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**Postural Reactions in Cats Following Destruction of Both Red Nuclei.**

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In the course of experiments to throw light upon the relation of the red nucleus to postural reactions, the Horsley-Clarke stereotaxic instrument was used for the stimulation as well as destruction of this structure in cats. No postural responses could be obtained from the red nucleus upon direct stimulation, although the areas of the reticular formation dorsal and lateral to it gave reactions of a coordinated type affecting limbs and trunk.<sup>1</sup> Destruction of the nucleus bilaterally by electrolysis, with a minimum of damage to tissues elsewhere in the brain stem, produced in both acute and chronic experiments preparations which were able to right themselves, stand, and walk in an efficient, if somewhat dysmetric, manner. The righting mechanism did not depend upon visual reflexes, as shown by experiments in which these were eliminated by enucleation. The gait of the animals was marked by some asynergia, probably traceable to involvement of the *brachium conjunctivum* and hence the cerebellum. There was also a certain amount of stiffness, and in many cases the balance of tonus was noticeably in favor of the extensor muscles. Under suitable conditions, as when the animal was suspended in a hammock, or supine, slight increase of extensor tonus could be definitely shown by the presence of the positive stutz reaction or resistance to passive flexion in each limb. This extensor hypertonus was not of sufficiently high grade to interfere with the normal activities of the animal. In general, these experiments may be said to indicate that while the red nucleus plays an important rôle in the regulation of postural tonus, it is but a part of a more complex system devoted to this important function.

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<sup>1</sup> Ingram, Ranson and Hannett, *J. Neurol. and Psychopath.*, 1932, **12**, 219.