

Corporeal-Machine-Anxiety

Eric Kluitenberg & Arthur Elsenaar

The Technologization of the Human Body

The human being likes to consider itself as a cultural and spiritual entity, removed from the rest of nature. What, however, inescapably links human beings with their natural environment are their physical bodies. Thus man is characterized as a mutually physical and spiritual being. This 'split identity' is reflected in the dualist philosophy of Descartes and his followers. Descartes himself has described his ideas as the "first philosophy in which the existence of god and the real distinction between the soul and the body of man are demonstrated". To Descartes, often recognized as the founding father of modern philosophy, this distinction was essential to establish his concept of the free will.

In making an assessment of the implications of new technologies and new materials for the post-industrial societies the French philosopher Jean-François Lyotard considers the Cartesian program of prime importance. "To become master and possessor of nature" was the aim of this program Lyotard notes, in which a free will imposes his objectives on the physical environment by alienating it from its natural purpose and making it subservient to well defined projects, communicated through language [1]. Or put in Descartes' own words: "..a practical philosophy can be found by which, knowing the power and the effects of fire, water, air, the stars, the heavens and all the other bodies which surround us, as distinctly as we know the various trades of our craftsmen, we might put them in the same way to all the uses for which they are appropriate, and thereby make ourselves as it were, masters and possessors of nature." [2]

Nature in the Cartesian philosophy was thought of as a gigantic machinery. The immaterial soul floated above the rest of nature as a non-physical principle. Animals were considered to be mere machines, or more precisely automata, that is machines that moved by themselves. It were, however, the free will, the faculty of speech and language, and the gift of reason (a 'universal instrument'), each powers of the human soul, that distinguished man from animals and the rest of nature.

That animals can indeed move by themselves and exhibit certain reactions to their environment is in no way contrary to the notion that they do not possess a soul or will of their own. For, as Descartes explains: "This will not appear in any way strange to those who, knowing how many different automata or moving machines the industry of man can devise, using only a very few pieces, by comparison with the great multitude of bones, muscles, nerves, arteries, veins and all other parts which are in the body of every animal, will consider this body as a machine...".

To free the mind of feeble prejudice Descartes pleaded for unbiased observation of nature as the prime source of all knowledge, and immediately he ran into problems. If man was to be distinguished so clearly from the rest of nature, it would seem that exactly the unbiased observation and comparison of animal and human bodies contradicted this distinction. With 17th century advances in physiology and medicine extraordinary similarities were found

between the human body and that of many animals. It appeared that physiology alone could not explain the real distinction between beasts and men, nor the special human faculties of language and reason. Descartes therefore concluded "that our soul is of a nature entirely independent of the body". [3]

Lamettrie

Precisely this conclusion would be rejected altogether some hundred years later by another radical and influential proponent of the modern mechanist perception of nature, the French philosopher Julien Offray de Lamettrie. Lamettrie was a trained physician and army-doctor. Philosophically he was the first and most extreme representative of French Materialism. During his lifetime he also became a deeply despised polemic, as well as a brilliant rhetorician, a famous conversationalist and exuberant bon-vivant. His portrait for the Royal Society of Sciences in Berlin depicts him loosely dressed with a big mocking grin on his face. It filled his contemporaries with disdain, for anyone who had himself portrayed in such a fashion could not be else then a thoroughly vile person.

One momentous event seems to have been crucial in shaping Lamettrie's convictions. During a campaign in the fall of 1744 he suffered from a severe attack of fever. The fever not only unsettled his entire body, but equally his mind. Lamettrie concluded from this experience that body and soul had to be one. Later he would write in his notorious *L'homme machine* of 1748 that "...since all the faculties of the soul depend to such a degree on the proper organization of the brain and of the whole body, that apparently they are but this organization itself, the soul is clearly an enlightened machine." [4]

Lamettrie denied the existence of an autonomous immaterial soul. The human body, alike the bodies of animals, was a composition of mechanical systems in which movement was the central propelling force. The soul was not to be considered the cause of these movements but rather its product. Lamettrie derived this conclusion amongst others from the fact that physiological experiments had shown that parts cut loose from the body could be brought to move separately, for instance through electrical stimulation.

"The soul is therefore but an empty word, of which no one has any idea, and which an enlightened man should use only to signify the part in us that thinks. Given the least principle of motion, animated bodies will have all that is necessary for moving, feeling, thinking, repenting, or in a word for conducting themselves in the physical realm, and in the moral realm which depends upon it." [5]

Extending the Cartesian tradition where animals were thought of as machines, man, for all its physical similarities to other animals and the dependence of the soul on the functioning of the well-ordered body, should also be considered a machine. The specific faculties of man were but the mere result of the specific organization of the human machine.

