

## Psychosis Neuro-Psychoanalytic Consideration

Iftah Biran MD  
Director Inpatient Neuropsychiatry Section  
Division of Neurology  
Tel Aviv Sourasky Medical Center

### Outline

- A clinical Example
- 3 Distinct Mechanisms
  - I/O - Topographic Model
  - NPS - Structural Model
  - Linguistic - Metaphoric Model
- Combining it all Together?

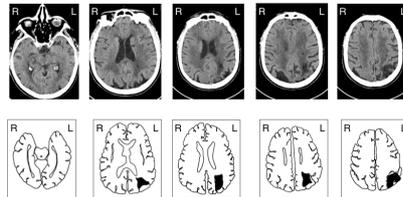
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74 years old man

No prior psychiatric history  
Army Service - PTSD  
Rt Leg amputee

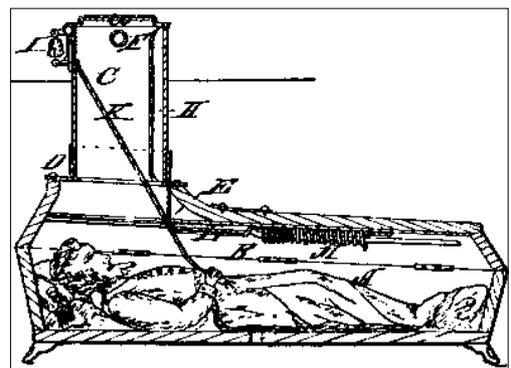
Following Left Hemispheric Stroke  
Behavioural & Emotional complaints



Angular Gyrus  
BA 39

## Vignette

3 psychotic components:  
Buried alive - Taphophobia  
resurrection Mania  
Body Disintegration

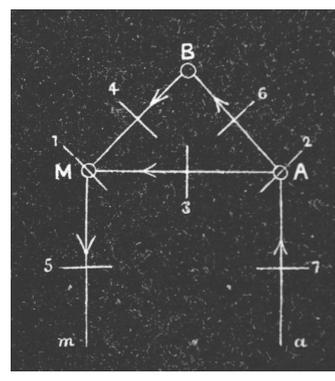
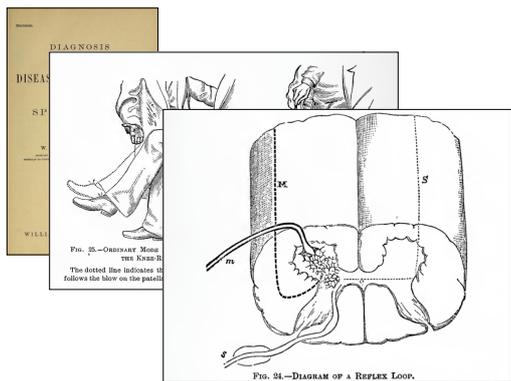


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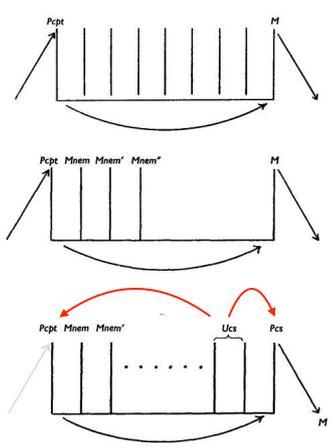
**What is Psychosis?**  
Shift to Internal Reality...

Folk Psychology	Contemporary Psychiatric Definitions	Neuro-Sciences	Psychoanalytic Formulations
<p>האשליה היא תחושה היא לא אמיתית</p>	<p>Hallucinations - are perception-like experiences that occur without an external stimulus.</p> <p>Delusions - the belief is held despite clear or reasonable contradictory evidence regarding its veracity.</p> <p>(DSM 5)</p> <p>loss of contact with reality, in the form of hallucinations, illusions, and delusions;</p> <p>(Shorter E. A Historical Dictionary of Psychiatry. New York: Oxford University Press; 2005).</p>	<p>inability to suppress irrelevant internally-generated information while processing external stimuli</p> <p>might be the basis of functional psychopathology in schizophrenia.</p> <p>(Bleich-Cohen M, Kupchik M, Gruberger M, Kotler M, Hendler T. Never resting region - mPFC in schizophrenia. Schizophr Res. 2012 Sep;140(1-3):155-8.)</p>	<p>Unitary Theory - Severe intra-psychic pathology, on a continuum with Neurotic disorders...</p> <p>Specific Theory - Withdrawal of Cathoses from the mental representations of objects... reactive to an internal catastrophe.</p>

