

Van Inwagen, Zimmerman and the Materialist Conception of Resurrection

Introduction

Peter van Inwagen rejects the dualist conception of an immaterial soul. Since there is no soul that leaves the body at the moment of death, the prospect of an afterlife will depend upon the resurrection of the dead human being. Van Inwagen doubts that resurrection can occur where the dead have not been preserved in a condition nearly identical to that in which they took their last breath. He contends that even God cannot reassemble the molecules of a cremated individual in a manner that will make the miraculously assembled person one and the same as the individual cremated. Instead, it will be a qualitatively identical duplicate that God has assembled. Thus van Inwagen's religious beliefs and his materialism lead him to suggest that at the moment we die, God replaces the newly dead form with a simulacrum and stores the preserved body somewhere for the resurrection.¹

Dean Zimmerman attempts to preserve van Inwagen's materialist metaphysics with its stress on the earlier life processes immanently causing later ones, while maintaining that resurrection is possible without involving God in any "body-snatching."² My contention is that Zimmerman's account is metaphysically impossible.³ The type of resurrection that Zimmerman envisions can never take place because it violates principles of part assimilation. Instead of providing a scenario where we can be resurrected, Zimmerman has merely sketched a scenario where we are duplicated.

I will begin by presenting van Inwagen's four arguments against the soul's existence. An argument adapted from Derek Parfit will be added to this list to patch up a weakness in van Inwagen's fourth argument. Next on the agenda will be an exploration of the dilemma van Inwagen presents for those of us who are materialists. Zimmerman's materialist account will be introduced as an alternative to van Inwagen's body snatching account. A discussion about how an organism assimilates new matter will follow. This discussion will provide the basis for concluding that

Zimmerman's account is metaphysically impossible. In the closing pages of the paper, I suggest that we reconsider the claim that intermittent existence without immanent biological causation is impossible. It is not impossible nor even implausible for people to exist, cease to exist, and then exist again. I will try to make readers more amenable to this position by drawing upon their intuitions that it doesn't matter what causal processes preceded their origins. Instead of being conceived when they were, they could have been conceived later, miraculously produced by God, created in an in vitro lab, or formed in a freak explosion, as long as these events bring together the same atoms in the same manner as resulted from their father's fertilization of their mother's egg. If the causal processes that bring one into existence are irrelevant to one's identity, then perhaps the causal processes that precede one's existence at a later time are also irrelevant.

Van Inwagen's Argument Against the Existence of the Soul

The first anti-dualist argument van Inwagen mentions is a familiar one - the problem of giving an adequate account of interactionism.⁴ He doesn't say much on this subject, perhaps because so much has been written about it elsewhere. He observes that it isn't easy to fathom how a nonphysical, nonspatial being can interact causally with a physical thing such as the body. If dualism were true, our best theory of physical law would be incomplete because there would be physical events not caused by other physical events.⁵

The second defense of "soul-free" physicalism that van Inwagen offers is the "argument from common speech." We talk as if we were physical things. We say things like "she reaches for the seat belt and buckles herself in." We do not say that "she caused her body's hands to reach for the seat belt to buckle her body in." Van Inwagen concludes that this demonstrates that we conceive of ourselves as beings with physical traits, made of flesh and bone, shaped roughly like statues of human

beings.

Such a conception of ourselves is incompatible with the view that we are essentially immaterial souls. However, we can't put too much weight on how people talk about themselves since they are often inconsistent. Just consider how laypeople talk about what happens to them at death - they are inconsistent as a group and often one and the same person holds inconsistent views. Such a person may speak of his grandmother ceasing to exist when a stroke causes the onset of a permanent vegetative state and the irreversible destruction of consciousness, and yet claim that she died weeks later and is buried and resting peacefully in her grave. The latter two claims suggest that people can continue to exist in mindless and even dead states. Even if people were not inconsistent, metaphysical positions are not going to be explained away by what amounts to an ordinary language analysis. I do not mean to be imputing to van Inwagen a belief that they can be so resolved. Nor do I mean to imply that he believes that the "argument from common speech" delivers a knockout blow to the opposition. Metaphysicians rarely knock out their opponents, but must settle for winning a decision on points. What van Inwagen hopes his second argument accomplishes is to merely tilt the scales in favor of his physicalist position. So van Inwagen's second argument is not pointless, nevertheless, for the reason given, it adds little weight to the physicalist side of the scale.

The third anti-dualist argument van Inwagen calls the "remote-control argument." This serves to reveal the neurological dependence of thought, a dependence that an immaterial thinking soul should not have. If dualism is true, the person's relation to his body is similar to the relationship between the operator of a remote control device and the controlled device. A blow that incapacitates the device should not affect the controller of the device. A blow to a person's head will damage the brain and the ability to control the body. But if the soul is distinct from the body, it should be a

witness to the events that transpire. Though the body may be unresponsive after the trauma, the soul should still be able to think throughout this period. Even if the person can't will that his body move, there is no reason why an immaterial mind shouldn't be able to recollect its thoughts from the period of physical inactivity. Van Inwagen elaborates:

The blow to the base of Alfred's skull that in fact produces unconsciousness, should according to dualism, produce the following effects on Alfred: he experiences a sharp pain at the base of his skull; he then notes that his body is falling to the floor and that it no longer responds to his will; his visual sensations and pain at the base of his skull and all the other sensations he has been experiencing fade away; and he is left, as it were, floating in the darkness, isolated, but fully conscious and able to contemplate his isolated situation and to speculate about its probable cause and its duration. But this is not what happens when one receives a blow at the base of the skull. One never finds oneself conscious but isolated from one's body.⁶

