We presented a few cases concerning the following:

- a. Early implicit memories and their expression in late trauma, as observed in a patient suffering from extreme somatization following spinal-cord injury (Van Der Kolk, 1994). This case demonstrated how memories unrecoverable by verbal means could unfold through the appropriate conditions.
- b. Splitting mechanisms in the retrieval of a traumatic event having occurred prior to MTBI (mild traumatic brain injury). We used a case study using the EMDR (Eye Movement Desensitization and Reprocessing) technique. The head injury had reactivated an earlier psychic trauma, and later it seemed that this person had dreams indicating that he remembered part of his head injury—a part that was thought of as forgotten and consciously gone.
- c. False memories as opposed to true memories and evidence suggesting differential registration in the brain.
- 2. *The Time team*: The head of the team is Dr Iftah Biran, a behavioral neurologist.

Time is an essential component in human behavior. Classic approaches towards time look at issues of creating time intervals, creating a sequence of timed events and the subjective feelings toward time. We believe that time is a fundamental issue in the creation of the self as, at every present moment, subjects carry their past time events and try to make future time programs.

In the team meetings up to now, we have tried to look at the biological basis of timing mechanisms, circadian rhythms, and developmental time. The team approached the subject by performing experiments that looked at the subjective feelings of time and by looking at the abundance of associations related to time.

We plan to look at phenomena that do not obey the classical trajectory of past, present, and future. These phenomena are found in clinical syndromes such as déjà vu, jamais vu, prospective (future) memory impairments, and even PTSD, where past events flood the present experience. We believe that one of the essential components of psychoanalysis is the creation of a unified experience of the subject and self across time.

3. *The Neurobiology of Defense Mechanisms team*: The head of the team is Professor Dov Aleksandrowicz, a psychoanalyst and psychiatrist.

The group is studying possible links between psychopathology (especially borderline personality and delusional states) and brain functions/malfunction. We do not always attempt to point to specific brain areas but, rather, consider functional systems such as affect modulation, impulse control ("automatic" vs. conscious), and reality judgment. We also look at the relationship between emotions and body states—that is, posture, movement, and enteroception.

4. *The Experience of Core Self team*: The head of the team is Dr Eli Wertman, a behavioral neurologist.

Conscious experience is built on the experience of the self; this experience reflects brain processes. While the approach that identifies neural correlates of consciousness ties together both conscious experience and the brain, it is in fact indifferent to the subjective building blocks of human conscious experience. As a result, in contrast to other neurobehavioral domains, it becomes impossible to build models of conscious experience that will be based on its behavioral components.

In this group, we try to define the neurophenomenal components of the experience of the core self. By "experience of the core self" is meant the very nucleus of the immediate nonconceptual sense of self, around which the higher-order time-extended sense of self is experienced. In a process similar to the one by which neuropsychology and behavioral neurology developed specific cognitive models from their coarse to fine components, we try to build neurophenomenal models of the sense of self and to create testable hypotheses to be investigated. We try to integrate aspects of describing neurophenomenological philosophy, psychology, psychoanalysis, neuropsychology, behavioral neurology, neuroimaging, and behavioral neurobiology in this process.

Summary

The memory team finished its presentation and moved to discussions and preparing case presentations in writing. Presently (summer of 2006) the Time team is presenting its work to the forum. The forum is also concerned with opening a website to be able to get reactions to the presentations. This last year has thus been very productive. The work in the different teams created many more opportunities for discussions and working together.

Regarding bureaucratic issues, The Israeli Forum of Neuro-Psychoanalysis has become a registered, nonprofit organization. It has 40 listed members, 20 of whom come to the monthly meetings. The Forum has chosen Irith Raveh to be its chairperson.

REFERENCE

Van Der Kolk, B. (1994). The body keeps the score: Memory and the evolving psychobiology of post traumatic stress disorder. *Harvard Review of Psychiatry, 1*: 253–265.

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The Istanbul Neuro-Psychoanalysis Study Group, Turkey

In January 2006, The Istanbul Neuro-Psychoanalysis Study Group was initiated. The group consists of 15 members, both psychologists and psychiatrists, who meet monthly. There is a developing interest in neuropsychoanalysis in Turkey, and our group aims to introduce the subject to specialists not only in Istanbul, but also throughout the country, via national congresses, seminars, and publications. Parallel to this aim, we are happy to report on our activities that have been carried out during our first year:

