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# Psychological aspects of pain

Olivera Vukovic

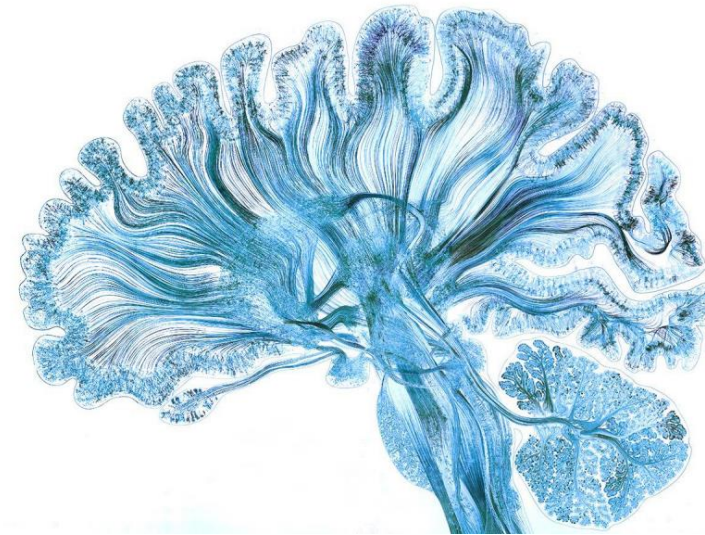
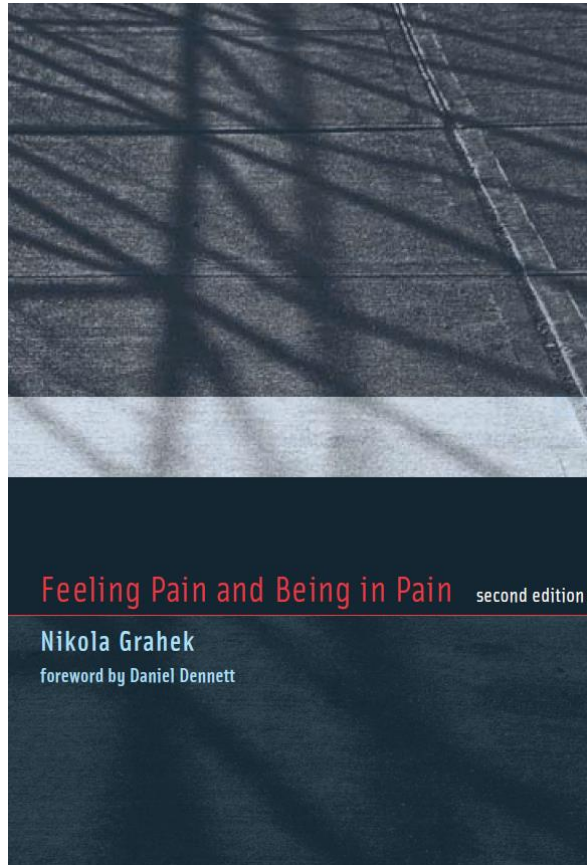
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# Psychiatry and Pain

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- Clinical Setting
    - Psychogenic pain
    - Suffering in mental illness
  - Pain Medicine
    - Feeling pain and Being in pain
    - (Psycho)somatic pain and suffering
-

# The Neurophilosophy of Pain



Nikola Grahek

... ubikvitaran i  
star



Morski puž (Aplysia)

Problem tuđeg uma – kako  
zaključujemo o bolu drugih?



