

CAN MIND UPLOADING AND DIGITAL IMMORTALITY PRESERVE PERSONAL IDENTITY?

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Abstract

At the core of questions surrounding mind uploading is the problem of personal identity. In philosophy, the problem of personal identity is concerned with how one can identify a single person over a time interval. It raises the questions “What makes it true that a person at one time is the same thing as a person at another time?” In contemporary metaphysics, the matter of personal identity is referred to as the diachronic problem of personal identity. The synchronic problem borders on what features and traits characterize a person at a given time. This work is concerned with the question of whether mind uploading and digital immortality preserves personal identity. In doing this, using the method of hermeneutics and analysis, the work evaluates the two hypothetical methods of gradual replacement and instantaneous scan and copy, as well as the distinction made between destructive and non-destructive processes. The work finds out that both of the two pairs are metaphysically equivalent in terms of their outcomes, unless in the case of the gradual replacement, the same body is maintained. Generally, the work considers the result of the mind uploading as simply a functional isomorph, a simulacrum which though may have a qualitative identity with the original, does not ensure personal immortality lacking as it is, numerical identity. This is even more as the body is completely discarded in embrace of an entirely digital frame.

Introduction

At the core of questions surrounding mind uploading is the problem of personal identity. In philosophy, the problem of personal identity is concerned with how one can identify a single person over a time interval. It raises the questions “What makes it true that a person at one time is the same thing as a person at another time?” In contemporary metaphysics, the matter of personal identity is referred to as the diachronic problem of personal identity. The synchronic problem borders on what features and traits characterize a person at a given time. Hayworth (2010) considers the central question in the debate over mind uploading the question ‘what do you consider to be you?’ According to him, “Mind uploading is useless if this personal definition of ‘you’ is not successfully transferred.” The question is: When I undergo the sleep of mind uploading process, will I be the one who wakes up inside the computer? Will the software-based mind be a techno-immortalized continuation of the predecessor’s identity or will it result in the oblivion of death? About this, two strands of views can be distinguished, namely the optimist view which assumes the possibility of such a transfer and the belief that the uploaded entity is the same as the original person. The pessimist view dismisses the possibility and strongly sees the resultant upload as not being the same and thus forecloses the promise of digital immortality. The present work is aimed at identifying and evaluating the various positions concerning the identity question within the context of mind uploading. The first section deals in brief with personal identity theories, followed by the next which deals with what immortality entails. The subsequent sections are made to deal with the personal identity question with respect to mind uploading as it distinguishes between numerical and

qualitative identities. The last chapter examines in the light of the preceding discussion on whether mind uploading is not after all mind duplication or more correctly brain duplication.

Personal Identity Theories in Brief

The question of whether digital immortality is possible with mind uploading depends on which side of the aisle one finds oneself. It depends on one's idea of the human person and to which theory of identity one finds leaning. It depends on whether one considers the person as a material or physical substance on the one hand or whether one has a metaphysical conceptualization of the person because a person has a soul as the form of the person. The metaphysical-soul theory conceives the soul or the immaterial mind which is distinct from the physical as essential to the person. The proponents of this view are not likely to find any attraction in the discussion about digital immortality because it denies this metaphysical dimension of the human person. For those who maintain a physicalist conception of the human person and biological theory of identity, seeing the human person as essentially consisting of the collection of molecules that makes up one's brain and, arguably the rest of one's body, the survival of a person requires the intact survival of a brain or a biological organism. The proponents of psychological theory are more likely to accede to the possibility of personal identity preservation if the upload's 'consciousness' can be extended backward to any past actions and thoughts. Closest continuer theorists are likely to hold that the answer depends on whether the uploading is destructive in which case the upload will be the closest continuer, or nondestructive in which case the biological system will be the closest continuer. It does not seem that the question of personal identity is an issue at all for the closest-continuer theory which holds that "a person survives as the most closely related subsequent entity, subject to various constraints." Parfit's position is even more disturbing and the present writer does not seem to factor in how identity can be preserved in such a theory. According to Parfit, what matters in personal identity is the continuation of what he refers to as relationship R where R is a continuation of memory and psychology. This appears to be a psychological theory of identity but it is not identical with it. His view is simply reductive physicalism. Parfit claims that a person pure and simple consists of memory and psychology while rejecting such extra notions as consciousness or qualia. What this means is denial of continuity of consciousness and I do not see how the problem of personal identity can be solved without accepting the reality of consciousness.

