



CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s) Allison J. Winger	Project Number J1026
Project Title The Effect of External Stimuli on Primates	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Since primates are known to be curious, the purpose of this project is to determine which types of objects are most interesting to the pygmy marmosets at the San Diego Zoo. It would seem that these primates would be more curious about unfamiliar objects and, therefore, they would show more interest over a longer period of time in them than they would in familiar objects.</p> <p>Methods/Materials A stopwatch was used to time how long it took the pygmy marmosets to take notice of twelve different objects one at a time and how long they looked at each object. In order to test each item, the object was held up to the glass of the enclosure, the timer was started, and the pygmy marmosets were observed to determine when they took notice of the item. The time that the animals first paid attention to the object and the time that they quit looking at the item were recorded along with their apparent level of interest on a scale of one to five. The twelve items tested were as follows: hand mirror, snake light flashlight, teddy bear, camera, CD, sponge, wooden spoon, silver spoon, red flowers, blue flowers, tree branch, palm leaf and stopwatch.</p> <p>Results The results show that primates, pygmy marmosets in particular, are very curious about all objects but are attracted to some objects more than others. The hand mirror was the pygmy marmosets' favorite and it was looked at for a total of 2,777 seconds. The objects which were more interesting, especially the mirror and the teddy bear, are the items which would be most useful to zoos and keepers of captive monkeys in a visual enrichment program.</p> <p>Conclusions/Discussion The results show that the two pygmy marmosets which were tested clearly preferred new, unfamiliar objects to items with which they were already familiar. Furthermore, the non-control, shiny items and the larger, more obvious objects were determined to be preferred by these primates. However, it should be noted that, in general, the pygmy marmosets were fairly interested in all of the items and did, in fact, live up to the reputation that monkeys have of being curious. Like humans, they clearly showed preferences towards certain items, even to the point of extreme excitability. It can be concluded that pygmy marmosets, like humans and probably many other primates, have a very strong curiosity, particularly towards items unfamiliar to them.</p>	
Summary Statement This project tested pygmy marmosets to determine which types of objects were most interesting to them: familiar, unfamiliar, shiny, bright, large, small, etc.	
Help Received The personnel from the San Diego Zoo were very helpful in providing information and guidance. An artist friend helped me design my board. My parents drove me to the zoo, helped me to record data during testing, and proofread my work.	