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.)

	2016. 12, 14
Affiliation/Position	Primate Research Institute/M2
Name	Gao Jie

1. Country/location of visit

Xinfei Kindergarten, Xinxinag, Henan, China

2. Research project

Experiment of the rock-paper-scissors in children

3. Date (departing from/returning to Japan)

2016. 11. 12 – 2016. 11. 26 (15 days)

4. Main host researcher and affiliation

Xinfei Kindergarten

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.

During this visit, I conducted experiments about the rock-paper-scissors game in children.

I have been studying the circular relationship understanding in chimpanzees. Many species are good at linear relationships, and some even use them for inferences for social hierarchies without fighting against each individual in the group directly. However, little is known about circular relationship understanding, which is important for complex relationship building, knowledge updating and complex problem solving. In my experiment in chimpanzees, I chose the rule of the rock-paper-scissors game, where "paper" beats "rock", "rock" beats "scissors", and "scissors" beats "paper". Most of the chimpanzee participants learned this, through a computer-controlled discriminative task. Since I work in comparative cognitive science, I was interested to conduct this experiment in human children and compare the two species.

I prefer complete communications with children participants and their parents, so I decided to do the experiment in a local kindergarten in my hometown so that I could speak Chinese and explain everything better. The kindergarten kindly agreed about the study and supported a lot during the whole procedure.

My schedule was as follows:
Nov. 13 (Sun.) ~ Nov. 15 (Tue.) Prepared for the experiments; Communicated with parents and recruit participants; Worked on written approvals.
Nov. 16 (Wed.) ~ Nov. 19 (Sat.) Collected data from most participants.
Nov. 21 (Mon.) ~ Nov. 25 (Fri.) Finished collecting data from all participants; Checked written approvals; Data input and preliminary analysis.

In all, there were 38 children aged from 35 months to 71 months old. Each child had four sessions' task. After the task, they received stickers as a reward for their participation regardless of their performances. We had very interesting results from the children experiment. Children learned faster than chimpanzees. They develop the ability to solve the rock-paper-scissors problem at a certain age, and there is a gender difference.

I am currently working on a paper based on these results for publication in an academic journal.

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(The kindergarten)

(The room where the experiment was conducted)

(A participant was to touch the start key)

6. Others

I would like to thank the kindergarten for supporting the study. Thank Profs. Matsuzawa and Tomonaga for their advice. Thank PWS for supporting this trip.

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