In what does Personal Immortality Consist?

Digital Immortality is dependent upon whether the original consciousness survives the uploading process in such a way that it is numerically identical with the original in an unrepeatability and uniqueness. This of course depends on the possibility of actualizing the upload of the conscious mind. The skeptics would argue that an uploaded mind would not be conscious and would not be identical to the original mind. The question is, can one really talk about immortality in the case of the simulated mind in reference to the original mind? What do we understand by immortality? And what do those who desire immortality actually desire? Immortality implies the idea of infinite persistence, existing in an unending time. The transitioning into immortality by the human person if it will continue to be the person requires that the immortalized person be numerically identical throughout. The human person is an unrepeatably particular. In other words, "they persist insofar as they survive as an individual that is distinct from other individuals...". This is on the assumption that consciousness is possible as the materialist would want us to agree of course without conceding for the moment.

Gradual Replacement versus Scan-and-Copy

Mind uploading can be categorized into gradual in-place replacement and scan-and-copy. The former, according to Wiley and Koene (2016, pp.212-235; Sandberg & Bostrom, 2008; Koene & Deca, 2014, pp.1-9) consists of “steadily replacing individual components of the brain, say neurons with microscopic devices of functional equivalence.” The latter “stabilizes the brain via vitrification or plastination, then sections and scans the static brain, and then instantiates the scan via whole brain emulation (WBE) in a computational substrate....” Between the two, it seems that many scholars favour gradual replacement as being able to achieve personal survival which the scan and copy cannot achieve. The present research follows Wiley and Koene (2016, pp. 212-235) in their position that both are metaphysically equivalent in the results they produce with respect to personal identity and so should be treated the same. Here the referenced authors do not say beyond this to claim success or failure in the preservation of personal identity. With light beamed on the qualification “gradual”, the route they followed was to show the theoretical possibility of instantaneous replacement and hence to show its equivalence to destructive scan and copy, and finally to show that both instantaneous replacement and gradual in-place replacement are one and the same. They argue that an instantaneous replacement, “the brain is infused with billions of prosthetic neurons to model their behavior (their functions), and then instantaneously replace all the neurons at the flip of a master switch.” The master switch flip mirrors the instantaneous implicated in freezing of the brain for subsequent sectioning involved in the scan and copy. The authors are not mindless of the problem of technical practicability of the instantaneous procedure but for them, technical unlikely scenarios can be considered in a thought experiment to highlight philosophical implications. After all, Einstein could ponder about riding beams of light and gazing into mirrors along the way! One may however argue that the distinguishing feature is the spatial translation involved in scan and copy which is absent in gradual replacement. Corabi and Schneider (2012, pp.26-44) refer to the mechanism by which the person is moved instantaneously from the brain to the computer as an “unprecedentedly rapid kind of motion,” “oddly discontinuous” to maintain sameness identity

Keith Wiley (2019) notes that scan and copy can be said to be discontinuous in four ways: - Spatially: the upload is constructed in a new location relative to the brain; -Materially: the upload is fully constructed in a new location relative to the brain; Temporally: neural activity enters stasis for some time before later restarting in the upload; Functionally: neural activity comes to a global cessation and then restarts from scratch. Wiley observes that the major reason for which scan and copy is rejected in terms of preservation of identity is due to the apparent failure to preserve a proposed metaphysical phenomenon which has been described as a stream of consciousness. The proponents of stream of consciousness judge that scan-and-copy for the reason of the various shades of discontinuity raised above fails to keep the diachronic track of the stream and so the outcome is judged to be the death of the original identity with the emergence of new identity which is unfortunately referred to as copy and this implies a failure to survive the procedure. The discontinuity therefore places a wedge in the stream flow. Stream of consciousness is a formulation of William James and seems to have been used to refer to the “stream of waking thoughts of which we are specifically aware.” (Wiley, 2019) This view has been challenged because it is saying that break in the stream is to personal identity. This becomes problematic in the face of counter-examples such as sleep, fainting, general anesthesia, etc. which do not in any way raise concerns about the continuity of identity. Wiley and Koene’s point of argument is that making spatial translation an exclusive feature of destructive scan and copy is not correct. One can also find that in in-place replacement even if the distance is not as expanse as in the case of scan and copy. What matters is that there is a transversal of space at all. They argue that the movement from a neuron to a nearby microscopic

device involves spatial translation as it involves the functions of biological neurons by a nearby artificial neuron. According to them these two entities no matter how they are close cannot spatially coincide there is some distance covered coupled with the fact they are different make. This spatial translation qualifies the description of Corabi and Schneider (2012, pp.26-44) as discontinuous.

