

**Post-Body from Fritz Jahr' s Perspective:
The Importance of Questions on the Boundaries
of My Body**

從費茲雅爾的觀點談“後身體”：我身體界限之重要問題

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Post-Body from Fritz Jahr's Perspective: The importance of questions on the boundaries of my body

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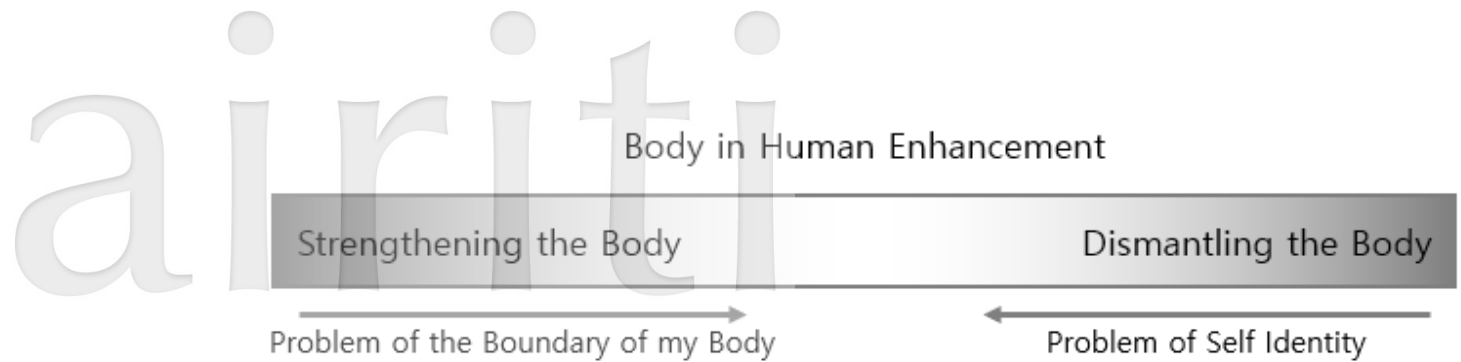
I. Human & Better than Human

'Human history' can be seen as a 'history of technology'. Humans have a lower ecological status than other animals. Their imperfection gave them no choice but to rely on nature and to use technology to supplement their bodies. Human beings are part of nature and are transcending nature at the same time. Human life consists of natural elements and artificial elements. Today, technology has given us enormous power beyond our imagination to the realm of artificial elements in human life. Medical technology has been mainly used for a 'therapeutic purpose', to restore the body damaged by disease or accident to the 'original state', and has supplemented the deficient parts of the body to survive. Today, however, technology tries to go beyond the limits of our body through various artifacts. Humans no longer want to be 'human', but to be 'better than humans'. But there is a problem here. It is often impossible to distinguish between treatment and improvement. Even if I have been involved in medical interventions for therapeutic purposes, the results may be improved irrespective of my intentions. Even if you want to overcome obstacles (unlike treatment), you can derive results that go beyond existing human capabilities.

Currently, there exist new bodies and various bodies that have not existed by past technology intervening or combining with human body. In this situation, it could be important to think about the boundary of my body. This question is deeply related to human existence, human nature, human identity, and self-identity.

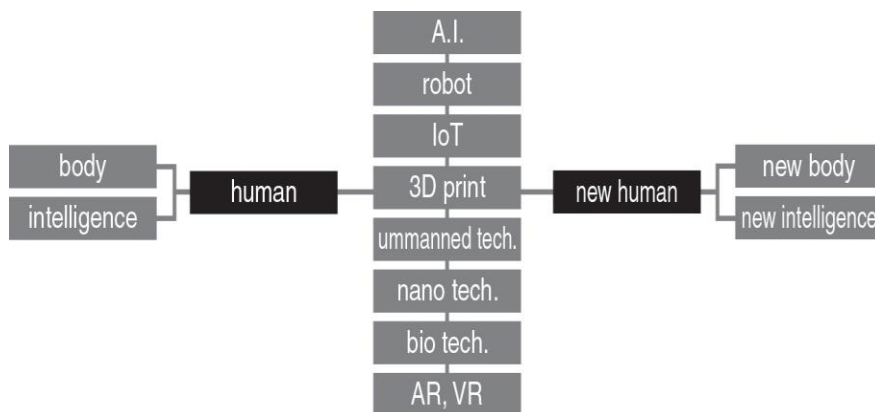
II. Strengthening the Body and Dismantling the Body in Human Enhancement