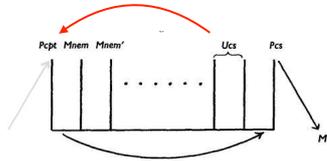


This applies to **sensory hallucinations** and still more to hallucinations of pain. For it does not seem possible for a healthy person to endow the memory of a physical pain with even the degree of vividness, the distant approximation to the real sensation, which can, after all, be attained by optical and acoustic mnemonic images. Even in the normal hallucinatory state of healthy people which occurs in sleep there are never, I believe, dreams of pain unless a real sensation of pain is present. **This 'retrogressive' excitation, emanating from the organ of memory and acting on the perceptual apparatus by means of ideas,** is therefore in the normal course of things still more difficult in the case of pain than in that of visual or auditory sensations.

Breuer, J. (1893). Theoretical from Studies on Hysteria. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume II (1893-1895): Studies on Hysteria, 183-251



Freud, S. (1900). The Interpretation of Dreams. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume IV (1900): The Interpretation of Dreams (First Part), Chapter VII (2), 533-549.



Freud, S. (1900). The Interpretation of Dreams. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume IV (1900): The Interpretation of Dreams (First Part), Chapter VII (B), 533-549.

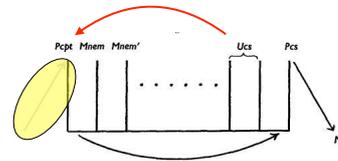
In delusions of persecution the distortion consists in a transformation of affect; **what should have been felt internally as love is perceived externally as hate.** (66)

**...the truth is rather, as we now see, that what was abolished internally returns from without.** (71)

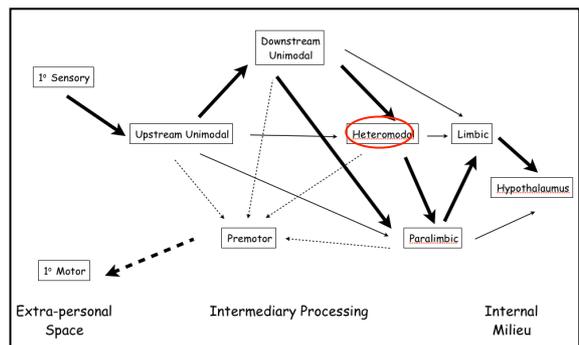
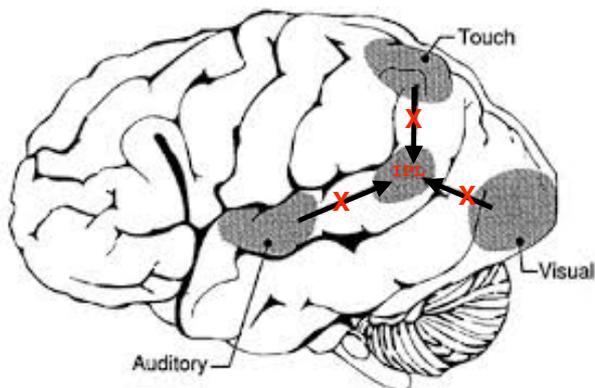
Freud, S. (1911). Psycho-Analytic Notes on an Autobiographical Account of a Case of Paranoia (Dementia Paranoides). The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XII (1911-1913): The Case of Schreber, Papers on Technique and Other Works: 1-82

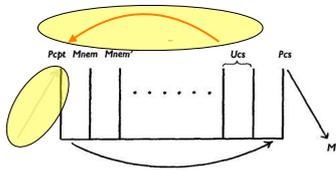
We know that other forms of psychosis, the schizophrenias, are inclined to end in affective hebetude—that is, in a **loss of all participation in the external world.** In regard to the genesis of delusions, a fair number of analyses have taught us that the delusion is found applied like a **patch over the place where originally a rent [crack] had appeared in the ego's relation to the external world.** If this precondition of a conflict with the external world is not much more noticeable to us than it now is, that is because, in the clinical picture of the psychosis, the manifestations of the pathogenic process are often overlaid by manifestations of an attempt at a cure or a reconstruction.

