

KLINIK SCHÜTZEN
Rheinfelden

Reha
Rheinfelden

Descartes' Error...

Thierry Ettlín
Rheinfelden, 3. November 2017

Reha
Rheinfelden

Descartes' Error...

Published November 1st 1995 by Harperren
(first published 1994) - Descartes' Error:
Emotion, Reason and the Human Brain
ISBN 0380726475 (ISBN13: 9780380726479)

Prof. Th. Ettlín © 2017

2

Reha
Rheinfelden

"I began writing this book to propose that reason may not be as pure as most of us think it is or wish it were, that emotions and feelings may not be intruders in the bastion of reason at all: they may be enmeshed in its networks, for worse and for better."

3

Reha
Rheinfelden

„...and yet his practical reason was so impaired that it produced...a succession of mistakes, a perpetual violation of what would be considered socially appropriate and personally advantageous."

Reha
Rheinfelden

"There was only one significant accompaniment to his decision-making failure: a marked alteration of the ability to experience feelings. Flawed reason and impaired feelings stood out together as the consequences of a specific brain lesion, and this correlation suggested to me **that feeling was an integral component of the machinery of reason.**"

Prof. Th. Ettlín © 2017

5

Reha
Rheinfelden

"A second idea in the book, then, is that the essence of a feeling may not be an elusive mental quality attached to an object, but rather the direct perception of a specific landscape: that of the body."

Prof. Th. Ettlín © 2017

6

“The lower levels in the neural edifice of reason are the same ones that regulate the processing of emotions and feelings, along with the body functions necessary for an organism’s survival. In turn, these lower levels maintain direct and mutual relationships with virtually every bodily organ, thus placing the body directly within the chain of operations that generate the highest reaches of reasoning, decision making, and, by extension, social behavior and creativity.”

“...I propose that the critical networks on which feelings rely include not only the traditionally acknowledged collection of brain structures known as the limbic system but also some of the brain’s prefrontal cortices, and, most importantly, the brain sectors that map and integrate signals from the body.”

Frontal-Subcortical Circuits

- Dorsolateral Circuit
- Orbitofrontal Circuit
- Anterior cingulate Circuit
- Motor Circuit
- Oculomotor Circuit

This idea is anchored in the following statements:

1. The human brain and the rest of the body constitute an indissociable organism, integrated by means of mutually interactive biochemical and neural regulatory circuits (including endocrine, immune, and autonomic neural components).
2. The organism interacts with the environment as an ensemble: the interaction is neither of the body alone nor of the brain alone.
3. The physiological operations that we call mind are derived from the structural and functional ensemble rather than from the brain alone: mental phenomena can be fully understood only in the context of an organism’s interacting in an environment. That the environment is, in part, a product of the organism’s activity itself, merely underscores the complexity of interactions we must take into account.

Even a simplified summary reveals the intricacy of the relationships:

1. Every part of the body can send signals to the brain via the peripheral nerves. Those signals enter the brain... to the somatosensory cortices in the parietal lobe and insular regions.
2. Chemical substances arising from body activity can reach the brain via the bloodstream.
3. The brain acts through nerves on all parts of the body.
 - autonomic (or visceral) nervous system
 - musculoskeletal (or voluntary) nervous system
4. The brain also acts on the body by manufacturing or ordering the manufacture of chemical substances released in the bloodstream, among them hormones, transmitters, and modulators.

The pain and pleasure systems. The pain network consists of the dorsal anterior cingulate cortex (dACC), insula (Ins), somatosensory cortex (SSC), thalamus (Thal), and periaqueductal gray (PAG). This network is implicated in physical and social pain processes. The reward or pleasure network consists of the ventral tegmental area (VTA), ventral striatum (VS), ventromedial prefrontal cortex (VMPFC), and the amygdala (Amyg). This network is implicated in physical and social rewards.

Schweiz. Rundschau Med. (Praxis) 81
Nr. 48, 1452_1454 (1992)

Neurologische Universitätsklinik, Kantonsspital, Basel
T. M. Ettlín, S. Heim, U. Steiger, P. Wurmser, A. Probst, A. Haegeli

«Psychogene» Bulbärparalyse

«Psychogenic» Progressive Bulbar Palsy

Prof. Th. Ettlín © 2017

13

Zusammenfassung

Die 58-jährige Patientin litt über 30 Jahre an Schluckstörungen. Mehrere Schluckpassagen, eine partielle Strumektomie und psychoanalytische Behandlungen waren weder diagnostisch noch therapeutisch erfolgreich. Nach einer schweren Depression nahmen die Schluckstörungen zu, und zusätzlich traten eine Kauschwäche und Artikulationsstörung auf. Wenige Monate später stand die Diagnose einer progressiven Bulbärparalyse fest.

Prof. Th. Ettlín © 2017

14

„Ich bin jung, reich und gebildet; und ich bin unglücklich, neurotisch und allein, ...und ich bin vermutlich auch ziemlich erblich belastet und milieugeschädigt. **Natürlich habe ich auch Krebs, wie aus dem vorher Gesagten selbstverständlich hervorgeht.**“

Fritz Zorn. Mars. Fischer Taschenbuch Verlag. 1991.

Prof. Th. Ettlín © 2017

15

Fritz Zorn (Frederico Angst) stirbt 32-jährig an einem malignen Lymphom. Das Geschwulst manifestierte sich zuerst am Hals, nachdem er Lebtags unter dem Gefühl gelitten hatte, „eine tote Krähe im Hals zu haben.“

Fritz Zorn. Mars. Fischer Taschenbuch Verlag. 1991.

16

... Schulmediziner vermögen sich nicht deutlicher zu fassen, weil sie dann **„die Grenzen der Zunftweisheit überschritten und also ihre Begriffe von Kompetenz“.**

Adolf Muschg, Vorwort. Fritz Zorn. Mars. Fischer Taschenbuch Verlag. 1991.

Prof. Th. Ettlín © 2017

17