

**PHYSIOLOGY AND  
HISTOLOGY OF THE CEREBRAL  
CONVOLUTIONS ALSO  
POISONS OF THE INTELLECT**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649671199

Physiology and Histology of the Cerebral Convolutions Also Poisons of the Intellect by Chas. Richet

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.  
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

[www.triestepublishing.com](http://www.triestepublishing.com)

**CHAS. RICHT**

**PHYSIOLOGY AND  
HISTOLOGY OF THE CEREBRAL  
CONVOLUTIONS ALSO  
POISINS OF THE INTELLECT**



PHYSIOLOGY AND HISTOLOGY  
OF THE  
CEREBRAL CONVOLUTIONS.  
LANE <sup>ALSO</sup> LIBRARY  
POISONS OF THE INTELLECT,

BY  
CHAS. RICHEL, A.M., M.D., Ph.D.,  
(FORMER INTERN OF THE HOSPITAL OF PARIS.)

TRANSLATED BY  
EDWARD P. FOWLER, M.D.



NEW YORK:  
WM. WOOD & CO., 27 GREAT JONES ST.

1879.

7.

TIME LIBRARY

COPYRIGHT BY  
WILLIAM WOOD & COMPANY  
1879.

STEAM PRESS OF  
H. O. A. INDUSTRIAL SCHOOL,  
76TH ST., NEAR THIRD AVE.

F376  
R524  
1879

**Dedicated to**

**MM. BROCA AND CHARCOT,**

**PROFESSEURS À LA FACULTÉ DE MÉDECINE DE PARIS,**

**WHO HAVE SO GREATLY HONORED FRENCH SCIENCE BY THEIR MAGNIFICENT  
WORKS UPON CEREBRAL CONVOLUTIONS.**

**CHARLES RICHTER.**

OTHER WORKS BY THE SAME AUTHOR.

---

1. Recherches expérimentales et cliniques sur la sensibilité, in 8vo (Masson), 1877.
2. Les poisons de l'intelligence, in 12mo (P. Ollendorf), 1877.
3. Le somnambulism provoqué (*Jour. de l'anatomie et de la physiologie*), 1877.
4. Etude sur la douleur (*Revue Philosophique*), 1877.
5. Essai sur les causes de dégoût (*Revue des Deux Mondes*), 1877.
6. Du suc gastrique chez l'homme et les animaux, ses propriétés chimiques et physiologiques, in 8vo (Germer, Baillièrre et Cie.), 1878.



## AUTHOR'S PREFACE

TO THE TRANSLATION.

---

SHOULD my work appear to its readers in some degree incomplete, as it certainly must, I will solicit indulgence upon the following grounds:

1st. That discoveries in cerebral physiology succeed each other with exceptional rapidity, and any work upon this subject, after a few months of existence, of course fails to include an important mass of facts which each new day develops.

2d. To fairly understand this department in medical science, and to be able to explain it intelligently, exacts a familiarity with a greater number of sciences than does almost any other subject.

First of all, it is, as a matter of course, requisite to be a **PHYSIOLOGIST**: the most important results are derived from vivisections, but it must be learned (no small task) both how to make and to interpret them.

There must also be a knowledge of **SURGICAL PATHOLOGY** in order to discriminate between cerebral commotions resulting from surgical processes (trephining, etc.), and those depending upon other (physiological) causes.

Joined with this, proficiency in **MEDICAL PATHOLOGY** is imperative, in order to recognize those pathological conditions (cerebral atrophy, general paralysis, cortical

paralysis, aphasia, etc.) which are so inseparable from this study.

There must be, too, a degree of acquaintance with the science of PHYSICS, as exemplified in understanding electric excitations, their number, frequency, diffusion, polarization, etc.

As for ANATOMY, a thorough knowledge of that which concerns the human subject is but the introduction; comparative anatomy, histology, embryology, and physiology are of still vaster importance, and for this purpose we are forced to the study of another science, ZOÖLOGY. Having surveyed the wide field of zoölogy and returned to the culminating object of our study—man—necessary comparisons between human beings and races are impossible without the aid of another science, that of ANTHROPOLOGY.

Again, in cerebral physiology the science of PSYCHOLOGY is especially requisite, for no one who has not deeply reflected upon the processes of intellection is capable of producing a good cerebral physiology: the very essence of the subject would be to him a closed volume. To be sure, this science, notwithstanding the many admirable works written, and the labors which many profound thinkers have bestowed upon it, is as yet in its rough outline. *The laws of human thought*, what is more mysterious! They lie at the very foundation of our subject. The movement of the heart is its physiological function; thought is the physiological function of the brain. Now the movement of the heart, though relatively easy to see and study, has required centuries of gropings and errors to become understood, and is there not much greater reason to anticipate like obstacles to a complete understanding of the action of thought, a subject so difficult to examine and analyze?

The list might be indefinitely multiplied, and in all these sciences, each one of which is a life-long study, who can hope to be so perfected as not to be justly exposed to criticism?

I have been and perhaps will again be charged by my readers with a lack of positiveness, in other words of being SKEPTICAL. But the very accusation seems to me eulogistic, for in science there is nothing more baneful than to treat hypotheses as certainties. On the contrary, when serious criticism has revealed the defects and feebleness of an experiment, a real service has been rendered, for it may incite to new experiments and unequivocal conclusions.

Inductions from probabilities or ill-demonstrated experiments are unreliable, and intelligent skepticism is more valuable to the advance of science than unbridled enthusiasm.

In connection with our subject, I would refer to one danger which should be guarded against and which has been somewhat overlooked. That is, recent labors have been accepted too much to the exclusion or neglect of those further in the past.

It is an unfortunate tendency and one that results in injustice. For example: in the physiological history of the convolutions, some of the finest discoveries were made by Flourens. There are few experiments as interesting as that in which the pigeon, deprived of its cerebral lobes, *sits plunged into a profound sleep of everlasting unconsciousness.*

I most fully recognize that recent investigators, Fritsche and Hitzig, Ferrier, Charcot, and others have made magnificent discoveries; still it is Flourens who stands in the