# Bioethics Outlook

## Plunkett Centre for Ethics

**A joint centre of Australian Catholic University and St Vincents & Mater Health Sydney**

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## Total Brain Death: Valid Criterion of Death

**Patrick Lee and Germain Grisez**

Total brain death--the complete and irreversible cessation of functioning of all parts of the brain--has been widely accepted in ethics and law as a valid criterion for pronouncing the death of a human being. But in the last fifteen years, some philosophers and neurologists have advanced arguments that challenge this criterion. D. Alan Shewmon, a neurologist from UCLA, has advanced the strongest case so far. In our judgment, Shewmon has shown the unsoundness of the usual argument for the total brain death criterion, but we think--on different grounds than the standard rationale--that the criterion is a valid one for death.

The usual argument for the total brain death criterion has been that, once a human individual's brain has developed, it is the primary integrator of all the body's tissues and organs into a single organism. It seems to follow that, when all parts of the brain irreversibly cease to function, what remains is no longer a single organism, but an aggregate of tissues and organs.

**In this issue:** The first article Patrick Lee and Germain Grisez defend the practice of determining death by the brain function criterion: that is to say, they defend the idea that one can legitimately determine that death has taken place by determining that there is a complete and irreversible cessation of all functions of the brain. In the second article, Dr Steve Matthews and his colleagues give an early report of their research into the nature of addiction. They indicate that their research – both philosophical and empirical – is revealing that the widely-shared idea that addicted people are simply irresponsible pleasure-seekers is mistaken.

However, Shewmon presents what appear to be counter-examples that disprove this criterion. Shewmon's evidence seems to show that some individuals have survived total brain death. In such cases, there are many functions that seem to belong to the individual as a whole.

Among these are: homeostasis of a variety of mutually interacting chemicals and physiological parameters, detoxification and recycling of cellular wastes throughout the body, maintenance of body temperature (albeit at a lower than normal level), wound healing, and, of course, respiration and nutrition (though assisted). Shewmon describes an individual called "TK" who continued to manifest all those functions for more than twenty years, even as total brain death was confirmed by repeated clinical tests.

Shewmon argues that, contrary to what has been widely assumed, the brain is not the integrator of the various systems of the body. The unity of the human organism, Shewmon argues, is an emergent property arising from the interaction among the parts of an organism. So, Shewmon argues, the total loss of functioning of the human being's brain need not result in the loss of integration of the human organism and thus death.

Those who suppose that brain functioning is required for the integrated functioning of the organism as a whole usually have assumed that nothing more than an aggregate of disintegrating organs and tissues survives an individual's total brain death. We think that Shewmon has disproved that assumption by showing that TK and similar individuals are living individuals. However, it does not follow that the living individual after total brain death is the same individual who suffered brain death. Nor does it follow that the living individual after brain death is a whole human organism--that is, a rational animal. We hold that in the case of TK and others like it, what is alive after total brain death is neither the individual whose brain died nor a *whole* member of the human species.

Suppose a human being, John, is decapitated and that both the head and the decapitated body are kept alive (fatal bleeding is prevented, a heart-lung machine is provided for the head, ventilator support for the decapitated body, and so forth). Some have thought it obvious that the headless body would not be a human being, and that brain death is analogous to such decapitation (since in both cases the brain cannot integrate the body), and so, like the decapitated body, the brain-dead body is dead. But Shewmon correctly points out that it is only obvious that the head and the headless body could not *both* be identical to the human being who was

decapitated. It is not obvious that the headless body would not be a human organism.

However, suppose that eventually it becomes possible to salvage everything from the waist down of youthful accident victims and to sustain that living unit for weeks pending transplantation to a suitable recipient. Suppose, too, that pending transplantation, such units manifest some internal organization--some organic unity arising from the interaction of their parts. The waist-down unit would be human in the sense that all of its cells would have the human genome, and they would constitute human tissues. But, clearly, it would not be a whole human organism; it would not be a rational animal. In fact, it would not even be an animal--that is, a sentient organism.

