

represented by a few fibres arranged along the side of the anterior median sulcus.

The "homolateral" pyramidal tract.—Ugolotti applies the nomenclature "homolateral" to those fibres of the pyramidal tract which, in cases of a unilateral lesion of the motor centres, are found degenerated in the position of the "crossed" pyramidal tract, but on the *same* side as the primary lesion. Several explanations have been put forward to account for this double degeneration of the crossed pyramidal tracts following on a unilateral brain lesion: that degenerated fibres passed from one tract to the other across the white commissure; that it was the result of compression of the sound by the affected tract at the level of the pyramidal decussation; that the degeneration was propagated at this point by simple contact; that at the point of decussation each pyramid sent down a bundle of fibres into the "crossed" pyramidal column of the *same* side; that it was due to a double crossing of the pyramidal paths, one at the ordinary level, the other at some higher point in the interhemispheric commissures.

In a former article Ugolotti favoured this latter view. He concluded that the double degeneration was the result of the passage of a bundle of fibres from the seat of injury in the motor zone into the opposite hemisphere, probably through the corpus callosum, and that these fibres at the level of the bulbar decussation passed with the crossed pyramidal fibres coming from the uninjured motor centres into the lateral column on the same side as the lesion, forming the homolateral tract. Further investigation, however, has caused him to alter his opinion and to agree with Dejerine and Thomas that the homolateral bundle of fibres is detached direct from the degenerated pyramidal tract at the commencement of the bulb, and instead of decussating pursues a direct course into the lateral column of the same side. That the point of origin of these fibres has not been more frequently detected Ugolotti believes is due to the fact that the fibres are as a rule few in number, and the number that leave the diseased pyramidal path together at any one point is small; at times, however, they originate as a bundle of fibres large enough to be demonstrated with the greatest facility.

The Marchi reaction is the one recommended by the author, who found the Weigert-Pal method uncertain, and suggests that it is owing to its frequent employment that several observers have been led to false conclusions on this subject.

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Contribution to the Study of the Functions of the Frontal Lobe [Contributo allo Studio delle Funzioni del Lobo Frontale]. (Arch. di Psichiat., vol. xxvii, fasc. iv, v, 1906.) Roncoroni.

In this paper, the author records in detail a clinical observation of a traumatic lesion of the prefrontal area, and in connection therewith discusses the question of the functions of this part of the brain. The subject of the observation, a man, æt. 50, addicted to alcoholic excess, but without anything else of special note in his family or personal history, sustained a compound fracture of the left frontal bone nine months before he came under Roncoroni's care. For fifteen or sixteen days after the injury he was unconscious; there was some loss of brain

matter, and portions of the fractured bone were removed. The wound healed without the development of any symptoms of meningitis, and a few days after recovering consciousness the patient was able to resume his usual life; he suffered, however, from some degree of aphasia, and from a more persistent difficulty in writing. Five months after the injury he had an attack of convulsions, probably connected with the renewal of his drinking habits. The position of the cicatrix would indicate that the convolutions injured were the first and second frontal, and in the absence of symptoms referable to the motor cortex it appears likely that there was no extension of inflammatory trouble beyond the area directly damaged.

The persistent disturbances of brain function produced by the lesion are summed up by Roncoroni as follows: Partial verbal amnesia, shown in failure to name familiar objects which the patient recognises perfectly, alterations in the psychic content of what he writes spontaneously, almost total disappearance of mimetic movements of the face, loss of aptitude to perform even the most simple arithmetical operations, failure of volitional energy and initiative. No other alterations in nervous function are observable.

Discussing the case, Roncoroni assumes for the psychic arc the following stages:

(a) Constituting the afferent branch: (1) pure, primary sensations, having their seat in the primitive sensory areas; (2) complex sensations of higher evolution, as, *e.g.*, the symbolic representations in written language.

(b) Constituting the efferent branch of the reflex arc: (1) re-evocation of the psychic image corresponding to the movement required, as, *e.g.*, in speaking it is necessary to associate the several images, visual, auditory, etc., relative to the object, with the verbal image corresponding to it; (2) re-evocation of the sensory image corresponding to the movements required; (3) motor impulse proper. The stage in this diagrammatic view which the author would locate in the prefrontal area, is the third or preparatory process in immediate relation with the more highly evolved motor functions. This theory would explain why lesions of the prefrontal area do not produce either gross disorders of motor function or distinct disturbances of sensation or intelligence, and why also the results of experimental interference with this area are negative.

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3. Etiology of Insanity.

Inquiry into Race and Heredity [*Ueber Geschlechterforschung und Erblichkeits hygiene*]. (*Allgem. Zeits. f. Psychiat., B. lxxiii, H. 1.*) *Lundberg*.

Dr. Lundberg has been making some investigations in a quiet district in the south of Sweden where the family history could readily be traced. In the last half of the eighteenth century, the race seemed to have been flourishing, and many of the inhabitants gained distinction, some becoming members of Parliament. At the beginning of the nineteenth