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Personal Immortality in Transhumanism and Ancient Indian Philosophy

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Transhumanism has a great deal in common with religion as traditionally conceived. James J. Hughes claims that "a variety of metaphysics appear to be compatible with one form of transhumanism or the other, from various Abrahamic views of the soul to Buddho-Hindu ideas of reincarnation to animist ideas."[1] Most notably, the range of technologically optimistic views held by transhumanists shares with many religions a longing for transcendence of our presently frail and limited situation. In contrast to the doctrines of many traditional religions, however, transhumanist salvation will come not with the aid of divine intervention, but solely from our own ingenuity (or at least from the ingenuity of beings that result from our own ingenuity). Due to its obvious Enlightenment humanist bent, the prevailing view has been that transhumanism adopts and secularizes religious tropes, but is importantly hostile to many traditional religions.[2] Nonetheless, there is a growing number of voices arguing that shared interests in the elimination of suffering, the immersion of individual minds in a universal intelligence, or the remaking of the universe itself indicate that certain construals of transhumanism might actually be continuous with certain religious traditions.[3]

While there may be some religions or sects that seem quite amenable to transhumanist views, I would like to focus on one common (but not universally sought) transhumanist goal that is inherently opposed to the core philosophical foundations of at least two major religions. What I have in mind is the goal of personal immortality made possible by technological advances. Although adherents of Abrahamic traditions, for example, would not be against the prospect of personal immortality in itself, they would likely object to the apparent hubris of humans trying to

usurp or bypass God's role in the attainment of everlasting existence.[4] However, if Hughes is right and "most transhumanists only use the term 'immortality'…as a synonym for radical longevity,"[5] then it becomes harder to distinguish, in any categorical way, transhumanist interest in life extension from the ordinary medical interventions that even zealous religious believers often take advantage of already; more to the point, it becomes harder (without indulging in hypocrisy) for such believers to accuse transhumanists of wanting to play God. For clearer examples of opposition to transhumanist immortality, one must turn to Hinduism and Buddhism. It is in the philosophical roots of these ancient Indian traditions that one can find arguments suggesting that any longing for extension of individual personalities will ultimately be problematic.

Transhumanist Immortality

Julian Huxley, who is credited with coining the term "transhumanism," holds that

> The human species can, if it wishes, transcend itself—not just sporadically, an individual here in one way, an individual there in another way, but in its entirety, as humanity. We need a name for this belief. Perhaps transhumanism will serve: man remaining man, but transcending himself, by realizing new possibilities of and for his human nature.[6]

In the decades since this foundational statement, transhumanism has become increasingly organized as a movement, and well defined as a concept. Today it encompasses a cluster of commonly, but not universally, held aspirations for the expansion of human capabilities based on developments, or predicted developments, in "nanotechnology, biotechnology, robotics, informatics and communication technology, and applied cognitive science."[7] Given that its hopes

are pinned on human technology, it may be somewhat surprising that several compelling cases have been made for transhumanism's continuity with religious traditions.[8] It is probably beyond the scope of this paper to consider all of the arguments for such continuity, but it will be necessary to say more about certain apparent parallels when it comes to hope for personal immortality. Before returning to this issue, however, it will be helpful to have a clearer sense of both why many transhumanists are so attached to individual personhood that they want to see considerable resources dedicated to making its extension possible, and how, specifically, they envision making this extension a reality for themselves.

