

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

<http://dx.doi.org/10.1016/j.eurpsy.2017.01.1046>

#### EV0717

### The biology of cognitive behavior therapy

H. Ramy

*Egyptian Association of Cognitive Behavior Therapy, Psychotherapy, Cairo, Egypt*

Cognitive behavior therapy outcomes and the mechanism of change that are related to its effects have traditionally been investigated on the psychological abilities, personalities or social functioning. Many psychiatrists have also held the unfortunate dichotomized position that psychotherapy is a treatment for “psychologically based” disorders, while medication is for “biologically based” disorders. During the past several decades, it has become clear that all mental processes drive from mechanisms of the brain. This means that any change in our psychologically processes is reflected by changes in the functions or structures of the brain. Straightforward reductionist stances, however, are unfounded because there is clear evidence that our subjective experiences affect the brain. Plastic changes in the brain have been difficult to study in humans, but there has been more than one successful trial. Changes in the brain in relation to experience have been detected at the cellular and molecular level using different experimental approaches. The advent of functional neuro-imaging, including photon emission CT (SPECT), positron emission topography, and functional MRI, has made it possible to study changes at the brain systems level (by measuring changes in the brain blood flow or metabolism) associated with cognitive behavior changes. The presentation will shed light on the biological basis of CBT reviewing the evidence from a historical perspective. In addition the imaging studies will be reviewed with emphasis on future perspectives in the use of CBT in the treatment of various psychiatric disorders and the importance of clarifying the biological changes associated with improvement.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

<http://dx.doi.org/10.1016/j.eurpsy.2017.01.1047>

#### EV0718

### Comparative study of the frontal EGG activity after superficial neuro-stimulation application, mindfulness and other attentional techniques

P. Rico<sup>1,\*</sup>, P. Aranguren<sup>2</sup>

<sup>1</sup> *Professor of Psychiatrist European University – Madrid, Psychiatry and mental health Getafe’s Hospital, Madrid, Spain*

<sup>2</sup> *Universidad Complutense de Madrid, Clinical, Madrid, Spain*

\* *Corresponding author.*

**Introduction** Changes in the electrical cerebral activity, especially in frontotemporal regions, have been described after using the Superficial Neurostimulation Application (SNSA) in upper and lower limbs. The use of this technique is associated with emotional equilibrium and predisposition for a positive mood. Its application clinically improves hostility and anxiety symptoms.

**Aims** To compare the electrical changes observed after the use of SNSA with other techniques of mental concentration: Mindfulness (mental attention without judgment) and a technique based on the emission of a sound.

**Materials and methods** SNSA topology system: uses electricity through superficial electrodes placed on feet and hands and an

electrode over the 7th cervical vertebra; Digital encephalogram; Faraday cage.

**Results** Mindfulness and SNSA techniques show similarities regarding the alpha rhythm’s frequency in frontal regions (Figs. 1 and 2) compared to a different mental concentration technique (Fig. 3).

**Conclusion** Further analysis would be required.

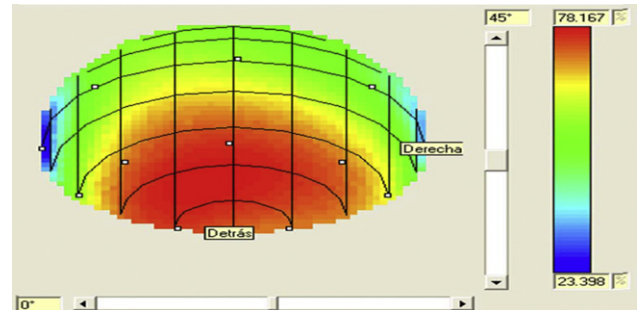


Fig. 1 Alpha rhythm post-training 1.

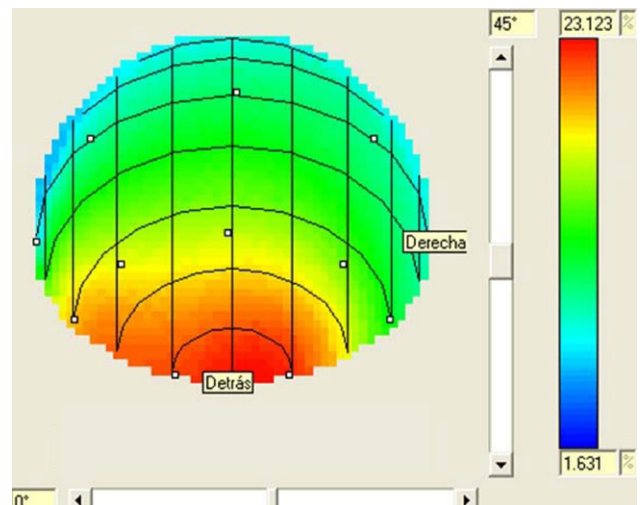


Fig. 2 Post - SNSA.

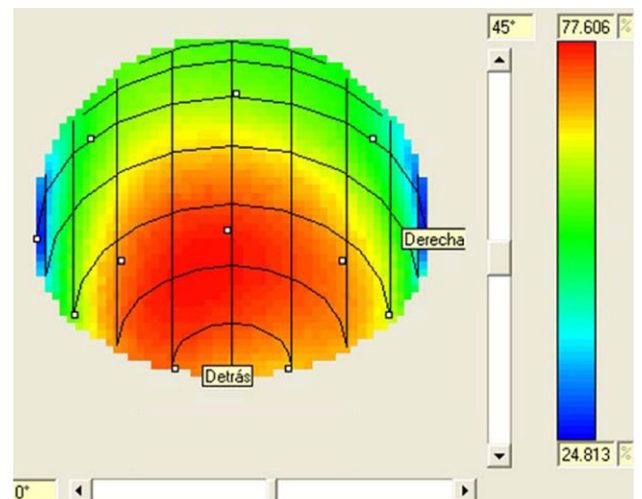


Fig. 3 Alpha rhythm post-training 2.