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Ordered thoughts on thought disorder

AIMS AND METHOD

To review and clarify the large number of psychophenomenological terms used to describe thought disorder. The most recent editions of the major psychiatric textbooks and medical dictionaries in the library of a London teaching hospital were used to compile a list of such terms. The various, often conflicting definitions were compared.

RESULTS

There were 68 terms identified. There was significant redundancy in these terms (i.e. more terms than significantly different concepts described). Different sources gave different definitions for the same terms.

CLINICAL IMPLICATIONS

The understanding of many of the terms used to describe thought disorder is poor. This is confusing for clinicians, trainees and patients.

Disordered thinking is fundamental to the clinical picture of schizophrenia. The objective manifestation of thought disorder is disordered speech, and the recognition of this is one of the key features of the mental state examination which allows this diagnosis, as detailed in ICD–10 (World Health Organization, 1992) and DSM–IV (American Psychiatric Association, 1994).

Although the specific manner in which an individual's speech may be disordered is as varied and idiosyncratic as the specific content of an individual's delusions, there are only a few broadly definable ways in which speech, and by inference, thought, is found to be abnormal. Despite this, psychiatric literature contains many supposedly distinct concepts describing disordered thinking, and there have been few attempts to harmonise these concepts or to clarify their supposed differences.

Andreasen (1979) differentiated 18 different categories of 'disorders of speech, language and communication'. Some of these categories were subsequently incorporated into the thought disorder sub-scales of Andreasen's rating scales for schizophrenia (Scales for the Assessment of Negative/Positive Symptoms; Andreasen & Olsen, 1982). More recently, Liddle *et al* (2002) published a new rating scale, the Thought and Language Index (TLI) in which only eight broad categories of abnormality in schizophrenic speech are defined.

However, the psychiatric literature continues to describe a confusing array of psychophenomena associated with disordered thinking, particularly in schizophrenia. Not only do many of these concepts overlap, but also different psychiatric textbooks frequently offer conflicting definitions of the same concepts.

This paper attempts to collect as many of these psychophenomenological terms as possible, and reduce them to a more manageable number of concepts. It also attempts to highlight the potential sources of conflict and confusion in the definitions.

Method

The terms described were found in English-language psychiatric textbooks, dictionaries of medical terminology or academic papers published since Andreasen's 1979 paper. These are given in the reference list. Definitions are based on consensus across the various sources, and have not been systematically cross-referenced with their original usage. They may not, therefore, correspond to the original usage of the term, but to the most commonly understood, current usage. When no consensus of definition could be discerned, all definitions are described.

Results

Sixty-eight terms were defined.

Descriptive terminology

The following terms are descriptive of the speech (and by inference, the thinking) of patients with thought disorders and do not attempt to explain the underlying cognitive defects.

Formal thought disorder simply means a disorder of the form of thought, as opposed to its content. *Akataphasia*, similarly, is defined simply as a disorder in the expression of thought in speech. *Paralogia* is defined as 'positive thought disorder' (i.e. the intrusion of irrelevant or bizarre thought), whereas *alogia* (also known as *laconic speech*) describes 'negative thought disorder' or

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poverty of thought as expressed in speech. This latter concept should be differentiated from *poverty of thought content*, in which the number of words spoken may be normal, but little in the way of content can be distilled once redundant words are discounted. *Empty speech* is essentially similar. *Bradyphasia* refers to speech that is reduced in rate but not necessarily content.

Desultory thinking jumps from one idea to another without logical connections. *Loosening of associations* describes a similar concept, as do *knight's move thinking* (alluding to the movement of the only chess piece which does not move in straight lines) and *crowding of thought*. *Derailment* describes an unexpected change of direction of a 'train of thought', which 'derails' onto a subsidiary idea. *Loss of goal* is essentially similar. *Tangentiality* describes a related concept, whereby a patient's thoughts move off in an unexpected direction, never to return, in response to a direct question, rather than in spontaneous speech. A similar concept, *vorbeireden* ('talking past the point'), describes thinking that bypasses the central idea to reach a different goal. Vorbeireden is often used interchangeably with *vorbeigehen* ('going past the point'), although the latter was originally defined as part of the 'Ganser syndrome', whereby some criminals would give incorrect answers ('approximate answers') to simple questions that none the less suggested that the correct answer was known (e.g. saying dogs have five legs).

Paragrammatism (literally meaning the wrong use of grammar) and *parasyntax* (the wrong use of syntax) are variously described as the inappropriate use of words, speech made difficult to understand because of the breakdown of grammatical/syntactical construction, and speech consisting of a mass of complicated clauses that do not achieve the goal of thought, despite the individual clauses making sense by themselves. *Transitory thinking* describes thinking characterised by derailments, substitutions and omissions.

Terminology implying the underlying faults in mental processing

The following terms attempt to describe the mental processes that have led to 'normal' thinking becoming 'disordered'.