In most cases, it seems that transhumanists simply take for granted that the preservation of particular persons is worthwhile. What is more, transhumanists often also seem to take for granted that they understand what the preservation of particular persons means. This is an issue that demands more attention because conceptual confusion on this point makes it even more difficult to figure out how to bring about the preservation (and the technological side is already difficult enough). Unfortunately, explaining personal identity turns out to be a lot trickier than people used to think. Hughes, in pointing out tensions in its Enlightenment ideals of selfhood, suggests that, "Contemporary transhumanism has yet to grapple with the radical consequences of the erosion of liberal individualism on their projects of individually chosen enhancement and longevity."[9] Lacking a defensible articulation of what maintenance of personal identity across time consists of will certainly make transhumanists susceptible to the Indian critiques of ordinary notions of supposedly durable selfhood that will be discussed later, but this is not exactly the problem before us at the moment. Even if we grant a kind of casual, everyday notion of personal identity to transhumanists, we still need an answer to the question: why do they so badly want to see their personal identities persist? The answer, as Hughes suggests, lies in the Enlightenment

ideal of a certain sort of individualism.

The authors of *Habits of the Heart* consider the origins of what they call "ontological individualism," and claim that it really started to take hold of Western culture several centuries ago when certain influential thinkers (beginning with John Locke) argued that society is a secondary phenomenon in the story of human development.[10] Instead of assigning a more foundational role to the social element of human existence, these prominent Enlightenment figures "assume that the basic unit of human reality is the individual person."[11] There are a number of consequences of holding a view like this, but chief among them for our purposes is that the individual, with all of its preferences and interests, becomes extremely important. Although most transhumanists do not feel the need to argue for this importance explicitly, I think that this is because the primacy of individual experience is such a deeply engrained aspect of the tradition that they have inherited and carried forward. The increased value placed on the individual has had a profound impact on the modern attitudes of Westerners in general, and when combined with other Enlightenment trends—especially optimism about the promises of science and human ingenuity, and skepticism about putting faith entirely in traditional religions[12]—it is perhaps not so surprising that people of European descent began to dream of finding ways to keep themselves around.

When it comes to the actual means of doing so, there are a number of ways in which personal immortality, or at least indefinite extension of particular personalities, might be achieved, according to transhumanists. Moving from the more concrete and down-to-earth to the more abstract and far-fetched, some transhumanists believe that it is only a matter of time before medical technology advances to the point of finding a cure for aging and other ailments that now seem inevitable. Robert M. Geraci states that "Purely biological solutions…include neuro-

pharmacology, to…enhance mental abilities, stem cell research, to regenerate limbs and organs, and genetic engineering, for therapeutic and enhancement purposes."[13] There are obviously a number of problems to solve in this direction, but perhaps the biggest single obstacle to overcome is basic cell degeneration. Optimists will point to existing species, such as *Turritopsis dohrnii* (a.k.a. the immortal jellyfish), that seem to do a better job of maintaining cellular robustness, or to recent studies that have had success in radically extending the lifespan of mice, as offering hope that strategies applicable to humans might be identified.[14] If the timeline for developing such strategies seems too long given your already advanced age, there is no need to feel left out because cryonic preservation currently provides you the opportunity to buy some extra time while medical science works things out. Of course, reviving someone after the preservation process presents a new set of challenges, but the thinking is that medical technology advanced enough to reverse aging would probably be able to tackle these problems as well.[15]

But even if such optimistic medical prognostications are accurate, and death becomes unnecessary, we still remain susceptible to accidents as long as we are bound to these flimsy organic bodies. So the next step would involve cyborgization or perhaps the transplanting of brains into more durable artificial bodies.[16] Unfortunately, while this might save us from certain small-scale dangers, larger ones might still spell doom for us. At this point in the discussion of strategies for attaining personal immortality things move from fairly well defined scenarios to the conceptually vague, as "transhumanist promises of immortality through mind-uploading" would make reliance on physical form a thing of the past.[17] The obvious upside to such a possibility is the almost total invulnerability of purely data-based beings (especially if there are back-up files of individual persons), but the reduction of selves to mere patterns of information begs some pretty serious questions about the nature of personal identity.[18] And since the

invulnerability is not in fact complete given the precarious future of the universe, some have even gone so far as to suggest the rather desperate and fantastical possibility of universe hopping in order to avoid whatever sort of doom awaits this one.[19]

