matching-to-sample experiments. After excluding effects of different primate species faces in a series of touchscreen discriminate identical and categorical (non-identical) images faces at the categorical level, especially in chimpanzees. This studies have looked at discrimination between primate species individual faces within the same species. However, few Many primate studies have investigated discrimination of faces in chimpanzees A04 Visual discrimination of primate species based on faces in chimpanzees ○ Duncan WILSON, Masaki TOMONAGA (Primate Research Institute, Kyoto University)

Many primate studies have investigated discrimination of individual faces within the same species. However, few studies have looked at discrimination between primate species faces at the categorical level, especially in chimpanzees. This study systematically examined the factors important for visual discrimination between primate species faces in chimpanzees, including: colour, familiarity and perceptual similarity. Five adult female chimpanzees were tested on their ability to discriminate identical and categorical (non-identical) images of different primate species faces in a series of touchscreen matching-to-sample experiments. After excluding effects of colour and familiarity, difficulty in discriminating between different species faces can be best explained by their perceptual similarity to each other. Categorical discrimination performance for unfamiliar, perceptually similar faces (gorilla and orangutan) was significantly worse than unfamiliar, perceptually different faces (baboon and capuchin monkey). Moreover, multidimensional scaling analysis of the image similarity data based on local feature matching revealed greater similarity between chimpanzee, gorilla and orangutan faces than between human, baboon and capuchin monkey faces. We conclude our chimpanzees appear to perceive similarity in primate faces in a similar way to humans. Information about perceptual similarity is likely prioritised over the potential influence of previous experience or a conceptual representation of species for categorical discrimination between species faces.

A05 Foraging strategies in a free-ranging group of Japanese monkeys (Macaca fuscata) on Awaji Island

Shenwen XU, Kazunori YAMADA, Masayuki NAKAMICHI, Masaki TOMONAGA

We examined sensitivity to efficiency of foraging in Japanese monkeys (Macaca fuscata) by using an experimental method at the feeding site of the Awajishima Group. Three feeding drawers which contained identical food reward, with different number of weights (condition1 and condition2) or in different food distance (condition3), were presented. Monkeys were allowed to pull each drawer to get each reward in any order. Twenty-five of 399 individuals have participated. The number of trials totaled 4079 during 14 days. We found that monkeys tended to choose the lightest or the nearest food first. These results show that monkeys adjusted their foraging strategies according to the cost of food reward. Sex and age contributed to the high selectivity of the first choice of the lowest load, which could be highly related with body weight. Interestingly, monkeys selected the remaining two choices with the same frequency in both condition1 and condition2. These results indicate that their adjustment of foraging strategies was also affected by the other factors such as social condition, since other individuals around them change constantly during the test sessions. In addition to the social factors, current results can be also discussed on the basis of “contrafreeloading”.

A06 女性の妊娠の信号としての唇の着色

Lucie Rigaill (Primate Research Institute, Kyoto University)

Women lips coloration as a signal of fertility and quality Lucie RIGAILL

Several primate species exhibit red skin coloration that can communicated emotional state, dominance status, health condition, and fertility. When we are asked to picture colorful traits of female primates, we can easily think of the shiny sexual swelling of baboons, the geladas’ “bleeding heart”, or the Japanese macaques’ red mask. We usually don’t picture woman traits. Women seem to lack obvious and/or exaggerated traits of their fertility and/or quality. However, several studies have suggested that men may be able to pick up some facial indices of women fertility, such as variation in skin smoothness and brightness around ovulation. But none has investigated the possible role of the most colorful and appealing trait of the women face, i.e., lips. Women lips are subconsciously connected to fertility and beauty and women seem to compete with each other according to women and men’s psychological standard of beauty. This study is the first attempt to investigate the relationship between women fertility, quality and lips coloration, i.e., whether darker/redder lips are associated with ovulation signaling or quality signaling (e.g. parity), from signal content to signal perception (men and women). This study aims to enhance our understanding of how female colorful sexual signals have