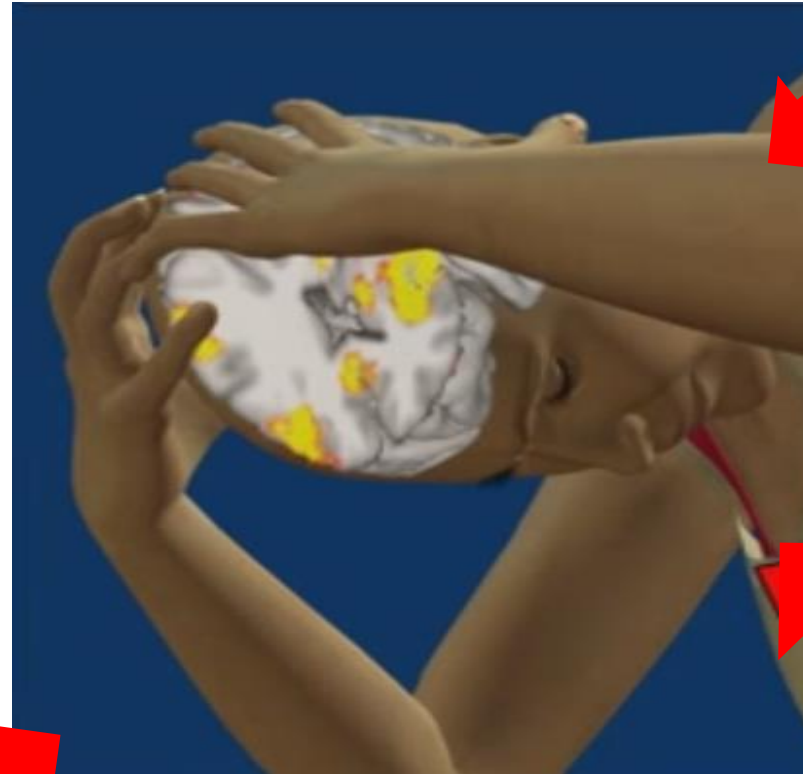
# Medicine and Pain

- Classical evidence-based medicine
  - Suffering & pain were dissociated from the theodicy
  - Observation, objective description of symptoms and diseases and experimentally proven treatments - great success in the relief of pain
- The mind/body dichotomy
  - The conceptualization of pain and suffering in classical evidence-based medicine
  - Naturalistic, cartesian perspective - abstracting the body from the person & disease and pain started to be considered as being situated in bodies





# Physical Pain, Emotional Pain or No Pain? Does this reflect **your** bias?



Certain problems have remained  
– Nonlinearity, placebo effect, chronic pain  
and non-somatic pain, phantom limb...

# ‘Humanistic turn’ in medicine

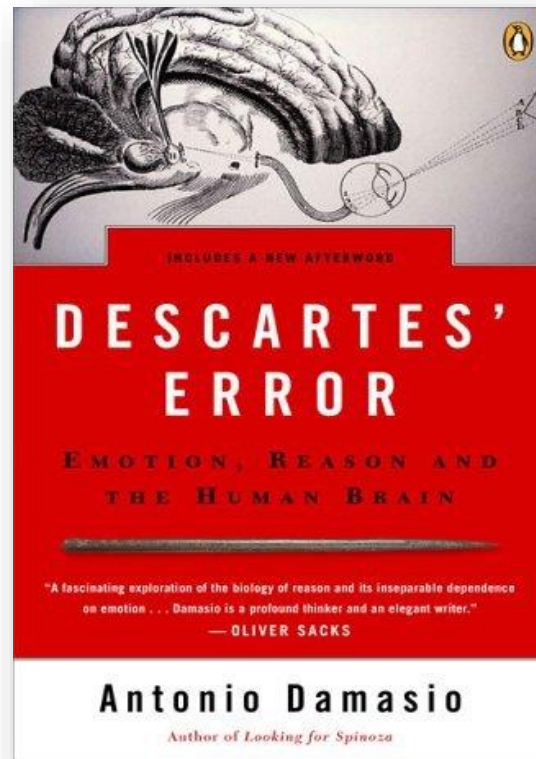
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- Person as a psycho-physical whole
    - Alternatives to dualistic theories and the mechanical understanding of the body
    - Cassell’s medical humanism - humanistic turn in medicine
    - The phenomenological approach - third-person perspective vs. First-person perspective
    - Reframe the mind/body problem - “embodying the mind” & “minding the body.”
      - Crucial role of the body in human experience
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# Philosophy of mind