So how does any of this line up with religious belief? To begin with, it is important to notice that both transhumanism and most, if not all, religions premise their hope for a better future to come on a sense of alienation from, or dissatisfaction with, the present situation. Furthermore, in both cases, one of the major sources (and possibly *the* major source) of this alienation/dissatisfaction is human mortality, and the biological deterioration that comes along with it. Hava Tirosh-Samuelson suggests that "evangelicals and transhumanist futurists" alike display the following characteristics: "the radical disdain toward the biological human body, the strong sense of alienation from the present world, the utopian speculations about the ideal good life in which all needs will be fulfilled, and the [desire for the] experience of immortality."[20] Despite these obvious parallels in both points of departure and future hopes, it is in the means of bridging the two that transhumanism and traditional religion seem to come apart.

For many fervent devotees of Abrahamic traditions, and especially "millions of American fundamentalists, the assessment of technology is largely negative except for medicine and for its usefulness in promoting their message."[21] However, as mentioned before, it is precisely this medical exception that leaves open the possibility of further continuity between transhumanists and the religious when it comes to something approximating personal immortality. There are few objections, among the latter camp, to pharmaceutical and surgical interventions that grow increasingly effective at postponing death due to illness or injury. Although cyborgization is still in its infancy, there is also relatively little uproar about the use of things like pacemakers and (at least outside of the Deaf community) cochlear implants. Cryonics, stem-cell research, and

genetic manipulation admittedly face a bit more resistance from religious communities, but such resistance is hardly universal and depends largely upon the specific circumstances surrounding the cultivation and implementation of these developing technologies. It is perhaps harder to pin down exactly what adherents of Western monotheisms would make of the non-medical possibilities of mind-uploading and universe-hopping, largely because it is generally harder to determine what these possibilities would mean for personal survival, but even if we assume that most fundamentalist-types would be opposed to them, there are other traditions that might be more amenable. Hughes claims that

> Buddhists and Hindus have…been more comfortable with transhumanist ideas of biological enhancement, machine intelligence and uploading. For instance, the Dalai Lama has famously opined that human consciousness could be instantiated in a machine…and is actively collaborating with the neuroscientific investigation of the brain processes involved in meditation.[22]

While it may be true that certain sects of these traditions—in this case a more recent sect (originating in the fourteenth century) of Mahāyāna Buddhism—could be compatible with such far-fetched technological scenarios,[23] it will be my contention going forward that transhumanist interest in things like immortality via mind-uploading will run into a profound conflict with some of the earliest and most foundational views of Hinduism and Buddhism.

Indian Views of the Self

To be sure, on the more superficial or lay-centered (i.e. karmic) understandings of even ancient Hindu and Buddhist traditions it may be possible to accept the common transhumanist goal of personal immortality,[24] not to mention more modest medical aims, but at the deepest level of

some sects' soteriologies, these philosophies seem to want humans to give up their attachment to personal existence. The famous Vedic formula is that the core self, stripped of all individualizing qualities, is something like a part of (or perhaps simply a form of) the singular universal reality. Enlightenment (which is not to be confused here with the European historical period discussed earlier), on this view, is only possible when one grasps this equation, letting go of one's ordinary sense of personal self and embracing unity with the whole of existence. Despite some very important differences, reaching the highest attainment of Theravāda Buddhism (as characterized in the Pāli Canon) also requires abandoning common notions of a meaningful and durable personal self.[25]

