one-stage lesions and equivalent post-operative experience should be included for comparison. It might also be worth while to test intact rats given the same "interoperative" experiences as those animals with lesions, since restriction alone could produce temporary deficits in the performance of normal controls.

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While the concern of Lewis and Stein is understandable, I wish to point out the following facts. Posterior extension of cortical lesions was limited by the vascularity of each particular animal. A little-reported but very consistent finding of surgery in this area is hemorrhage of up to 25 percent of total vascular volume secondary to disruption of meningeal vessels and major venous tributaries. Posterior extension of lesions therefore varied among animals, and the variation extended across all groups. In the Lashley (*1*) article cited by Lewis and Stein, anterior lesion of the striate cortex resulted in the loss of all but 713 of the 34,000 neurons in the corresponding lateral geniculate nucleus. Comparable lesions in our animals resulted in elimination of all but 1200 to 2500 neurons. In our animals with more posterior lesions, as few as 250 neurons were spared. We thus remain content with our findings.

The conclusion of Lashley (*1*) as restated by Lewis and Stein, that rats with only 2 percent of the geniculo-striate system intact could solve visual problems similar to the one employed in our laboratory, was based on the results of one animal. More recent studies have demonstrated that pattern discrimination is dependent upon an intact visual cortex (*2*). Modern discrimination-testing equipment now controls for differences in luminance flux, and eliminates extraneous auditory and visual cues.

During initial design and fabrication of restraining devices, no type of restraining holder was ever found to affect later performance of normal animals on the aversive discrimination task.

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^{31}P NMR in Cancer Amended

In our recent report (*1*) we stated that, to the best of our knowledge, ^{31}P NMR had not been applied before to organ tissues. Since then we have become aware of a prior publication by Hoult *et al.* (*2*) on ^{31}P nuclear resonance in muscle. Priority for the first application of ^{31}P NMR in tissue therefore rightly belongs to these workers, our work being the first introduction of ^{31}P NMR into cancer research and cancer detection.

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