This lack of mental activity suggests that the mind is not independent of the physical brain structures of the organism. More evidence of the neurological dependence of thought comes from scenarios in which human cognition undergoes impairment rather than complete cessation. Drugs, alcohol, and neurological damage all noticeably affect thought. Furthermore, the physical immaturity of the newborn's brain and the correlate lack of mental ability provides additional evidence for the neurological dependence of thought.⁷

Van Inwagen realizes that such an example is not conclusive. There are responses that dualists can make to *explain away* the above phenomena, but these appear quite ad hoc. The believer in the soul could argue that there are thoughts during the apparent state of unconscious but they are not

accessible later. Or it might be argued that while the soul can survive the destruction of the body, when the body is ensouled, the person's thoughts are somehow dependent upon and restricted by the biological connections. Maybe the soul can be turned off and enter a sleep-like state, one devoid of even dreams. (Perhaps this happens to us every night.) If such a temporary "shut down" is possible, something similar could happen when a person's head is struck a powerful blow.

The "duplication argument" is the last of the four arguments, and the one van Inwagen finds "the most powerful and persuasive."⁸ Van Inwagen insists that he can elicit from the average reader certain beliefs about what conditions are sufficient for there to be thought and the soul will not be one of them. So those readers who depict their soul as something like a Cartesian thinking ego, turn out, ironically, to believe that their cognitive apparatus can work unaided by powers of the soul. The irrelevance of the soul to such thought should make the reader rethink the existence of the soul, for in Wittgenstein's words, a wheel that turns and doesn't move anything is not part of the mechanism.

To obtain this admission, van Inwagen first primes the reader by describing a sci-fi device that can scan and duplicate physical objects. Put a diamond in one chamber of the machine, and the device will produce in another chamber a perfect duplicate right down to the last quark and electron. And the machine is not limited to reproducing just static properties. Place a moving object in the appropriate chamber, and a duplicate will appear moving in the same direction with the same force. So the machine can duplicate dynamic properties as well. Van Inwagen further prepares the reader to accept his physicalist account of thought by having the reader imagine the duplication of a mouse. If the original mouse had learned to push a lever to get cheese, then the duplicate should be able to do so as well. Van Inwagen then asks what would happen if a human being is scanned and a qualitative arrangement of atoms is produced? Wouldn't there appear an organism just like the one scanned? If

its brain was a perfect duplicate, it should react to stimuli just as the original did. If the original could feel pain, so could the duplicate. If the original desires for the pain to stop, the duplicate would also. If readers accept this, then they have revealed themselves to have a belief that certain physical arrangements of matter are sufficient for thought. The soul that such readers profess a belief in ends up without a job to do.

Van Inwagen again admits that this fourth argument, like the last one, is not a knockout blow that he has delivered to a dualist. But because he is confident that any response of the dualist will have an ad hoc flavor, van Inwagen finds the fourth argument to decisively tilt the scales in favor of the anti-dualist position. I doubt this, instead believing it is his third argument that the anti-dualist should most rely upon. The response that the dualist is likely to make to the duplication argument doesn't strike me at all ad hoc. Van Inwagen believes that the consistent dualist must respond that the duplicate of a human being would collapse right after being created due to the absence of a soul. The duplicate may breathe, drool, sleep and perform various organic functions, but it won't think or move intentionally. Van Inwagen, of course, doesn't believe the duplicate would collapse. Neither do I. But I don't disagree with the dualist because of anything van Inwagen has shown in his thought experiment. What I would expect most dualists to say is that at the moment of the duplicate's creation, a soul entered its body. Van Inwagen would find this an ad hoc move. But I think it no more ad hoc than the fundamental tenets of religious dualism. That is, it is no more a desperation move to have ensoulment in the duplication machine than anywhere else. People are created in the strangest places. They supposedly come into existence in bedrooms and fertility clinics and even days after fertilization when an egg splits and identical twins emerge. If a soul can be embodied in any of these situations, why is it any stranger to believe that a soul couldn't appear in the duplication machine?

What is the difference between ensoulment in the bedroom or in vitro lab, and the more futuristic lab of van Inwagen's thought experiment? None that I can see. If van Inwagen doesn't want to assert that the former pair is ad hoc, then he shouldn't say the latter is.

While I don't find the dualist's resistance to van Inwagen's duplication machine thought experiment to be unprincipled, bizarre, or ad hoc, I do think van Inwagen is right to suggest that the soul serves no cognitive function.⁹ And he is right to claim that most scientifically informed lay people are only weakly committed to the existence of the soul, though they are unaware of how superficial is their commitment. But van Inwagen's thought experiment doesn't show that scientifically informed laypeople actually hold such a tenuous view. Nevertheless, there is a thought experiment that is more effective at showing that even the religious don't give the soul a significant role to play in regards to their identity or cognitive abilities. This can be more clearly seen by making use of Derek Parfit's spectrum thought experiment.¹⁰

Parfit's thought experiment cannot be countered as easily by the dualist as can van Inwagen's. Parfit's target is the non-reductionist account of the self. Imagine a brilliant but bizarre neurological surgeon who sets out to gradually rearrange all of the neurons in the reader's head. No gray or white matter will be lost. Only the rearrangement of existing cells will occur. The dendrites and axons of each cell will be attached to different cells. The result is that all of the individual's original beliefs, memories, desires and interests will have been destroyed and replaced with interests, beliefs, desires, peeves, paranoia and neuroses like those of the late American president, Richard Nixon. The reader won't love those who insist they are close relatives, nor will the reader be able to remember those people who declare they are acquaintances. The reader's hobbies, aims and projects will be completely different. And all of the reader's political and religious beliefs will have changed. Every

distinctive biographical trait will be removed.