In contrast to everyday senses of selfhood that seem to involve one's memories, embodied perspective, social relationships, possessions, accomplishments, and personality traits, the *Upaniṣads* suggest that what one really is at the deepest level is *ātman*, the true self devoid of all these superficial and accidental particularities.[26] We are usually fooled by the appearances and our "natural" desires and tendencies into becoming quite fond of what we ordinarily think of as our genuine and unique selves, but this is a mistaken and dangerous attitude, if the *Upaniṣads* are to be believed. This diagnosis immediately creates a tension between the authors of these texts and the transhumanists who enthusiastically, and perhaps somewhat uncritically, associate selfhood with particularity and individuality. The problem for the former is that the more attached we are to our distinctiveness, the more likely we are to behave in a way that chains us to worldly existence, even after death; for it is attachment to our particularities and our corresponding worldly interests that keeps us in *saṃsāra*, the cycle of rebirth based on the cosmic credit system known as karma. The *Kaṭha Upaniṣad* states, "there is here no diversity at all! From death to death he goes, who sees here any kind of diversity."[27] In order to reach *mokṣa*,

release from the cycle of worldly rebirth, it seems that we must detach from our particularities and interests, realizing that we are essentially *ātman* and that *ātman* is nothing other than *brahman*.[28]

The concept of *brahman* is no less abstract and difficult to grasp than the concept of *ātman*, but it basically means the underlying reality that makes up all that is. According to the *Taittirīya Upaniṣad*: "That from which these beings are born; on which, once born, they live; and into which they pass upon death…That is *brahman*!"[29] Just as *ātman* is the real self beneath the layers of superficial appearances that seem to distinguish me from other individuals, *brahman* is the undifferentiated universal reality upon which all of the merely apparent distinctions of the cosmos are built. The world is not a plurality of beings, but one unified whole. As we have seen, every person is essentially the same empty (in the sense of "free of individualizing content") core self, and it turns out that this self is ultimately indistinguishable from the rest of existence, including divine existence. The *Bṛhadāraṇyaka Upaniṣad* says, "If a man knows 'I am *brahman*' in this way, he becomes this whole world. Not even the gods are able to prevent it, for he becomes their very self (*ātman*). So when a man venerates another deity, thinking, 'He is one, and I am another', he does not understand."[30] In attaining the proper understanding, one reaches enlightenment, or *mokṣa*,[31] and no longer sees the significance of individual achievement, bodily gratification, concern for others, accumulation of karma (positive or negative), or fulfillment of any desires.[32] In fact, the enlightened "presumably would no longer draw any boundaries within the world, and would not know her or his own name."[33] At this point, even death is of no consequence because the passing away of individuals is a merely superficial phenomenon that results in no meaningful change for *brahman*.[34] If indifference to death is an indispensable aspect of reaching enlightenment, then it is doubtful that the monistic worldview described in the

Upaniṣads could be entirely compatible with any version of transhumanism that longs for personal immortality.

The early Buddhist response to the metaphysical realities established by the *Upaniṣads* begins with a rather straightforward denial of the existence of *ātman* (and a corresponding lack of interest in discussing the alleged universal reality of *brahman*), expressed by the term "*anātman*."[35] The man who would become the Buddha grew up in the traditional ancient Indian context as a member of a high caste, but he became disenchanted with a life of worldly flourishing and opted instead to embark on a religious quest.[36] He looked deep into himself as the *Upaniṣads* recommend, but he could find no ultimate core and was forced to conclude that there is none. Of course, this does not mean that there is no sense of self at all; it is just that what we are left with is the ordinary superficial self, which is really just a transient and accidental collection of personality traits, bodily states, thoughts, experiences, and memories.[37] Nonetheless, karma and *saṃsāra* are still operative for Buddhists,[38] although the various Buddhist schools disagree about what is reborn when this transient and accidental collection known as the "five aggregates" is disintegrated in death.[39] James P. McDermott suggests that "what is posited is a locus of points in a changing causal stream, rather than a permanent entity of any sort which could be said to transmigrate."[40] This changing causal stream is often depicted metaphorically as a series of candles (each representing the superficial aggregated self of different incarnations) lighting the next one before being extinguished (the continuously burning flame perhaps representing karma).[41] In any case, the relationship of identity between one living individual and whatever persists after his or her death is quite tenuous according to most (Western) notions of what identity involves.[42]

