

Wigan's observations on cerebral duality

The 1981 award of a Nobel Prize in physiology to Roger Sperry¹ brought widespread recognition to the concept of the split-brain, for which the split-brain research under Sperry's leadership provided the most important evidence. However, that concept (that we each have two brains that can function, to a certain extent, independently) had engaged psychologists, physicians, and philosophers for well over a century. Of the many who wrote on this subject, Arthur Labbroke Wigan² was not the most ardent enthusiast, but he may have been the most thoughtful. Wigan had an acquaintance who died rather young. At the postmortem examination, when the skull was opened, one cerebral hemisphere was missing. This not only surprised Wigan, but he realized that it was meaningful. He searched for and eventually found other cases. In 1844, after 20 years of collecting relevant evidence, he published *The Quality of the Mind* in which he claimed first that one hemisphere only sufficed to support a fully human mind. He wrote:

If, for example, as I have so often stated, and now I again repeat, one brain . . . be capable of all the emotions, sentiments, and faculties; which we call in the aggregate, mind—then it necessarily follows that man must have two minds with two brains; and however intimate and perfect their union in their natural state, they must occasionally be discrepant, when influenced by disease, either direct, sympathetic, or reflex.

Wigan developed thus a theory of mental illness; he also touched upon most of the implications for other social problems, anticipating (albeit from a medical point of view) most of the speculations offered by current "right brain/left brain" theorists.

Harms³ wrote:

History has treated this important man rather strangely. Although referred to in contemporary literature as ingenious and celebrated, nothing about his life has come down to us, except the date of his death, December 7, 1847.

For Wigan (as for Bouillaud) there were only three lobes in the cerebral hemisphere. And he was, of course, completely mistaken in his view that "whenever disease spreads from one hemisphere to the other, it is through the meninges, and never through the corpus callosum." As additional data accumulate to indicate that the results of split-brain studies have implications beyond the practical value in the treatment of epilepsy,⁴ Wigan's book takes on renewed interest, because it shows us the insights and concerns of a man whose prophetic vision was 40 years ahead of the evidence that ultimately sustained his conclusions.

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A NEW VIEW OF INSANITY.

THE
DUALITY OF THE MIND

PROVED BY THE
**STRUCTURE, FUNCTIONS, AND DISEASES
OF THE BRAIN,**

AND BY THE
PHENOMENA OF MENTAL DERANGEMENT,

AND SHOWN TO BE ESSENTIAL TO MORAL RESPONSIBILITY.

WITH AN APPENDIX:

I. ON THE INFLUENCE OF RELIGION ON INSANITY.
II. CONJECTURES ON THE NATURE OF THE MENTAL OPERATIONS.
III. ON THE MANAGEMENT OF LUNATIC ASYLUMS.

BY A. L. WIGAN, M.D.

The undersigned Anatomist to the
Swed. Soc. has examined, and is in possession of the
Original.

LONDON:
LONGMAN, BROWN, GREEN, AND LONGMANS,
PATERNOSTER-ROW.
1844.

References

1. Sperry R. Some effects of disconnecting the cerebral hemispheres. *Science* 1982;217:1223-6.
2. Wigan AL. *The duality of the mind*. London: Longman, 1844.
3. Harms E. Predecessors of Morton Prince's dissociation concept. *Am J Psychiatry* 1961;117:941-2.
4. Reeves A, ed. *Epilepsy and the corpus callosum*. New York: Plenum, 1985.