Philosophy of Science Japan 50th meeting
2017.11.19 (Sunday) 9:45-12:00
Room 113

Workshop

The brain between human nature and culture

Tetsuya Kono (Organizer)
Koji Tachibana (Organizer, Presenter)
Maxence Gaillard (Organizer, Presenter)
Tatsuya Mima (Presenter)
Fernando Vidal (Presenter)

Argument of the workshop

On the one hand, the brain is an organ of the body, a natural object, and on the other hand representations of the brain have been shaped little-by-little by scientific and medical knowledge entangled with cultural conceptions of the body and the mind.

The importance of the brain as an organ of the body has been emphasized by many scientists and philosophers, insofar as the development of the brain parallels with the development of mankind; the mystery of human nature would lie somewhere in the uniqueness of the human brain. For instance, the concept of neuroessentialism has been forged to describe the widespread idea that human beings are best defined by their brains, and neuroessentialism is generally seen as a motivation to explore issues in philosophy of neuroscience, neuroethics or ethics of brain research. On the contrary, other concepts such as brain plasticity suggest that nature is not uniform, and that human diversity can be supported by a variety of neuronal repertoires.

Our workshop is aimed at crossing viewpoints on philosophy of brain science and on neuroscience and society issues. We want to discuss philosophical and ethical questions related to brain research and the status of the organ.

Maxence Gaillard (Rikkyo University)

Nature, Culture and the status of the Brain

The status of the brain as an organ of the body has been widely debated. The relation between brain and mind (reduction-emergence debate) and the respective contributions of the brain, the body and the environment to cognition are extensively discussed topics. In this presentation, I focus on a point often mentioned but not always explicitly developed in these discussions as well as in philosophical, sociological and medical literature. My goal is to map the field of existing positions regarding the role of the brain in the definition of human nature.

According to a first thesis, in human beings the brain enables properties that are essential for the definition of humanity. The brain is thus in a sense a factor of universality. By contrast, another often defended thesis is that the brain is a factor of particularity at several levels, from the distinction of different types of brains to individual idiosyncrasy.

Another distinction is then introduced. As a body organ, the brain has been conceived as a part of nature, or more simply something that has to be considered as given. But as the

concept of cerebral plasticity is increasingly popular in scientific and philosophical debates, the image of the brain as a cultural object, or as something that has to be nurtured, is progressively emerging. Bearing these two distinctions in mind (universal-individual and nature-nurture), I present a classification of the possible theses about the role of the brain in human nature. I eventually discuss how different approaches such as nativism, the defense of "neurodiversity," or even brain training programs could fit into this framework.

Tatsuya Mima (Ritsumeikan University)

"Japanese brain" and its Metaphors after the Asia-Pacific War: A Neuro-studies Approach

Following examples of the research areas opened up by cultural or science studies (B. Latour), I would like to propose a new interdisciplinary research project studying the relationship among neuroscience, technology and society, which might be called as "Neuro-studies", rather than Neuroethics.

In 1946 just after the Japanese defeat in the Asia-Pacific war, US soldiers in Japan learned the purpose of occupation from a short movie called "Our job in Japan" (Director: Frank Capra) provided by General Headquarter (GHQ). The main message of the movie was that the brains of the Japanese ruled by the military and trained to follow the leader fanatically started the war. However, the movie also told that Japanese brains are not different from those of US people and can do good things. Thus, their job was to teach the democratic values to Japanese brains instead of the militarism.

The ideology of the movie is generally in accord with the progressive liberalism of post-war USA that puts Nurture over Nature and emphasized the role of education. However, the liberal attitudes to Japanese brains after the war show a sharp contrast to the ethnic hate and harsh racism against the Japanese during the war ("yellow monkeys"). This abrupt change of the status of the Japanese is reasonable, because to seek the global hegemony after the war, it was politically crucial for the USA to deny the wartime racist propaganda and to present themselves as a leader of the universal democracy.

I would like to claim that the metaphor of the brain was useful for showing how the seemingly biological differences such as racial ones can be reconciled with the cultural changeability, due to the brain's important feature: plasticity.

Koji Tachibana (Kumamoto University / Oxford University)

Moral Neuroscience and an Artificial Environment

In 2008, when I was a graduate student at the University of Tokyo, I gave a presentation titled "Moral Neuroscience and the Philosophy of Science" at the symposium of the 41st annual conference of this society. In the presentation (and in more detail in my paper—Tachibana, K. (2009) Moral Neuroscience and Moral Philosophy: Interactions for Ecological Validity. *Kagaku Tetsugaku*, 42(2): 41-58), I argued that ecological validity was a key issue when considering a significant and fruitful interaction between moral neuroscience and moral philosophy because the moral is phenomenal and cultural as well as neural.

However, for various reasons, it is difficult to conduct a neuroscientific experiment on morality outside of a laboratory setting. It may even appear that just satisfying internal and external validities would be enough for an experiment to be good one. What then would motivate us to encourage ecological validity-aimed research on morality? How could we conduct such an experiment on morality? In this presentation, I will consider these issues, and then argue that an ecologically (more) valid experiment on human moral phenomena can be found in an artificial rather than laboratorial environment. Finally, I will tentatively conclude that moral neuroscience has good reasons for conducting experiments in artificial settings.

Fernando Vidal (Barcelona Autonomous University)

Current Discussions on Detecting "Covert Awareness"

In 2006, using functional magnetic resonance imaging, a team led in Canada by neuroscientist Adrian Owen detected in a patient who was diagnosed as being in the vegetative state the capacity to modulate brain activity in response to spoken instructions. Later research using fMRI and other techniques seemed to confirm the beginning of "a new era of coma and consciousness science" – an era in which those techniques will enable a better diagnosis of noncommunicative patients, and allow persons identified as having "covert awareness" to communicate by modulating their own neural activity.

Some observers, however, raise questions about the nature of the detected "awareness" and the meaning of the patients' responses. Moreover, while Canadian neuroscientists and neuroethicists advocate fMRI testing for all patients diagnosed as noncommunicative on the basis of behavioral protocols, with the purpose of integrating those patients in decisions about treatment and end of life, others question the wisdom of such a position. This paper will review those current debates.