

ROGER K. THOMAS

JANUARY 1969

VOLUME 1 NUMBER 1



NEUROSCIENCES ABSTRACTS

69-0033 Thomas, Jr., Roger K.; King, Frederick A. & Roberts, Lamar (Athens & Gainesville) Avoidance conditioning in normal and prefrontal lesioned squirrel monkeys. *Paper presented at the 1968 Southern Society for Philosophy and Psychology Meeting.* —“Four normal (*i.e.*, non-operated) and four prefrontal lesioned adult male squirrel monkeys were conditioned to a tone CS+ (3000 Hz, 75 db of either 0.4, 0.6 or 0.8 sec. duration) and a 2 mA foot-shock UCS of 0.2 sec. duration. The UCS immediately followed the CS+ unless an anticipatory leg flexion was given. The monkeys were trained to an average of 80% avoidance CR's over two successive days. Discrimination training with the original tone and second tone (600 Hz, 75 db which was never followed by shock) was then carried to a criterion of 50% difference in responses to the CS+ and the CS-; The two tones in the discrimination procedure had a duration of 0.8 sec. Retention was assessed by reintroducing the monkeys to the discrimination procedure two weeks after they had reached criterion in the original discrimination. The prefrontal monkeys reached criterion in the simple conditioning procedure in significantly fewer trials, but the prefrontal monkeys required significantly more trials to reach criterion in the discrimination procedure. The two groups did not differ significantly on the retention measures. Results were interpreted as suggesting that prefrontal lesions result in a release from the normal inhibitory function of the prefrontal neocortex.”

69-0218. Thomas, Jr., Roger K.; King, Frederick A. & Roberts, Lamar (Gainesville) Prefrontal lesions and classical conditioning in the squirrel monkey. *Paper presented at the 1967 Psychonomic Society Meeting.* — "Twelve normal (i.e. non-operated) and six prefrontal lesioned adult male squirrel monkeys were conditioned to a tone CS (3000 Hz, 75 db of either 0.4, 0.6 or 0.8 secs. duration) and a 2 mA foot-shock UCS of 0.2 sec. duration. The UCS immediately and always followed the CS+. Training was continued until an average of 80% anticipatory CR's were seen over two successive days for until a maximum of 150 trials had been given. Discrimination training with the original tone and a second tone (600 Hz, 75 db; both tones were 0.8 sec. duration in discrimination training) was given to all the prefrontal monkeys and eight of the normal monkeys. Discrimination training was carried to a criterion of 50% difference in responses to CS+ and CS- (the 600 Hz tone). Retention was assessed by retesting the monkeys in the discrimination procedure two weeks following criterion performance in the initial discrimination procedure. All prefrontal and 10 normal monkeys reached criterion in simple conditioning. Five prefrontals and all normals reached criterion in discrimination. There were no differences in number of trials to criterion between the two groups on any of the procedures; however, the prefrontal lesioned monkeys responded significantly more in the simple conditioning procedure, a result interpreted as supporting hyperreactivity following prefrontal lesions."