Confronting the Cadaver: The Denial of Death in Modern Medicine

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> The idea of death, the fear of it, haunts the human animal like nothing else; it is a mainspring of human activity—designed largely to avoid the fatality of death, to overcome it by denying in some way that it is the final destiny of man.
> – Ernest Becker, *The Denial of Death*

Through a cultural hermeneutic interpretation of the cadaver in the history of modern medicine, this study will argue that at least some medical interpretations of embodiment serve as a form of death denial. This analysis will draw on four major sources of evidence to support this contention: (a) the history of cadaver dissection in Western medicine, (b) diary entries by medical students taking a course in gross anatomy, (c) responses to a 2005 panel on cadaver dissection held at Daemen College, and (d) interviews with Guenther von Hagens, the creator of the "BodyWorlds" exhibit, which features plastinated corpses for the purpose of "edutainment." In each of these cases, the data suggest that medical education works implicitly to manage death anxiety through a set of defenses which conceal the nothingness of death. Namely, by making death into a concrete event, preserved for example in the form of the cadaver or plastinated corpses, and by speaking rhetorically about death as a mechanical process, the medical model of death conceals the existential terror that comes with the lived experience of death as the termination of existence.

In *The Denial of Death*, Ernest Becker (1973) postulated that identification with human systems of meaning—in essence, culture—serves as a buffer against death anxiety. The awareness of mortality—matched with a strong motive for survival—necessitates the creative use of cognitive mechanisms for managing, coping with, or otherwise defending against the intense fear of death. While the individual dies, symbolic systems endure for long periods of time, if not forever. By identifying with country through patriotism or a religious worldview through faith, a person is afforded some semblance of immortality.

Becker's theory has been developed into a testable social psychological theory called *terror management theory* (Greenberg, Solomon, & Pysczynski, T., 1997). According to this theory, mortality salience is predicted to trigger death anxiety, which in turn leads the person to use conscious and/or unconscious strategies to bolster his or her sense of self-worth and significance in face of the threat that his or her existence may lack ultimate meaning (Pyszcynski, Greenberg, & Solomon, 1999). Conscious, proximal,

or explicit cognitive strategies may include thoughts about pushing the time of death back to a later date in one's life by, for example, imagining one's own death occurring much later in life during old age surrounded by loved ones. Unconscious, distal, or implicit cognitive strategies for coping with death anxiety include clinging more vehemently to one's cultural worldview or seeking ways to boost self-esteem. These hypotheses of terror management theory have been tested and largely supported in over 150 different empirical studies over the past several decades.

The evidence for terror management theory is compelling. Given that medical professionals are not immune to death anxiety, and given their exposure to death on a regular basis, we should expect to see a range of coping mechanisms for addressing death anxiety. Moreover, the profession of medicine is likely to have institutionalized modes of discourse that shape ways of speaking, perceiving and acting which help physicians and other medical professionals to maintain composure in the face of persistent mortality salience. In this paper, I will argue that modern medicine's discourse around the cadaver helps to reveal at least some of the ways the medical profession acts implicitly to deny the existential reality of death.

The Concretization of Death as a Denial of Existential Death

What is meant by "the existential reality of death"? As far as we know, death is a great emptiness for us—a threshold beyond which we can directly perceive nothing. Granted, we readily project our fantasies into, and live out of faiths in relation to this void. Nevertheless, that which is beyond the threshold of death is unavailable to us in any direct or unmediated fashion. While many of us will be able to perceive and participate in our own process of dying—and even describe it to others while we undergo it—we do not have access to the experience of death itself, because to be dead is to no longer have that plenum of experience that is so familiar and available to us now as we exist here embodied and present to that which lies before us. To really grasp this strange insight and take it in, we can become aware that death can never be an actuality for us. At least it can never be an actuality for us in this life with this body as we understand it now. My own death is an experience I can never really have. To incorporate this experience of death as a possibility is to acknowledge the nothingness of my death. It is to say, in effect, "My death can only be experienced as a possibility, because when it becomes an actuality, I will no longer be there to experience it."

