

folds of the cerebral mass in its later development in the osseous chamber of the skull, and within ordinary limits they probably exercise no appreciable influence on physical or mental activity. From long and careful observation, especially of children, I am satisfied that with the great majority righthandedness is mainly the result of education, or a compliance with prevailing usage. Little effort would be needed with such to superinduce lefthandedness. But there are a sufficient number of persons naturally and instinctively righthanded to determine the bias of the majority; though they cannot influence another, though smaller number, who have an equally strong and ineradicable impulse to the use of the left hand. Wherever, therefore, opportunity is afforded for examination of the brain, it is desirable that in every case of marked inequality between the two hemispheres, inquiry should be instituted as to the concurrence of a strongly pronounced right or lefthandedness.

But it has also been affirmed as the result of repeated observations, that there is often a decided difference in the weight of the two hemispheres of the brain. M. Broca states that in forty brains he found the left frontal lobe heavier than the right; and Dr. Boyd, when describing the results obtained by him from observations on upwards of 500 brains of patients in the St. Marylebone Hospital, says: "It is a singular fact, confirmed by the examination of nearly 200 cases at St. Marylebone, in which the hemispheres were weighed separately, that almost invariably the weight of the left exceeded that of the right by at least the eighth of an ounce." But the careful independent observations of Professor Wagner and Dr. Thurnam failed to confirm these results. From the weighing of the two hemispheres of eighteen distinct brains, Professor Wagner found the right-hemisphere the heavier in ten, and the left in six cases, while in the remaining two they were of equal weight. Dr. Thurnam, without entering into details, states that the results of his weighings did not confirm Dr. Boyd's observations; adding that "fresh careful observations are certainly needed before we can admit the general preponderance of the left hemisphere over the right."

It has to be borne in remembrance that though the two hemispheres of the brain are sufficiently indicated in every case, there is no natural separation between them, and the division in the exact median line is a delicate operation, in which a very slight bias of the operator's hand will suffice to beget such a deviation from the true