Given the tenuous nature of this relationship, and the transient insignificance of the

ordinary personal self even within a single lifetime, the Buddhist position is that we should not be very attached to ourselves or the interests, projects, and associations that come along with everyday life. As I suggested when discussing the philosophical foundations of Hinduism above, this assessment of ordinary selfhood also makes it difficult for Buddhists and those transhumanists who prize their individuality so highly to see eye to eye. Sticking with the candle metaphor, nirvana, or enlightenment in the Buddhist context, literally means having this sort of attachment/craving/desire "blown out."[43] Detachment is especially pressing here because self-obsession and the worldly bonds generated by it lead to all varieties of *duḥkha*, which is often translated as "suffering." Since attachment to the personal self is, at best, a sign of misunderstanding the shifting nature of individual existence, and, at worst, the primary source of misery in the world, the Buddha also recommends cultivating an attitude of indifference toward (one's own) death.[44] Just as in the case of the *Upaniṣads*, such indifference is a sure sign that the early form of Buddhism described here cannot be entirely compatible with any version of transhumanism that longs for personal immortality.

It is important to emphasize, however, that in both cases the problem is not personal immortality in itself. It is certainly possible to find claims in the literature about particular individuals that have reached either *mokṣa* or nirvana, but that happen to persist in their particularity, either in a body or in some other form;[45] annihilation is not a prerequisite for reaching enlightenment. In fact, despite calling attention to the impermanence of the aggregated self, the Buddha bristles at the suggestion that "he teaches the annihilation, the destruction, the extermination of an existing being."[46] While it may not be entirely apparent how to interpret this reaction, it is clear enough from the surrounding discussion that he is at least as interested in advocating a practical attitude adjustment as he is in championing some metaphysical doctrine or

mystical achievement. Metaphysical realities may occupy a somewhat more prominent position in the *Upaniṣads*, but even in this case the primary purpose of coming to terms with the universal oneness of things is to generate a similar practical attitude of disdain for the ordinary sense of personal self and the entanglements that come along with it. Once this attitude has been cultivated, it simply does not matter if an individual continues to exist or not. And this is what really distinguishes the philosophical roots of Hinduism and Buddhism, because for transhumanists, with their Enlightenment fixation on particular personalities, it seems to matter a great deal. At the deepest level, these ancient traditions cannot condone the sort of *longing for personal continuation* (or the attachment to the superficial self that generates it) that can be found in most construals of transhumanism.

Conclusion

This conclusion need not spell doom for further comparison between transhumanism in general and the particular ancient Indian religions/philosophies considered here. After all, there are still extreme versions of transhumanism that drop extension of particular personalities from their agendas. One of them seems to welcome the loss of individuality that comes with *mokṣa*-like immersion in an artificial intelligence that has extended itself throughout the universe;[47] and another is apparently resigned to the survival of the human legacy, but not human persons, via the "*Terminator*-esque" rise of machines that, although created by humans, will one day find us disposable.[48] Given that there is some openness to even these rather apocalyptic scenarios, it is clearly difficult to identify an absolutely transhumanism-resistant strain of traditional religious belief. Nonetheless, it has been worthwhile to explore the idea that, despite all of the recent conciliatory literature, there is at least one central goal of most construals of transhumanism that

is irredeemably opposed to the deepest philosophical achievements of certain traditions. Rather than undermining these recent efforts to consider important commonalities, I have merely highlighted a limitation that further comparative work in this area must not ignore.[49]

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Notes

[1] James J. Hughes, "The Compatibility of Religious and Transhumanist Views of Metaphysics, Suffering, Virtue and Transcendence in an Enhanced Future," *Global Spiral* 8, no. 2 (2007), 14, accessed October 13, 2015, http://ieet.org/index.php/IEET/more/hughes20070401/.

