seem quite astonishing—to put it mildly.³ This position is based in part on the idea that an essential and distinctive feature of humanity is our capacity for reason and wisdom, and that it is through the pursuit of wisdom that we can and should become like the divine. Thus, Plato's epistemological optimism is evident in his belief that comprehension of the "true nature of everything as a whole" (Plato, 1961b: 174) is within the grasp of those with a philosophical inclination. Plato writes that a life spent obtaining philosophical wisdom is to exercise the "divine power" within us. To become divine will allow us to become "truly perfect" and "singularly happy" (Plato, 1961a: 249c-d).⁴ Aristotle expressed a similar view when he said that "we should try to become [divine] as far as that is possible and do our utmost to live in accordance with what is highest in us" (Aristotle, 1962: 1177b). More than two thousand years later, Hegel announced the same conviction that the exercise of reason allows us to raise ourselves to the godlike or what Hegel refers to as the "absolute" (1895: 65).^{5 6}

² Others things being equal of course.

³ Julia Annas, one of the few contemporary scholars to note this aspect of Plato's thought, informs us that the idea that we can and should become godlike was well-known in the Ancient world but "...the almost total absence of this idea from modern interpretations and discussions of Plato is noteworthy" (1999: 54).

⁴ Cf., Plato 1961c: 90a-d. See Annas (1999) for discussion.

⁵ Hegel makes this point a number of times in his work including the famous remark in his *Logic* that this work articulates the content of God's thought. Similarly, in the final chapter of *The Phenomenology of*

Transhumanists on the whole are more sanguine about the view that human reason is godlike; nevertheless, using technology to alter the biological basis of our reason opens up the possibility of at least achieving a higher and more godlike reason or intellect. This tells us why some transhumanists should be very interested in at least some religious thinking, for if the goal is to achieve what we can in the way of perfection, and God is thought to be a perfect being, then religious thought on the question of why God is said to be a perfect being is very relevant. For unlike those who believe in the inviolability of our biological natures, transhumanists will seek to alter our natures in accordance with the highest states of excellence, that is, not accepting the limits of our biological natures.

To hear that transhumanism may be in lockstep with the philosophical tradition of perfectionism that took root in Ancient Greece may be unexpected, but it is perhaps no surprise that transhumanism invites godlike aspirations, and so, this may seem to put it ineluctably at loggerheads with religion. Such a conclusion, I believe, should be resisted. To do so we must first resist the temptation to think of religious voices providing a monolithic answer to the question of how we should live.

Consider that many persons of faith believe that we are children of God. The importance of this idea is hard to overestimate given that it is a common root from which springs much religious thinking. Appealing to this idea, for instance, makes for a very intuitive explanation of our love, respect and closeness to God. However, to say that we are “God’s children” seems open to multiple developments, and so it is extraordinary that this notion has not received more critical scrutiny. One way to understand it is in terms of the same parent/child relation we are familiar with between adult humans and human children: we are God’s children in exactly the same way that we are the parents of our children. To think about it in such literal terms is quite startling. For then it seems that we might one day grow up and become like our Father, just as we expect that our children will become like us in time. In other words, taken literally, this idea implies that upon maturity we too should be gods. Pursuing this line of inquiry quickly puts the question of transhumanism at the fore, since, as we have said, transhumanism offers the possibility of improving our intellectual and moral natures. If we are to grow up and become like our Father then why shouldn’t we side with the transhumanist means of achieving this end, i.e., using technology to make ourselves more godlike?

This seems to me to be a perfectly consistent transhumanism-religious hybrid: it draws from transhumanism the idea that we can use technology to improve ourselves, from religion it draws the idea that part of our maturation process to becoming like our Father is to take responsibility for our own development. The parallel with developing human children is quite obvious: one aspect of successfully raising children to adulthood means helping them to eventually take responsibility for their own development. Obviously people do not cease to develop upon reaching adulthood. As young adults, our children make many decisions about their future development: their education, their career, the person they might want to have as a partner in creating their own family, and so on. Analogously, a Transhumanist theology sees us as entering a stage of young adulthood, one where we take responsibility for our further development towards becoming like our Father.

Spirit which is entitled ‘absolute knowing’, Hegel describes the transition from finite attempts to know, to infinite knowing first achieved by Hegel.

