

The dynamics of familiarity with new objects in groups of two lemur species (*Lemur catta*, *Varecia variegata rubra*).

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The behavioural responses of two lemur species towards three different enrichment items were observed to determine individual responses and the effect of social status on enrichment interactions within the group. Two species of lemur were observed; one group of red ruffed lemurs (*Varecia variegata rubra*) consisting of 3 males and 2 females and a group of ring tailed lemurs (*Lemur catta*) consisting of 2 males and 4 females.

We made video film for everything which was happening within a 2 meters radius and when analyzing video we used all-occurrence sampling for each lemur.

Forms of interaction with the object

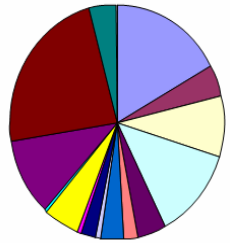
- stay in more 3m
- stay in 2 m
- stay in 1 m
- stay near by
- smell the device
- smell the lock
- gnaw the device
- gnaw the lock
- lick the device
- lick the lock
- scratch the device
- push the device
- sit close
- sit on
- put hand in the device
- put head in the device



Three enrichment devices were presented; 1) a box made from plastic net with nuts and pieces of fruits inside; 2) a sphere made from large steel net which was filled with fruits and suspended in the enclosure by cord and 3) a plastic box filled with fruits which could be accessed by opening a simple lock. Each enrichment device was put in each lemur group's enclosure every other day for 20 days. The devices were put into the enclosure just before behavioural observations commenced and taken out immediately after observations finished.



Lemur catta

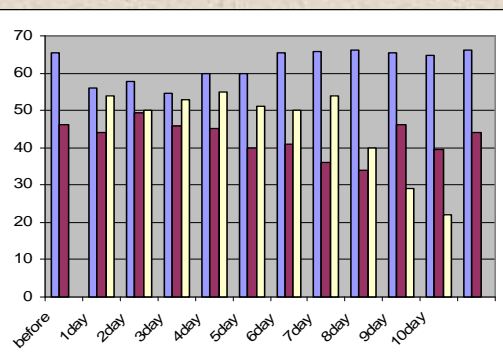


Varecia v. rubra

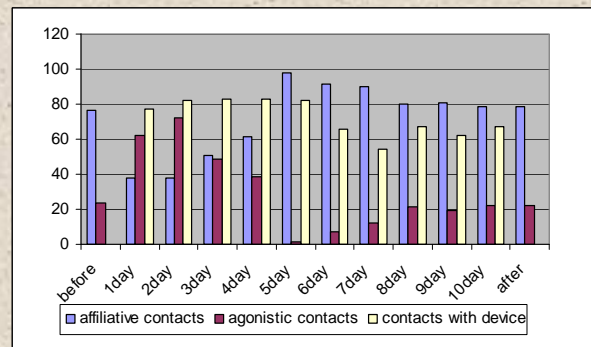


Social behavior and familiarity with new object

Varecia v. rubra



Lemur catta



Some conclusions were the result of this investigation:

- latent period of investigative activity in red ruffed lemurs was longer than in ring-tailed lemurs
- the diversity of interactions with new object was the same in both species;
- the dynamics curve of familiarity with new objects in red ruffed lemurs did not have great risings and fallings and it was not connected with any changes in social behaviour;
- the dynamics curve of familiarity with new objects in ring-tailed lemurs had some risings and fallings and there were some changes in social behaviour which we could divide in 3 periods. First period – high level of investigative activity and there were only affiliative forms of social activity; second period – learning to open the device and many forms of agonistic behaviour were recorded; third period – every lemur can open the device and social group structure was restored.