[2] See Elaine Graham, "'Nietzsche Gets a Modem': Transhumanism and the Technological Sublime," *Literature and Theology* 16, no. 1 (2002), 65–80; James J. Hughes, "Contradictions from the Enlightenment Roots of Transhumanism," *Journal of Medicine and Philosophy* 35 (2010), 622–640; Hava Tirosh-Samuelson, "Transhumanism as a Secularist Faith," *Zygon* 47, no. 4 (2012), 710–734.

[3] Ronald Cole-Turner, "The Singularity and the Rapture: Transhumanist and Popular Christian Views of the Future," *Zygon* 47, no. 4 (2012), 790–795; Robert M. Geraci, "Apocalyptic AI: Religion and Promise of Artificial Intelligence," *Journal of the American Academy of Religion* 76, no. 1 (2008), 149–152; James J. Hughes, "Using Neurotechnologies to Develop Virtues: A Buddhist Approach to Cognitive Enhancement," *Accountability in Research* 20 (2013), 31–33; Michael LaTorra, "What Is Buddhist Transhumanism?" *Theology and Science* 13, no. 2 (2015), 219–229.

[4] In addition to any active or passive perpetuation of individual human existence in the afterlife, this role also usually includes moral judgment as to what the nature of this afterlife should be.

[5] Hughes, "The Compatibility of Religious and Transhumanist Views," 11.

[6] Julian Huxley, "Transhumanism," in *New Bottles for New Wine* (London: Chatto & Windus, 1957), 17.

[7] Tirosh-Samuelson, "Transhumanism as a Secularist Faith," 711. For a comprehensive list of commonly held transhumanist aspirations, see Hughes, "The Compatibility of Religious and Transhumanist Views," 2–4.

[8] While it may be somewhat surprising that these cases can be so compelling, it is not very surprising that transhumanists are motivated to make them. As Hughes puts it, "pursuing a future world community that makes safe human enhancement universally accessible requires a broad, diverse coalition including both secular transhumanists and people of faith sympathetic with transhumanism" ("The Compatibility of Religious and Transhumanist Views," 6).

[9] Hughes, "Contradictions from the Enlightenment Roots of Transhumanism," 635.

[10] Robert Bellah, Richard Madsen, William M. Sullivan, Ann Swidler, and Steven M. Tipton, *Habits of the Heart: Individualism and Commitment in American Life*, 3rd ed. (Berkeley: University of California Press, 2008), 143, 334.

[11] Frank C. Richardson, Blaine J. Fowers, and Charles B. Guignon, *Re-Envisioning Psychology: Moral Dimensions of Theory and Practice* (San Francisco: Jossey-Bass, 1999), 48. The rise of ontological individualism is obviously more complicated than the brief account presented in this paragraph indicates. Leaving aside the question of society, its metaphysical roots can certainly be traced back much further than Locke (even beyond the Cartesian ego). It is also worth noting that while ontological individualism may have come to dominate Enlightenment thinking, it did not go entirely unchallenged. Hume, for example, introduces complications when he suggests a more ephemeral notion of the self that is in some ways similar to Buddhist ideas (cf. Hughes, "Contradictions from the Enlightenment Roots of Transhumanism," 635).

[12] For a nuanced account that corrects a tendency in its opponents to overstate the intensity of these Enlightenment trends, see Graeme Garrard, "The Enlightenment and Its Enemies," *American Behavioral Scientist* 49, no. 5 (2006) 671–676.

[13] Robert M. Geraci, "There and Back Again: Transhumanist Evangelism in Science Fiction and Popular Science," *Implicit Religion* 14, no. 2 (2011), 143.

