

difficulty that as the spinal cord conduction, (according to Vulpian), is carried on equally by all parts of the grey matter, it is possible that the same indifference holds for the brain, though less in degree. In other words, *there are habitual roads, but no compulsory ones.* This view would be—if true—a death blow to the organic local theory, as applied to the cortex. This theory would not meet Ferrier's definition of localization, which is said by him to be "a complex arrangement of individually differentiated centers, which in associated action, regulate the various muscular adjustments necessary to maintain equilibrium of the body."

It will be seen that so far the greatest interest centers round the third left frontal convolution on account of the stress laid on the fact that aphasia is so often found as a result of its injured or diseased condition. If it can be proved that this imperfection of speech is always conjoined with an impaired condition of this locality and *never otherwise*, then is the battle won for localization of functional power in the cortical substance, for it would be fair to infer that other centers for other functions would be found in similar parts of the same field of investigation. Unfortunately for this doctrine, the exceptions to these results are too many to be ignored, and these show that this spot is not the center of speech, nor its injury the sole cause of aphasia. It has been found in numbers of examples that aphasia is found with this convolution intact. Not only this, but it is known that defects in speech in its different forms of language such as writing, reading, singing, drawing and imitation—in fact aphasia in all its forms follow lesion in the island of Reil. (*London Lancet*, Amer. Ed., July, 1880, p. 34.) Aphasia is known to exist as the result of disease in the right hemisphere, and that not in the corresponding third frontal of the hemisphere. It can not