⁶ This compressed discussion ignores the fact that these thinkers struggled with the fact that we are “mangled gods”, that is, there is a mixture of both divine and human elements within such God-humans. Thus Hegel writes: “I raise myself in thought to the absolute...thus being infinite consciousness; yet at the same time I am finite consciousness...Both aspects seek each other and flee each other...I am the struggle between them” (Hegel, 1895: 65).

I have attempted to make a philosophical case for this hybrid. Still, there is the question of its theological credentials. Exactly which of the world's religions could accommodate this transhumanistic theology is an interesting question—certainly one beyond my expertise. Yet, I think a case can be made that such a hybrid does not constitute a complete break with the history of religious thinking. One area that this idea might be explored is in the idea of humanity as “co-creators” with God of our world and our lives. Several of the contributors to this volume explore the co-creator concept. Admittedly, they return a negative verdict on the question of whether this idea will fully support transhumanistic ambitions. This rejection seems based in part on a conception of theological premises that may themselves be object for further consideration, e.g., Daly in this volume claims that his critique of transhumanism is rooted in “orthodox Christian theology”. Exactly what this entails is an interesting question, although our authors tend to look to modern and contemporary thinkers. My own work in this area looks for insight and inspiration to the second century Christian thinker St. Irenaeus. The Irenaean tradition in Christian theology understands humans maturing in terms of self-development. I have argued that it is possible to understand this Irenaean process of self-development in terms of becoming godlike.⁷

A perhaps somewhat surprising further possibility for theological accommodation of this hybrid may be found in the writings of Pope John Paul II. In an recent article on the late Pope's thought David Hart, an Eastern Orthodox theologian, writes that “there is, as it happens, nothing inherently wicked in the desire to become a god, at least not from the perspective of Christian tradition; and I would even say that if there is one element of the transhumanist creed that is not wholly contemptible—one isolated moment of innocence, however fleeting and imperfect—it is the earnestness with which it gives expression to this perfectly natural longing” (Hart, 2005). Hart describes this longing thus:

Theologically speaking, the proper destiny of human beings is to be “glorified”—or “divinized”—in Christ by the power of the Holy Spirit, to become “partakers of the divine nature” (II Peter 1:4), to be called “gods” (Psalm 82:6; John 10:34-36). This is the venerable doctrine of “*theosis*” or “deification,” the teaching that—to employ a lapidary formula of great antiquity—“God became man that man might become god”: that is to say, in assuming human nature in the incarnation, Christ opened the path to union with the divine nature for all persons (Hart, 2005).

As Hart notes, this understanding of salvation has not had much prominence in contemporary Western theology, but it was well-known to the Church Fathers right through to the high Middle Ages. Such is not the case in the East: “in the East it has always enjoyed a somewhat greater prominence; and it stands at the very center of John Paul's theology of the body” (2005). Hart's thesis about a connection between transhumanism and the late Pope's theology is interesting, but cannot be explored here. It is suggestive, however, that there may be resources within the Christian tradition to accommodate a religious-transhumanism hybrid.

It perhaps goes without saying that this is not the place to decide these philosophical and theological topics. My limited ambition here is simply to indicate the possibility that there may exist some very deep philosophical agreement between at least some transhumanists and persons of faith, most notably in a transhumanism-religious hybrid. Thus, to think the opposition here is between a secular and religious orientation is a mistake. Atheists can and do disagree about transhumanism, and as I have suggested,

⁷ I discuss this understanding of Irenaeanism in Walker 2002c.

persons of faith may agree with transhumanism. I believe that a more profitable way to express the difference here is in terms of answers to the question: "How should we live?"

Heidi Campbell:

When Religion Engages Transhumanism

When transhumanists and people of faith come to the table, there is the potential to easily fall into a heated debate where 'technological utopians' confront 'bio-conservatives' and lines are drawn focusing on the inconsistency and incongruency between worldviews. A more interesting approach, however, is to consider the challenges that the transhumanism approach to humanity poses to religion and worldviews that hold to a belief in a transcendent reality directed by something greater than humanity. Through wrestling with this challenge and tensions one can begin to identify the commonalities that may provide potential areas for fruitful discourse. Unpacking transhumanists' values and their ideological tools, in the end cause people of faith to re-examine their own views of humanity and the theological roots of these beliefs. Exploring the complexities of religious perspectives provides transhumanists with a fuller view of the variety of religious belief that exists. It also calls them to reflect and articulate in more detail their understanding about the roots and direction of the human state.