[14] See George Dvorsky, "Do These Startling Longevity Studies Mean Your Lifespan Could Double?" io9, April 30, 2013, accessed February 24, 2016, http://io9.gizmodo.com/do-these-startling-animal-studies-mean-your-lifespan-co-486041314; Nathaniel Rich, "Can a Jellyfish Unlock the Secret of Immortality?" *The New York Times Magazine*, November 28, 2012, accessed November 28, 2012, http://www.nytimes.com/2012/12/02/magazine/can-a-jellyfish-unlock-the-secret-of-immortality.html?hp&gwh&pagewanted=all&_r=0. The development of nanotechnology enabling cellular repair on a microscopic level would probably be the most profound game-changer here (cf. Graham, "Nietzsche Gets a Modem," 78–79).

[15] See e.g. Graham, "Nietzsche Gets a Modem," 78; Hughes, "The Compatibility of Religious and Transhumanist Views," 3–4; David Shaw, "Cryoethics: Seeking Life After Death," *Bioethics* 23, no. 9 (2009), 515–521.

[16] Cf. Geraci, "There and Back Again," 143–144; Graham, "Nietzsche Gets a Modem," 68–69; James J. Hughes, *Citizen Cyborg: Why Democratic Societies Must Respond to the Redesigned Human of the Future* (Cambridge, MA: Basic Books, 2004); Ray Kurzweil, *The Singularity Is Near: When Humans Transcend Biology* (New York: Viking, 2005), 309–310.

[17] Geraci, "There and Back Again," 147; cf. Cole-Turner, "The Singularity and the Rapture," 795; Graham, "Nietzsche Gets a Modem," 72–73; Hughes, "The Compatibility of Religious and Transhumanist Views," 4–6.

[18] Cf. Hughes, "Contradictions from the Enlightenment Roots of Transhumanism," 635–636.

[19] E.g. Kurzweil, *The Singularity Is Near*, 358, 486.

[20] Tirosh-Samuelson, "Transhumanism as a Secularist Faith," 725; cf. Geraci, "Apocalyptic AI," 138–144, 147–148; Graham, "Nietzsche Gets a Modem," 73–74.

[21] Cole-Turner, "The Singularity and the Rapture," 793.

[22] Hughes, "The Compatibility of Religious and Transhumanist Views," 9. In private correspondence, Ethan Mills suggests that, in at least some of the traditions of Indian origin, there is less concern about the "playing God" issue because the existing natural order is not the result of some grand divine plan. For example, the creation myths of the *Bṛhadāraṇyaka Upaniṣad* provide a somewhat more accidental, or at least arbitrary, account of how things ended up as they did (BU 1.2, 1.4). If the world, and our place in it, was not strictly established by some all-knowing architect, then it is not so obvious why we should refrain from making all of the adjustments we like.

[23] However, it is worth noting that the Dalai Lama's views on things like mind-uploading are considerably more complicated than Hughes (who only cites a 1992 book in support of his claim) suggests. I am grateful to an anonymous referee for pointing this out.

[24] Cf. Hughes, "Using Neurotechnologies to Develop Virtues," 28; LaTorra, "What Is Buddhist Transhumanism?" 219.

[25] While the subsequent scholastic debates in each tradition are surely more complicated and suggest interesting further developments of these ideas, my general account, which focuses on some of the most widely-known and frequently-referenced early texts, will be sufficient for the comparative purposes of this paper.

[26] Cf. BU 4.4.22; Joel J. Kupperman, *Classic Asian Philosophy: A Guide to the Essential Texts*

(Oxford University Press, 2001), 11. Given the uncertain and diverse authorship/editorship of these writings over hundreds of years, one must be careful not to suggest that the *Upaniṣads* speak with one consistent voice. However, there does seem to be, at the very least, a great deal of agreement between the various early *Upaniṣads* on the matters I consider here.

[27] KU 4.11; cf. BU 4.4.19.