Freud, S. (1924). Neurosis and Psychosis. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XIX (1923-1925): The Ego and the Id and Other Works: 147-154

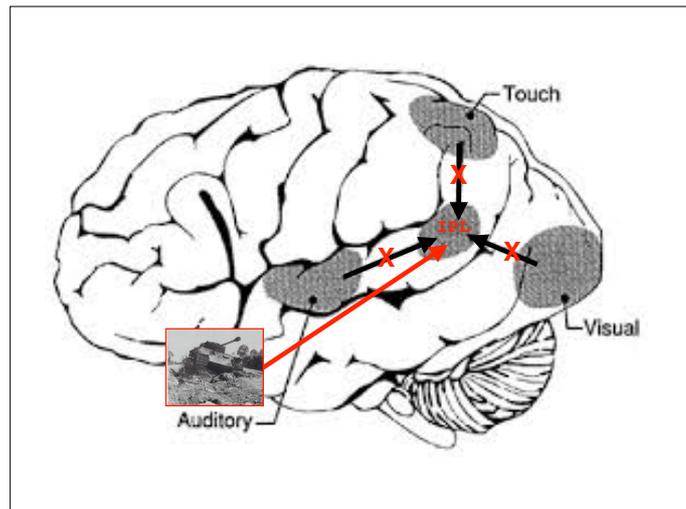


Freud, S. (1900). The Interpretation of Dreams. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume IV (1900): The Interpretation of Dreams (First Part), Chapter VII (B), 533-549.

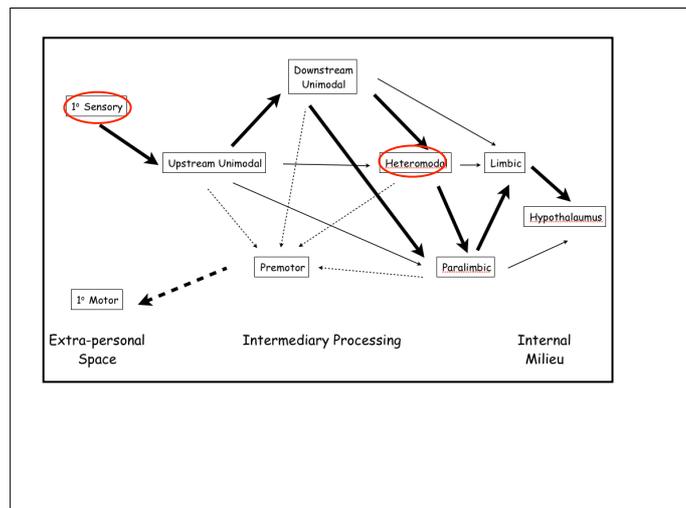
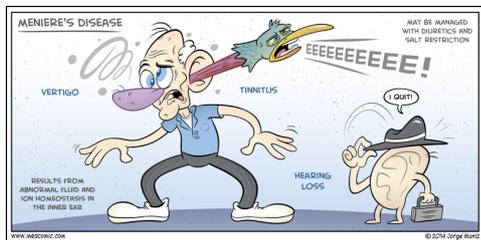




Freud, S. (1900). The Interpretation of Dreams. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume IV (1900): The Interpretation of Dreams (First Part), Chapter VII (B), 533-549.



- 50s
- Immigration
- Ambivalence towards mother
- Alone <- -> Together
- Autonomy <- -> Dependence
- Musical Hallucinations



המטע לארץ ישראל  
שלמה גרוניך ומהקלת שבא  
מילים: חיים אידיסיס  
לחן: שלמה גרוניך

ובלילה תקפו שודדים,  
בטכיו נס בחרב חדה  
במדבר דם אימי, הירח עדי,  
ואני מבטיחה לאחי הקטנים.

עוד מטע, עוד קצת, יתגשם החלום.  
עוד מטע נגיע, לארץ ישראל.

בירח דמותה של אימי,  
מביטה בי, אמא אל תישלמי  
לן היתה לציד, היא היתה יכולה,  
לשכנע אותם שאני יהודי.

עוד מטע, עוד קצת, בקרוב נגאל  
לא נפטיק ללכת, לארץ ישראל

עוד מטע, עוד קצת, להרים עיניים  
מאמץ אחרון, לפני ירושלים.

הירח משגיח מעל,  
על גבי שק האוכל הדל  
המדבר מתחתי, אין סופו לפנים,  
ואמי מבטיחה לאחי הקטנים.

עוד מטע, עוד קצת, להרים רגליים  
מאמץ אחרון, לפני ירושלים.