Wiley in his separate work, “The Stream of Consciousness and Personal Identity,” notes that the error consists of overlooking the fact that when each neuron is replaced with a microscopic prosthetic device residing nearby, then, when the prosthetic eventually disconnects the neuron, which means death to the neurons, as it takes over the neuron’s role, “the neuron’s nonphysical functional operation (and all its metaphysical attachments) will—if one buys the spatial properties of abstractions in the first place—suddenly discontinuously jump over to the prosthetic.” (Wiley, 2019)

The non-zero spatial translation involved in in-place replacement which is granted the privilege of identity preservation raises several problems of noting at what point in the spatial translation distance a new identity suddenly emerges. How could one rationally assign a sharp cutoff in translation distance where identity preservation suddenly flips to a new identity? One can alternatively speak in terms of blending into another identity. But this itself raises its own challenge, namely precisely and without arbitrariness at what point blending occurs and beyond which the consequent identity becomes entirely new while the original is lost. And about the blending, what does it mean to bring into existence only a fraction of a new identity to then blend with the partially preserved original? The ultimate question is how the same physical with the same material composition but only differing in their locations relative to the biological brain would house metaphysically different blends of identity. How could there be differences in terms of the ability to preserve identity, with one closer to the biological brain invoking a less brand of new identity and the more distant invoking a more brand-new identity? (Wiley & Koene, 2016, pp.212-235) These questions are geared towards the conclusion that identity and survival do not have a relationship with the spatial distance between the biological brain and the prosthetic replacement. The instantaneous replacement is then shown to be the same with gradual in-place replacement.

Besides, as can be seen in Chalmers (2014, 7-65) and Van Gulick (2014) one of the reasons that slow in-place replacement is favoured is that it appears to maintain some notion of a stream of conscious continuity. Why such a stream of consciousness could not be preserved in instantaneous replacement or scan and copy but can be preserved in the slow replacement is questioned by Wiley and Koene as they involve various physical procedures differing only in replacement rate, yet producing identical physical products?”

Hauskeller does not accept the view that gradual replacement preserves identity. For Hauskeller this view presumes that gradual alteration which does make fundamental change obvious cannot in the end amount to a radical and discontinuous change towards the very end of the sequence. The Sorites thought experiment can be used to dislodge such a position. The thought experiment is about a heap of sand which successively is reduced by removing a grain at a time. The removal of a grain is never sufficient to change the heap of sand into a non-heap, but if one keeps removing grains of sand it will eventually become a non-heap. There is gradual change and there might not be any point in the continuum of change at which an object can be said to change from one form to another, there is nevertheless change. Such a line of reasoning for Hauskeller defeats the argument for gradual replacement. Danaher (2013) while recognizing the validity of Hauskeller’s line of argument does not fail to point out that the logic

of gradual replacement seems to be in tandem with the logic of natural cell replacement in the human body over time. Despite this replacement, the person is not fundamentally changed into another. He was however quick to point out that “Admittedly, this continual replacement does not seem to be true of all neurons, even though new brain cells and new neural networks can form over time.” Danaher’s intent in all these is simply to bring to light the doubt surrounding gradual replacement vis-a-vis preservation. Both his points and Hauskeller’s, according to Danaher (2013) “give reasons to doubt preservation, and these would need to be factored in when making any decision about uploading, but so too would the reasons for thinking it is possible.”