The human body is the most basic medium that connects the self and the world. The development of technology extends the scope of intervention to the human body and deepens the degree of intervention, so that the body can be expanded, mechanized and transformed. Science and technology are breaking down the boundaries between human beings and non-human beings, materials and non-materials, organisms and machines, human beings and animals. There is a new type of human body combined with animals (xenotransplantation), a combination of various artifacts as shown in the figure in the next page, and a combination of body parts of others (e. g. organ transplantation, arm transplantation, facial transplantation, body transplantation). This raises the need to renew the definition of 'body'. And this definition influences on the definition of human existence. The discussion of the human body in human enhancement has two positions at the extremes of the spectrum are shown in the figure "Body in Human Enhancement": the '*enhanced human body*', which places more emphasis on the role of the human body, and the '*human without physicality*'. On the one hand, there is the tendency to strengthen the present human body through various artifacts and on the other hand, the human's intelligence or mind developed in connection with the computer, that no longer requires the biological basis of the organism. It is important to discuss the boundaries of my body in the context of the claim that technology strengthens the human body. And in the context of 'human without physicality' the self-identity problem will be an important issue.



1. Strengthening the Body and the Boundary of my Body

The various artifacts will penetrate and embed into the human body, so that the human body will be spatially extended or it will gain extended capabilities. Due to various human enhancement techniques, the enhancement of the human body is also pursuing super human capacity rather than the human species, unlike in the past. We no longer want to run as fast as Usain St. Leo Bolt. We want more than that. Among the various technologies, this article aims to limit the discussion of human enhancement to the prosthesis.



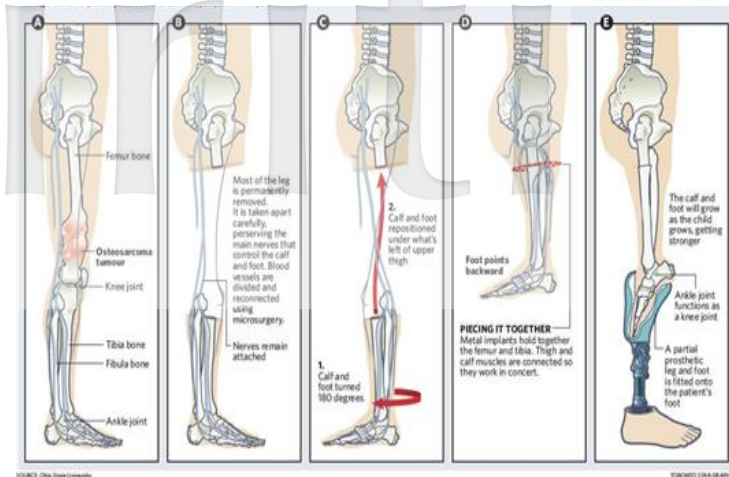
(Jung Eui Tay)

1) Meaning of changed Body due to Prosthesis

Physical implants have changed the perception of the human body.

a) Qualitative composition of the human body: The human body is no longer just made up of bones and flesh. The integration of prosthesis like artificial arms, artificial legs, artificial heart valve blockers for treatment, silicone for breast reconstructive surgery or beauty, or robotics for improving human abilities combined with the human body is a result of what ‘human biological existence’.

b) Changes in Connection Methods: Rotationplasty, which is a method that can be applied when a person cannot use a prosthetic leg due to a missing or dysfunctioning knee joint. To perform the procedure, the knee joint is replaced by the ankle joint by rotating and reattaching the portion of the limb containing the ankle joint. Methods such as rotationplasty leave the question about our perception of ‘the integrity of the human body’.



<https://www.youtube.com/watch?v=njJUcTbR2SY>



c) Extension of the connection distance: In general, it is possible to move a prosthetic limb only when a body implant is connected to my body. But today, using a nerve chip, I can move my artificial arm even if my artificial arm (robot arm) is not connected to my body. The connection distance between the human body and the body implant has been extended further. The extension of this connection distance raises an

important question not only on 'the boundary of my body' but also on 'the boundary of the self'.

(<https://www.cbsnews.com/news/mind-controlled-robotic-hand-paralyzed-people-quadruplegia/>)

2) Prosthesis and the Boundary of my Body

In the case of prosthesis, new questions may arise: 1) If someone stole an artificial arm, would he be charged with injury or theft? 2) If someone's prosthetic leg broke down at work, should the work accident (industrial injuries) insurance cover the new prosthesis? 3) When a person wearing a prosthetic limb boarded a plane, is she allowed to wear her legs? Or should her legs be checked as baggage, because they could pose a threat to others? 4) In the case of a robot arm operating in a place entirely different from the person controlling it, who can be held accountable for the actions of the robot arm? All these questions are ultimately reduced to the question of whether prosthesis can be recognized as part of the human body.