By contrast, if someone in an accident survived despite eventually losing everything below the heart and lungs, that individual would remain a rational animal and a human person, even though severely disabled. But the decapitated body and the totally brain-dead individual are similar to the waist-down unit rather than to the individual who has lost everything below the heart and lungs, because the headless body and the brain-dead individual are no longer sentient organisms. Neither of them is an animal, and so neither can be a human being.

The living individual after brain death (for example, the totally brain-dead TK described by Shewmon) is similar to a sustained torso and thus is not a human being. Since a human being is a rational animal, anything that *entirely* lacks the *capacity* for rational functioning is not a human being. Since rational functioning presupposes sentient functioning, anything that entirely lacks the capacity for sentient functioning also lacks the capacity for rational functioning and so is not a human being. Since the human being is a mammal, a brain, or the capacity to develop a brain, is necessary for its capacity for sentient functioning. (We refer to mammals because some animals are sentient without a brain, but the brain plainly is necessary for mammals' sentience.) Therefore, any entity that entirely lacks a brain and the capacity to develop a brain is not a human being. That brief argument may be clarified by the following considerations.

In daily life we recognize beings of distinct types, centers of specific types of actions and reactions, and we treat each type of being according to its nature. Thus, we deal with a lion and a lamb differently, because they have distinct tendencies to act and distinct ways of

reacting--different natures. An individual with a particular nature is a stable entity with an inherent tendency, or unified set of tendencies, to act and react in certain ways.

Bodily living things (organisms) have capacities--tendencies to grow, nourish themselves, adapt to environmental conditions, maintain inner balance, and reproduce. A living thing can possess a capacity and yet be impeded, by external or internal factors, from exercising it. For instance, even a mammal with good eyesight cannot see in pitch darkness (an external blockage), and an anesthetized patient cannot feel pain (an internal blockage).

Moreover, a living being has a radical capacity for a function if it has within itself a material constitution that disposes it, given a suitable environment, to develop sufficiently to perform that function. Cuttings from many species of plants, although without an immediately exercisable capacity to reproduce, have the internal resources to develop themselves to the stage at which they will have all the exercisable capacities of a complete plant of their species, including the capacity to reproduce. Thus, natural kinds are defined not only by their first-order capacities, but also by their second-order capacities--radical capacities to develop first-order ones.

A human being is a rational animal. An animal is a sentient organism. In human beings and other mammals, sentience includes such functions as seeing, hearing, feeling pain and pressure, perceiving, desiring, fearing, being angry, and so forth. Embryonic mammals do not actually perform such actions but they have within themselves the resources to develop themselves so that they do have the capacity, and so are sentient organisms.

The rationality that differentiates human beings from other animals includes such functions as conceptual thought, reasoning, and making deliberate choices. An organism that has the capacity for these types of actions is a human individual.

Human embryos and fetuses are human organisms because they too have the internal resources to develop themselves to the stage where they will be able to perform the actions characteristic of the human kind (for support of this point, see Chapter 4 of *Body-Self Dualism in Contemporary Ethics and Politics* by Patrick Lee and Robert P. George). By contrast, even when the cells in teratomas or complete hydatidiform moles have the human

genome, such disorganized growths are not human beings since they lack both first- and second-order capacities for specifically human functions.

Conceptual thought, reasoning, and deliberate choices are not directly observable. So, human individuals can perform such actions without providing evidence that they are doing so. However, to be a rational animal, an organism must be an animal; and to be an organism of that kind, it must have either the capacity for sentience, or the capacity to develop the capacity for sentience. Moreover, because the conceptual thought, reasoning, and deliberate choices of rational animals bear upon experienced things, those rational functions presuppose sensory functioning. Therefore, if an organism lacks the capacities for sentient functioning and the capacity to develop those capacities, it cannot be an animal (a sentient organism); and if an organism entirely lacks capacities for sentient functioning and is not an animal, it cannot engage in conceptual thought, reasoning, or deliberate choices, and is not a rational animal.

There also is common agreement that no mammal can sense without brain functioning--a mammal's sentience requires either a brain capable of functioning or the capacity to develop a brain. But a totally brain-dead individual neither has a brain capable of functioning nor the capacity to develop a brain. It follows that any mammalian individual that undergoes brain death is no longer a sentient being, and thus not an animal. An individual such as TK, therefore, that has undergone total brain death, is not an animal and so not a rational animal, a human being.

