ABSTRACT

KANTHI ARUM WIDAYATI. Categorization in *Macaca fascicularis*. Supervised by BAMANG SURYOBROTO, AKICHIKA MIKAMI, ACHMAD FARAJALLAH.

Categorization is an ability to group individuals or events into different classes mediated by conceptualized mental images. There are several levels of categorization and within a taxonomy the levels are nested. At the most concrete level of categorization, all or most members of the category shared common physical attributes that differ from other categories. The higher the level of category, the fewer common attributes between members of the group. In addition to humans, the ability to categorize has also been proposed in animals. One example of categorization in animal is species discrimination. Using matching-to-sample task, present experiment tested ability of the long-tailed macaque (*Macaca fascicularis*) in discriminating dichotomous-stimuli of different animals. The species has been shown to be able to see photos as representations of real object so I used facial photos of humans and animals for the stimuli. First, I tested their ability to classify humans and macaques into separate group. Second, I tested their ability to discriminate their conspecific from other macaques. And the last, I tested whether the subjects were able to discriminate non-human animals from humans. All of these experiments I found that the subjects showed high performance in categorizing objects, even when I discarded details of visual informations, such as color and local shapes. The ability to identify objects with reduced representation of physical properties means the subjects were able to generalize attributes of members of the group. This would indicate that the subjects created a higher level abstraction. On the other hand, in discriminating intrageneric macaque species I found that they were able to extract uniqueness of each species. Moreover, I also found that the subjects were able to put photos of non-human animals that shared very few similarities in physical percepts into one group. I suggested that the subjects could create a more abstract concept based on non-percepts relations as a basis to put the objects into one category. Thus, I concluded that *M. fascicularis* were able to perform multiple levels of categorizations.

Key Words: Categorization, Conceptualized mental image, Species discrimination, *Macaca fascicularis*, Matching-to-sample task