

Conference report.

International Neuropsychoanalysis Congress “Plasticity and repetition (and other topics)”, Amsterdam, the Netherlands, 9–11 July 2015

The 16th International Neuropsychoanalysis Congress: Plasticity and repetition (and other topics) was held in Amsterdam on 9–11 July 2015. The main topic of presentations and discussion during the congress was the tension between two fundamental psychic phenomena: on one hand, the changes, plasticity, modification of stored content and change of established behaviours, and on the other, compulsion to repeat, and multiple repetitions of the same traumatic or dysfunctional behaviours. In short: the mechanisms of psychoanalytic intervention in respect to complex human memories that can lead to therapeutic progress and why does compulsion to repeat exist. One of the most prominent experts in this field is Cristina Alberini, Professor at the Centre for Neural Science at New York University and Department of Neuroscience at Icahn School of Medicine at Mount Sinai, New York, who has been investigating the biological mechanism of long-term memory for more than 20 years. Among the lecturers there were world-class researchers, such as François Ansermet (Chief of the child and adolescent Psychiatry Service at the University Hospitals of Geneva), Jaak Pankseep (pioneer in the neuro-affective studies of emotions in mammals) and Marinus van IJzendoorn (Professor of Leiden University and Professor at Erasmus University Rotterdam). All congress presentations and discussions were summarised by Mark Solms – a founding figure of neuropsychoanalysis.

Presentation of Gustaw Sikora from the British Psychoanalytic Society entitled “Some notes of the conservatives of the drives” was noteworthy. The author referred to the issues stemming from psychoanalytic theory, such as repetition compulsion, death drive, drives and combined them with Karl Friston’s contemporary approach to the brain as an organ of the prediction, issues of “free energy” and minimising “prediction error”, thus, the brain model based on the principles of the “Bayesian model of the brain”. The presentation was very interesting both by reference to the very foundations of psychoanalysis, such terms as repetition compulsion, drives, the economic model of the mind and by reasoning for real, not metaphorical treatment of the concept of energy (mental) and by binding these concepts with the most recent approaches describing the global principle of the brain (Karl Friston).

Cristina Alberini presented lectures on memory reconsolidation processes. Memory reconsolidation is a process by which recalled memories fall into a state of lability and can be stabilised again, but already in a new form. A newly formed long-term memory

is initially labile and undergoes a process known as consolidation in order to become stable and persistent. Once stabilised memory can again become changeable if it is recalled or reactivated and only then undergoes a restabilisation process known as memory reconsolidation. In this process memory can remain unchanged, or – as in many cases we would like to achieve it during psychotherapy – be transformed. Studies in neuroscience have provided evidence that different types of memories have differential memory reconsolidation boundaries, neural bases and features. Investigations have also focused on aversive and traumatic memories with the hope of identifying mechanism and approaches that may help psychoanalytic interventions. It has great meaning for psychoanalytic intervention as because it offers an explanation of analytic tool (one of the modes of action) and is potentially useful to design new therapeutic approaches.

The presentation of Rick Wassing from Amsterdam referred to issues of the importance of sleep for emotion regulation. REM sleep is involved in emotion regulation and its fragmentation may be most profound sleep physiological characteristic of insomnia. The REM sleep is relevant in emotional regulation, and in some states of insomnia sleep with fragmented REM is not effective in emotional distress regulation and can even aggravate dysregulation of emotions.

Interesting session of the congress was devoted to the “repetition compulsion and death drive”. The presenters were Ariane Bazan, Maggie Zellner, Brian Johnson and Sandrine Detandt. Over the past years, the team of authors has been working on the repetition compulsion in neuropsychanalytical approach, in a way that can truly change our thinking about why we repeat negative life events and trauma. Ariane Bazan broadly presented the discussion on this issue. Interestingly, these concepts refer to the mesolimbic system (SEEKING system, according to Panksepp’s terminology) as a neurobiological basis for the Freud’s concept of libido, namely a system which would be associated with reward, pleasure, motivation. In this novel context, its meaning is addressed in the context of trauma and its repetition compulsion. However, perhaps it is not about the reward, but a relief in the tension experienced by the person. Bazan and Detandt proposed that mesolimbic dopaminergic system is essentially an event (or surprise) marking and historicising mechanism, anterior to and independent of affect (positive or negative). In contrast to the view that repetition compulsion is understood as a process initiated by an impulse toward positive affect, although the outcome is generally negative, for Bazan and Detandt it has no intrinsic valence. They proposed the term ‘jouissance’ as the benefit gained from the motor tension underlying the action which was once adequate in bringing relieve to drive, and proposed that mesolimbic dopaminergic system could embody the physiological architecture of Freud’s drives. Jouissance could be described as an accumulation of body tension, fuelling for action, but continuously balancing between reward and anxiety. Empirical data show that not only rewarded or adequate actions are sanctioned by a dopamine peak and consequently sensitisation (or historicisation), but also a variety of unpleasant, aversive, stressful and painful events. The common denominator according to Bazan and Denandt is not the valence, but the event character, the organism being taken by surprise. They propose that the dopamine release sensitises in the most general, and not valences way the motor behaviour proximal to the dopamine peak. In the case of trauma, any

behaviour, any kind of action performed, tied to irruption of trauma is more adequate than doing nothing. Consequently for both *jouissance* and trauma, they do not simply see dopamine release as underlying a motivational, alerting or attentional mechanism for stimuli with a reward or an aversive character, but also underscore its role in historicising what is associated with the event (i.e. recording physiology of the body), independently of valence. Repetition of trauma is compulsion, reduces tension (but does not give the reward) and dismisses the feeling of being helpless object of events.

Marinus van IJzendoorn presented a lecture about the attachment and its neurobiological underpinnings. He presented results of some research on the hormonal and neural basis of adult and infant attachment. In particular he talked about different effect of oxytocin which was shown to stimulate range of social behaviours, in different contexts. For example he presented a study indicating that the effects of oxytocin on creating relationships are dependent on perceived social context. In this study Professor van IJzendoorn found that oxytocin significantly increased insula and inferior frontal gyrus responding to sick infant crying, but decreased activation in these brain regions during exposure to crying of an infant that was labelled as bored. These findings indicate that labelling the same infant crying as 'sick' or as 'bored' drastically changes neural activity in response to intranasal oxytocin administration. Therefore, the social context drastically alters the response pattern of brain centres in response to the same neurochemical stimulus (oxytocin). In another study they examine the influence of oxytocin in the context of love withdrawal as a disciplinary strategy used by the parents of the. They found that oxytocin enhanced neural activation in the superior temporal gyrus (STG) and insula, however, these reactions showed dependence on the behaviour of the parents of the studied individuals involving the love withdrawal strategy in their developmental period.

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