Subject	Sex	Age at experiment start (nearest year)	Lesion	Time between lesion and experiment start (nearest ½ year)
K	М	6	TE	3
Gt	М	7	TE	3
Т	М	6	TE	3.5
G	М	7	TE+TEO	1
L	F	6	TE+TEO	1
М	М	12	TE+TEO	1.5
Y	F	9	TEO	0.5
S	F	8	TEO	0.5
Р	М	12	n/a	n/a
E	М	11	n/a	n/a
Тс	М	9	n/a	n/a

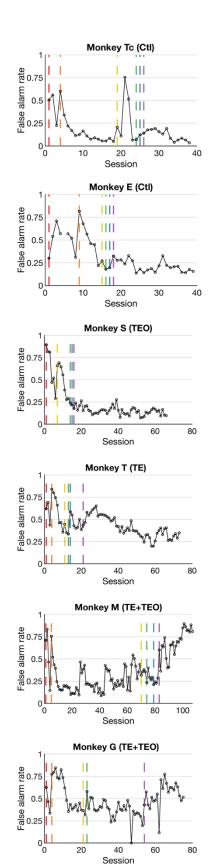
Supplemental Table 2-1: Experimental subject information.

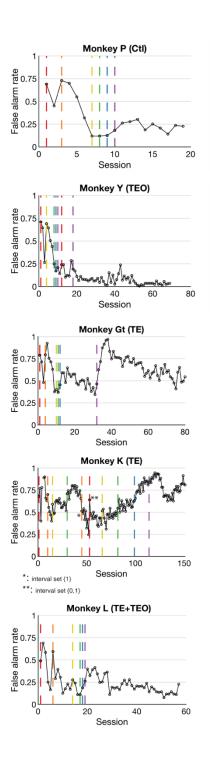
**Supplemental File 1: Raw statistical output from the Bayesian Multi-level Model**. The Bayesian multi-level model accounts for the uncertainty associated with measuring d' by incorporating the standard error into group-level probability distributions. The posterior distributions are compared to assess the likelihood that one group's value will be larger or smaller than another group's value. There is strong evidence for a group-level difference if the posterior probability of the group difference being positive or negative is 95% or greater. The data are shown first with all trials pooled across intervals, and then separated out by interval.

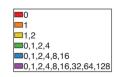


## Supplemental Figure 1-1: Test images

Representative examples of the 5800 images used during testing.

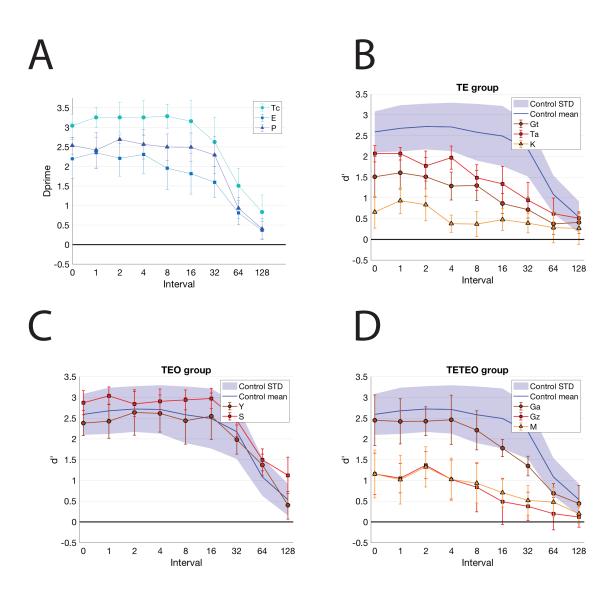






## Supplemental Figure 3-1: False alarm rates decrease with learning

False alarm rates tend to increase with introduction of new intervals, and then decrease as monkeys learn, or increase if they fail to learn. For example, the false alarm rate in the very first stage of training ( $\{0\}$ ) declines within the first few days of testing for every monkey, and then increases when the next stage ( $\{1\}$ ) is introduced. Filled points and dotted line, first day of a new (harder) interval set, as given by the color of the point / line. False alarm rate calculated as total false alarms / total first presentations (note that the false alarm rate is not associated with an interval).



## Supplemental Figure 4-1: Individual subject performance

Individual monkeys' recognition abilities, shown as mean d' with standard deviation. A, control group monkeys. B-D, TE, TEO, and TE+TEO groups, respectively. Dark blue line, control group mean; shaded light blue, control group standard deviation.