To take up death as an actuality is to constitute death as a concrete event, a real possibility that I can have. And in a certain manner of speaking, as Heidegger (1962) teaches us in *Being and Time*, death however can only ever be experienced as that which I am a being-toward. We are always on-the-way to death, but to arrive there is to not be there at all. Human being-in-the-world therefore has its existential condition of possibility in its possibility for not-being-at-all, a possibility which cannot be escaped and yet also a possibility that, as such, determines in an ultimate way the meaning of Human being-in-the-world as a whole.

Since death, understood ontologically, is a condition of possibility for human existence, and only ever a possibility, when I make death into an actuality, or reduce it to some concrete, ontic event, this is a very subtle and inescapable form of concealing death. It is, psychologically speaking, a denial of death. But it is a form of denial that comes in many forms. In more primitive forms, as might be witnessed especially among children, the concretization of death often appears through the personification of death (Adams-Greenly & Moynihan, 1983). Here death would be conceptualized through some mythical figure, such as the grim reaper. Among the Ancient Greeks, death was personified in the figure of Thanatos.

In a somewhat less primitive form, death concretization may appear through fantasies of post-death events—as would be the case when we imagine what might happen at our own funeral. For example, sometimes suicides are motivated by revenge, particularly in cases of desperate assertions of agency by the powerless against the oppressively powerful (Meng, 2002; Counts, 1984). Suicide can have a variety of motivations, including revenge, ridding one's self of a burden, or an attempt at rebirth into a new and better life (Maltsberger & Buie, 1980). Still, no matter how understandable the motivations behind these acts of self-annihilation, these acts nevertheless seem to rely on a certain delusion: the misperception that the effects of one's suicide may still be enjoyed by the person after death. Yet, no one has such a guarantee.

My thesis is that a very advanced and sophisticated form of death denial is also found in medicine and medical education. I am suggesting, as well, that this form of death denial, like the above aforementioned concretizations of death, also takes shape as a transformation of the ontological nothingness of death—the possibility of the impossible—into the possibility of a possible actuality.

The first aspect of this thesis begins with the premise that mortality

salience mobilizes people to defend against death anxiety. Medical professionals are constantly confronted with the reality of death. Consequently, medical professionals, who are persistently faced with the need to cope with mortality salience should be more likely to develop rather sophisticated defense mechanisms for managing death anxiety. Taking this first aspect of my thesis for granted, as supported by terror management theory, my argument will focus on the second part of my thesis: the premise that the concretization of death is an implicit, distal coping strategy for managing death anxiety. The evidence suggests that modern medicine has a strong tendency to concretize death through its concepts and imagines. Therefore, in conclusion, I argue that, embedded within the discourse of modern medicine, there are ways of speaking and imaging death that strive to protect medical professionals from the omnipresent bombardment of death salience and its concomitant existential angst. In the case of modern medicine, this concretization of death seems to emerge as a form of physiological reductionism which confines the meaning of death to that of mechanical malfunction of the anatomical body. Such a reductionism conceals the existential reality of death as the loss of the possibility for embodied being-in-the-world. The second thesis can be verified with an appeal to evidence in the medical literature as well as through phenomenological description of students working with cadavers for the first time.

Cadaver Dissection as Initiation Rite in Medical Education

Cadaver dissection typically appears very early in medical education, and seems to serve the function of a rite of passage and initiation into the worldview of modern medicine and its (historically and culturally) unique conceptualization of the human body. The empirical evidence suggests that many students experience an acute stress reaction during their initial encounter with a cadaver in the dissecting room (Horne, Tiller, Eizenberg, Tashavsten, & Bidale, 1990). However, the great majority of these students adjust very quickly to the stress of the gross anatomy course (O'Carroll, Whiten, Jackson, & Sinclair, 2002). How do these students come to adjust to their initial stress? Research suggests that the process of cadaver dissection promotes for the student a clinical detachment, and for this reason the experience with the cadaver is an important part of the socialization process into the medical world (Hafferty, 1988).

The process of coping with the cadaver and the confrontation with

death in medical education coincides with the emergence of a clinical detachment, both of which are made possible by a concretization of death. This concretization of death becomes possible through a process by which the body as it is lived through is taken up and seen through the dead body of the cadaver. The flip side of the concretization of death is the concretization of life. In medicine, we can find a tendency to reduce the meaning of the living, experiential body to the body understood through the anatomically dissected and depersonalized corpse of the cadaver. In German, there is a grammatical distinction between the living body (*leib*) and the corpse (*korper*), but this distinction is lost in English translation (Leder, 1990). And this distinction is virtually absent in the content of most variations of the gross anatomy course found in any typical medical school. Yet, is it obvious enough: A corpse does not have experiences, but living human bodies do.