*Cogito ergo sum*



*I Feel, Therefore I Am*

Damasio sees Descartes' "mistake": in the idea that the mind can exist or even operate independently of the body

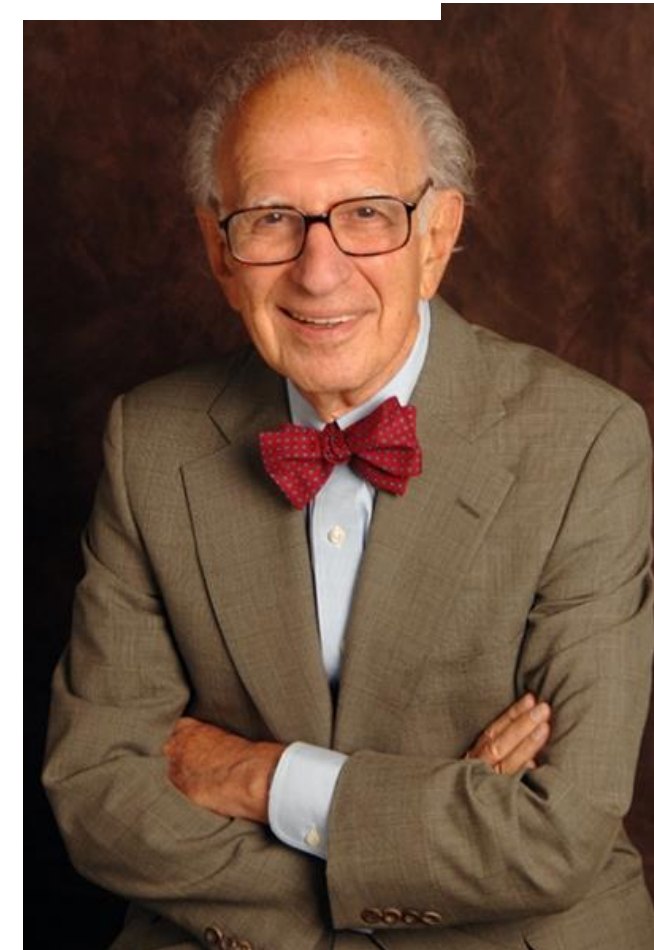




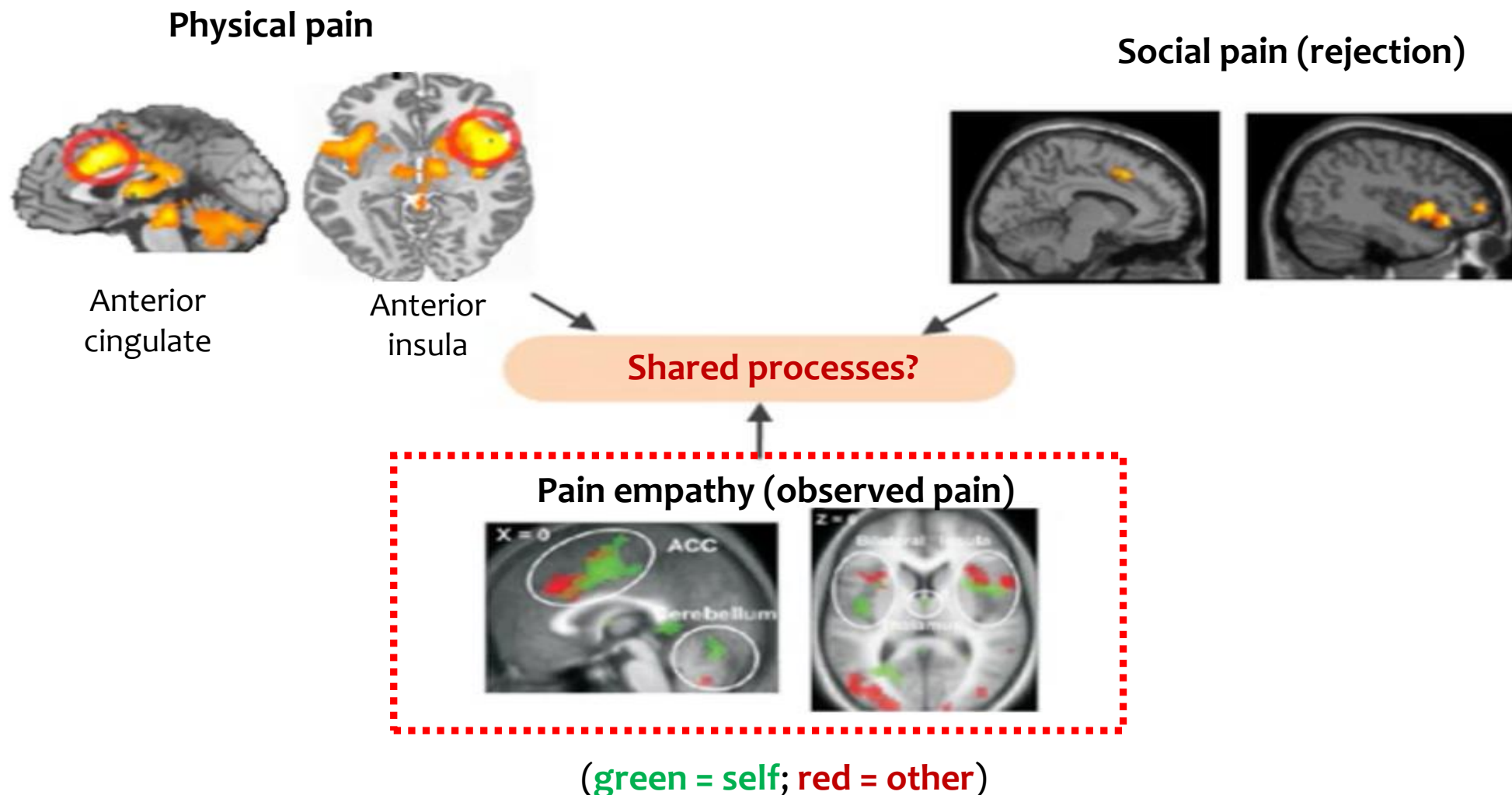
# The distinction between mental and physical illness

R. E. KENDELL

Why then do we still talk of ‘mental’ illnesses, or indeed of ‘physical’ illnesses? The answer is provided in the introduction to the current (1994) edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM–IV): “The term *mental disorder* unfortunately implies a distinction between ‘mental’ disorders and ‘physical’ disorders that is a reductionistic anachronism of mind/body dualism. A compelling literature documents that there is much ‘physical’ in ‘mental’ disorders and much ‘mental’ in ‘physical’ disorders.



# Anterior cingulate and insula: Shared representations of “pain”?



SINGER et al., Science 2004; Apkarian, 2005; Atlas 2010, 2012; many others

(green = self; red = other)  
SINGER et al., Science 2004; Jackson 2005; Fan 2012; Lamm & Decety; others