If readers knew such character-changing surgery was imminent, would they feel any more concern towards the person who ends up with their rewired brain than towards a stranger? If the reader answers in the negative, the next question is then what relevance is the soul to the reader's identity and prudential concern for the future? Notice that the soul was never mentioned in the above thought experiment. The soul was left untouched by the surgery. Only the thoughts "within" the soul were changed, and such contents are altered, lost, and replaced throughout a person's life even if mad scientists are never encountered. The reader presently has few if any of the memories, beliefs, desires possessed when 3 years old. Since such physical changes don't destroy the reader's soul, neither should the neuroscientist's interventions which are just sped up and heteronomous versions of the normal changes in mental life that a person undergoes. If the soul is not to be identified with a person's memories, beliefs, desires etc., but is instead the subject or "stage" of thought, then the reader's soul should survive across the surgery and should just become the subject or "stage" of post-surgery Nixon-like thoughts. But if prior to the surgery, readers didn't express any prudential concern towards the individual with the post-surgery mental states, this suggests that they don't identify with their souls but instead with the contents of their minds. The thought experiment therefore reveals the soul to be unimportant because, even if it does exist, it would have little cognitive role to play before, during or after the neurosurgery.¹¹ If the reader's reactions have been as Parfit expects, then such readers do not identify with nor have any prudential commitment to the existence of their souls.¹² What readers each care about is not a soul, but a certain constellation of beliefs, desires, memories and the like.

The best reason we have to be ontologically committed to a theoretical entity is that it has an

indispensable role in our best theory. The soul does not meet this criterion. Of course, the unimportance of the soul doesn't mean readers each lack one. Moreover, there may be other arguments that can "save the soul" without appearing to be desperation moves. I doubt that there are such arguments. However, even if I am wrong and the dualist's response is not ad hoc, the rest of the paper might still be important to such readers. This is because religious dualists may still believe in the resurrection of the body. Zimmerman explains why they should be interested in an alternative defense of materialist resurrection:

Although I tell the story under the supposition of materialism, its relevance for Christian dualists should be clear. According to venerable theological traditions, Christ, like all of us, was a spirit united to a normal human body. After his body was killed, he (i.e., his spirit, since his body was still in the tomb) descended into hell to "preach to the spirits in prison" and "lead forth captives." On "the third day," his body was raised to life again - that very same body that lay in the tomb was reanimated by his spirit and subtly transformed. Identity of the dying and resurrected body is necessary to make sense of the empty tomb. And if Christ's death and resurrection provide the model for our own, it would be a great theological advantage to be able to say that we, too, get numerically the same body back - transformed and improved, no doubt, but not a body newly cut from wholly different cloth. The Christian dualist moved by these theological considerations can put the theory that follows into service as an account of one way in which our resurrected bodies could be the same as the bodies we had in this life, in much the same sense in which Christ's resurrected body was the same as the one laid in the tomb.¹³

Van Inwagen's Account of Resurrection

Van Inwagen doubts that resurrection can occur where the dead human being has not been preserved in a condition nearly identical to that in which it took its last breath. Even God cannot reassemble the molecules of a cremated individual in a manner that will make the miraculously assembled person identical to the individual cremated. Van Inwagen, of course, acknowledges that it is within God's power to reassemble all the atoms of someone destroyed through cremation, explosion, or ordinary graveyard decay. But he insists that the resulting being would be someone else - a duplicate of the man who died and not the dead person restored to life.

Why is God unable to resurrect a destroyed being whose parts have been scattered? Van Inwagen's reasoning is that God's gathering of scattered human particles would mean that a miraculous force rather than the essential life processes of the organism is responsible for the location and organization of the constituent matter of the life. Van Inwagen insists that an organism at one time is identical to an organism at another time only if there is the proper biological continuity linking the two. The organism's parts must be caught up in the same life processes and these life processes must be responsible for the role and position of the parts. Since such processes are absent from miraculous reassembly, this makes God's deed a duplication rather than a resurrection of the original life.¹⁴

Van Inwagen illustrates his claim with the analogy of an artwork.¹⁵ God can no more restore the cremated human being to life than he can restore an artist's sculpture that was melted or beaten down into a lump. The artwork's identity depends upon its causal origins - the intentions and the actions of the sculptor that give each piece of clay its shape and position. The artist's handiwork individuates the artwork, makes it the artwork it is and numerically distinguishes it from other

qualitatively identical artworks. What matters to the survival of the artwork is not just that the parts of it are at a later time where they were once before, but how they got there. According to van Inwagen, whether it be a freak storm, another man, or even God which destroys the sculpture and then reassembles each molecule of clay to where it was before, the original artist would be wrong to see this reassembled sculpture as his own handiwork. He is not responsible for this new creation. It is not his artwork, for its matter is not positioned by his hand. And likewise, van Inwagen concludes, even God cannot *reassemble* numerically the same human being. Just as the artwork needed to have its arrangement of parts caused by the artist, a living human being needs the arrangement of its particles to be caused by biological forces.

I do not think the artwork example will support van Inwagen's thesis.¹⁶ Consider a sculpture made in a studio of a master sculptor. The apprentice of the master places each piece of clay in a position at the direction of the master. Who is the artwork's creator? I tend to think that it is just the master unless the apprentice is doing something highly skilled.¹⁷ Even in the latter case, my judgement would be that the sculpture is a co-creation rather than the artistic creation solely of the apprentice. If the master can create or co-create an artwork that another assembles, why can he not be rightly considered the creator or co-creator of a statue that results from others *reassembling* the clay of his now destroyed statue, if they do so in accordance with the intentions that he originally conveyed to his apprentice? Perhaps we should see the product of the second assembly as numerically identical to the first one completed by the dutiful apprentice. Thus such a sculpture could have a "gappy" or scattered existence.

