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Meaningful confusions and confusing meanings in communication in schizophrenia

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ABSTRACT

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Keywords: Semantics Semiotics Schizophrenia Unconventional discourse in schizophrenia has been speculated to be attributable to the mixing up of symbols and signs. We illustrate how a series of scientific images, cartoons, and prose are used by a patient to weave disparate-and objectively unrelated-concepts. The resulting prose is incoherent science. Published by Elsevier Ireland Ltd.

1. Introduction

Unconventional discourse is a noteworthy feature in schizophrenia, and it can often easily be observed clinically (McCabe et al., 2004). These deviations have been attributed to problems in the semantic network-or components-underlying speech. Furthermore, a prominent symptom in schizophrenia is the misinterpretation of signs, such as delusions of reference and delusions of meaning. Indeed, it has been described as an expressive semantic disorder which spares naming, namely a disorder of putting signs together rather than attaching them to objects (Oh et al., 2002). Clinically, the concept of psychotic disorganization may capture many of the peculiar elements observed in the communication of people suffering from schizophrenia. Disordered thinking and delusions sometimes-but not alwaysco-occur in acute phases of schizophrenia and often in bipolar acute mania. Of primary concern here is not the actual locus of the disorder-whether it is primarily attributable to a disorder at the level of thought or at the syntactic-discursive level (this has been extensively debated previously; Lanin-Kettering and Harrow, 1985; Harrow et al., 1986; Chaika and Lambe, 1985, 1986; Harrod, 1986)but whether some elements of this seemingly 'semantic' problem might in some cases also have an additional semiotic component

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(which ordinarily is simply speculative, but sometimes can be objectively witnessed as described below).

2. Semiotics

Semiotics is the study of signs, and a subset of semiotics is semantics which is the study of meaning and reference in language. Signs generally have both meaning (conceptual content) and reference (relation to specific real-world objects that they denote at a particular time and place) such as (ex-)"president" means "chief executive" (concept) and denotes Bush (the man). Briefly, there are three kinds of signs: (i) 'natural' signs are those that are physically connected to things they denote (e.g., smoke is a sign of fire); (ii) 'iconic' signs physically resemble the things they denote (e.g., a picture of a dog denoting a dog); and (iii) 'symbols' (arbitrary signs) are not connected with their referents in either of those ways (e.g., this includes most human language, or a red light on the highway meaning 'stop'). Magical beliefs appear to contain ingredients of mixing up the three types of signs, especially iconic similarities with natural physical causal relationships (e.g., 'This herb is good for your heart since it is heart-shaped', which parallels in some way the 'doctrine of signatures'). Magical thinking-of a rather disorderly kind-appears commonly in schizophrenia, and thus begs the question of whether some patients with schizophrenia have disturbances in apprehending all three kinds of signs. Ordinarily such reasoning remains purely speculative since the main source of information concerning sign use is derived from our interpretation of a patient's speech. However, in a few cases patients do write and draw their inferences concerning some topic of exceptional interest to them. Here we draw on a patient's explanation of how to build a time machine.

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3. A case of 'time travel'

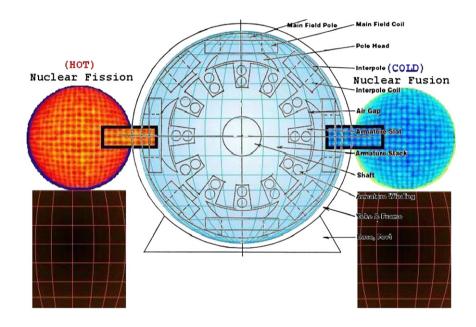
Time travel is a topic that has a rich history in literature and on film dating back more than a hundred years (Wells, 1895/2002; Davies 2002). It is our clinical experience that ideas about time and space travel, as well as aliens, which are occasionally seen in speculative news and popular fiction are often picked up on by patients with psychosis, especially it seems those that lend themselves to grandiose interpretations. While the theories presented below may not be particularly remarkable in that they appear to lack a basis in current scientific knowledge, we wish to draw attention to the overall presentation of the theories. In the present case, it is not the subject matter or topic that identifies the idea (i.e. time travel) as psychotic. Rather, it is the manner in which the statement or premise is presented (Palmer, 2000), as well of course whether the idea is clearly false and lacks cultural support.