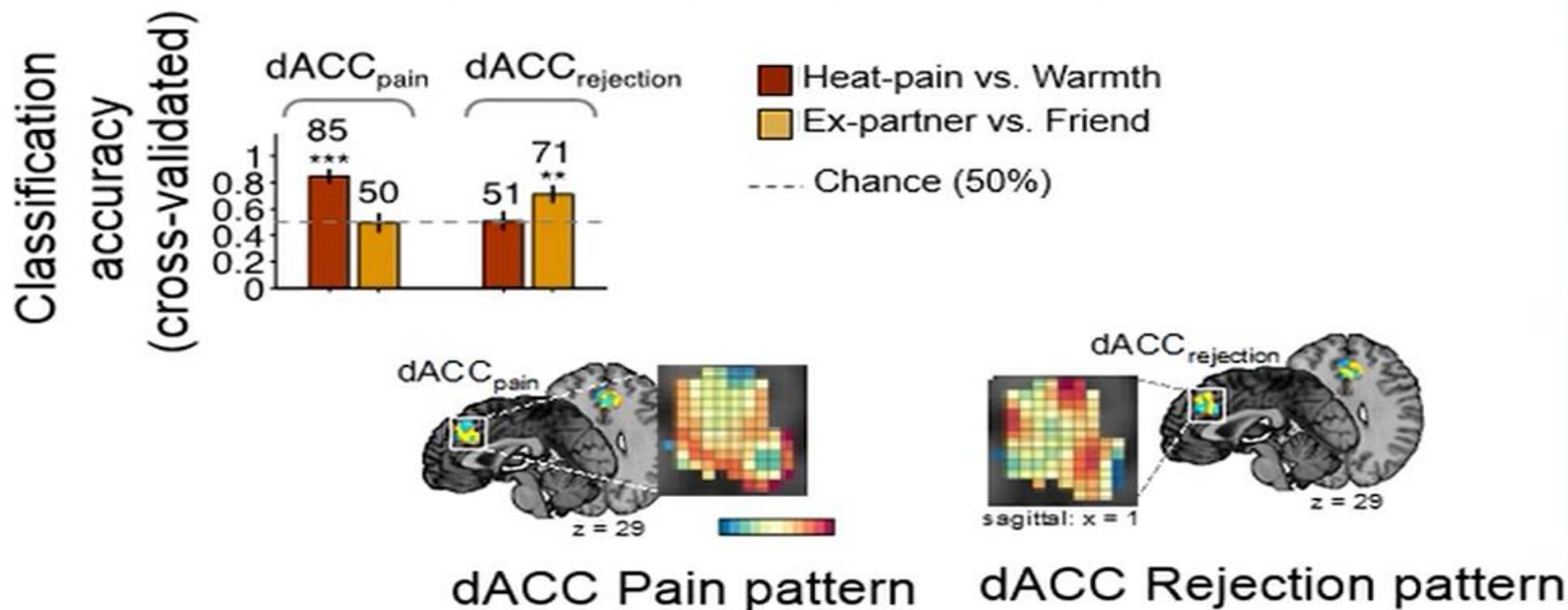
Eisenberger 2002, 2007, 2012, Zaki 2007; Kross 2011; others