One clear challenge raised by the transhumanist worldview is the place of humanity in the advocated technological order. Transhumanism articulates the rejection of speciesism or "bioism". In other words, humans do not hold a primary or privileged place in the world. Bostrom has argued that it is morally irrelevant whether an entity that is functional or conscious runs on silicon or biological neurons (Bostrom, 2001, "Ethics for Intelligent Machines: A proposal"). The transhumanist view is of "human nature as a work-in-progress, a half-baked beginning that we can remold in desirable ways" (Bostrom, 2001, *Transhumanist Values*). Humanity's value thus comes from its being a source of potential to create or prepare the way for new orders of sentient beings.

The essential question raised here is what is our understanding of the nature of humanity in a posthuman world? Also at issue is the relationship of humanity to the transcendent or divine other, a key belief within most religious worldviews. There is a distinct tension for religious persons if we merely view humanity as a link in the evolutionary chain of consciousness. This discussion calls both perspectives to discover and clearly articulate what is the unique and intrinsic value of our current state. While a Jewish, Muslim or Christian worldview would echo the temporality of the body, echoing that "all flesh is like grass" and only the spirit eternal, it also believes that humans possess the imprint of our creator, *imago Dei* (the image of God). This unseen imprint endows our existence with worth and beauty. Thus it is not just what we can become, but what we are in essence that makes us who we are. Our finitude also raises interesting questions on the role and purpose of the body in our being fully human. How necessary is the body for us to be complete, if we are in essence spirit? How do we define the role of the body in relation to our frailty, yet being made in the image of an eternal God? This requires serious reflection on the belief and values attached to human embodiment. A dialogue between religion and transhumanism thus calls for the need to clarify in greater details what it means to be uniquely human in the world now and in the future.

Transhumanism also stresses the theme of transformation that may potentially lead to new levels and forms of existence. The transhuman, as a transitional state, is focused on the progression towards the posthuman and the development of humanity in many ways through technology. At one level it may be simply seen as therapeutic, such as use of technology to overcome an injury or bodily limitation. Yet transhumanism also advocates the exploration of enhancement technology and advanced forms of being. This can include the creation of artefacts (artificial minds) or possibly mind children (potential beings created from intelligent machines).

As humanity is pushed towards this kind of transformation, questions are raised as to the kinds of posthuman forms we will cultivate. It seems that the connection between what humanity now is, and what it should be, is infused with spiritual impulse, and a desire for other worldly being. Humanity becomes defined as a co-creator, collaborating with an innate process of becoming, whether that be understood as joining in with posthuman desires or connecting with the plan of God, to birth transformed beings. Transhumanists have articulated this relationship between the creator and the artefact/mind child as one of joint responsibility for the artefact's actions where 'both are held accountable for the artefact's actions and transgressions' (Bostrom, 2001, 'Ethics for Intelligent Machine: A Proposal'). However, the willingness for humans to step aside and let other intelligent machines or sentient beings have primary roles of governance of the world is not an idea excluded.

This leads back again into the question of the human, not what we are but what we could or should become. There is much teaching in religious context that emphasizes the development of the whole person towards a more mature spiritual existence. Emphasis on the spiritual disciplines or prayer, fasting and meditative reflection meant to renew the mind of the believer have long been part of the Christian tradition. This transformation of the self is meant to move the individual towards a more spiritually enhanced state; however, interpretations on transformation of the body within this perspective are more varied.

In the transhuman vision, distinction is made between the person and the characteristics of their personality; these are seen as separate, and potentially some aspects may be seen as disposable. Thus it may be acceptable to sacrifice certain aspects of personhood (embodiment, gender, personality) for the sake of enhancing other aspects of one's existence (capabilities, memory, strength, endurance). Bostrom suggests that this transhumanist's idea of transformation is similar to some ideas found within Christian theology. He states:

In Christian theology, some souls will be allowed by God to go to heaven after their time as corporal creatures is over. Before being admitted into heaven, the souls would undergo a purification process in which they would lose many of their previous bodily attributes. Skeptics may doubt that the resulting minds would be sufficiently similar to our current minds for it to be possible for them to be the same person. (Transhumanist Values, 2001)

He argues this after-death-transformation-towards-transcendence is a similar predicament that arises for a posthuman being. The soul, in leaving the body, is no longer human, yet is said to be alive in a new form in an alternate realm. He likens this to the transhumanist journey towards becoming posthuman, the need and willingness to escape the current state of the body in order to experience transcendence.