[28] Although the interpretation I provide here of the more or less identical relationship between *ātman* and *brahman* in the *Upaniṣads* is perhaps the dominant one, it must be noted that there are other interpretations (and of course, there are many currents within Hinduism that do not rely so heavily on the *Upaniṣads*). Of the various Vedānta, or schools of thought that are based largely on the teachings of the early *Upaniṣads*, my account follows the reading of Advaita (literally, "non-dual") Vedānta against, for example, the dualism of the Dvaita school. Cf. Deepak Sarma, "Advaita Vedānta," in *Classical Indian Philosophy: A Reader*, ed. Deepak Sarma (New York: Columbia University Press, 2011), 207–209; Deepak Sarma, "Mādhva Vedānta," in *Classical Indian Philosophy: A Reader*, ed. Deepak Sarma (New York: Columbia University Press, 2011), 223–227.

[29] TU 3.1.

[30] BU 1.4.10.

[31] A famous image meant to help explain this enlightened realization of unity involves the immersion of a single drop of water (representing *ātman*) in the ocean (representing *brahman*) (cf. KU 4.15).

[32] Cf. BU 4.4.12–13, 22–23; KU 2.6, 10–12; 5.11.

[33] Kupperman, *Classic Asian Philosophy*, 14.

[34] Cf. BU 4.4.7; KU 2.18–19.

[35] Although the primary sources for Theravāda Buddhism are written in Pāli, I will be using the Romanized Sanskrit versions for the sake of consistency. I do this also because the latter are often more immediately recognizable to a Western audience (e.g. "*nibbāna*" vs. "nirvana").

[36] Accounts of the Buddha's early life can be found in a number of places, but the *Middle Length Discourses* (*Majjhima Nikāya*) provide a few helpful and concise characterizations (see e.g. MN 26.13–14, 75.10).

[37] See e.g. *Dhammapada* 62, 153–154, 202–203.

[38] See e.g. *Dhammapada* 15, 60, 66, 125; MN 57, 135.

[39] More precisely, the five aggregates (*skandhas*) are "(1) physical form, (2) feelings, (3) perceptions, (4) dynamic and usually unconscious activities of the psyche, and (5) consciousness in a wide inclusive sense" (John Ross Carter and Mahinda Palihawadana, "Explanatory Notes," in *The Dhammapada: The Sayings of the Buddha* (Oxford University Press, 2000), 77).

[40] James P. McDermott, "Karma and Rebirth in Early Buddhism," in *Karma and Rebirth in Classical Indian Traditions*, ed. Wendy Doniger O'Flaherty (Berkeley: University of California Press, 1980), 167.

[41] Kupperman and Siderits both offer helpful discussions of this metaphor (see Kupperman, *Classic Asian Philosophy*, 29; Mark Siderits, *Buddhism as Philosophy: An Introduction* (Indianapolis, IN: Hackett, 2007), 65–67). Kupperman makes a distinction between philosophical and popular Buddhism, and suggests that common notions of karma and *saṃsāra* are retained primarily to keep the attention of the less sophisticated masses. Siderits' entire third chapter is dedicated to considering the broader (and very difficult) issue of personal identity in early Buddhism.

[42] In discussing traditions that believe in "multiple simultaneous reincarnation," Mikel Burley argues for the importance of considering cultural context before passing judgment on claims of identity ("Believing in Reincarnation," *Philosophy* 87, no. 2 (2012), 272–277). There might simply be a more flexible notion of identity in play when looking at ancient Indian ideas about reincarnation. Whatever the early Buddhist notion of identity between incarnations might be it is clear that it does not depend on the preservation of the superficial aggregated self from lifetime to lifetime.

[43] Cf. *Dhammapada* 23, 181.

[44] Cf. *Dhammapada* 40–41, 147–151; MN 22.15–29.

[45] This is sometimes said to be true of the Buddha himself, especially within Mahāyāna traditions.

[46] MN 22.37.

[47] Kurzweil, *The Singularity Is Near*, esp. 21, 29.

[48] Geraci, "Apocalyptic AI," 157–158.

[49] I am grateful to Stephen Harris and Ethan Mills for their very helpful comments on early drafts of this paper.