The case concerns a 31 year old male patient with a diagnosis of chronic schizophrenia, undifferentiated type, who at the time of study had a history of five hospital admissions. A comprehensive neuropsychological examination revealed that he was compromised cognitively across the board (attention, language, working memory, executive ability and memory in general), with his current intelligence quotient (WAIS-R) measuring 86. [Details of neuropsychological performance available upon request]. We demonstrate how the patient uses a complex series of scientific images, cartoons, and prose to weave the disparate–and objectively unrelated–concepts. We illustrate a small component of this below. The patient describes combining electric motor theory with air pressure theory and that:

[Start of sample] "In a Typhoon HOT & COLD air Systems Collide and start spinning in a CIRCLE and eventually Form a Typhoon (Hurricane). This is what happens in an Open System.¹

In a closed system when Hot and Cold Collide the Container Collapses in upon itself.

Ok, Now you take Electric Motor Theory and Combine it with Air Pressure Theory and You Get This:



Explanation:

COLD FUSION & HOT FISSION Mix Together inside of a Sphere and Spin in a CIRCLE (an ATOMIC COIL). The Hot and Cold Produce an Atomic Hurricane (Typhoon) and at the center of the Storm an EYE Forms. This 'EYE' is a Singularity Point. If You Send an Object into the Singularity Point it will Leave Time Space and Enter into the FOURTH DIMENSION.

This is the Basics of how to build a Time Machine.

You can then Take this Machine (Above) and connect it to a Space Shuttle, Open a Controlled Singularity Point and Enter into the Vortex. Then The Space Shuttle will enter into the Fourth Dimension and then reappear at a Different Point in the Space-Time Continuum.

You could use an ATOMIC COIL (NUCLEAR MOTOR) to FOLD SPACE-TIME and Journey to any point in Space. Making Instant Travel Possible, Teleportation and Time Travel.

Nuclear Theory Continued:

Nuclear Fission: $^{235}_{92}$ U + n $\rightarrow ^{A1}_{Z1}$ S1 + $^{A2}_{Z2}$ S2 + 3n + energy

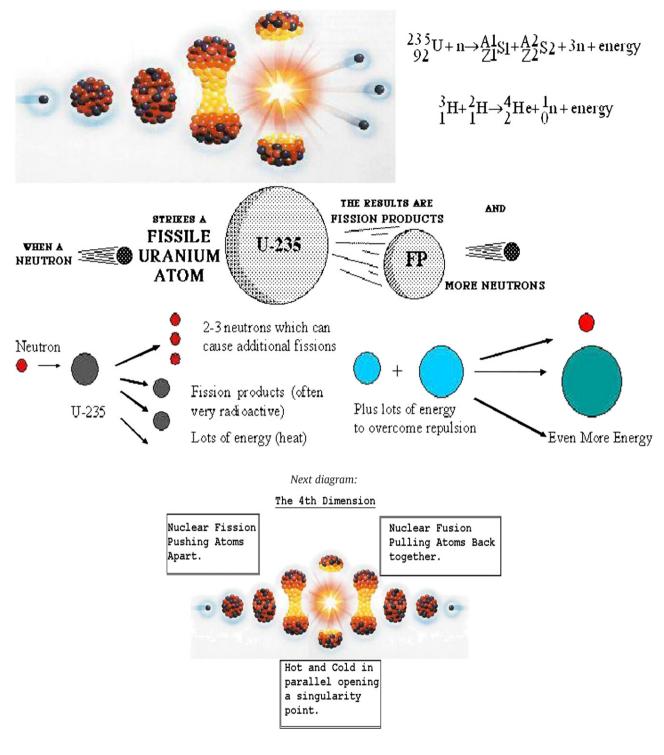
Plus (+)

Nuclear Fusion: ${}_{1}^{3}H + {}_{1}^{2}H \rightarrow {}_{2}^{4}He + {}_{0}^{1}n + energy$

¹ We have omitted here a series of pictures of mustard bottles that are copyrighted.

Plus (+) Atomic Coil/Nuclear Motor

= Equals TIME MACHINE...



[End of sample]

4. Discussion

We have presented an interesting example of the convoluted thinking of a patient with psychosis, but note that it is unusual that patients are able to present such an elaborate psychotic presentation. What we see in the patient's illustrations and descriptions is a reflection of a 'loosening' of associations, and a 'loosening' and/or disorganization of the semantic content of speech, writing, and illustrations. This again

goes back to the concept of thought disorder or could represent a problem at the syntactic-discursive level. What is of particular interest here is the resplendent way in which the affected processes are illustrated in written words and illustrations. Additionally, the assertion of conjectures as if they were on the same level as established scientific presuppositions is arguably similar mechanistically to delusional thinking in that a distinctive thing about the delusion is not that it is false, but that the deluded person does not question it. In this case, the resulting prose is incoherent science.

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