Why not view God's activity as analogous to the directions the master sculptor gave to the apprentice? God could be understood as the "original artist" who created the world and arranged its

matter and laws so that there would be organisms. Such background assumptions would make it plausible to think that God could resurrect people if He were faithful to His original blueprint that formed and maintained the human beings in question. So just as there are not any metaphysical principles that rule out the restoration of a destroyed statue, it appears that none render our resurrection impossible.

However, even if the claims above were to lead van Inwagen to admit that his account of artifacts is flawed, he could insist that this just means that artifacts are not like human beings in the relevant ways and thus are not useful for making any identity claims about the latter. He can argue that his claim about immanent biological causation can be given a *sui generis* defense. He is committed only to the metaphysical importance of our *continuity* as human organisms. His central claim is that an individual's constitutive matter must remain caught up in a life without interruption and when the various particles are eventually replaced, it is by ongoing biological processes characteristic of every organism. Both the self-maintained structural integrity of the organism and the addition of new matter must be due to biological processes involving the metabolizing of food, the assimilation of oxygen, the excretion of wastes, the maintenance of homeostasis etc. So what matters to identity is that a human being's parts are where they are due to the *continual biological processes* of the organism rather than some other cause such as God's miraculous tracking and reassembling of matter that has long ceased to be caught up in any life processes. This still leaves body snatching as the materialist view in the absence of an alternative conception.

Zimmerman's Materialist Alternative

Zimmerman believes he has a materialist alternative to the body-snatching of van Inwagen. It can meet van Inwagen's demand for immanent causation which entails that the parts, states and

processes of the organism be caused by the previous parts, states and processes of that organism. He offers the following description of how God may resurrect the human body:

If we can make sense of immanent-causal connections over spatiotemporal gaps, then we are well on our way to an account of survival without body-snatching. Suppose my body were to go undergo an extraordinary and discontinuous case of fission: every particle in my body at a certain time t is immanent-causally connected with two resulting particle-stages after that time. The two sets of resulting particles appear at some later time t^* in disjointed spatial regions, and each is arranged just as the set of “parent” particles that produced it; what’s more, they are so arranged *because* the original particles were so arranged - for each particle produces its “offspring” at precisely the same distances and directions as every other particle, insuring duplication of my body’s overall structure. My body, in this case, replicates itself over a temporal gap. Given the solution to fission cases advocated above, we must say that this event brings my life to an end. But now suppose that the same sort of fissioning of each particle occurs, but that only one *set* constitutes at t^* a living human body structured just like mine; the other set appears at t^* as an unstructured pile of dead matter. Perhaps many of the particles that appear on one side are not arranged just like the original set of particles. Then, thanks to the failure of one body to “take,” my life is continued by the successful candidate that appears after a temporal interval...Now we have a model for how God may resurrect this very body: He does so by, just before it completely loses its living form, enabling each particle to divide - or at least be immanent-causally responsible for two resulting particle-stages.¹⁸

So Zimmerman's position is that half of the resulting particles will compose a corpse that remains here on earth, and the other particles will compose a living organism that shows up in Heaven, perhaps much later. Zimmerman allows a gap between death and resurrection in the being's existence as long as there is still immanent causality, i.e., between death and resurrection, there is no other causal source sufficient for reassembling the atoms into a living being. This rules out Star Trek teleporters and God reassembling an individual's parts.¹⁹ Zimmerman insists that on his account, which is a form of closest continuer theory, there is no danger of an individual "fissioning out of existence" because only one aggregate of particles composes a living being, the other ends up a lifeless corpse. So there is no competition between the two products of fission over which is identical to the being that gave rise to them both. The dying individual immanently causes and thus survives as the being in Heaven.²⁰

A problem with Zimmerman's account is that when the fissioning of *any* creature occurs, the result is two beings each half the size of the original. But human corpses are the same size as their living predecessors. So where did all the corpse's extra weight come from? And what about the resurrected being? Is it half the size it was when dying? If not, is it metaphysically possible for a being to survive the sudden addition of so much new matter? Not if the account of assimilation in the text below is correct. But there is another stumbling block even if we are willing to accept that the body in Heaven is half the size of the dying body. And this problem has to do with the fact that the new particles immanently caused by those of the dying being were never caught up in the life processes in which the older particles were involved. We shall see that this violates principles of part assimilation.

The Nature of Part Assimilation

We human organisms replace all of our matter over time. But this replacement must happen in a certain manner for us to survive it. A number of thought experiments will serve to elicit the reader's beliefs about the metaphysical rules governing part replacement. Consider the sci-fi scenario of an organism being cryogenically frozen. Can it survive part replacement while it is in a deep freeze in which no life processes such as metabolism and homeostasis occur? Assume that the technology exists to remove and then replace *every* molecule with a new molecule. This process could take as long or as short a time as the reader likes. The new parts have never been caught up in any life processes because the exchange took place in such extremely cold temperatures. They have not been biologically *assimilated* by the individual's body as were the parts they replaced.²¹ The new particles never circulated in his blood, never were caught up in his metabolism, never were involved in homeostatic processes etc. Would it be the same dead body? I expect that a number of readers will share my doubts that it is the same body.

Those readers who don't share such doubts should imagine a scenario in which perverse morgue workers add so much dead tissue to a corpse that they cause the dead body to double in size. Since they are perverse, they even attach other appendages to it. Would readers think it was the same body? More readers will now say no, but others may not know what to say and thus will be led to conclude that the matter is indeterminate. But contrast these reactions with the complete absence of doubt that a living organism could survive the gradual change of all its parts and would be the same organism even if it doubled in size and even grew an eleventh finger and a third arm. The living organism survives such change because it properly assimilates the new particles of matter by having them caught up in its life processes.