This interpretation does have some resonance with the Christian narrative of transformation and redemption. Yet, it also raises problems by placing emphasis on a resurrection or new birth that is focused on self initiated sacrifice for personal renewal. According to Elaine Graham (March 2002) this is a transcendence that is limited to the material, technological world that overlooks the narrative of self-sacrifice for the sake of the community's renewal prevalent in most traditional Christian discourse. Graham argues that 'techno-transcendence' assumes 'religion' and 'transcendence' can be equated through symbolic re-interpretation. Posthuman transcendence might be better equated with Nietzsche's 'apart, beyond, outside, above' pointing to new maturity in humanity but does not include the notion of redemption (March 2002: 76). This illustrates the tensions of such an integrated discussion between religion and transhumanism. The shared belief in pursuing the process of bodily/spiritual transformation also highlights the distinct differences of interpretation of the process, focus and final outcomes of this transformation.

Through outlining this discussion we do begin to see several overlapping areas of interest and potential handholds for conversation between religion and transhumanism. Transhumanism and religion share a common longing for transformation. Both live in the tension of the 'now and not yet', believing in a narrative that says there is a possibility of a better world waiting for us to experience it. This represents an eschatological focus, not satisfied with the present and waiting in hope for the final stage of our human evolution. In the end both have a longing for Eden, that all will be well. However this longing for eternity represents two different futures, one where the posthuman directs the creative process and another where "God" directs the outcome.

Both transhumanism and religion recognize that humanity has a place in this world, even if this varies in degrees as being prime mover or only a step or link to something more. This comes from a belief and respect for 'living' things, respect for the created order (even if it is technologically, not 'naturally' created). There is a shared desire to create a better world and to see the breakdown biases, dividing walls and barriers. There are varying degrees of admiration of current humanity, but both groups would advocate acceptance of the other. Yet the appearance of the posthuman other, be it a cyborg or other sentient entity, will ultimately test not only this acceptance, but also the place of humanity in the world (Foerst, 1998).

Religious worldviews and transhumanism share a willingness to proceed with caution into the potential of new creations. This means both call for reflection on the creative process and advocate an ethical framework that promotes care, security and justice for all creatures. While the Christian framework now is typically only applied to the created order, as posthuman entities arise, the ability to extend this ethical framework will need further exploration. There will be a need for transparency in our beliefs and biases towards humanity and posthumanity, that may color ethical or policymaking decision. Love of, or longing for, posthuman existence should not be at the expense of humanity. Yet what it means to be human in a posthuman world will need constant evaluation. These are just some of the themes explored in the essays represented by this collection.

Conversations in this Issue

In this issue Brooke argues that there is congruence between transhumanist thinking about perfectibility and Christian ideas of perfectibility. Brooke explores a tradition in Christian thinking, which sees humans as co-creators with God in creating perfection. Brooke's examples are mostly drawn from the Enlightenment onwards. His argument is

that embedded in the Christian tradition is a discourse that details a vision of potential of human perfectibility. This is an idea which is woven across time through different interpretations of spiritual progression and bodily evolution, which he argues, has resonance with some secular interpretation of the potential of human perfectibility. Brooke contends that this “helps us to understand the depth of the controversies when they occur, because in this, as in so many disputes, the greatest tensions can exist between positions that are very close rather than very distant.”

Hopkins in this volume sees a concordance between transhumanism and religion in terms of a longing for transcendence, to overcome our mere “animal” nature. As he sees it, “the greatest incompatibility for transhumanism and religion will lie in choosing the method of transcendence.” He suggests that if religious believers deny transhumanism because of its focus on technology and physicalism they may be prevented from “approaching genuine transcendence” This is an interesting opposition, which is perhaps in need of further exploration. This view is that our physical embodiment may require improvement in order to achieve greater spiritual perfection. Certainly the question of why God chose to make humans as embodied creatures is one that is open to multiple answers by religious believers.

Garner is concerned with social discourse and investigating what religion and transhumanism have to offer society in terms of narratives of hope and justice for the future. He strongly addresses the techno-optimistic tendencies he sees within transhumanism, yet calls for the Christian community to consider more seriously the role technology has to play in the alleviation of suffering and improvement of the quality of life. While detailing a tight Christian theological framework of reflection be entertained for contextualizing technological use, Garner states “engagement with the transhumanist technologies is demanded by this social vision”. He also stresses that “democratic transhumanism”, which addresses human dignity and personhood, offers a more complete perspective to the technological project of enhancement and the place where Christian social concern might find more consonance in dialogue.