In the case of 1), under the current law, if A strikes person B wearing a leg, A would be charged with injury. But if A takes B's legs lying on a desk, it is theft. In the case of 2), what is important is the role of the prosthesis. Depending on whether the artificial legs complement or replace the legs, there will be different answers. In the case of 3), it is important to discuss the issue of human rights of prosthetics wearers and the safety of others. The notoriously defective battery of a Samsung's Galaxy Note smartphone was considered to be dangerous, so it was forbidden to board a plane with it. As such, when the prosthesis develops, there will be a tight tension between the safety of other passengers and the human rights of persons with disabilities. In the case of 4) it is important to discuss the boundaries of my body with the question of responsibility. In addition, this is inextricably linked to the problem of the boundary of the self and the problem of what is the self. Consider Dennett's accident experiment. Dennett assumed that he had separated his brain from his body. If his brain is in the library at this time and his body is in the living room, where is Dennett? Whether you see your body as your body or your brain, your answer will be different. [1] [2]

2. Dismantling the Body and the Boundary of the Self

According to Nibert Wiener, humans will be able to connect their brains to computers,

download knowledge, and exchange information. For example, if my brain is connected to a computer cloud, the information about my brain might be infinitely cloned and distributed. This means that I am dispersed. So what problems will emerge? If an individual's brain is connected to a computer, the individual's body is not fixed, and thus the boundaries between individuals and others will become unclear. An individual will only be a collective individual, and it will be impossible or unnecessary to count numbers. In the end, this cannot define the boundaries of the subject and cannot define the subject of responsibility. Also, if a central computer or other program manipulates my brain information or memory, what about my identity? [3]

III. Standard of the Boundary of my Body

I would like to briefly introduce the three arguments (control, causal and spatial connections, control and spatial connections) that are key elements in defining the boundaries of my body.

1) "According to Dennett, 'control is the ultimate standard' when defining the boundaries of a body?" This position seems to be quite clear. But the meaning of control is not clear. I do not see chopsticks as part of my body just because I control them. [4]

2) According to Baker, to be recognized as part of the human body, it must be causally integrated with the biological parts responsible for the body's function. And it should also exist in a form permanently attached to the inside or the surface of the skin. According to this, artifacts using nerve chips or robotics are hardly regarded as parts of the body. When we look at the phenomenon of remarkably developed technology combined with the human body, Baker's position is very conservative. [4]

3) We can argue that the two points above are all core elements. First requirement for defining the boundaries of one's body is *controllability*. Not everything that is controllable is part of the body. The body must be connected to the neural network. This clarifies the ambiguity of the control that Dennett required. Second requirement is *spatial connection*. If the body is connected to other parts of the body, such as blood vessels or muscles, even if the nerves are cut off, they should be recognized as part of the body. [5]

IV. Applying the concept of Fritz Jahr to the Post-Body

Depending on how the human body is combined with technology, the shape of the human body will become more diverse. There is a new type of human body combined with animals (xenotransplantation), a combination of various artifacts as shown in the picture in the next page, and a combination of body parts of others (e. g. organ transplantation, arm transplantation, facial transplantation, body transplantation).

In future societies, people with different bodies will have to coexist. To this end, the definition of the body needs to be newly defined, and the definition of body plays an important role in understanding the meaning of self-identity as well as human existence.

Also, with the change of the technology and change of society, from Fritz Jahr's perspective, new ethical concepts are required, like expanding categorical imperative about bioethics and incorporating animals and plants into existing ethical community, because from Jahr's perspective, plants and animals also have rights to fulfill their own purpose like human does, though the aspect of rights are different for them. Likewise, in the current society with technological innovations, there came new bodies that have not existed before. For example, there are people with both masculine and feminine body parts (e.g. If a male who wants to become a woman has had only breast surgery and has not yet undergone a sexual operation), people with part of animal organs, and people with artificial implants (e.g. chip, robotic arms, robotwear etc.) of body parts. For them to be incorporated into ethical community. Also, like plants and animals, there are possibilities about giving rights, though the aspect of it would be different, to artifacts like robots. It could be assumed that this is what Fritz Jahr might

suggests in relation to the post body. Further, Fritz Jahr's ideas could be applied to the relationship between humans and artifacts (eg, robots with artificial intelligence) in future societies. The sentence of the magic which is useful to live in future society is as follows: "Respect every living being in general as an end in itself and treat it, if possible, as such!"

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