"Is more needed (..) to prove that man is but an animal, or a collection of springs which wind each other up, without being able to tell at what point in this human circle nature has begun ? If these springs differ among themselves, these differences consist only in their position and strength, and never in their nature; wherefore the soul is but a principle of motion or a material and sensible part of the brain, which can be regarded, without fear of error, as the main-spring of the whole machine, having a visible influence on all the

parts." [6]

"Let us then conclude boldly that man is a machine, and that in the whole universe there is but a single substance differently modified." [7]

Thus the mechanist image of man is tied in by Lamettrie with a materialist view of nature, in which the physical material is considered to be the exclusive substance of reality.

Lamettrie's book, published in exile in Leiden, provoked an outrage, necessitating him to flee even the relatively liberal Netherlands. He soon found refuge, however, at the court of Frederic the Great in Berlin. The outrage was understandable. To legitimate their claims to power, the clerical orders, christian dogmatism and morality, and the feudal power-structures all relied on the principal separation of body and soul, as the ultimate proof for the existence of god. But it was precisely this principal separation of body and soul that was fatally undermined by the ideas of Lamettrie. The Cartesian formula of the immaterial soul that resided inside the machine of the human body was a fairly arbitrary and unsustainable construction. Lamettrie's flamboyant and polemic character lead him to tear it to shreds mercilessly.

Lamettrie's philosophy implies first of all that the individual is freed from all dogmatism, be it christian or otherwise. Happiness is thought of by Lamettrie as a condition of emotional well-being independent of any doctrine or religion, achieved simply by exploiting freely what is given by human nature. Nature's purpose is to make man happy, whereas an all to willing subjection to culture can make man deeply anguished. Morality attempts to regulate the instincts, but at the same time brings about all sorts of tensions in the 'machine' that obstruct man in attaining an automatic state of happiness (as with animals).

Although his ideas and the man were scorned at the time, they nonetheless exerted a tremendous influence on a new generation of materialist thinkers and laid a conceptual foundation for modern medicine and psychiatry.

Creation of the World-Machine

The interpretation of nature as a gigantic machinery originates from a desire for control. By considering nature as a set of mechanical systems, these systems could first be analyzed separately. Once the operations of the individual systems were understood, their interaction could be studied. Nature in this way became intelligible, predictable and ultimately controllable. The advances of the modern world of science and technology have clearly demonstrated the extraordinary success of this approach.

The materialist theories of Lamettrie and followers were also eagerly embraced by the liberally oriented bourgeoisie, who gained tremendous power with the rise of industrialization. The materialist philosophy served perfectly to legitimate a liberal ideology that would enhance the technologization of human life on an unprecedented scale through the industrialization of the 18th and 19th century. Andreas Huyssen has rightfully noticed that "such materialist theories ultimately lead to the notion of a blindly functioning world machine, a gigantic automaton, the origins and meaning of which were beyond human understanding. Consciousness and subjectivity were degraded to mere functions of a global mechanism. The determination of social life by metaphysical legitimations of power was

replaced by the determination through laws of nature. The age of modern technology and its legitimacy apparatuses had begun." [8]

Huysen observes that there was a great interest in androids and mechanical animals in the 17th and 18th century. Androids became popular attractions at the courts throughout Europe, both Descartes and Lamettrie expressed their interest and fascination for these machines in their writings. Their perception changed dramatically, however, in the nineteenth century. In the 18th century androids were still regarded as a testimony to the genius of human invention. But when literature adopted the theme of the android at the turn of the 18th to the 19th century, it became to be seen as a threat to human life; a symbol for the domination of machines over human life embodied in the image of the machine-man that mirrored the conception of man as a machine.

Huysen remarks: "It is not hard to see that this literary phenomenon reflects the increasing technologization of human nature and the human body which had reached a new stage in the early 19th century." [9]

Morality and Modernity Bankrupted

The model of Lamettrie corresponds closely to Jürgen Habermas' description of the larger project of modernity. Its aim was "...to develop objective science, universal morality and law, and autonomous art according to their inner logic", to achieve a "rational organization of everyday social life". Central to this project was the emancipatory idea that by freeing science, morality and art from prejudice and superstition humanity could at long last be relieved from oppression and exploitation. [10]

But history has discredited all these high hopes. The technologization of human life disrupted the social fabric of the societies that underwent industrialization and introduced horrible living conditions on the majority part of its populations in the 19th century. The 'Machine-Age' subsequently broke down in ultimate chaos producing mechanized war-fare in two world-wars and the first mechanized and rationalized genocide ever.