LaTorra takes a very pragmatic approach to the tension: religion is not likely to disappear in the foreseeable future so transhumanists should not engage in this battle. Instead, LaTorra invites us to think about the possibility of neuropsychological correlates to religious experiences. Persons of faith may want to see if such experiences can be enhanced by technology. Even atheists might find some value in this project, since even if one does not believe that the experiences are veridical, nevertheless they may be valuable.

Daly too sees “consonance” between religious persons and transhumanists who seek to radically extend human life through the application of technologies to ward off deterioration of our bodies. Daly finds both scriptural and historical evidence that Christians have often considered death to be an “enemy”, as do many transhumanists. Of course some care has to be given to the distinction between “bodily life” here on earth and the life that our immortal soul may enjoy. Secular transhumanists are of course most interested in the former sense of radically extending human life. As Daly points out, a number of Christian thinkers, from Descartes and Bacon to the present, have thought that an extended bodily life might be a good thing as well, and he details how they attempt to reconcile this with the Christian view that God intends our lives to be finite. He also explores several potential points of divergence between Christians and transhumanists on this matter, namely the belief that “life was a gift on loan from God; a proper expression of appreciation involved the acceptance of one’s bodily limits”. He

warns that in not seeing life this way one is in danger of making life an "ethical lord". This idea may be open to several understandings; but certainly it seems a mistake to think that life is the only end, or perhaps even that it is an end in itself. If this is what Daly means then it seems that transhumanists owe some account of the question: what is life for? If we think of life as having instrumental value then it seems that we can imagine that there might be some reason for believing that more life is good. If a longer life allows us to effect more good deeds then perhaps this is how we may attempt to repay in some small measure God's gift of life. In any event, his discussion raises many interesting questions about the ultimate purpose of a longer life, and where this might lead in relation to the implication of humans as transformation actors or even co-redeemers.

Krueger offers an interesting position through engaging recent interpretations by European media philosophers on transhumanism. He focuses on issues related to life extension and what he describes in some work as a Gnostic interpretation of the body that is a disdain for the material world. He is concerned about the problematic separation of the mind and body in some writings on posthumanism. He argues that posthuman discourse should not be seen as Gnostic, but read as worldview concerned with overcoming the "concrete body". By employing the idea of "cyberspace" he argues that transhumanism has a tendency toward "cybergnosis". This is not to disregard the body, but the re-contextualising of it in terms of virtual or higher reality that allows it to overcome physical space to find a new existence.

Bainbridge foresees a clash between transhumanism and faith, offering both a sociological and philosophical reason for this position. His sociological reason is that transhumanism and the potential for technology to ameliorate suffering and generally improve our world, threatens the church's monopoly on power. Accordingly, he says, "one might predict that all but the most secularized forms of religion will brand it sacrilegious." It is true that for many, God is our spiritual leader, but it is less clear how this supports Bainbridge's sociological prediction. The reason is that religious leaders have no absolute dominion over their followers. This is not to say that Bainbridge is wrong in predicting that many religious leaders will brand transhumanism as sacrilegious, but the question is how much hegemony they will maintain in this viewpoint. The philosophical reason Bainbridge cites is that transhumanism's suggestion that we might be able to improve upon human nature is an implicit critique of God's handiwork. Certainly some may see it this way. The question is whether persons of faith *must* see it this way, an issue raised in other articles.

Together this collection offers a varied look into the variety of response that has been given by secular and religious perspectives to technological advancement. It also offers innovative critiques to the question of how religious discourse has or can respond to transhumanist values. The strength of the transhumanist perspective, illustrated in this issue of JET, is its forward looking approach and response to human evolution, an area which religious discourse often overlooks as people of faith are often not good futurists. Yet as religion tends to be more narrative and historically focused in its investigations and inquiry of human development it provides an important historical contextualization, one that often is not well developed within transhumanists' exploration of personhood or humanity. Therefore, it is hoped that through the conversations of the papers in this issue that religion and transhumanism can learn from one another, and move towards a place of greater understanding of the worldviews they represent.

Although this volume was intended to explore the relations between religion and transhumanism, the reader will find that Christianity is discussed almost exclusively

(although one of the authors, Mike LaTorra, is an ordained Buddhist priest). This does not reflect an editorial decision by the guest editors, but rather, is an artifact of the pool of papers submitted for this volume. It is the sincere hope of the guest editors that the conversation between religion and transhumanism in the future will expand to include voices from all religious traditions.

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