אור ירח החזק מעמד,  
שק האוכל שלנו אבד  
המדבר לא נגמר, יללות של תנים,  
ואימי מרגישה את אחי הקטנים.

עוד מטע, עוד קצת, בקרוב נגאל  
לא נפטיק ללכת, לארץ ישראל.

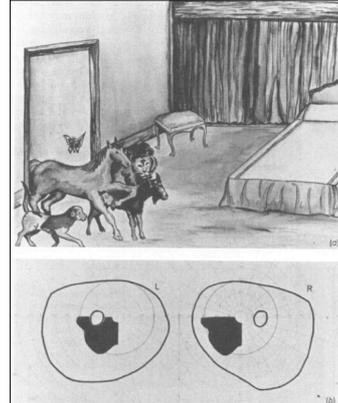


Figure 6.4  
[Top] Categorical release hallucinations. Animals appear one at a time in the area of the quadrantic field defect (bottom). From Lance & McLeod [1981], with permission.

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**A Two - Factor Theory of Delusional Belief**

(Max Colthart, The Neuropsychology of Delusions, Ann. N. Y. Acad. Sci. 1191 (2010) 16-26)

**Factor 1**

Content

Specific Neuropsychological Impairment

Generation of a "false hypothesis"

Various Localisations



**Factor 2**

Persistence

Hypothesis Evaluations System

Failure to Reject the false hypothesis

(Rt.) Lateral Prefrontal



איברים מקוננים, ראש כרוני, כל יב שנותקה מהאמה  
 כמו באגדה של האוף, כבוד רפזיים המרקבות  
 מצמאן... יש בהם משהו אלגיטי' צב מאוב, בפרט אק  
 כמו בנזמיה האחרונה מ'וחסית להק גק פז'יות  
 צבמאית. כבר יבוצ' לנו שרושק אלגיטי' זה נובע מקרבנו  
זנסביק הסיכום, יש מ' שהיה מצטיק את כתר הניחוושה  
 האלגיטי' זרצ'יון' להיקבר חיים בשעשה. אלא  
 שהפסיכואנליזה ז'ימבה אוננו שהפנטסיה המקצייתה  
 הזגית א'יה אלא עלולה של פנטסיה אחרי, שקראשייתה  
 לא הייתה מקצייתה כלל אלא נולצה בויקא מניוק תשוקה  
 מסוימת, כלומר מהפנטסיה של החיים ברחק האק.

(הד"ר, האלגיטי', נרסום זעקריי - ביל רות גינגבורג, רסזגה, 2012)

Factor 1 ———  
 Factor 2 ———

**Factor 1**

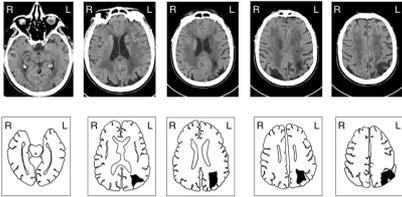
**Factor 2**

Disintegration

Body Fragmentation

Taphophobia - Cotard Delusion

Angular Gyrus  
BA 39



## Left IPL

IPL = Supramarginal Gyrus + Angular Gyrus

### Gerstmann's Syndrome

- Agraphia
- Acalculia
- Rt to Lt Confusion
- Finger Agnosia

Alloentric - Egocentric perspectives

Body Structural Description -  
Auto / Hetero / Somato - topagnosia

Self or Others

Out of Body Experience - OBE (Rt>Lt)  
(Arzy, Blanke)

NEUROSCIENCE UPDATE ■

## The Out-of-Body Experience: Disturbed Self-Processing at the Temporo-Parietal Junction

OLAF BLANKE and SHAHAR ARZY

Folk psychology postulates a spatial unity of self and body, a "real me" that resides in one's body and is the subject of experience. The spatial unity of self and body has been challenged by various philosophical considerations but also by several phenomena, perhaps most notoriously the "out-of-body experience" (OBE) during which one's visuo-spatial perspective and one's self are experienced to have departed from their habitual position within one's body. Here the authors marshal evidence from neurology, cognitive neuroscience, and neuroimaging that suggests that OBEs are related to a failure to integrate multisensory information from one's own body at the temporo-parietal junction (TPJ). It is argued that this multisensory disintegration at the TPJ leads to the disruption of several phenomenological and cognitive aspects of self-processing, causing illusory reduplication, illusory self-location, illusory perspective, and illusory agency that are experienced as an OBE. NEUROSCIENTIST 11(1):16-24, 2005. DOI: 10.1177/1073858404270885

