

The Material Body
Biology and Neuroscience Perspectives
Dennis P. German

There is a saying I had heard but have not been able to find an original reference so I beg leave to use it anyway; the human body is a miraculous machine. Or maybe some other words to that effect. In any case, the truth is that the human life, even in its physical sense, is quite unbelievable. But the prospect exists, though perhaps difficult to prove by the scientific method, that the essence of human existence exceeds the bounds of our present ability to comprehend. Even Carl Sagan admitted that a spiritual element to the universe could not be disproved (Head, 2006).

In this paper I will explore the extent to which the neurological interfaces and interacts through the corporeal component to the rational vital force of human existence. To the end we might see the ultimate effect on the whole person, the soma. In addition we should see the impact of not just being aware of but knowing that we are not carcasses with a soul but a soul living in a carcass. For those who take exception to my using the word carcass I beg forgiveness. My intent is to speak to that separate and most evident part of our being as opposed to the true completeness of the body; the soma.

Certainly the central nervous system would be at the top of the list of miraculous human body components; transmitting an innumerable number of signals for action and reaction even in a split second. As research continues to produce evidence regarding the central nervous system many conclusions are drawn. Some may well be true but the process of normal science will always serve to adjust the assumptions and estimations (Kuhn, 1962,1969). This will show that what we once believed to be reality was nothing more than a guess; and we guess incorrectly. This is not an indictment of the scientific method. If reality were a multiple choice question the number of possible answers would

be more than infinite. The rare occasion of a paradigm shift resulting from a culmination of the numerous guesses is a happy accident that set aside many previous hypotheses while advancing others (Kuhn, 1962,1969). Since there is very likely no “end” where we will know all that there is to know about human existence much less the universe research will continue to be an adventure.

The close relationship between feeling, emotions and the central nervous system would seem to be obvious. Darwin is said to have thought that emotions were a vestigial accoutrement from our evolutionary past (Damasio, 1999). But this seems to be illogical. It is unlikely that the Neanderthal would have the intense rush of emotions one might have today while seeing a beautiful sunset. If anything it makes sense that emotion has developed as human kind rose above the constant pursuit of creature comforts to seek pleasures and a higher calling.

Modern societal norms require some sense of emotive response to other in order to survive. But this survival is not about having enough to eat or fending off a saber tooth tiger. This would be the survival necessary to engage our current social order. This would include everything from maintaining good family relationship to keeping oneself gainfully employed. Perhaps in the future we will have developed abilities that will facilitate engagement for yet unknown conquests. Then again, perhaps we already have these abilities but have not discovered how to use them or what they are used for.

Damasio (1999) describes an apparent dichotomy of our minds where we conceal some things while exposing others. Perhaps that which is hidden has been determined by our deeper existence to be superfluous or dangerous. So, it is kept from our own ready consciousness. The autonomic functions might be something that we

feel no need to be focusing on since, well; they are autonomic, so they work by themselves. On the other side are those things which harmful to us to concentrate on because of fear or dread of their remembrance.

With a somatic mindset these things which lie hidden as a result of our fears must be admitted, confessed and dealt with. The research of Bentz (1989) would be more than enough to lead us to believe and practice a mindfulness regarding these things which we hide. Like the alcoholic who must admit to alcoholism before it can be overcome we must reveal the ghosts and reconcile with them to be relieved of their burdensome grip on our lives.

Since the central nervous system, from a purely physiological stand point, is a network which carries electrical signals, it stands to reason that the chemistry of the human body would affect the mood, emotions and actions/reactions. Conversely, proved by Damasio (1999), control of ones emotions changes the electrochemical properties of the body. In that experiment it seemed that Maria Joao was very much, not only aware of but, in control of her emotions and thereby her body chemistry. Whether she knew it or not, she was a practicing somaticist.

Damasio (1999) further proves the interrelation between the central nervous system and the soul by showing that efforts by way of pharmaceuticals and neurosurgery can alter the perception in the patient such that, though he may be fully aware of the sensation of pain he is not affected by it emotionally. The same result had been attained through hypnosis. The former, medical, methods addressed the problem from one direction while the latter came from the other. On the one hand the central nervous system is reaching through to the soul to alter the response to pain. And on the

other the soul is dealing with the neural signals by simply refusing to respond emotionally.

Thus the physical component of our humanity interacts with the psychological element by way of the central nervous system. And further, perhaps, the psychological interacts with the spiritual as well via some as yet undefined/undiscovered interface. As we continue to exercise these interfaces, future human development should see advances in the condition of all around individual health. That is, we will be somatically healthy. In this way we will not be modifying what we are but realizing what we can be.

References:

Hanna, Thomas (1988). *Somatics: Reawakening the mind's control of movement, flexibility, and health*. Cambridge Center, Cambridge, MA. Da Capo Press.

Damasio, Antonio (1999). *The feeling of what happens: Body and emotion in the making of consciousness*. New York: Harcourt Brace and Company.

Head, Tom (2006). *Conversations with Carl Sagan (Literary Conversations)*. University Press of Mississippi, Jackson, MS

Kuhn, T. (1962, 1996). *The structure of scientific revolutions*. Chicago: University of Chicago Press