Destructive Versus Non-Destructive

At this point, there is the need to look at the possibility of uploading personal identity regarding the persistence question and what this persistence entails. Chalmers discusses scenarios, a taxonomy of possible methods of uploading most apt for two major types, and scenarios of such uploading to include non-destructive, and destructive. Non-destructive involves a process in which the original is intact coexisting with the copy. Here in, Ooi TechChye (2017) argues that the intuitive thing is that it cannot be said that the copy is identical with the existing original residing in the body. Thus, the individual does not get to be transferred. Both are distinct and distinguishable. In the destructive scenario, the original is destroyed in the process of the transfer. Many a time, the non-destructive scenario is dismissed out rightly in the light of the preservation of personal identity and the desired digital immortality for reasons that would be shown subsequently. This leaves one with the destructive scenario. TechChye (2017) here in argues that this situation does not in any way make lighter the problem, for if we think that the copy is not us when we are around, why should it be different when we are no longer present? So, it is left in the hands of the scientist to declare. Chalmers (2014) raises the same question, thus: if we grant that, in the case of nondestructive uploading, DigiDave is not identical to Dave, then it is natural to question whether destructive uploading is any different. There is every reason to doubt digiDave survives BioDave when the biological system is destroyed. A closest-continuer theorist like Chalmers pointed out may object that in the case of non-destructive when Biodave exists, he is the closest continuer but in the case of a destructive scenario when BioDave does not exist, DigiDave is the closest continuer. As has been noted this raises the question of identity as when for instance one has a twin and he dies, by this theory, the twin is the closest continuer raising the identity question. Besides this fact, it makes the case of survival an extrinsic matter. The option of viewing nondestructive uploading as a case of fission is off the mark concerning the question of survival in terms of numerical identity. Here BioDave and DigiDave are considered in the same way as what is obtained when the left and right hemispheres of a brain are separated into different bodies and they continue to function well on their own with many properties of the original. Both resulting systems though they bear link with the original cannot be said to be the same with the original. That is why for Parfit (1984) the left and right hemispheres now existing in their respect without being numerically identical to the original stand in a special relation R. They are survivors of the original but not in its numerical identity. A destructive scenario may not offer any problem for the transhumanist who does not see any metaphysical basis of the mind but rather holds a computational view of the mind.

The Isomorph: Numerical or Qualitative Identity?

The duplicate of a person according to Chalmers could be said to be a functional isomorph of the person and so would have the same consciousness as the person. But this does not entail personal identity with the isomorph. Identity is not a function of organizational invariance. Both the original and the simulated can be qualitatively the same, that is, both have the same

qualities, but they are not numerically identical. In this wise, Osmon (2010) affirms that “If two objects share all the same qualities, they are said to be qualitatively identical but not necessarily one and the same—the latter constituting numerical identity.” This assertion is based on the understanding that numerical identity does not entail qualitative identity. This is because some qualities can be lost in an object and yet the object is still numerically the same. The self persists despite the qualitative changes. This explains why an adult of say fifty years does not have the same qualitative identity, there is a continuum of identity that flows that is even if as in the case of Thomas Reid’s brave officer problem his for instance eight-year-old self may represent absolutely no preserved identity from his childhood given that the childhood identity has been entirely lost in the intervening years. This numerical identity is more metaphysical and intuitive in conceptualization, unlike the qualitative identity. The former is what persists throughout the process of evolving and succeeding states and qualities. Wiley and Koene share the same view but do not speak in terms of numerical and qualitative identity. They rather speak in terms of identity and survival as they hold the view that identity is not a mathematical identity but a fluid thing that changes while the same person survives. They reflect in this way because for them mathematical identity requires sameness of quality and states. On the contrary, identity according to them is not seen as “an all-or-nothing reality, a zero-sum game but rather subject to partialities and partial overlaps. Thus, though identity changes, survival remains intact. There is no partial survival. Thus, when one undergoes a profound change in the treatment of epilepsy for instance that involves hemispherectomy in which half of -a person’s brain is literally removed there is certainly qualitative change that involves neurological and some psychological modulation yet the person is said to have survived the procedure that is despite the grave qualitative change. What this means is that what is said about numerical identity above is what Wiley and Koene seem to project with their distinction between identity and survival. Thus, regardless of how we ultimately resolve the thorny question of identity across qualitative changing scenarios as in the case of qualitative changes that occur from birth to aging, Wiley and Koene (2016) argue that they are readily interpreted as “unambiguous survival.” While identity changes, the same person survives. This is the difference between the two terms. Children do not conceptually die to beget their later adult selves, nor do adults represent survival only of their instantaneous selves but at the cost of the death of their former selves. That’s not a way of conceptualizing survival. Wiley and Koene’s distinction between identity and survival is quite *ad rem* but it does not detract from the distinction between qualitative and numerical identity explored above. It is this numerical identity that survives. It is something that survives. It is not survival that survives. This is even true of the Thomas Hobbes’ thought experiment of the “Ship of Theseus”. The thought experiment is about a ship that embarks on a journey of many years. Due to wear and tear as a result of the long journey, and need for maintenance, the parts occasionally need to be replaced with another. This happens for a number of times such that by the end of the trip, all the ship’s original parts have completely been replaced by another. Hobbes asks us besides imagining the described situation, to in addition imagine a scenario whereby instead of discarding the old original parts, the parts are rather stored and used to build another ship upon return from the trip. The question is which of the two resulting ships is the original? Hobbes’ way of responding to the question is that it is impossible to tell. (Schick & Vaughn, 2002, p.237) Kulchitskaya (Schick & Vaughn, 2002) -in this regard notes that given the distinction made between qualitative and numerical identity classification, it is the new ship of the first case scenario that continues to maintain numerical identity with the original though it has undergone qualitative changes and so no longer have the same qualitative identity with the original. The new ship of the second case scenario only bears some qualitative identity with the original but does not thereby have a numerical identity with it. It is different from the original in not being the persistence of the original. According to him, the numerical identity which the new ship returning from the