As long as part replacement does not happen too quickly and the replacement parts are not too

large, the result should be metaphysically and biologically acceptable. But why, the reader might ask, does the speed or size of the part replacement matter? The key lies in the concept of “assimilation” that was broached in regards to part replacement in the frozen. Assimilation has to do with how an entity integrates new parts with its old. Not any kind of part replacement will preserve the existence of the entity in question. Our attitude about part replacement is determined by the norm for the type of entity in question. (This familiarity is no reason for suspicion if such intuition reflects biological fact about what it is to be a part of an organism.) Consider the replacement of a human being’s parts. Human organisms naturally replace all of their matter slowly over a period of time. If we imagine thought experiments where our parts are changed in different sizes and at different speeds, our intuitions about whether or not we survive are correlated with how close the thought experiments parallel normal, natural biological replacement. If a person’s parts are replaced in two steps, first by an exact duplicate of his entire left side from his brain to his toes, and then by an exact duplicate of his right side, our attitude would be that he did not survive but had been replaced by a duplicate, who thought he was the original person in question. So size matters.

Speed also matters. If I were informed that all my parts were shortly to be replaced in succession in a process taking only a matter of seconds, I would believe that a duplicate would soon take my place. I believe that it is the lack of assimilation that precludes surviving speedy part replacement. The importance of assimilation can be seen in cases in which it is lacking. Recall the earlier discussion about replacing the parts of the frozen individual. That one could not survive speedy part replacement because of the lack of assimilation is even more evident if we imagine a person being teletransported. Most people, though not van Inwagen and Zimmerman, probably believe they could survive teletransportation from Earth to Mars if their original Earth atoms were

reassembled on Mars. But we are less likely to believe that we would survive if all of our deconstructed parts were, while on route to Mars, removed one by one from the teletransportation beam and replaced sequentially with small, qualitatively identical but numerically distinct parts, and these new parts were reassembled on Mars when the beam arrived there. This lack of survival is even clearer if the being that ends up materializing on the teletransportation platform on Mars has a qualitatively very different brain, body and psychology from that of the person whose parts were the original ones in the beam. But the same qualitative changes in body, brain and personality that result from part replacement wouldn't threaten the reader's identity if they were to occur slowly outside the beam in the normal course of life. Such changes would roughly parallel the ordinary physiological and psychological growth and changes of any person from youth to old age.

Why Zimmerman's Two Solutions Fail

If the outlined account of part replacement is correct, then it won't do us much good if God causes all of our particles to fission right before death. The result won't lead to any of us ending up in Heaven. There are two problems with Zimmerman's alternative "solution" to the dilemma that van Inwagen outlines. The first and less metaphysically troubling one is that the corpse on earth and the body in Heaven suddenly appear with twice the matter that a being emerging from fission should have. Fissioning standardly gives rise to a pair of new entities that are one half the size of their immediate ancestor. Since the corpse is the same size as the being that was dying, if it is a result of fission, then half of its matter is new. That would be a major problem if the dying organism was the same individual being as the corpse, but there is no such identity on Zimmerman's account. An organism is essentially alive. Corpses are the remains of organisms, not later stages of them. The real problem is that if the resurrected being is the same size as the dying individual, then it

instantaneously doubled in size after the fissioning process ended. This new matter wasn't properly assimilated. To avoid this difficulty, Zimmerman could perhaps claim that we start out in Heaven half the size we were at our dying moments. However, there is a second difficulty regarding assimilation that prevents even this claim from being a materialist solution to the problem of resurrection.

This second problem will make the body in Heaven a duplicate rather than a later stage of the dying individual here on earth. The parts of the heavenly body, even if these consisted of only one half of those of the pre-fissioned individual, were never properly assimilated into an existing body. While the heavenly individual's particles were caused by the dying individual's particles, they never were caught up any life processes with the older particles. The new particles never composed any cells, tissues and organs with the older particles; they never combined with any of the older particles to form part of any skeletal structures; and they were never involved in any metabolic or homeostatic processes with the already existing particles. Contrast this with the normal bodily assimilation of new matter and the loss of old. The organism eats, drinks and breathes in new particles that get caught up in life processes with some old particles while other particles that were already part of the organism are exhaled, excreted and perspired. There is an overlap of the new and the old, and this enables the new particles, to be assimilated into the individual's body. It is helpful to contrast normal cell division in a human being with the total fissioning of every particle that Zimmerman hypothesizes. When a cell divides, the two descendant cells are uncontroversially parts of the same body that their immediate ancestor belonged to, because they are caught up in the same life processes with many of the cells which also interacted with their now predecessor. But when *every* part of the body fissions, as Zimmerman postulates, there is no assimilation of new particles and cells to earlier ones. So if what has been said about assimilation is correct, then Zimmerman's scenario gives us duplication

rather than identity, despite the presence of immanent causation.

It would be a mistake to think that the problem of assimilation can be avoided by a second process of resurrection that Zimmerman considers. Instead of fissioning, the particles of the dying, when zapped by God, each immanently cause two particles to arise. Half of all the immanently caused particles are the constituents of the corpse and the other half end up composing the resurrected individual in Heaven. Recall the earlier Zimmerman quote in which it was claimed that God can resurrect a body “by, just before it completely loses its living form, enabling each particle to divide - or at least be immanent-causally responsible for two resulting particle-stages.”²² I take it that what Zimmerman means by the second option is that when God zaps the body and every particle immanently causes two particles, one particle is just a later stage of the particle that immanently causes it, while the other is a different particle. Zimmerman explains: “Each particle x is immanent-causally connected to two streams of later particle-stages; one of them - the one in the here and now - includes stages of x itself; the other, one in the hereafter, consists of stages of a different particle.”²³ Since there isn't any fissioning, there is no problem of a body being the same size as the prefissioned individual despite only receiving half of its matter. But this second type of divinely motivated immanent causation will still violate principles of assimilation. The new, non-fissioned produced particles were never assimilated with the old in any life processes. The particles of the dying individual never combined with the new particles to compose any tissues or skeletal structures. The new particles never interacted with the preexisting particles to bring oxygen to any part of the body, to heal a wound or fight an infection, nor did they ever participate together in any processes of metabolism or homeostasis or excretion. Thus the new particles that compose the allegedly resurrected being never were parts of the body of the dying person. So again, the principle of