# Common regions, different patterns

Separate modifiability of pain and rejection in 'pain affect' regions



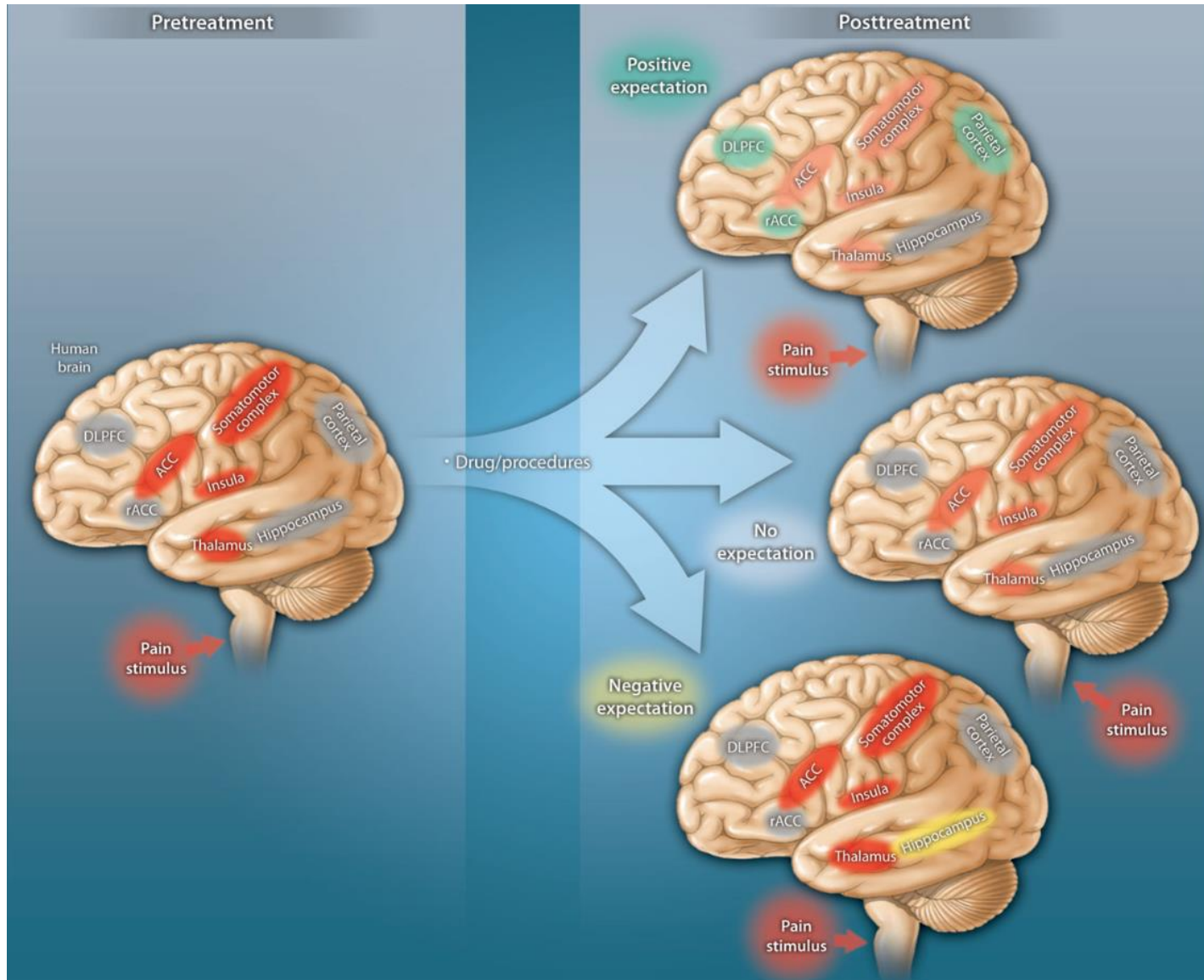
## Multivariate pattern classifiers only within dACC



- No evidence for shared representation in 'pain affect' regions
- Whole brain patterns are also separately modifiable