journey may be attributed to “historical continuity, its name, the crew belonging to it, the experiences that are solely its own, or a combination of all of these—much like the combination of qualities that constitute the self.” (Schick & Vaughn, 2002)

The thought experiment simply serves to show the problem of having to premise the persistence of personal identity over time on the continuous existence of our bodies given what has been said above about qualitative changes. This may seem to help the cause of the proponents of mind uploading for at least it shows that physical continuity does not entail necessarily an unchanging physical state. (Schick & Vaughn, 2002) Thus the proponents may see the upload in the light of physical continuity with changing physical state, in this case, the hardware upon which the mind is uploaded. This is reinforced by the memory theory of psychological continuity which tends to see personal identity as consisting in memory chain with the past. Hayworth is in this league as well as Sandberg and Bostrom (2008). John Locke, treating personal identity as a continuous rather than discrete value, notes that personal identity lies in connecting past memories to the present self. According to Locke, personal identity depends on consciousness, not on substance; it is not in the identity of substance but in the identity of consciousness. Identity consists of continued, repeated act of consciousness. Accordingly, “as far as this consciousness can be extended backward to any past actions or thought, so far reaches the identity of that person...For the same consciousness being preserved, whether in the same or different substances, the personal identity is preserved.” (Schick & Vaughn, 2002, p.237) Locke’s is termed memory criterion. Locke suggests that identity continues as long as there is continuity of memory. There is a challenge to this perspective on personal identity because, for instance, persons who suffer from dementia are still taken to be the same persons despite the inability to consciously link with their past. What has just been pointed out is consistent with David Lewis’s objection to the memory theory. Lewis (2003, pp. 155-156) invites us to think about Methuselah and his state of mind as he ages. At the outset of his aging perhaps he still remembers his childhood but as years pass, one witnesses the fading of memories; memories of previous centuries grow foggy with the earliest years disappearing entirely. The question for the proponents of the memory theory would be whether Methuselah at 40 and Methuselah at 170 years of age are the same person. Lewis (2003, p.156), answering on behalf of the proponents of the memory theory and in the light of the consistency of logic, avers that “It is incumbent on us to make it literally true that he will be a different person after one and one-half centuries or so.” Thomas Reid’s famous example of the brave officer already referenced is put out to show the flaw in the memory criterion as espoused by Locke, namely the non-transitivity of identity which is counterintuitive. Reid asks us to imagine a brave officer who remembers being flogged as a child for stealing from an orchard. The officer with the passing of years became a general and remembers being the brave officer who took the standard from the enemy but no longer remembers being the child who stole from the orchard. Now according to the memory criterion, the child and the brave officer are the same person, and the brave officer and the general are the same person, but the general is not the same person as the child. And this is counterintuitive. The implication is that the memory relation is not transitive, whereas a transitive relation is such that if $a=b$ and $b=c$, then $a=c$. Unfortunately, in the example given above about the brave officer, this is not the case. The logical relation of identity is transitive and not a few philosophers have assumed that the same should apply to a person’s identity. Perhaps this may have led to the Neo-Lockean variant of memory theory that is referred to as the psychological theory of identity which is beyond memory relation. Psychological theory defines identity as overlapping chains of direct psychological connections which include not just memory but also beliefs, and personality. This notwithstanding this perspective of personal identity is candidate among proponents of transhumanism and mind uploading. Thus, once the cyber entity can link to its original past after the process of