assimilation is violated, and Zimmerman has provided us with an account of duplication rather than resurrection. The entity in Heaven is a clone of the deceased and thus Zimmerman's account provides us with no more immortality than that which comes from an identical twin surviving our death. And whatever consolation that may give us as we are dying, it is not a case of true immortality.

The Essentiality of Origins and the Possibility of Intermittent Existence

Is there any way, compatible with the spirit of Zimmerman's account, that the new immanently caused particles could be assimilated to the bodies that the old particles composed? I don't see how this could occur. If the new particles were adjacent to the old in the dying body, there briefly would have to be a very large body with two hearts, two livers, two noses etc. That seems absurd. Does all of this mean that those of us who are materialists about human beings have no recourse but to adopt van Inwagen's body-snatching account? Well, there may be other unthought of scenarios that respect the principle of immanent causality which van Inwagen and Zimmerman maintain is so important to our biological natures.²⁴ However, an alternative is to reconsider the possibility of intermittent existence. Perhaps we organisms can cease to exist and then exist again.

To weaken the hold that Zimmerman and van Inwagen's biological continuity intuitions might have on you, consider for the sake of argument that someone came into existence through fertilization in a petri dish at an infertility clinic at T_1 .²⁵ Surely this individual could have come into existence later at T_2 if the union of the same sperm and egg had been delayed a little while. So the same organism that might have originated at T_1 in $World_1$ has now come into existence at T_2 in W_2 . Now imagine in W_3 that the same being is destroyed an *instant* after it originates as a zygote and before it had physically changed at all. The destroyed parts of the zygote are then reassembled at T_2 in W_3 and are physically identical to the parts of the organism that they would have composed if that

organism had first come into existence at T_2 in W_2 . There is absolutely no quantitative or qualitative physical difference between the parts of the one celled organism in the different worlds. Can it really matter that the organism at T_2 in W_3 is not the result of a continuous biological processes from T_1 ? If it does not seem to matter that the organism in W_1 or W_2 or W_3 comes into existence *initially* from a test tube or normal conception or a miraculous fusion of the matter essential to the zygote at either T_1 or T_2 , can it really matter metaphysically if in W_3 the zygote at T_2 consists of the reassembled parts of the zygote at T_1 rather than possesses those same parts due to biological continuity? There are no physical differences in the zygotes separated by the temporal gaps. The zygote in W_3 at T_2 is physically identical to how it would have been if it had originated then rather than been reassembled at that time.

It should not be thought that the identity claims in the above passage are only plausible because the entity discussed is a one cell organism of the type that we all originate from. A similar point could be made with a complex organism rather than a zygote. God could have brought you into existence just a split second ago complete with “quasi-memories” of having lived for decades. God also could have had you originate two days from now. Consider the possibility that God destroys you a moment after creating you and then two days later, at the exact time that God could have originally brought you into existence, He reassembles your parts exactly as they were at the time he destroyed you. I find it difficult to believe that this is a duplicate rather than you, especially when we have already established you could have been brought into existence in that condition and at that moment for the first time. Can it really matter if at that later time the assembled entity is not biologically continuous with you from your origin? There would have been no physical change between the two beings because you were destroyed an instant after being created.

I hope these considerations make intermittent existence appear more plausible. If the causal processes that first brought us into existence are not essential to our identity, then perhaps the causal processes that precede the reassembly of the matter we had at the time of our death are also irrelevant to questions of identity. However, there are philosophers who will dispute the claim that the causal processes which first brought us into existence are metaphysically unimportant. They will insist that we had to come from the actual sperm and egg that we did.²⁶ If it was necessary that we emerged from the biological process of fertilization out of which we did in fact develop, then it would follow that the timing and process that culminated with our coming into existence are not as metaphysically unimportant as I suggest. If our origins could *not* have been different than they were, then no modal facts about the nature of our origins could be used to analogously support the claim that we could be resurrected after our deaths, regardless of what happens to our bodies in the interim period. This would prevent me from arguing that what happens to our bodies between the time of death and when our matter is reassembled by God is as unimportant to the question of our resurrection as the prior history of the matter that first composed us is to the possibility of our initially coming into existence. My opponents might insist that we necessarily would not exist in the absence of the biological process of fertilization, just as van Inwagen and Zimmerman claim that it would be impossible for the deceased to come back to life in the absence of certain biological processes causing the body parts of the dead to be where they were .

While I agree with many essentialists about the necessity of our possessing (most of) our original matter, I don't find the above claim about the fertilization process convincing.²⁷ It is not metaphysically important where and in what form was our original matter before it first came to compose us. To better appreciate this point, the reader should imagine that the matter that first

constituted her was once cosmic dust floating near the moon that later came to earth and found its way into the food chain and ended up completely composing the reader at her origins. Surely, where that matter once was doesn't have any bearing on her identity. She could just as well have originated when she did if that dust had never been in the vicinity of the moon but was always earthbound and ended up in the food chain. I don't see any reason to treat gametes differently from the dust floating by the moon. Both involve the location and arrangement of matter *prior* to it coming to compose the reader.