# The Power of Expectations



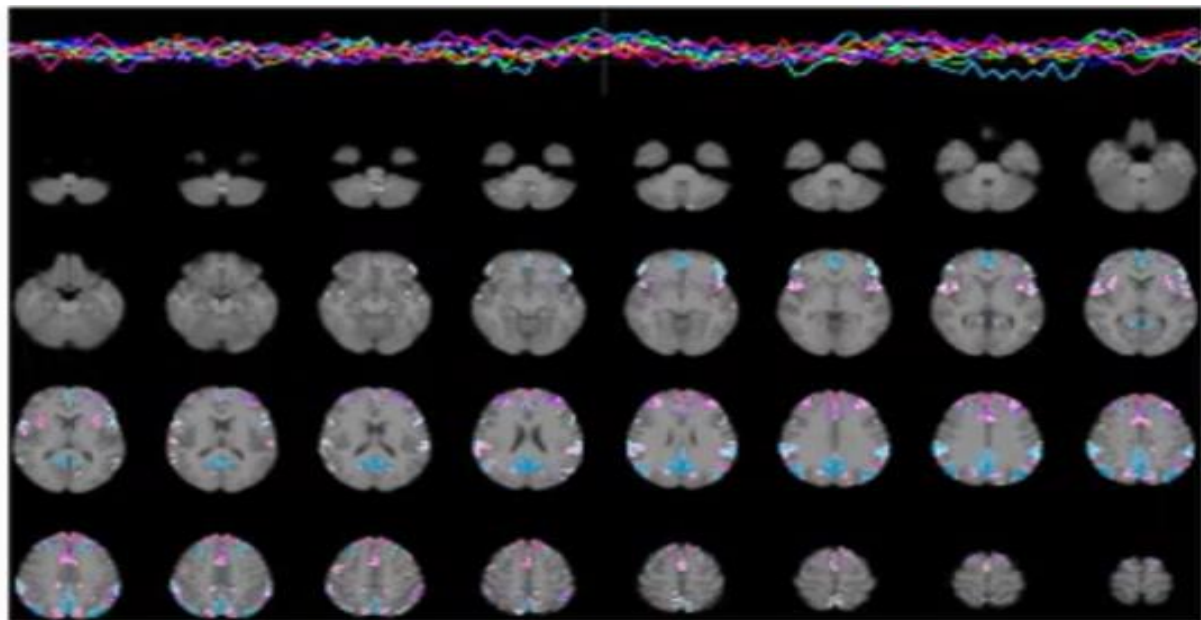
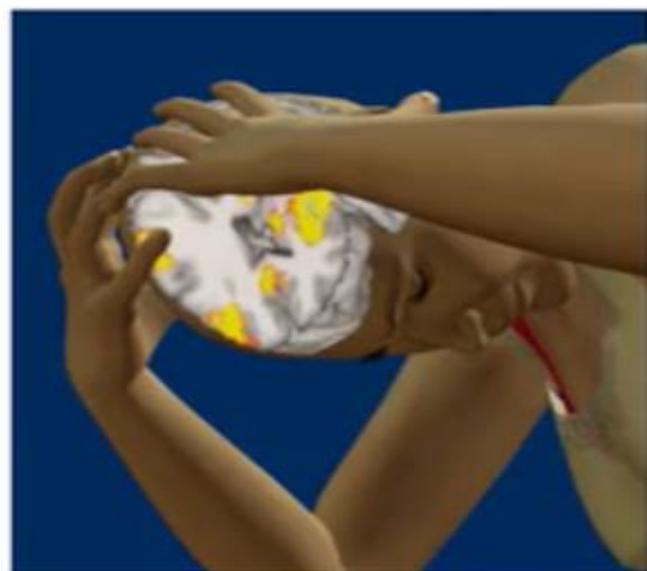
Cognitive awareness

Interpretation

Behavioral dispositions

Cultural and educational factors beyond the medical sphere





The brain is NOT a simple 'receipt' organ producing perceptions and experiences by processing bottom up sensory inputs as sole contributor:

The Concept of:  
***Priors and a Bayesian view of the Brain***



# Preparing medical students to become attentive listeners

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## Abstract

**Background:** The ability to listen is critically important to many human endeavors and is the object of scholarly inquiry by a large variety of disciplines. While the characteristics of active listening skills in clinical practice have been elucidated previously, a cohesive set of principles to frame the teaching of these skills at the undergraduate medical level has not been described.

**Aims:** The purpose of this study was to identify the principles that underlie the teaching of listening to medical students. We term this capacity, attentive listening.

**Methods:** The authors relied extensively on prior work that clarified how language works in encounters between patients and physicians. They also conducted a review of the applicable medical literature and consulted with experts in applied linguistics and narrative theory.

**Results:** They developed a set of eight core principles of attentive listening. These were then used to design specific teaching modules in the context of curriculum renewal at the Faculty of Medicine, McGill University.

**Conclusions:** Principles that are pragmatic in nature and applicable to medical education have been developed and successfully deployed in an undergraduate medical curriculum.

## Practice points

- Although attentive listening is critical for effective physician communication with patients, it is often neglected in specific guides to the teaching of communication skills.
- A set of eight core principles of attentive listening can guide the development of specific teaching activities and tasks.
- A basic understanding of language use, especially how it is used to reflect and create meanings, is important for attentive listening.
- A crucially important principle is the necessity to develop an awareness of the inferences generated by the listener during attentive listening.
- The teaching of attentive listening can benefit from the use of audio editing programs which can graphically present the acoustic features of human language viz., paralinguage.