THE FUNCTIONS OF THE BRAIN, A POPULAR ESSAY

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649318834

The functions of the brain, a popular essay by Julius Althaus

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

www.triestepublishing.com

JULIUS ALTHAUS

THE FUNCTIONS OF THE BRAIN, A POPULAR ESSAY

Trieste

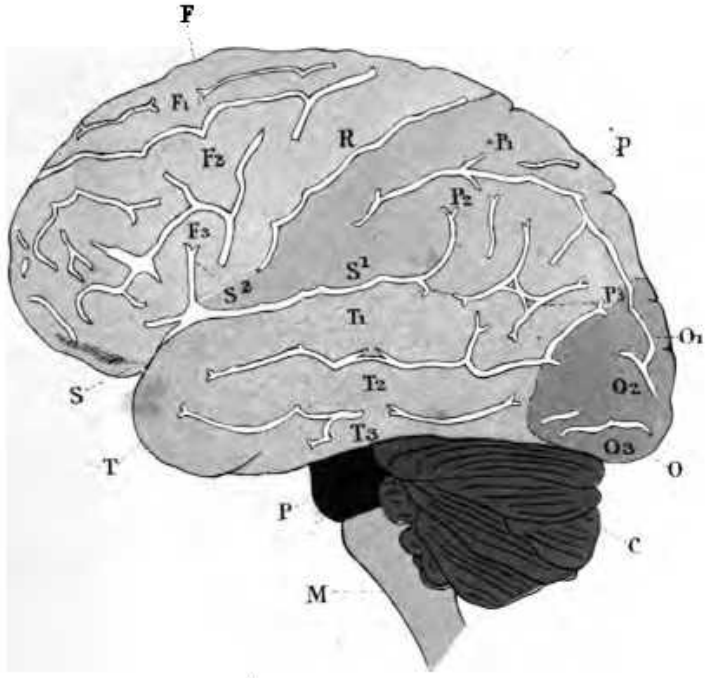

FIG. 4.

Lateral view of the brain.

M—Medulla.

P—Pons C—Cerebellum.

F—Frontal or anterior lobe of the brain; seat of the intellect. F^1 F^2 F^3—First, second, and third frontal convolution.

R—Fissure of Rolando, dividing the frontal from the parietal lobe.

S S^1 S^2—Fissure of Sylvius. S^1—Horizontal branch of it, dividing the parietal from the temporal lobe. S^2—Ascending branch of it, separating the frontal from the temporal lobe.

P—Parietal lobe, constituting the motor area of the hemispheres, or the psycho-motor centres. P^1 P^2 P^3—First, second, and third parietal convolutions.

T—Temporal lobe; seat of conscious sensations and perceptions; centre for the organs of sight, smell, hearing, taste, and touch. T^1 T^2 T^3—First, second, and third temporal convolutions.

O—Occipital lobe; seat of the animal propensities. O^1 O^2 O^3—First, second, *and third occipital convolutions.*

THE

FUNCTIONS OF THE BRAIN;

A POPULAR ESSAY.

BY

JULIUS ALTHAUS, M.D.,

Senior Physician to the Hospital for Epilepsy and Paralysis, Regent's Park.

LONDON:
LONGMANS AND CO., PATERNOSTER ROW.
1880.

PREFACE.

Some months ago I delivered a Lecture on the Functions of the Brain, to a lay audience—the Members of the German Athenæum in London; and, at the request of several Members of that Society, I now publish the Lecture, with such slight alterations and additions as appeared to me appropriate.

36, Bryanston Street,
Marble Arch,
October, 1879.

THE FUNCTIONS OF THE BRAIN.

At no previous time in the history of Physiology and Medicine has the study of the structure and functions of the brain proved to be of such surpassing interest, or engaged so many able workers, as at present; and as an era in the investigation of these problems has recently closed, it may appear appropriate to point out the ways and bye-ways along which we have travelled to reach our present position; to show the impediments which have marred observation in the course of time; and to trace the gradual development of those more accurate methods of research which are now-a-days employed.

We are inclined to look for the dawn of all knowledge in those nations which first arrived at a certain degree of civilisation; yet we fail to trace any germs of brain-doctrine amongst the old Indians and Egyptians. The dreamy, imaginative Hindoos

felt no temptation to unravel Nature's secrets by a laborious and repulsive dissection of viscera; while the Egyptians, whose minds were habitually clouded by gloomy forebodings, were inclined to look upon the natural forces as phantoms, which inspired them with awe. It is true that they incised the dead body for the purpose of embalming it; but this did not lead to any anatomical or physiological researches, and only produced the mummy, an image of petrified life, well representing the general character of the people with whom it has always been identified. It was only in ancient Greece, where the natural development of mental culture proceeded, unfettered by external or internal restraint, that men began to study form and shape as well as vital function, and endeavoured to recognise the intimate and mysterious union existing betwixt the two. Free speculation preceded sober experience, and the first period in the history of brain-knowledge is therefore marked by general doctrines of the leading philosophers.

Plato, in "Timæus," affirms the brain to be the seat of the mind, the divine and ruling power within us; the gods have therefore modelled it in accordance with the configuration of the world, and given it the globular, as the most perfect form. In order that the divine in man may not be unduly disturbed by what is mortal, the neck is formed to

separate the head from the body, where the mortal soul, with all its passions and desires, finds its working place. Aristotle, on the other hand, declares the origin of sensation, as well as of life itself, to be in the heart, this being the organ first formed in the embryo. Its activity is perceptible under emotion, and injury to it is fatal. According to him, the brain is the direct opposite to the heart: it is insensible to touch; it causes sleep, for only animals provided with a brain are capable of sleeping; and it is intended to regulate the heat of the heart and to cool the blood.

Hippocrates, the great physician, chiefly studied the brain in so far as it might become of importance to the medical practitioner. He stated injuries to the crown of the head to be the most serious, as being particularly liable, from the fragility of the parietal bones, to cause damage to the organ. This latter may be, according to him, too warm or too cold, unduly dry or moist. If heated by bile, raving madness will ensue; if chilled by phlegm, melancholia is the result. The brain also serves for the excretion of impurities, which escape through the eyes, nose, ears, palate, and throat. If these channels be obstructed, epilepsy is apt to follow; and where the excretion is unduly increased, catarrh will be caused.

When Macedon vanquished Greece, and Rome