Why then do people so adamantly insist that it is necessary that we come from the gametes that we did?²⁸ One explanation is that they are misled by thought experiments similar to those typically given for the essentiality of origins.²⁹ Such thought experiments usually take something like the following form. If it wasn't essential that the reader develop from the gametes that she did in the actual world (W_1), then there could be a second world (W_2) in which she develops from different gametes. There could also be a third world (W_3) in which the gametes she emerged from in W_1 coexist with the pair of gametes she developed from in W_2 .³⁰ In this third world, both pairs of gametes give rise to different human beings. Which human being would the reader be? Since there is a world in which the reader comes from one pair of gametes, and another world in which the reader emerges from the other pair, it would seem then that either pair could give rise to the reader if the other didn't coexist with it in W_3 . So the identity of the person that the gametes give rise to depends upon the existence of what other distinct things are present. Making the identity of an entity depend upon what is extrinsic to it is quite problematic.

The dilemma posed by this third world will lead many philosophers to conclude that the reader couldn't arise from the fusion of the second pair of gametes in W_2 or W_3 if in W_1 she arose

from the merging of the first pair. That may be true, but this doesn't mean that the reader could *only* emerge in W_3 (or any other world) from the fusion of the first gamete pair. It isn't important to our identity that those gametes existed. What is essential is only that the matter contained in them was later arranged in the way that it was at the time of our origins in the actual world. As argued earlier, it isn't important if our originating matter composed a pair of gametes. In fact, even if the gametes that the reader emerged from in the actual world (W_1) existed in (W_3), she could come to exist in that world without emerging from the fertilization of that egg by that sperm. One way for this to happen is that the gametes fail to fuse and give rise to any entity physically indistinguishable from the embryo that the reader developed from in the actual world (W_1). The gametes could then be destroyed and their constitutive matter later gathered and arranged just as it was in W_1 at the moment when fertilization was completed.

A second reason some philosophers may mistakenly maintain that we must necessarily come from the sperm and egg that we actually did is that they believe we are essentially members of the species *Homo sapiens* and such species membership is a historical property.³¹ It is commonplace for contemporary philosophers of biology to treat a species as a historical individual, not a kind. Having a certain ancestry and being a member of a reproductive community is more important than morphological similarity for determining our species membership. Without being reproductively linked to a certain population we could not be a member of that species. A duplicate of the reader on a distant planet wouldn't belong to the same species because of its different history. Or if a doppelganger of the reader arose as a swamp embryo in a freak explosion (apologies to Davidson), it wouldn't belong to the reader's species. If our species membership is essential to us, then it might be thought that we necessarily had to have the historical origins that we did. We must belong to a

particular reproductive community, sharing certain ancestors. And our link to that common ancestry is through the gametes we receive from our parents.

I am willing to accept that species are historical individuals and not kinds. But I doubt it is true that species membership is essential to each of us. To see this, the reader should imagine that everyone in her city or county undergoes a mutation and can no longer reproduce with anyone from any other geographic region. This reproductively isolated population will constitute a new species. But then the reader has switched species. If species membership is an essential trait, the reader could not survive such a change. But it is preposterous to think that a change in the reproductive capacities of an individual could destroy it and bring into existence a new individual. The doctrine that species membership is essential to our persistence would be further undermined if there has to be several generations of reproductive isolation before it is a fact that a new species has arisen. Species membership would then be a relational property that one could acquire long after one's death. It is not at all plausible to claim that one can acquire essential properties *after* ceasing to exist.

I hope the arguments of the last few pages make intermittent existence appear more plausible. If species membership is not essential to an individual, then we have further reason to believe that any historical factors that contributed to one's emergence are not essential. If the causal processes that bring one into existence are not essential to one's identity, then perhaps the causal processes that precede one's existence at a later time are likewise irrelevant. Thus immanent causation would not be necessary to our resurrection. What is essential is that (most of) the matter which composes one at the last moment of one's existence is so arranged in much the same way at the next moment of one's existence. If that condition is met, even if it is accomplished by God's miraculous intervention, then the same individual exists who existed earlier.³²

1. Van Inwagen. "The Possibility of Resurrection." *International Journal of Philosophy of Religion*. Vol. IX No. 2 1978 p. 121.

2. The "Body Snatching" description of van Inwagen's account is a phrase taken from Dean Zimmerman's article "Materialism and Survival" in *Philosophy of Religion: The Big Questions* ed. Stump, E. and Murray, M. (Oxford: Blackwell, 1999) pp. 379-386.

3. Zimmerman, Dean. "The Compatibility of Materialism and Survival: 'The Falling Elevator' Model." *Faith and Philosophy*. Vol. 16 No. 2 April 1999 pp. 194-212.

4. An anonymous commented that it is a bit awkward of van Inwagen to attack the dualist with an argument based upon the problems of interaction between material and immaterial objects. As a theist believing in the power of an immaterial God to intervene in the cosmos, van Inwagen shouldn't be so quick to find mind-body interaction objectionable.

5. See Jaegwon Kim's *Supervenience and Mind* for a supplementary account of the problems arising from the threat of downward causation to the doctrine of the closure of the physical.

6. Van Inwagen. *Metaphysics*. (Boulder: Westview Press, 1993) p. 179.

7. For a nice discussion of the neurological dependence of thought and other anti-dualist arguments see Paul Churchland's *Matter and Consciousness: A Contemporary Introduction to Philosophy of Mind*. (Cambridge: MIT Press, 1984) pp. 18-21.

8. Van Inwagen. *Metaphysics*. Op. cit. 180.

9. It wouldn't be wise for believers in an immaterial soul to identify it with the spark of life. Unless such a position is qualified, it would commit its proponents to the thesis that all organisms, human and nonhuman, are ensouled.

