

Research Activity Report
Supported by “Leading Graduate Program in Primatology and Wildlife Science”
 (Please be sure to submit this report after the trip that supported by PWS.)

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1. Country/location of visit
Primate Research Institute, Inuyama, Aichi Prefecture
2. Research project
Comparative cognitive science course
3. Date (departing from/returning to Japan)
2017. 09. 04 – 2017. 09. 06 (3days)
4. Main host researcher and affiliation
Prof. Masaki Tomonaga, Dr. Yuko Hattori Program-Specific Assistant Professor
5. Progress and results of your research/activity (You can attach extra pages if needed)
Please insert one or more pictures (to be publicly released). Below each picture, please provide a brief description.
<p>Cognitive science is one of the fascinating branches of science in which we try to understand the capabilities of humans, non-human animals using various behavioral and neurological experiments. However, to get the complete picture of one’s cognitive capability, we need to take a holistic approach in consideration. Here, one should keep in mind that, the cognitive capabilities of an individual depends on various factors such as- age, genetics, habitat which they live in, physiological status of an individual, etc. If we go one step further to understand the cognitive capabilities of individuals of different taxa, to see how they approach and solve a particular task in their own unique way, is more enthralling. This course gave us a gist of what cognitive science is and how comparative approach can be used to understand non-human primates and horses?</p> <p>This course was aimed to demonstrate the participants about several experiments conducted in Primate Research Institute (PRI). First, we learned about the experiments conducted by Matsuzawa-sensei and his research team. Here, the subjects were chimpanzees housed at PRI. One of the master students demonstrated how chimpanzees understand the game of “Rock, Paper, Scissor”. Later in the day, Tamonaga-sensei taught us how he is using the touch panel experiments to understand the cognitive capabilities of horses. Apart from participating in experiments, these horses are housed near Inuyama city and are mainly used as a tourist attraction.</p> <p>Another experiment that captivated my attention was to understand how chimpanzees perceive the sounds of conspecific amidst the atmospheric noise. This has direct relevance with my PhD work as the possible questions that I too want to explore are how atmospheric noise plays a role in the vocal communication of wild Asian elephants and do they really alter the way they communicate or atmospheric noise has any effect at all? We also got to learn from Adachi-sensei that how chimpanzees associate high and low pitch sounds to different shades of the same color.</p>

<p>Fig 1: Chimpanzee participating in an experiment</p>

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These experiments are kind of win-win situation for both chimpanzees and scientists. For chimpanzees, these experiments act as the enrichment exercises in captivity and for scientists, these are the great opportunities to understand the mind of non-human primates, which can largely contribute towards their conservation in the human-dominated world. I also learnt that one should ‘celebrate’ the uniqueness of an individual, after all cognitive capability can be well observed when an individual is pushed to his/her limits.

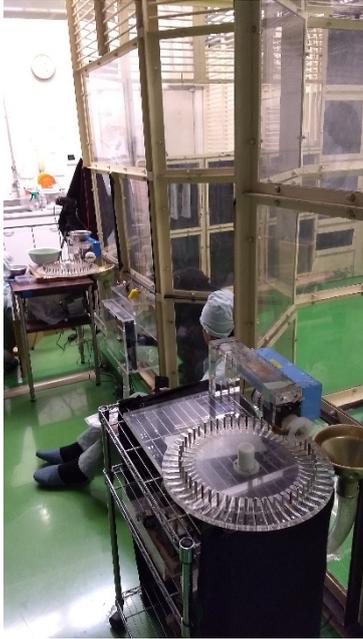


Fig 2: Observing how she performs the experiments from a close distance



Fig 3: Horses performing touch panel experiments

6. Others

I sincerely thank Prof Matsuzawa, Prof Tomonaga, Prof Adachi, Dr Yuko Hattori and PWS for giving me an opportunity to get an idea on how cognitive studies should be conducted.