

## The 4th Meeting of the CHAIN Seminar

### Structures of Consciousness

When I type this sentence on my laptop, my conscious experience contains not only the visual appearance of the screen, the tactile sensations of the keyboard, and my awareness of the thoughts I am trying to put into words, but also a whole range of other sensations, such as the sound of the ventilator in the background, the pain in my low back, as well as the feeling of conscious effort to find the right word. However, these phenomenal contents are not presented in my consciousness *without any order*; my conscious experience is not “one great blooming, buzzing confusion” (James 1890, 462). Rather, there seem to be *invariant structures* in which these phenomenal contents are experienced. Let us see several examples of structures of consciousness. All of those phenomenal contents seem to be presented *to me*; in other words, my conscious experiences seem to have *for-me-ness* as an invariant structure (Zahavi and Kriegel 2015). The phenomenal contents seem to be presented in a *unified/integrated manner*; my conscious experiences seem to have *unity/integrity* as an invariant structure (Bayne 2010). The phenomenal contents seem to be presented in *the specious present*; my conscious experiences seem to have a *specific experiential duration* as an invariant structure (Dainton 2006).

This workshop aims to discuss the structure of consciousness from various perspectives. Hye Young Kim presents a mathematical model of the relation between observing self and observed self that holds in self-consciousness as an invariant structure. Katsunori Miyahara provides a phenomenological analysis of the sense of conscious unity/integrity. Takuya Niikawa analyzes the notion of the structure of consciousness and then discusses whether it can be explored in a neuroscientific framework.

#### **Speakers:**

Takuya Niikawa (Institut Jean Nicod / Hokkaido University)

Katsunori Miyahara (University of Wollongong/ University of Tokyo)

Hye Young Kim (Husserl Archives – Pays Germaniques / Ecole Normale Supérieure)

**Organizer:** Takuya Niikawa

**Language:** English

**Date :** 13:00-18:00, 18th of September 2019

**Venue :** W202, Humanities and Social Sciences Classroom Buildings, Hokkaido University.

This workshop is organized by the Center for Human Nature, Artificial Intelligence and Neuroscience (CHAIN) and the Department of Philosophy and Ethics at Hokkaido University, and supported by JSPS Kakenhi Grant Number JP17K02153 and the Center for Applied Ethics and Philosophy (CAEP).

### **Time Table**

13:00-14:30 Hye Young Kim, “Knots and Consciousness”

14:45-16:15 Katsunori Miyahara, “The integrated structure of consciousness”

16:30-18:00 Takuya Niikawa, “Can we explore the structure of consciousness scientifically?”

### **Title and Abstract”**

**Knots and Consciousness: Knotted Models Applied to Uriah Kriegel’s “Consciousness, Permanent Self-Awareness, and Higher-Order Monitoring”**

Hye Young Kim

This talk is a response to Uriah Kriegel’s “Consciousness, Permanent Self-Awareness, and Higher-Order Monitoring” (Kriegel 2002) interpreted with my knot models of consciousness. In his paper, Kriegel argues that permanent self-awareness accompanies every conscious state, which I present in a trefoil knot model that provides some features of consciousness which were not captured in the pre-existing models of consciousness. By doing so, I will also show that the core of the consciousness discussion is related to the structure and the relationship between the observing and the observed self which will give a way to investigate the problem of self-representation from a different angle.

**The integrated structure of consciousness**

Katsunori Miyahara

Both in philosophy and science, many think that consciousness is always unified or integrated (e.g. Bayne 2010, Tononi 2008, 2015). But what does this exactly mean? On one model,

consciousness is integrated in the sense of being a complex of discrete phenomenal elements. In opposition to this, I suggest drawing on the phenomenologist Aron Gurwitsch's theory of the field of consciousness that we consider it as a functionally integrated Gestalt.

### **Can we explore the structure of consciousness scientifically?**

Takuya Niikawa

In this talk, I analyse the notion of the structure of consciousness and list its possible characterizations. The characterizations can be classified into three fundamental categories: functional, phenomenological, and metaphysical. I then argue that we can potentially explore a structure of consciousness in a neuroscientific framework only when it is given functional and phenomenological characterizations conjunctively.