

Into That Good Night

The Mind/Body Question in the Twenty-First Century

By Braden MacDonald

Biologist E. O. Wilson describes the human brain as “a helmet-shaped mass of gray and white tissue about the size of a grapefruit... Its surface is wrinkled like that of a cleaning sponge, and its consistency is custardlike, firm enough to keep from puddling on the floor of the brain case, soft enough to be scooped out with a spoon.”¹ Hardly an auspicious seat upon which the whole of human experience should rest, it would seem. Yet, the enigmatic wrinkled blob each of us carries around inside our heads is “the most complicated thing in the known universe—known, that is, to itself.”² For that reason and others, the brain is also at the center of one of the long-standing problems in philosophy—the Mind-Body Problem and the question of survival. Put simply, what happens after death? I believe that the answer to this question is “absolutely nothing.” Yet because the desire for an eternal existence and the fear of death are part of human nature, there are many who believe, and argue vehemently, that some part of us does continue to exist posthumously. The belief in survival is usually linked with dualism, the belief that humans have a dual nature composed of a physical body and a non-physical mind/soul.

Unfortunately for proponents of dualism, scientific discoveries from the past century have pointed clearly toward the view that the mind is merely the brain at work, and nothing more. Ever since the famous case of Phineas Gage, who survived but with a dramatically changed personality after a thick iron tamping bar was accidentally shot through his head, science has discovered that localized injuries to different parts of the brain predictably alter specific aspects of the victim’s physical, cognitive, sensory, or emotional function. For example, injuries to the temporal lobes will often cause the victim to become more aggressive, and injuries to the frontal lobes reduce inhibition and lead to childish behaviour³. Although inconclusive by themselves, these findings suggest that the brain itself is the machinery of the mind, and not merely an interface to a supernatural mind.

Even more compelling, in my view, is the work by neurologist V. S. Ramachandran with split-brain patients. These patients have had their corpus callosum and other minor central brain structures surgically severed, as a treatment for epilepsy. Essentially, this surgery completely separates the left and right hemispheres of the patient’s brain, creating two people that share one body. It is then possible to ask questions separately to each hemisphere of the dichotomous patient. Ramachandran found⁴ with some patients that when asked a question like “do you believe in god?”, one hemisphere would say yes but the other would say no. This creates a big problem for the belief that the mind survives bodily death – does the patient believe in god, or not? If one hemisphere prefers vanilla and the other chocolate,

¹ E. O. Wilson in *Consilience: The Unity of Knowledge* (1998), p. 97.

² *Ibid*, p. 106

³ Folzer SM (2001). “Psychotherapy with ‘mild’ brain-injured patients.” *American Journal of Orthopsychiatry* 71 (2): 245-251

⁴ As told by Ramachandran at the “Beyond Belief” conference, held at the Salk Institute (La Jolla, CA) in Nov. 2006.

which will the surviving mind prefer? Or do two minds survive? (That would be absurd, because then it would seem that a brain split in three would cause three minds to survive, and a person whose brain exploded into a thousand pieces could “survive” as a thousand minds.) It seems virtually impossible to integrate the scientific facts surrounding split-brain patients into a dualistic view of human nature.

The more we learn about the brain, the more we are able to explain the mysteries of personality, consciousness and mind. Why do people who are in love behave so differently and think about the person they love constantly? Because their behaviour is influenced by high levels of dopamine and norepinephrine and low levels of serotonin⁵. We can at least partially explain many other aspects of the human experience in physical terms like this. Although many people are repulsed by the idea that being in love is equivalent to having a specific cocktail of chemicals affecting the brain, it is no longer necessary to invoke the non-physical in order to explain such behaviours. Even consciousness—the greatest mystery of all—is plausibly explained in purely physical terms by several competing hypotheses being developed in the field of neurobiology. Thus, aesthetic considerations aside, there does not seem to be any aspect of human behaviour that science will be unable to find a physical explanation for—if only a hypothetical one.

What no scientific study has ever found is evidence for dualism or survival. Although our planet is home to millions of people who claim to be mediums—able to interact with dead people and/or spirits—their claims and the accompanying anecdotes of their success do not stand up to sceptical scientific scrutiny. Nobody has ever returned from the dead, proved that they can contact dead spirits, or otherwise found credible scientific evidence for the soul. Of course, this does not stop people from believing in life after death. As a rule, people believe what they want to believe. Virtually everybody hopes that they will continue to exist after bodily death, and since nobody has disproven survival, the vast majority of people around the world believe in some form of continuation after death—although they disagree wildly on the details.

Some dualists would object to this and offer purely philosophical arguments for dualism. The most prominent of these is known as “The Law of Transferable Epithets” – a linguistic argument which essentially says that if two things are equivalent (i.e. mind and brain in this case), then any words used to describe one should be able to describe the other; but, there are some words that can be used to describe the mind which make no sense when used to describe the brain, and vice versa. For example, the argument goes, it makes sense to claim that a decision was intelligent, but not that a brain state was intelligent. There are two problems with this. First, the premise (that any words used to describe one thing must make sense when used to describe an equivalent thing) has never been clearly established. Second, it is not necessarily clear that the claimed meaningless statements are actually meaningless; perhaps it does make sense to say that a brain state is intelligent – this may mean that the particular brain state involves many active neurons and a relatively high number of inter-neuron connections during the decision making process. Ultimately then, it is unclear how this argument could ever be used to disprove the equivalence of mind and brain.

⁵ Helen E. Fisher et al., “Defining the Brain Systems of Lust, Romantic Attraction, and Attachment.” *Archives of Sexual Behavior*, Vol. 31, No. 5, October 2002, p. 413.

The final argument for dualism, typically coming from the layman, is that our conscious experience seems hard to reconcile with the idea that we are merely biological thinking machines. It seems like love is more than a huge spike of dopamine in the brain, that dreams are more than just a mysterious side-effect of the way our brains are wired, and that appreciating a great work of art or piece of music is an almost spiritual experience. However, science has taught us that things are not what they seem. Your body seems solid, but it is composed of a network of atoms that are mostly empty space. The world seems to be flat and solid, not an almost-sphere hurtling through space at a mind-boggling speed of thirty kilometres per second. Likewise, just because our experience “feels” like we are more than just a brain, science seems to indicate otherwise.

Of course, nobody can be taken seriously who claims to know with certainty what happens after death. Nevertheless, since our existence seems to be contingent upon our physical brains which cease to function after death, it is apparent that there is no good reason to think that we shall continue to exist in any form. The symmetry of this arrangement seems right and pure to my mind—that after death, we shall assume the same state as we had before our life began. While many might protest that this makes life meaningless, I say that if life is fleeting, then all the more reason to cherish and protect it while we can.