One might object that a totally brain-dead organism might have a radical or second-order capacity for brain functioning inasmuch as it still has the genetic-epigenetic constitution that oriented it toward the development of a functioning brain. However, the appropriate genetic-epigenetic constitution within the cells of a multicellular organism is not a sufficient condition for a second-order capacity for brain functioning. The developing cells also must be of certain types or structures, and those cells must be arranged in a certain way if the organism is to develop a functioning brain. So, while a human embryo has a second-order capacity for brain functioning, a totally brain-dead organism has no such capacity.

It might also be objected that the argument for the total brain death criterion implies that all of those who are in permanent comas, or

even many in persistent vegetative states, are dead, and that is false, since such people are still warm and pink, and may be breathing on their own. However, our position that the irreversible loss of specifically human capacities is the human being's passing away does not entail that everyone who is unconscious and will never regain consciousness is already dead. Many unconscious people who *will* never regain consciousness *would* regain it if they were given appropriate care. Our position only entails that the loss of the *capacity* for consciousness is death.

We think it is beyond reasonable doubt that brain-dead entities entirely lack the capacity for the sentient functioning that is presupposed by human consciousness; but it is *not* beyond reasonable doubt that individuals who are warm and pink and breathing but *not* totally brain-dead lack that capacity. Reasonable doubts follow from several considerations.

To start, patients confidently judged to be unconscious after careful and repeated examinations sometimes later recall undergoing those examinations. The immediately exercisable capacity to respond to stimuli is one thing; consciousness is another. Then too, patients confidently judged to be permanently comatose or in a permanently vegetative state sometimes recover, and attempts to treat such patients have recently met with some success. Pathological unconsciousness is one thing; the loss of the capacity for consciousness is another. Thus, the fact that a patient has lost the capacity for consciousness is extremely difficult to establish beyond reasonable doubt.

Some argue that the capacity for consciousness can be lost without total brain death, and conclude that it is too stringent a criterion for death. But such arguments depend on identifying parts of the brain required for sentient functioning, and several recent studies have made it clear that such identifications are problematic. Moreover, this essay has been concerned exclusively with the adequacy of total brain death as a *conceptual* criterion for the death of a human individual. We have not addressed the adequacy of current *clinical* tests to establish beyond reasonable doubt that total brain death has occurred. But when it has occurred, a human organism has died.

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# Are addicted persons motivated by pleasure?

**Anke Snoek, Jeanette Kennett, Steve Matthews**

## Introduction

Is pleasure the motivating factor for addicted persons who consume drugs? According to many ordinary folk, the answer is yes; they regard addicts as irresponsible hedonists who take drugs for a good time. This is the so-called Lay View of Addiction (or moral model). Recently, expressing what they called a Liberal View, Foddy and Savulescu (2010: 15) claimed that '[i]f we regularly engage in an extremely pleasurable experience, it is only natural that we will come to place a higher importance on that experience...[addictions]...are strong appetites toward pleasure'.[1] On both the Lay and Liberal Views, although an addicted person may well be miserable, and may well regret his addictive behaviour, nevertheless at the moment of consumption he acts in order to satisfy that desire for pleasure.

We think this view of pleasure in addiction is overly simplistic and that a proper understanding of what motivates those with addiction problems reveals that their attitude to pleasure in consumption is nuanced, changes over time, and is often ambivalent.

1 Foddy, B., & Savulescu, J. (2010). A Liberal Account of Addiction. Philosophy, Psychiatry, & Psychology, 17(1), 1-22.

There is evidence for this more nuanced view. In a recent study (n=69), we interviewed a range of addicted persons to determine the effects of substance use on their subjective conceptions of value. We were interested in the ways addiction had impacted on the course of their lives. (We present some relevant details in a forthcoming article called "Pleasure and Addiction" in *Frontiers in Psychiatry*.) What we found was evidence that the role of pleasure in addiction is multifaceted and partly a function of the variation we see in the psycho-social dimension of addiction. In this short account we summarise the main results, and we begin by arguing against a common assumption in the literature that it is very difficult, even impossible, to obtain honest accounts from addicted persons themselves in relation to what motivates their addictive actions.

