

Program for Advancing Strategic International Networks to Accelerate the Circulation of Talented Researchers  
Japan-ASEAN Collaboration Research Program on Innovative Humanosphere in Southeast Asia:  
In search of Wisdom toward Compatibility Growth and Community in the World

Dispatch Report

Year: 1st Oct 2015 – 31st March 2016

Place of fieldwork: National University of Singapore (NUS)

Name: Takuro Onishi

The purpose of this dispatch was to conduct research on *analytic Asian philosophy*. Analytic Asian philosophy is a new trend in philosophy that aims to re-interpret Asian thoughts such as Buddhism, Confucianism, Daoism, and so on through the perspective of analytic philosophy and the tools from contemporary non-classical logics. It attempts to shed new light on both Asian thought and analytic philosophy, to promote conversation between the East and the West, and finally to produce a genuinely novel philosophy.

Specifically, I planned to make a study of the *catuskoti* (or *tetralemma*). The *catuskoti* is a fundamental logical principle or category of Indian logic, which is frequently invoked in Nāgārjuna's *Mūlamadhyamakakārikā*, for example. Because of its contradictory nature, how to make *logical* sense of the *catuskoti* has long been a puzzle of Buddhist logic and Indian thought. In my paper "The *catuskoti* in a bilattice," I presented a new reconstruction of the *catuskoti* using the logical structure of bilattice. The aim of my research in NUS is to further develop the line so as to incorporate the whole system of Nāgārjuna's logic.



Buildings blurred by haze

**philosophy**  
seminar series

national university of singapore  
DEPARTMENT OF PHILOSOPHY  
presents

**Understanding negation implicationally  
in relevant logic**

Negation in relevant logic, or its model-theoretic treatment using so-called Routley star, has been often criticized for lack of intuitive interpretation. In this talk, I respond to the criticism by showing a way of defining and explaining negation in terms of relevant implication, for which several types of intuitive, information-theoretic interpretation have been proposed. Indeed, the interpretation is slightly extended so that a connective of (relevant) exclusion can also be formulated, and our target negation is defined by collapsing a negation defined by implication and one defined by exclusion into one. Explaining this extended interpretation in relation to sequent calculus, I also show that the structure embodied in the interpretation underlies consequence relation in general, not confined to relevant logic.

**date**  
Thursday,  
05 Nov 2015

**time**  
2pm – 4pm

**venue**  
Philosophy  
Meeting  
Room,  
AS3 #05-23

all are welcome

**about the speaker**

**Takuro Onishi** Visiting Scholar  
NUS, Department of Philosophy

Takuro Onishi is a visiting scholar at our Department of Philosophy. His stay is supported by the program "Japan-ASEAN Collaboration Research Program on Innovative Humanities in Southeast Asia" of the Center for Southeast Asian Studies, Kyoto University. In 2012, he received a Ph.D. from Kyoto University for his thesis on proof-theoretic semantics. He has published several papers on Michael Dummett's philosophy and non-classical logic.

Poster of the seminar



Morning shower on the NUS

This term, which is the first half of the dispatch, has been devoted, for the most part, to the formal side of my plan. I investigated into how to make good sense of the notion of negation in relevant logic, which has often been criticized for its lack of intuitive interpretation. The result was presented at a seminar in the Philosophy Department of NUS and then submitted to a logic journal. The task of applying this result to Indian or Buddhist logic is left for the second half of my stay. I also would like to note that, through everyday activities such as seminars, reading groups, and so on, I have become acquainted with many people in the department, which I hope serves to strengthen the connection between Kyoto University and NUS. I aim to expand this to other universities in Singapore and neighboring countries.