At the personal level the collapse of the concept of the free will became inescapable. For if we are mere machines, then our mechanism could get stuck at any moment, break down, or run out of control as machines often do. Our conscious behavior, resulting from our inner machinations, is no longer considered to be in control of these mechanisms but rather its helpless victim. And this helpless victim is part of a gigantic machinery we call nature, that turns its grinding wheels without purpose or aim. Lost in this cold mechanical universe it seems like the warmth of our bodily experience is our last shelter.

Despite the bankruptcy of the project of modernity it still exists today, but it exists in anxious uncertainty. More than ever human existence relies on its technological environment for its propagation. "By the late twentieth century" as Donna Haraway contends, "a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short we are cyborgs" (cybernetic organisms) [11].

The Medical and Scientific Body

This fusion of the natural body with its technical environment can nowhere be observed in such an advanced state as in contemporary medicine. [12]

Foucault and others point out that the conception of man as a machine has become paradigmatic for the medico-scientific study of man and medical praxis, something which may be called the metaphysics of modern medicine. It is one of the main contributing factors to the functionalization of the human body in medical treatment. It provides an underlying rationale for a de-personalized treatment of patients in the modern medical regime. An approach that is even felt as dehumanized. The body, at the conceptual level, is considered to be little more than an intricate machine that may or may not be, according to medical standards, in a more or less urgent need of repair.

At present medical technology has advanced to a degree where we seem to be in sight of the ultimate aim of the Cartesian program: seeing all, knowing all, realizing all. The body can be constructed and deconstructed in almost every conceivable direction. What is inconceivable today, may be considered a normality tomorrow. Protheses are being developed as artificial replacements for worn-out parts of the human body: spare-parts for the human machine.

In the Human Genome Project the natural body becomes a malleable artifact. Through genetic decoding we will be able to discern the characteristics of a human body even before it has come into existence. And by genetic construction we can alter the shape and essence of the body that will come to life.

This ruthless invasion of the body scares many people, but it is largely left unquestioned at the conceptual level. This is probably so because implicit in these conceptions the counter-intuitive idea is still resident that the human being is nothing more than a corporeal machine.

Anxiety

First our environment was technologized, now even our last shelter, our beloved bodies, are invaded by technology. The invasion of technology in the realm of our physical experience seems unhaltable. Whether we are immersed in a virtual reality environment that absorbs our senses, or that we are invaded by artificial replacements of our body-parts, let alone the sci-fi prospects of eugenic horror; genetically constructed super-humans. It is the man-machine conception that sanctifies this terrorization of our most human realm, the realm of the body.

The technologization of the human body implies a conceptual abstraction that destroys the integrity of our physical experience. Destroying the duality between the physical and the spiritual it also undermines the traditional opposition of culture and nature. Our cultural customs, our habits, our behavior all become mechanisms, to be altered at will in order to make the world-machine run smoothly.

The technologization of the human body puts our most fundamental assumptions of human identity at risk. Lost in instability we are controlled by uncontrollable machinations. Alienated from intimacy we have become frustrated bachelor machines. We face our anxiety every time we witness the loss of some highly priced human faculty to this cold machine-ideology. It leaves us in anxious uncertainty:

What does it mean to be human ?

Notes:

1 - Taken from: Lyotard, Chaput a.o., *Les Immatériaux - Conception*, Paris, Centre de Creation Industrielle / Centre Georges Pompidou, March 1985. (re-published by Merve Verlag, Berlin, 1985)

2 - Quoted from: Ren Descartes, *Discourse on Method*, Penguin Books, Middlesex, 1968, p. 78.

3 - Descartes, *Discourse on Method*, p. 73.

4 - J.O. de Lamettrie, *Man a Machine*, Open Court Publishers, La Salle, 1912, p. 128

5 - Lamettrie, p. 128

6 - Lamettrie, p. 135

7 - Lamettrie, p.148

8 - Andreas Huyssen, *The Vamp and the Machine: Fritz Lang's Metropolis*, in: *After the Great Divide*, London, Macmillan Press, 1986, pp. 65-81.

9 - Huyssen, *The Vamp and the Machine*, p. 70

10 - Jürgen Habermas, *Modernity - An Incomplete Project*, in: Hal Foster, *The Anti-Aesthetic*, Bay Press, Seattle, 1983.

11 - Donna Haraway, *A Cyborg Manifesto: Science, Technology and Socialist Feminism in the Late Twentieth Century*, in: *Simians, Cyborgs and Women - The Reinvention of Nature*, Free Association Books, London, 1991 (originally 1985), p. 150.

12 - See for instance: Drew Leder, *The Body in Medical Thought and Practice*, Kluwer Academic Publishers, Dordrecht, 1992.