simulation which may be destructive and non-destructive, then they both share personal identity just as coma patients do in the post-coma. Hayworth (2010, p. 95) insists that “A simulated brain which is based on the same declarative memories and production rules would ‘reboot’ the same phenomenal self-model as the original biological brain.” This is premised on the fact that the mind-uploading would require the mapping and freezing of the brain. Thus, for proponents of mind-uploading such as Hayworth, Sandberg, Bostrom, etc. just like patients post coma or post hypothermia induced cessation of the brain activity where personal identity continued after the interruption of the brain activity so also it is with mind-uploading where “even though your consciousness will be “offline” during the brain scanning process, they remain confident that it will reawaken just as it does in its original substrate, post coma.” (Schick & Vaughn, 2002). Walker (2014, p.166) adds that the left-over biological body “has nothing to do with personal identity” and concerns for it arise from “sentimental value.” The memory theory appears too far for it seems that while personal identity necessarily entails psychological identity, the vice versa is not the case. Sydney Shoemaker (1959, p. 869) holds the same view when he argues that one can analyze memories in terms of personal identity but one cannot define/analyze identity in terms of memories. Thus, for Shoemaker, mind-uploading founded on the memory theory of psychological continuity fails to preserve identity. This is because while “personal identity must be a one-to-one relation, the memory theory of psychological continuity seems to fail as it can result in a one-to-many relation, with many clones of you running around claiming to be the real you....” (Schick & Vaughn, 2002) If identity consists of memories, it means that a single person could have multiple instances, each instance manifest in various substrates as a type of the person’s token identity. This is the reason that the present researcher does not pitch tent with Michael A. Cerullo’s (2015, pp. 17-36) Branching Identity theory. Cerullo’s Branching Identity theory seems to have been informed by Cerullo’s judgment to the effect that standard theories of identity fail to deal satisfactorily with the split-brain syndrome. The brain is made up of two hemispheres and a single hemisphere does not in any way affect the presence and continuity of consciousness as in the case of people born with one single brain hemisphere or those who lose one hemisphere because of disease or accident and the like in which case neurosurgeons remove the damaged hemisphere through lobectomy. There is continuity of consciousness. The situation becomes tricky in the case of corpus callosotomy which is a procedure used to sever most of the connections between two brain hemispheres, especially in the treatment of epilepsy. According to Gazzaniga (1967, pp.24-29), neuropsychological testing after the corpus callosotomy shows there are now two independent conscious selves. The question is which of these two selves maintains continuity of consciousness with the whole brain before surgery. Cerullo observes that the standard theory in an attempt to respond would involve themselves in some form of arbitrariness. Parfit’s R theory while appearing to deal with lobectomy and corpus callosotomy maintains that “the surviving hemisphere in the case of a lobectomy, or Righty and Lefty in a corpus callosotomy, all continue a significant portion of the person’s original psychology and memory and are therefore forms of survival.” (Parfit, 1984) The problem however according to Cerullo is Parfit’s denial of the very notion of continuity of consciousness which according to him is for the solution of the dilemmas about identity. For Cerullo, branching identity theories allow the continuity of consciousness to branch and continue in more than one-self. The general submission of branching theory is that it allows continuity of consciousness to split and continue on more than one-self. Thus, in the case of hemispherectomies, the left and right hemispheres would have continuity of consciousness with the whole brain. Again, in the case of mind uploading, the theory predicts that “continuity of consciousness will be preserved in nondestructive instantaneous uploading. In this case, two identical entities would emerge, the brain and the upload, each, sharing continuity of consciousness with the original.” Much as the submission of the proponents of branching theories is ingenious, and while acknowledging the

difficulty of the corpus callosotomy, the question is about the mind and its upload whether they are really one, numerically one. Referring to himself and his uploaded copy, Chalmers writes:

We can suppose that I have a perfect identical twin whose brain and body are molecule-for-molecule duplicates of mine. The twin will then be a functional isomorph of me and will have the same conscious state as me. This twin is qualitatively me and will have the same conscious states as me. But it is not numerically identical to me: it is not me. If you kill the twin, I will survive. If you kill me (that is, if you destroy this system) and preserve the twin, I will die. (Chalmers, 2014)