The living body is an opening onto a world of sentient awareness, situated within the context of a network of meaningful projects and in relation to significant others—a living, pulsating world of meaningful possibilities which is precisely what is lost with death. When through the image of the cadaver the living body is conceptually reduced to a depersonalized, anatomical and mechanical corpse, this means the lived body has been repressed or put out of play. The living body becomes concretized, and to the extent that the living body is made concrete, death too becomes concretized.

When life becomes reducible to a bio-mechanical, cause-and-effect chain of events situated within a physical space of objects externally related to each other—reduced, in other words, to a corpse—then we miss the way in which our lived experience is a bodying forth of a range of possibilities which are actualized through time. Death too gets transformed from its ontological status as the possibility of having no more possibilities. Death then becomes reduced to an actuality that medical technology promises to manage and control with increasing knowledge and efficiency. To live death in this concrete way is to engage in a very subtle and implicit form of death denial. Perhaps this is why medical professionals have a difficult time accepting death and will often, instead, pursue with patients unnecessary and costly interventions to extend life (Jones, Moga, & Davie, 1999). When death is understood primarily as mechanical malfunction, then all one can do is keep fixing the machine. Yet when death is understood as inextricably part of, and essential to, the structure of human existence, there is room for both genuine anxiety in the face of annihilation and also a place for coming

to terms with death through genuine acceptance of our ultimate fate. One cannot find one's self bereaved before a cadaver; but the memorial body can be mourned.

Think of the dead body at the funeral of a loved one. When my good friend died, I remember looking at his corpse in the coffin, and what I saw there was a figment of the person he had once been. His body served as a memorial of his past life. Within the context of the funeral parlor, his body was a *memorial body*. Now, contrast this image of my friend, or your deceased loved one, with the cadaver in the dissection room of medical school. Initially, the face of the cadaver is concealed by cloth. The students come to forget the memorial body of the cadaver lying on the table. They are asked, in effect, to exchange their experience of the person's memorial body with the experience of a cadaver as a fascinating machine, a tool for learning. Some students find this transition more difficult than others. It only takes a small reminder—a touch of nail polish, a tattoo, etc—to bring the student back to the memorial body of the cadaver. But medicine has nothing to say about this memorial body.

If we look to the history of cadaver dissection, we find a similar ambiguity at play. Figure A is a 14th century drawing by Guy de Parc. It was taken from a text by the physician Vigevano. Here, we can see the physician making the first incision into the cadaver's chest. And where does he look? Into the eyes of the cadaver. Does he search for signs of life? Does he expect a wince of pain as he cuts into the flesh of the body? We cannot know for certain, but it seems clear that for this physician, the body retains many of the features of the memorial body. The cadaver is more than a cadaver; it is also the desiccated shell of a former soul.

On the other hand, Figure B reveals a different physician: Andrea Vesalius, who is the grandfather of modern anatomy. Notice that Vesalius is not looking into the eyes of the corpse; instead, he gazes at us. He seems to be proudly inviting us in to marvel at his work—the carved arm from which flesh has been stripped away to reveal muscle and nerves. But, if we look more carefully, we can notice something very strange about this body. This is not a memorial body at all. It appears to be a living person, standing by Vesalius's side, with his face concealed. Vesalius is the inventor of modern anatomical dissection; dissection which he performed upon dead bodies. But in this image from 1542, we find next to him not the body of the deceased but the body of the living. The body of the living now transformed and figured through a different style of vision – a vision which confuses

and conceals the difference between the body of the living and the body of the dead. Here Vesalius's style of vision conceals death and concretizes it so that he no longer trembles like Guy de Parc before a deceased friend; instead, the living body has been concretized into the mechanical body of his anatomical vision, an anatomical vision that has turned away from the memorial body, and in that motion, has also turned from the immediate perception of death's possibility. His corpses do not just lie there; they are reanimated like Frankenstein's monster—and, wearing their shorn flesh proudly, they dance.

