

Buchheim, A., Labek, K., Walter, S., & Viviani, R. (2013). A clinical case study of a psychoanalytic psychotherapy monitored with functional neuroimaging. *Frontiers*, 7 doi: 10.3389/fnhum.2013.00677

Author Abstract:

This case study describes 1 year of the psychoanalytic psychotherapy using clinical data, a standardized instrument of the psychotherapeutic process (Psychotherapy process Q-Set, PQS), and functional neuroimaging (fMRI). A female dysthymic patient with narcissistic traits was assessed at monthly intervals (12 sessions). In the fMRI scans, which took place immediately after therapy hours, the patient looked at pictures of attachment-relevant scenes (from the Adult Attachment Projective Picture System, AAP) divided into two groups: those accompanied by a neutral description, and those accompanied by a description tailored to core conflicts of the patient as assessed in the AAP. Clinically, this patient presented defense mechanisms that influenced the relationship with the therapist and that was characterized by fluctuations of mood that lasted whole days, following a pattern that remained stable during the year of the study. The two modes of functioning associated with the mood shifts strongly affected the interaction with the therapist, whose quality varied accordingly (“easy” and “difficult” hours). The PQS analysis showed the association of “easy” hours with the topic of the involvement in significant relationships and of “difficult hours” with self-distancing, a defensive maneuver common in narcissistic personality structures. In the fMRI data, the modes of functioning visible in the therapy hours were significantly associated with modulation of the signal elicited by personalized attachment-related scenes in the posterior cingulate ($p = 0.017$ cluster-level, whole-volume corrected). This region has been associated in previous studies to self-distancing from negatively valenced pictures presented during the scan. The present study may provide evidence of the possible involvement of this brain area in spontaneously enacted self-distancing defensive strategies, which may be of relevance in resistant reactions in the course of a psychoanalytic psychotherapy.