## Can we rely on self-reports from addicts?

It is sometimes claimed that self-report data from addicted persons is unreliable given that they are disposed to say what they perceive a clinician wants to hear. The thought here is that the taboo nature of pleasure and drugs disposes addicted persons not to be honest about the pleasure-motivating aspects of their habit. What we found, however, is that addicted persons are ambivalent about their

using and this is reflected in the differing accounts they gave. What addicted persons say to peers is not obviously more reliable than what they say to professionals, and that is because an addicted person may be seeking help in treatment, and suffer weakness when put under pressure by their drug taking acquaintances. Our data indicates there is social pressure on many people struggling with addiction to *remain* users when they would prefer to quit. In this connection, one interviewee said:

> The other addicts aren't really...they don't want to see someone get on with their life 'cause then... oh this is what I think, then...it's saying to them, maybe you can do this but they don't want to...they're comfortable. I don't know, it's kind of like misery loves company...you can have so many friends when you're miserable and everybody wants to hear all your problems and they're all so consoling you know but sometimes I wonder if they're not being patronising and they really like to...'cause I notice when I'm going well, no-one's that happy and it's like no-one wants to give you a shot when you're hanging out but when you've been clean for six months everyone wants to give you a shot, it's things like that I've noticed, you know. (R67)

Another reason to doubt the claim that self-report data is unreliable comes into view when we distinguish between what people say in the heat of the moment and what they say reflectively. This is a common assumption in both philosophical discourse, and simple common sense. In the heat of the moment we typically respond to the things that are of interest to immediate experience, and we are less likely to import our reflective values into deliberations over what to do. With this distinction in place we have an alternative explanation for the alleged self-deception that takes place when addicted persons are explaining their motivation to take drugs to a treatment specialist. It is not that they have adopted the socially acceptable story in explaining what motivates their consumption, necessarily, but the factors that are present to experience or reflection: when an addicted person is with peers, attention-grabbing drug cues abound. These cues prompt a different attitude relative to the circumstances found in a more reflective moment when their critical interests come to the fore, such as when they are with a therapist.

Finally, as researchers doing qualitative research we found there was less pressure, less of a well-motivated reason, for addicted persons to tell us what they thought we needed to hear. In this connection it was not uncommon for interviewees to ask us whether we preferred to hear their honest opinion concerning their attitude to pleasure, or the socially acceptable answer.

## Three different attitudes to pleasure

The main research questions motivating our study included the following:

- What are the moral beliefs, values and practices of drug addicted individuals?
- How does drug addiction impact the values of affected individuals?
- How does drug addiction impact moral agency over time?

Thus when asking subjects to reflect on the role of pleasure in their consumption the question was being asked against a background of ethical reflection in which

addiction was seen to impact both the values in life and the capacity to live a valuable life over time. Thus, the interviewees were encouraged, in virtue of this background context, to enter most seriously into consideration of the effect of pleasure-seeking on their behaviour. Our results reveal three basic attitudes expressed by three identifiable groups, which we now outline.

### 1. Pleasure motivated me, but it is not the only value in life.

This first group best fits the Lay and Liberal views; however, even here we found a more complicated picture. The Lay view in particular unfortunately connotes a picture of the addict as someone all-consumed by a single-minded objective to secure and consume mind altering substances. However, that is not what we found. Here are some representative quotes:

- I just enjoyed life and work but life more than work... I was very hedonistic...I wanted the right clothes, I wanted to eat in the right restaurants and be with the right people, go to the right parties and that sort of thing. (MHE 001)
- When you're drinking you're just thinking of the moment...you're just thinking about having a good time and a laugh and a joke...but you're not...it's not as if you're sitting there talking about planning and buying a house or what are we going to do...plan a holiday to go overseas next year or something like that. (R32)

Another respondent described it as follows:

- Heroin is an astonishing thing. I will never … regret taking heroin. In fact those two years I took heroin are actually one of the best two years of my life. (P1)

Even this respondent ultimately stopped because the negative consequences of his habit were seen not to be worth it. He described coming off heroin as an extra bill he had to pay for this use.