Is it too far-fetched to say that a man of genius like Vesalius is suffering a form of death denial? But we are not restricted to an analysis of Vesalius and his drawings. Today, the modern Vesalius has arrived, and his name is Guenther von Haagens—the man who invented the process of plastination – a technique of preserving bodies which permits him to put them on display. His show, called BodyWorlds, has now traveled the world, and within the past year has been available to the curious patrons of science centers across our nation. He refers to his work as "edutainment" – a cross between education and entertainment, by which the public can now see what before had been hidden behind the closed doors of the dissecting room. Now the anatomical body has emerged from the secret chambers of medical school and is available for mass consumption. And, just like Vesalius, his cadavers do not just lie there; he puts them into motion; these are animated corpses: Horseback riders, basketball players, and mothers whose most private interior places have been exposed for all to see. In one of his most famous pieces, von Haagens paid homage to Vesalius by repeating one of Vesalius' most famous images—a corpse holding up his own flesh. But what Vesalius only dared to render as an anatomical drawing, von Haagens makes available to us as an actual human body, plastinated, posed and put on display.

Guenther von Haagens is acutely aware that his work confuses and obscures the line between life and death. As he said in a recent interview, "I actually try to being my specimens as near as possible to life by narrowing the gap between life and death…" More strikingly, he actively seeks donors, and in his campaigns to persuade people to offer their bodies to him, he claims to offer them a second life. "I…see body donation for plastination as a kind of second life experience," he wrote. "We always like to have new opportunities in life. Why shouldn't we have more opportunities after death?"

Dead bodies of course cannot have opportunities. To have opportunities we must have possibilities, and dead people no longer have

possibilities. They are dead. But von Haagens, like Vesalius before him, has momentarily lost sight of that distinction between death as a possibility and death as an actuality. Through his plastinated corpses, he has concretized death, and he has weaved such an incredible illusion, he has even convinced himself of its magic.

If we look to the dissection rooms of medical schools, we find similar examples of death concretization. As I mentioned previously, proponents of cadaver dissection in medical school have argued correctly that the experience of gross anatomy is a key component for the development of clinical detachment among medical students. But taken too far, clinical detachment can result in the atrophy of the physician's human capacity for empathy – a quality that is often in short supply among graduates of medical school, as some empirical evidence suggests is the case (ref).

For the sake of time, I will offer only one anecdotal example. In the Fall of 2005, medical students gathered together for a panel discussion on the gross anatomy experience, and students on the panel discussed their first experiences working with a cadaver. One student described her initial trepidation as she anticipated her first cut into the cadaver's flesh. Like Vigevano in Guy de Parc's drawing, this student stood before a memorial body and trembled in awe before it. But as she explained, once that first cut was made and her virginity was broken, that memorial body soon vanished – and she grew increasingly fascinated by the marvelous architecture of the human form. And, then, like Vesalius, she began to lose sight of that subtle distinction between the body of the living and the body of the dead. And this is why she could innocently tell her mother at the breakfast table, "I would love to dissect your body, Mom!" She would love to dissect her mother's body, she said, in order to witness her mother's mangled spinal column. It hadn't occurred to her that, for her wish to come true, her mother would have to die. I can think of no better illustration of death's concretization through the reduction of the living and memorial bodies into the single body of the anatomical, medicalized corpse it had become to her. And what a wonderfully subtle denial of death it was.

On that same panel sat a future donor, who knew all too well that he did not have long to live. An audience member asked him why he had decided to donate his body. Echoing the words of Guenther von Haagens, the donor explained that he did it in order to have a second life – so that when he died, he could continue at least to give something back to the world of the living. And this was very touching to hear from this man who was

facing death. But what I found most remarkable was his plea to the medical professions and especially to the educators in the audience: He did not want to be forgotten. Do not conceal my face, do not hide my name; tattoo my name on my back, he said; I want you to remember me. And, as I heard him say those words, I realized that he was asking for those students, as they explore the flesh of his body, that they pay him the respect to see his body not only for the fascinating machine that it is, and was, but also to preserve his memorial body – to make his body into a memory of the person he was and to honor the gift of his body to their education.

What the physician, educator and student forgets, the donor reminds us. The memorial body can be concealed, but he cannot be repressed for ever. A painted fingernail. A piercing. A tattoo on the back. These things are reminders of a life past, and signal the re-emergence of that memorial body, calling out to the student: "Do not forget. Where you are, I once was. Where I am now, you will be."

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