10. Parfit, Derek. *Reasons and Persons*. (Oxford: Oxford University Press, 1984) pp. 231-244.

11. Recall Locke's discussion of the soul, man (human organism) and the person which can all be separated from each other. Each soul can combine with a different biological man or different person's consciousness. The separation of a person's consciousness and the soul, reveal the soul to be doing little work in Locke's theory and to be of little concern for a person. The Parfit-inspired thought experiment involving the perverse scientist shows any soul to be as equally unimportant to most of us.

12. An anonymous reviewer was unconvinced by my use of Parfit's spectrum thought experiment. S/he is not alone. So I don't want to give the impression that I believe that my Parfit-inspired spectrum thought experiment provides a knockdown argument against the believer in the soul. It won't be effective with those people who believe that they continue to exist as long as their brain realizes even minimal sentience. They would survive a stroke that reduced their mental life to that

of an infant. If readers have the intuition that they could survive the stroke-caused loss of all biographically distinctive aspects of their mentality (memories, beliefs, desires etc.), then they may also consistently maintain that they could survive the spectrum thought experiment.

13. Zimmerman, Dean. "The Compatibility of Materialism and Survival." in *Philosophy of Religion: The Big Questions*. Eds. Elenore Stump and Michael Murray. (Oxford: Blackwell Publishers, 1999) p. 381.

14. Van Inwagen writes "the atoms of which I am composed occupy at each instant the positions they do because of the operations of certain processes within me (those processes that taken collectively, constitute my being alive.) Even when I become a corpse, provided I decay slowly and am not say cremated. - the atoms that will compose me occupy the positions relative to one that they do occupy largely because of the processes that used to go on within me: or this will be the case at least for a short period. Thus a former corpse in which the processes of life have been "started up again" may well be the very man who was once before alive, provided the processes of dissolution did not progress too far while he was a corpse. But if a man does not simply die but is totally destroyed (as in the case of cremation) then he can never be reconstituted, for the causal chain has been irrevocably broken. Thus if God collects the atoms that used to constitute the man and 'reassembles' them, they will occupy the positions relative to one another because of God's miracle and not because of the operation of the natural processes that, taken collectively, were the life of the man." "The Possibility of Resurrection" Op. cit. pp. 119.

15. Van Inwagen's actual examples are of a ancient manuscript penned by St. Augustine that is burned and the parts miraculously reassembled by God and a modern child's house of blocks construction that is knocked down and then reassembled by the parent. Since I am interested in

the resurrection of a human being it is useful to contrast this with the reassembly of a statue of a human being. Furthermore, the statue example in a sense combines traits of both of van Inwagen's examples of a famous creation made by the hand of a historical figure and the "lumpy" construction as involved in the blocks. I don't think any harm is done by the switch.

16. I borrow this example from my paper "The Metaphysical Problem of Intermittent Existence and the Possibility of Resurrection." Forthcoming in *Faith and Philosophy*. April or July 2002.

17. Or consider a print. Isn't the creator the artist and not the person who runs off the prints?

18. "The Compatibility of Materialism and Survival." *Faith and Philosophy*. vol. 16 No. 2. April 1999 p. 206.

19. *IBID.* pp. 203-204.

20. *IBID.* p. 206.

21. See Peter Unger's *Consciousness, Identity and Value*. (Oxford: Oxford University Press, 1990.) pp. 147-156 for an informative account of part replacement and assimilation. I am quite indebted to Unger on this matter.

22. Zimmerman. "Compatibility of Materialism and Survival" *Op. cit.* p. 207. Italics are my addition.

23. *IBID.* p. 206.

24. In a postscript added in 1997, van Inwagen admits that there could be other ways in which

God accomplishes resurrection of the dead which he is “unable to even form the idea of because I lack the conceptual resources to do so.” *The Possibility of Resurrection and other Essays in Christian Apologetics*. (Boulder: Westview Press, 1997) p. 50.

25. I develop these ideas in my paper “The Metaphysical Problem of Intermittent Existence and the Possibility of Resurrection.” Op. cit.

26. For the alternative view, see Colin McGinn’s “On the Necessity of Origins.” *Journal of Philosophy*. 1976 p. 132 and Jack Wilson’s *Biological Individuality: The Identity and Persistence of Living Entities*. (Cambridge: Cambridge University Press, 1999) pp. 72-80.

27. For essentialist accounts see Salmon, Nathan. *Reference and Essence*. (Princeton: Princeton University Press, 1981) pp. 193-214. McGinn, Colin. Op. cit. 127-135. Forbes, G. “Origins and Identity.” *Philosophical Studies*. 37. pp. 353-362. Wilson, Jack. *Biological Individuality: The Identity and Persistence of Living Entities*. Op. cit. pp. 72-80.

28. Kripke may also have dissuaded some readers from trying to imagine ourselves originating without gametes by his comment that it is not an exception to the thesis of the essentiality of origins if the sperm from one man was transplanted into another man and then used to fertilize an egg that had been taken from one woman and transplanted into another woman’s body..*Naming and Necessity*. Op. cit. p. 112.

29. I believe this is the culprit in Wilson’s discussion of the essentiality of origins in his *Biological Individuality*. Op. cit. pp. 76-79. It may also be the source of error in McGinn’s

discussion. Op. cit. p. 132.

30. The scenario described in the main text in which the gametes that we originated from in the actual world exist in another possible world but we do not develop from their fusion is merely a slight twist upon a well-known for argument for the essentiality of origins found throughout the literature on the subject. See references in note 27.

31. This error about species membership being an essential property is made by McGinn Op. cit. pp. 134-5 and also Michael Dummett in his *Frege: Philosopher of Language*. (London: Duckworth, 1973) p.144.

32. I would like to thank an anonymous reviewer for making numerous helpful suggestions.