- 1. In the winter of 2006, the initiation of the Istanbul Neuro-Psychoanalysis Study Group was announced via a seminar entitled "Neuro-Psychoanalysis: The Bridge between Neuroscience and Psychoanalysis," carried out by F. Gökçe Özkarar at the Nisan Clinic. Following the seminar, she distributed to the widespread specialist email groups a written announcement entitled Neuro-Psychoanalysis: A Call for Peace against the Mind-Body Dilemma. Via the announcement, the International Neuro-Psychoanalysis Society was introduced and specialists from various disciplines were invited to the Istanbul group.
- A subgroup of members from Boğaziçi University Psychology Department focused on the integrational study of neurodevelopment and object-relations theory. In line with their studies, a panel was made at the 14th National Congress of Psychology held in Ankara, on 7 September 2006. The panel, chaired by Prof. Güler Fisek, was named "The Neuropsychoanalytic Approach in Clinical Psychology." Duygu M. Bruce, Pınar S. Çelikolu, Sibel T. Özkan, F. Gökçe Özkarar, and Berta A. Saporta conducted presentations under the titles; "Adolescence and Neuropsychoanalysis," "Affect Regulation: Its Impact on Body Functions and Psychosomatic Processes," "Neuropsychoanalysis and Personality Development," "Schizophrenia and Neuropsychoanalysis," and "The Contribution of Neuropsychoanalysis to Working with Children with Pervasive Developmental Disorders. Abstracts of these presentations are available on the Internet (www.psikon06.hacettepe.edu.tr).
- 3. In line with the introduction of neuropsychoanalysis to the specialists in Istanbul, the curriculum of the PhD program in Clinical Psychology at Boğaziçi University now includes books by authors such as Antonio Damasio, Allan Schore, Eric Kandel, and Peter Fonagy. The outline of the course is available on the Internet (www.boun.edu.tr/graduate/social sciences and humanities/psychology).
- 4. The members interested in mind-body studies read and discussed subjects observing the relation between psyche and matter, using both neuropsychological evidence and quantum physics. The discussions will be summarized in an article to be published next year.

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International Society of Neuro-psychoanalysis, Toronto Group

Our Group has now, in 2006, been meeting for five years. The Group is connected to the University of Toronto Epilepsy Research Program and has a strong interest in brain mechanisms, clinical neurological syndromes, and psychological trauma. Both clinical and research people attend.

The meetings tend to alternate between basic science and clinical presentations, generally from a classical psychoanalytic framework. Correlations between brain mechanisms and metapsychological categories have been a fruitful stimulus for many lively discussions. (For example, Helen Mayberg gave a series

of talks on candidate anatomical substrates for ego, id, and superego a few years ago, and more recently we looked in detail at a patient struggling with a growing brain tumour who actually became more integrated and expressive, more related to the family, as the tumour progressed in size.) The goal has been to enrich our knowledge, integrate the two disciplines of neuroscience and psychoanalysis, question critically the evidence, and, hopefully, develop a deeper understanding of patients and a more helpful approach, especially to those who are very ill.

In a series titled "Anxiety and Epilepsy: A Developmental Synthesis" presented to the Group and at other University venues, Dr. Jim Deutsch outlined how epilepsy has served as an intense focus for both neurology and the mental health fields in the study of paroxysmal events and of their potentially profound impact on the personality development and functioning of the individual.

The recent Annual Meeting of the American Epilepsy Society in Washington, in December 2005, devoted significant attention to behavioral, cognitive, and emotional problems in children, both prior and subsequent to the first appearance of their seizures, and suggested common underlying abnormalities. In other words, seizures may be just one of a number of possible manifestations of some brain process common to all. In an attempt to integrate the various factors operating in child development, from both neuroscience and psychoanalytic-developmental perspectives, the subtypes of anxiety—Furcht, Schreck, Angst—delineated by Freud were viewed through the lens of the establishment of inferred cause–effect relations (Weiss, 1990). Otherwise known as fantasies, these fear-conditioned phenomena can prime the limbic system to exert sudden, massive, and far-reaching effects on the mental apparatus.

Several well-known case reports from the psychoanalytic literature were summarized, along with two of the presenter's cases—one 4 years of age, the other adult, both with complex partial epilepsy—to illustrate, in the process of treatment, the revealing of the warded-off danger-situation. In each instance, the danger could be inferred to be internal—that is, the expectation of attack from without, in retaliation for an initially unconscious wish. There was particular focus on stages of superego formation and a proposed scheme in which this mental structure might employ the amygdala in the production of a specific, observable response: fight, flight, freezing, aura, or seizure.

Miguel A. Cortez, a neurophysiologist at the Division of Neurology, an associate scientist at the Department of Paediatrics, and Project Director of the Research Institute, The Hospital For Sick Children, Toronto, presented: "Neurosciences? Not Without Maxwell."

We all have managed, in awake and sleep states, unimaginable amounts of information with no awareness of the electromagnetic dynamics involved in these processes. About 150 years ago, the English scientist James Clerk Maxwell developed a scientific theory to explain electromagnetic waves.

After the revolutions within the fields of relativity and quantum theory, Maxwell's waves have survived completely intact and continue to change our lives profoundly and irrevocably. The self function of the healthy brain rhythmically recovers from its various states, within the electromagnetic domain. As observers and as subjects, with the tools of MRI/EEG/MEG (magnetoencephalography) we can begin to unravel the previously invisible process.