**KEY WORDS** Illusion, Autoscopic phenomena, Temporo-parietal junction, Neurology, Neuroimaging

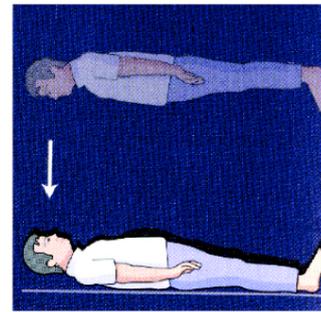
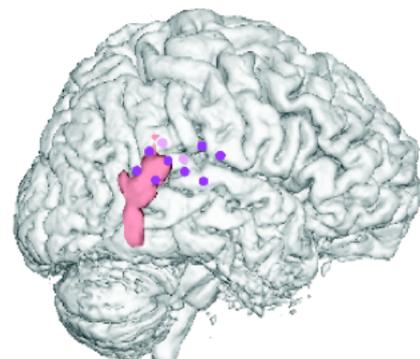
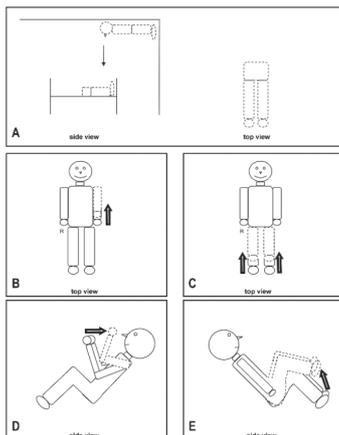


Fig. 1. Phenomenology of out-of-body experience (OBE). During an OBE, the subject appears to "see" himself (bottom) and the world from a location above his physical body (extracorporeal location and visuo-spatial perspective; top). The self is localized outside one's physical body (disembodiment). The direction of the subject's visuo-spatial perspective during an OBE is indicated by an arrow. Modified from Blanke (2004).



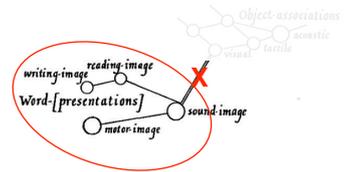


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We may, on the other hand, attempt a characterization of the schizophrenic's mode of thought by saying that he **treats concrete things as though they were abstract.**

...in schizophrenia **object-cathexes are given up**, we shall be obliged to modify the hypothesis by adding that the **cathexis of the word-presentations of objects is retained.**



Freud, S. (1915). The Unconscious. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XIV (1914- 1916): On the History of the Psycho-Analytic Movement, Papers on Metapsychology and Other Works, 159-215

**Literalization Hypothesis**

Delusions

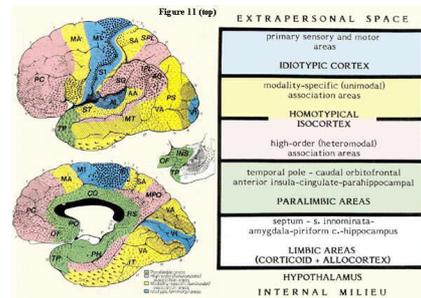
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Metaphoric Ideas Expressed in a literal way.

**Left IPL**

Heteromodal Cortex

Unimodal Perceptions ---> Heteromodal / Symbolic Representations



**Left IPL**

Luria

"Transition from direct, visually represented syntheses to the level of **symbolic** processes"

"...play an essential role in the conversion of concrete perception into abstract thinking, which always proceeds in the form of internal schemes, and for the memorizing of organized experiences"

Mesulam

Binding distributed modality-specific fragments into **coherent** experiences, memories and thoughts..

**Two Aspects of Language and Two Types of Aphasic Disturbances**

Metonymy	Metaphor
"a conceptual projection whereby one experiential domain [the target] is partially understood in terms of another experiential domain [the source] included in the same common experiential domain use of language"	"the cognitive mechanism whereby one experiential domain is partially 'mapped', i.e. projected, onto a different experiential domain, so that the second domain is partially understood in terms of the first one,"
Combination	Selection
Continuity Disorder	Similarity Disorder
Anterior Aphasia	Posterior Aphasia

Jakobson, R. (1990). Two Aspects of Language and Two Types of Aphasic Disturbances. *On language*, L. R. Mough and M. Monville-Burston. Cambridge, Mass., Harvard University Press: 115-133.

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