

Whilst animal electricity and the examination of the brain were taken up with ardour, over-valued by popularisers, and developed into fanciful theories which postponed for a long time the sober inquiries of science, another very fruitful vein of reasoning and research was struck early in the century, but left unexplored for fifty years. Since then it has been followed with success and profit.

divide mental activity. Out of the desire for such localisation there sprang up the fundamental idea of the phrenological follies; but, as so often, here also scientific superstition contained a kernel of truth. In the same cortex of the brain in which Gall and Spurzheim located their badly-chosen thirty-five mental faculties, Munk now describes the spheres in which the various sensory nerves deliver their messages, and where the latter are transformed into conceptions and stored. Thus, for the first time in the domain of sensation and intellection, a local basis of mental activity has been demonstrated, as had been done before by Paul Broca in the domain of volition, in the localisation of the faculty of speech." Most modern psycho-physicists would probably accept this statement with slight modifications; it is therefore well to note that one of the foremost and most original workers in this field of research, Prof. Fr. Goltz, takes a different view of the result of the experiments of himself and others. He does not consider Munk's teachings as the foundation of a physiology of the brain, but looks upon them as a system of error, and "hopes to see the day when all the beautifully elaborated modern hypotheses of circumscribed centres of the cortex will be laid in the same grave in which Gall's phrenology rests" (quoted from

Goltz's memoirs, 'Über die Verrichtungen des Grosshirns,' in Pflüger's Archiv, by Carl Hauptmann, 'Die Metaphysik in der modernen Biologie' (1804), p. 240). Prof. Ferrier, whose 'Functions of the Brain' (2nd ed.) is a standard work in the English language, takes up a less negative position; yet he says (p. 23): "We are still on the threshold of the inquiry, and it may be questioned whether the time has even yet arrived for an attempt to explain the mechanism of the brain and its functions. To thoughtful minds the time may seem as far off as ever." Prof. William James of Harvard, in his excellent 'Principles of Psychology' (2 vols., 1891), gives, in his first chapter, a succinct account of the "localisation-question," which, he thinks, "stands firm in its main outline" (vol. i. p. 162). The standard work in the German language is Prof. Wundt's 'Physiologische Psychologie' (2 vols., 4th ed., 1893), which gives in the first division (chaps. 4, 5) a very exhaustive account of the experimental and theoretical work on localisation. Prof. Wundt himself takes up a position lying between the doctrine of sharp delimitation and that of a denial of local distinctions (vol. i. p. 159), but admits that the whole question is still highly controversial, though latterly the apparent differences of opinion have been much toned down (vol. i. p. 240).