### 2. Pleasure motivated me, but only initially.

What the second group said was significantly at odds with both the Lay and Liberal views. In these cases, there was much more a sense that the user had entered on a slippery slope into a life that was largely out of their control, and for whom the initial pleasures were all but forgotten and replaced by something quite dissociated from that experience. As one respondent explained:

- that's the love hate thing I have with … when I first started, I liked the feeling but then once I got addicted I didn't like it. And I always wanted to quit because of that. (FHE 041)

We identified two subgroups within this group. In the first subgroup, the initial pleasure motivation was replaced by the need to relieve the symptoms of withdrawal. As one put it:

- [addiction] takes on a life of its own, what you get is the sort of relief that you get when you stop (...) running, you know (...) you're really punching that last couple of Ks out or whatever (...) 'cause you know that when (...) you get to that certain point and you

get that needle into your arm and you get it you'll be able to breathe, you'll be able to go, oh, phew, it's … that's all better, it's [like] bashing your head against a brick wall, it feels so good when you stop. (MHE 9)

In the second subgroup, reward ended up playing no role, and the life of addiction turned into a meaningless chore. Here are some quotes from this sub group:

- Yeah but now it's just...it's not even fun anymore really, it just sort of becomes...more or less like a chore I suppose but yeah I just...I want to get away from it. (R29)
- there was [a] reason, early on, until I came to understand why I was behaving the way I was behaving. So in … no, not now. No. There's no reason.(R39)
- [W]hen I was 20, 30, when I was 40 my drinking was good, I had good times on the drink, from when I was 50 to 60 just...I'm just drinking for nothing (...) I'm just drinking for drinking sake now. (R24)

### 3. I never experienced pleasure.

For a third group, pleasure played no part in what motivated the individual to become addicted. Again, we identified two subgroups. In the first, the absence of pleasure from the motivational profile of the subject was complete. Indeed it was rather mysterious what was going on. As one put it:

- [A] lot of people talk about a honeymoon period on drugs. I can't remember a time like that, I can remember starting drugs and pretty much straight away trying to stop all the time. Like I know people talk about that it was nice and exciting and it was a carnival at the beginning but I didn't find it like that. (...) I hardly even remember starting drugs, I mostly remember trying to stop all the time. (R47)

In the second self-medication sub group, the motivation was not to feel good, but to feel normal, or socially included. These cases fit well with the so-called co-morbidity profile. One woman described her situation as follows: she regarded herself as not having a right to belong in the world, and that she would stare in the mirror for hours, trying to work out who she was. As she then put it:

- [U]sing heroin made me feel normal, it took that away, so I didn't feel bad about it at all, I thought I'll do anything I can to get it, I don't mind if I have to work [in prostitution] and I thought that it was the only thing that would help but of course it's taken everything away from me now (...) Yeah I didn't use it to have fun. I used it to feel normal, then it turned into just an addiction. (R22)

## Conclusion

Our study revealed no predictable pattern of hedonistically motivated consumption in addiction. On the contrary what we saw was complex, and multifaceted. The details of this complexity fitted much better seen against a background understanding and appreciation of the differing features present in the addicted person's social context, personality, temperament and abilities.

Does such a result matter? It does for several reasons. If we believe that addicted persons

got to where they are because they are irresponsible hedonists we will be less inclined to treat their condition as deserving of understanding, care and compassion. These attitudes have a tendency to permeate through the culture; they have a tendency to be reflected in public policy; and they have a tendency to influence legislators. Our legal framework affects the treatment of those addicted persons who are seeking help, and those who have committed crimes to service their habit. For this latter group, if they are seen as parasitic pleasure-seekers, who make choices about consumption, utilising the same kind of mental apparatus ordinary non-addicts make in choosing, then the law may tend to come down upon them harder than it might relative to someone whose self control is perceived to have been genuinely impaired.

So the view that pictures the addicted person as a rational pleasure-seeker, we think, must be properly scrutinised for these downstream norms to operate fairly and properly. We hope, in the light of these factors, that our study feeds into more accurate assessments of what underlies the addicted person's motivational profile.

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