

INFERIOR TEMPORAL CORTEX LESIONS DO NOT IMPAIR DISCRIMINATION OF LATERAL MIRROR IMAGES. Charles G. Gross, Melissa Lewis* and David Plaisier*. Dept. Psychol. Princeton Univ., Princeton, N. J. 08540.

Bilateral ablation of inferior temporal (IT) cortex in the macaque produces a severe impairment in visual pattern learning. The degree of impairment has been thought to be a function of the difficulty of the discrimination problem as measured by the performance of normal animals. However, in two previous studies (Covey and Gross, Exp. Brain Res., 1970; Gross et al, J. Comp. Physiol. Psychol., 1971) monkeys with IT lesions were not impaired in learning to discriminate lateral mirror images, although normal monkeys found these discriminations relatively difficult. These paradoxical results suggest that lateral mirror images may be a special class of discriminanda for animals with IT lesions. To test this possibility, 6 monkeys with bilateral IT lesions and 6 control animals (with lateral striate or no lesions) were trained on a series of discriminations of mirror image and non-mirror image pairs. The animals with IT lesions showed the usual visual discrimination deficit on the non-mirror image tasks, but learned the mirror image tasks as quickly as the normal animals. The control animals, unlike the animals with IT lesions found the mirror image tasks much more difficult than the non-mirror image ones. IT cortex may be involved in the perceptual equivalence of lateral mirror image stimuli and perhaps in other perceptual equivalences.