Hauskeller (2012) holds the same view when he asserts that “the artificial creation of a mind is one thing, the recreation or transplantation of a particular mind that actually belongs to someone as their mind quite another.” (pp. 187-200) He argues that if some form of personal immortality is the *desideratum*, it is imperative to go beyond mere creation of intelligent conscious and self-conscious machine or the creation of a model of the human mind in which case a simulacrum, to creation of a mind that is not only qualitatively the same but more importantly numerically the same. According to him for an instantiated mind to be mine, “it would not be sufficient if it were in every respect indistinguishable from my mind. Rather it would have to be literally the same.” Continuing, he notes that “there seems to be a conceptual difference between a mind that actually is mine, and a mind that merely thinks, feels, and remembers exactly as I do, and hence is like me in all respects except that it happens not to be me.” In illustrating, he challenges, “Think of two copies of the same book that, despite their having exactly the same design and content are still two copies and not identical to each other.” (Hauskeller, 2012, pp.187-200)

The Question of Disembodied Mind

Unfortunately, transhumanism and its ambitious agenda of mind uploading treats the human body as inconsequential to a sense of self and awareness of self. This is not likely because the body is tied to its form and both inform one’s sense of self. The self itself is embodied and it knows itself as such. This obviously is the influence of Platonism which is to rationalism. John Paul II questions this rationalist anthropology that sees the body only as a biological reference point and not as an expression of the human person. According to him the rationalist anthropology hinged on the Cartesian thought conceives man merely as having a body and so could dominate and manipulate the body at will in the same way that the material world is dominated. John Paul II projects the view that man is a body; this means that the somatic has an impact on the whole human person. John Paul writes from the point of view of salvaging the protective function of sexual union in his concern for a total vision of man.” According to him, modern rationalism presents only partial truths about man in its alienation of the body from the person. He champions what he characterizes as adequate anthropology which according to him does not mean a merely sufficient understanding of man but one that is full, total, integral, and complete. In this climate of thought, embodiment for a rediscovering of the meaning of the body leads to a rediscovering of the meaning of the whole human person (West, 2007, pp.67-70). It is along this line that Schneider (2009) among others would argue that if the physical structure of our brain or being in the world constitutes an essential property, then mind-uploading is “tantamount to suicide.”

It seems that while gradual cyborgization may still preserve the self through its various stages, mind-uploading “may prove to be one step too far which may end the existence of the self itself.” (Hauskeller, 2012) This is because, according to Hauskeller, this final step relies on the

possibility of copying the self instead of preserving it through a series of changes. The self cannot be copied qua self because it is not information or algorithmic. Hauskeller (2012) concludes that even if it is possible to copy the self, “we would...have trouble recognizing ourselves. For what we think of as ourselves is very much tied to our bodily existence and as such far more comprehensive and richer than a mere mind can ever be.” Costandi (2023) says as much when he avers that “being conscious does not just mean being aware of the outside world. It also means being aware of oneself and one’s relationship to one’s surroundings.” Going further, he writes that “the way we perceive our bodies plays a central role in self-awareness. The body also exerts subtle but significant influences on how we think and what we feel.” “The brain,” according to Costandi (2023) exists as part of a dynamic, complex system that includes the body and the environment, and can only be understood in terms of how it interacts with these other components.” Costandi further writes that the brain contains multiple maps and models of the body, and these maps and models are crucial for how we perceive and use our bodies. Phenomenology favours the view that our body is not extraneous to us, an instrument that can be controlled from the top down. It is rather a constantly present (even if not always self-aware) field of our experiences. Accordingly, “Our body is the anchor point for our orientation in the world and the manifold ways in which we relate to objects in the world.” This is the reason that Georg Gasser (2022) considers such transfer as mind-uploading as deeply faulty. According to him, “...the body constitutes our way of perceiving, understanding, and interacting with the world. A completely different body implies that we perceive things differently and that we can do different things.” Thus “A human-like and a beetle-like access to reality...lead to very different modes of grasping the world.” Gasser (2022) goes even further to connect our essential socialness to our body which conditions interpersonal exchanges, our understanding of the others, and social communication. Essential to successful social interaction are our gestures, facial expressions, intonation, sense of touch, feel, etc. -such that hardware that is unable to display these fine-grained modes of expression cannot accommodate this social dimension that is essential to the being of self. Gasser concludes

