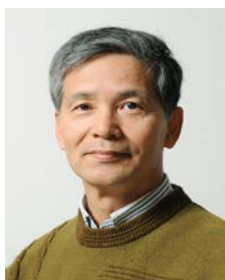


## 【Grant-in-Aid for Specially Promoted Research】

### Humanities and Social Sciences



**Title of Project : Primate foundation of the social transmission across generation in knowledge and technology**

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(Kyoto University, Primate Research Institute, Professor)

Research Area : Psychology, Experimental Psychology

Keyword : Knowledge, Technology, Mother-infant relationship, Grandmother, Chimpanzee, Cross-generational social propagation

#### 【Purpose and Background of the Research】

The project aims to elucidate the evolutionary foundations of human nature. For that purpose, we will carry out detailed comparisons of humans with both members of the genus *Pan*, chimpanzees and bonobos. The research objectives are unique in the following three ways. First, we will make parallel efforts to study both chimpanzees and bonobos, and to do so both in the laboratory and in the wild. Second, we have a firm foundation in tracking three generations of individuals in each of two communities, KUPRI and Bossou. Third, we will set up a fully automated computer-controlled system in a newly devised “group-booth” in which multiple subjects can perform computer-controlled cognitive tasks based on the 24-hours free access.

#### 【Research Methods】

In addition to the study of chimpanzees (*Pan troglodytes*), the present proposal initiates new research on bonobos (*Pan paniscus*) both in the laboratory and in the wild. This represents the first ever attempt to compare chimpanzees and bonobos across the two different research settings, and will provide us with a novel and comprehensive picture of the common ancestor of the genus *Pan*. The 2 by 2 contingency table, we do both lab work and field work in chimps and bonobos. For the study, we have 14 chimps in KUPRI, 53 in KS-WRC of Kyoto University; We will focus on 13 wild chimps in Bossou, Guinea, and 27 bonobos in Wamba, DRC.



Fig 1. A young chimpanzee named Ayumu touches the numerals in an ascending order

#### 【Expected Research Achievements and Scientific Significance】

Chimpanzees live in male-dominated societies, rely relatively heavily on technology, and are hostile to neighboring communities. In contrast, bonobos are female-dominated, have a low reliance on technology, and show little aggression towards neighbors. The present project therefore represents a fundamentally important step in expanding the framework of comparisons through which we can illuminate human nature. Systematic comparisons of the three hominid species (humans, chimpanzees, and bonobos) will shed new light on the evolutionary origins of the human mind, technology, education, culture, mother-infant bond, and society.

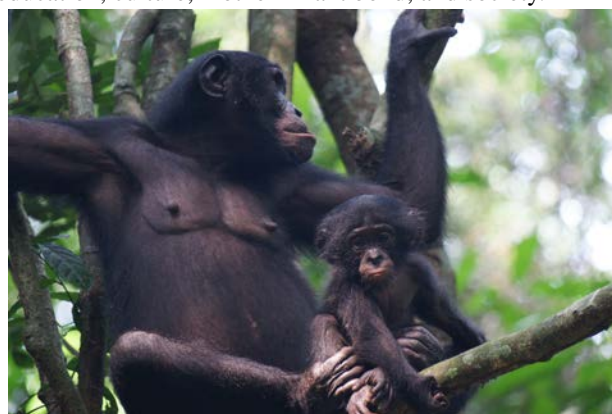


Fig 2. A mother-infant pair of wild bonobos. The photo was taken in the Congo Basin.

#### 【Publications Relevant to the Project】

Matsuzawa, T. *et al.*, eds. (2006) *Cognitive development in chimpanzees*. Springer  
Matsuzawa, T. *et al.*, eds (2011) *The chimpanzees of Bossou and Nimba*, Springer

【Term of Project】 FY2012-2016

【Budget Allocation】 310,000 Thousand Yen

#### 【Homepage Address and Other Contact Information】

<http://www.pri.kyoto-u.ac.jp/ai/>  
<http://www.greenpassage.org/>