Condensation is defined as the phenomenon by which two ideas with something in common are blended into a single, false concept. This is similar to the concept of *fusion*. *Displacement* and *substitution* describe a process whereby one idea is used for an associated idea. *Omission* describes the phenomenon whereby a thought (or part of a thought) is inappropriately left out of speech. This has similarities with the concept of *thought blocking* (also known as *snapping off*) in which a thought suddenly ends before it is complete, with the patient reporting that their mind has emptied.

Incoordination describes a breakdown of connections between thoughts (akin to the term *asyndesis*). *Interpenetration* refers to the unwanted intrusion of unrelated themes into a thought that was originally goal-directed. *Overinclusion* describes the inability to maintain the boundaries of a thought when trying to convey a specific idea. *Fragmentation* describes the way a single idea is unintentionally broken up into several parts that are not, by themselves, understandable.

Grossly unintelligible speech

Occasionally speech becomes so disordered that its ability to convey any useful information is lost. Numerous terms describe this phenomenon and include *drivelling*, *muddling*, *verbigeration* (the senseless repetition of words or phrases), *word salad*, *speech confusion*, *incoherence*, *aculalia*, *glossolalia*, *catalogia*, *cataphasia* and *schizophasia*. *Jargon aphasia* refers to speech that is unintelligible because the individual words themselves are unintelligible or invented by the patient.

Idiosyncratic use of words

Speech is sometimes hard to understand not because of disordered linking of ideas, but because it contains words or phrases that are used in unusual ways, or have been invented by the patient. *Neologisms* ('new words') are an example of the latter, and convey meaning for the patient only. *Word approximations* also fill a semantic gap (e.g. calling a hat a 'head shoe') but have understandable meanings.

Metonymy is the usage of imprecise expressions, whereby a person uses a word or phrase related to the correct term in an unusual or inappropriate way (e.g. talking about eating a menu rather than a meal). *Paraphasia* is a similar concept, described variously as the substitution of one word for another with a similar morphology or phonetic composition, and also as the destruction of words with the interpolation of non-phonetic sounds. *Paraphemia*, *pseudoagrammatism*, and, confusingly, *paraphrasia* are all synonymous with paraphasia.

Some people use certain legitimate words or phrases in their speech far more frequently than would seem appropriate, and these words or phrases seem to convey a much greater range of meaning than would usually be understood. These *stock words/phrases* plug gaps in the person's much-reduced working vocabulary.

Thought disorder usually associated with conditions other than schizophrenia

Perseveration is variously described as the simple repetition of words or phrases beyond the point of relevance, the use of a word or phrase repeatedly in different contexts within a single idea, and the repetition of the same response to different stimuli (e.g. giving the same answer to several unrelated questions). It is usually a sign of organic brain disease (e.g. dementia). *Stereotypy* describes the giving of the same response to different stimuli, rather than the simple repetition of a word. *Echolalia* specifically describes the continued repetition of a word (or part of a word), as does *logoclonia*. Both are also usually signs of organic illness.

Pressured speech (also known as *tachyphasia*) describes speech that is abnormally fast, with few pauses and difficult to interrupt. Patients describe its subjective

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equivalent, *pressure of thought*, as the feeling that their mind is so full of thoughts that they cannot keep up with them. *Logorrhoea* describes an increased amount, rather than rate, of speech, and is also referred to as *verbosity*. *Fight of ideas* describes a thought process that moves so rapidly between ideas that it is difficult to follow, although the links between ideas are understandable (unlike the situation in loosening of associations). *Clanging* describes a pattern of speech in which the sound of a word, rather than its meaning, determines the link with the next ideas. Such links include rhymes, puns, assonance and alliteration. All of these phenomena usually suggest mania.

Poverty of thought and *poverty of thought content* often occur in the negative syndrome of schizophrenia but are also found in depression.

Descriptive terms with unclear pathological implications

Circumstantiality describes speech containing much tedious and unnecessary details, although the goal of thought is eventually reached. *Stilted speech* has an excessively formal quality, and may seem outdated or pompous, frequently using multisyllabic words where simpler words are more appropriate. *Self-referential speech* repeatedly refers neutral topics under discussion back to the speaker himself. *Illogicality* refers to a pattern of speech characterised by frequent, unwarranted and illogical inferences between separate clauses, suggesting faulty inductive reasoning. All of these terms have been described in the context of psychiatric illness, but are also commonly described among the general population.

Discussion

Many of the concepts described above are similar, and the differences are best explained by remembering that they were described by different psychiatrists, practising in different eras and writing in different languages.

The large number of concepts defined, with little difference between them and conflicting definitions, may seem confusing and unsatisfactory. This is especially so when diagnoses in psychiatry are based on the subjective recognition of psychopathology by the psychiatrist, rather than by more objective measures such as blood tests or imaging studies. In routine clinical practice, however, the recognition of a few broad categories of disordered thought is usually sufficient to allow a diagnosis to be made, when taken in context with other symptoms such as delusions, abnormal perceptions and altered behaviour. This fact is reflected in many commonly used diagnostic schedules and rating scales.

Understanding of psychophenomenology is routinely tested in postgraduate examinations, although, as this paper shows, questions based on these concepts may not have unambiguous, 'correct' answers. It is hoped that this paper might prove useful in this context both to trainees and examiners.

Declaration of interest

None.

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