In sum, we might say that human beings do not relate to their bodies in the same way that pilots relate to their airplanes. Rather, our complex mental life grows out of our bodily constitution and is essentially shaped by it. If this intrinsic connection between embodiment and consciousness is correct, a transfer of consciousness to another, non-biological substitute or even to mere digital space would have considerable impact on the cognitive and phenomenal aspects of our consciousness. It is likely that such a transfer would mark the end our personal existence as we know it. At the very least, I am skeptical, and for good reasons, I hope...(Gasser, 2022)

Again, there is no way the original would not see the simulated in its alterity, as an “other” and this is due to lack of numerical identity. In this sense, Transhumanism both from the point of view of discarding the human body and the metaphysics of the human person is a reduct humanism.

Mind Uploading or Mind (Brain) Duplication?

Mind uploading is simply mind duplication or rather brain duplication. And this means that there can be more than one copy of the same mind. This follows from Piccinini’s (2021) idea of survival solitude as a necessary condition for survival. By survival solitude is meant that “a mind M survives process P only if P is such that, after M undergoes P, there can be at most one survivor.” According to him, the so-called digital immortality does not pass this test. This

is because mind uploading does not entail that the final result is only one survivor, and this is granted that mind transfer is possible. Mind uploading is simply a duplication akin to photocopying a document. According to him, "If you can make one photocopy, you can make many. Whether you make one copy or many, none of the photocopies are survivors of the original in the relevant sense. For the original still exists! Now suppose that a photocopy machine were such that it destroyed the original in the process of making the photocopies. None of the photocopies would be survivors of the original, for the simple reason that none of the photocopies have a privileged claim to being the survivor of the original. Even if only one photocopy were made, it would still not be the survivor of the original, because multiple photocopies could have been made, and the original need not have been destroyed." This is the same with the case of cloning an organism which result does not lay claim to being original for the same reason that cloning is simply a duplication and has to multiplicity of the same one original organism. None of the clones are survivors of the original in the relevant sense. This is true even if the original is destroyed. According to Piccinini (2021), "...even if the original ceases to exist; if a process is such that it can make multiple copies of an original, the original does not survive through the process. For none of the copies have a privileged claim to being the survivor of the original." It is more glaring when the original is in existence for it simply means that the original in as much as it is still existent does exist through itself and not through its copies. Duplication entails making multiple copies of an original and this can hardly be the way of survival. None of the copies can lay claim to being the survivor of the original in the relevant sense. Piccinini in that token was able to note that brain replacement is consistent with survival solitude for the replacement of part of the brain with a prosthetic device does not have the possibility of duplication but simply preserving the original. Brain replacement could be a viable option for digital immortality but on the presumption that brain replacement is feasible and can engender consciousness which is not likely. Yet even this last submission on digital survival misses the mark for the replacement is still within the biological body which is prone to weakness, and decay and it is this that transhumanism strives to surpass. The position held here concerning duplication and identity has come under contestation as something that should not be conclusively held but something that should be considered an open question. This has been illustrated using the thought experiment that involves hypothetical hemispherectomies. Here one imagines a situation where the left and right hemispheres of the brain are removed and then made to live in separate bodies. This can even be extrapolated to include clones of the missing hemisphere in each case giving rise to a complete brain. The resulting question would be what happened to the original identity? A consistent answer given in earlier discussion would mean that none of the subsequent outcomes would be the same as the original especially when the body has entirely changed.

Conclusion

The work has been able to engage with the issues and debates around personal identity with respect to mind uploading. Various theories of personal identity have been evaluated both on their merits and with respect to mind uploading. Concerning gradual replacement and instantaneous scan and copy methods as it concerns personal identity preservation, the work leaves open what the result would be as per these methods though it does not fail to show its preference for the former in identity preservation if the artificial neurons are still housed within the same body but given a different frame it considers both to be likely metaphysically equivalent in terms of their results. The distinction between destructive and non-destructive processes is shown to be the same in terms of their outcome. The argument is that the result of such a process, being more of a copying process rather than a preservation of the self, is simply functional isomorph, a simulacrum which though having qualitative identity with the original

does not ensure personal immortality lacking as it is numerical identity. This is especially as transhumanist's treatment of the human body as inconsequential to a sense of self.

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