Remo Bodei Italian Academy for Advanced Studies Columbia University Fellows Seminar November 7, 2012

Reason and Delusion

Summary:

Delusion represents an exceptional test case for the principal categories of common sense and philosophical thought such as 'reason', 'truth', 'reality'. With the engagement of a hidden part of Freud's legacy and the most discussed results of twentieth-century psychiatry, my aim will be to analyze its paradoxical forms and to shed light on the logics that underlie and orient its specific modalities of temporalization, conceptualization and argumentation. Delusion, then, has been traditionally interpreted as synonymous with irrationality (absurdity, groundlessness, error, chaos), whereas by contrast its mirror image, reason, has been defined in terms of evidence, demonstrability, truth and order. I will analyze and contrast their paradoxical definitions.

Keywords: delusion, reason, logic, psychiatry, psychopathology, epistemology, passions, certainty.

Delusion: A false belief based on incorrect inference about external reality that is firmly sustained despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof or evidence of the contrary.

Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994, p. 765)

- 1. With this talk I am continuing a research program that began with the study of passions, of traumas of memory, and, in general, of those phenomena in which abnormal forms of thought do not appear to enjoy the right of citizenship in the republic of rationality. From this perspective, I want to explore today, with the instruments of an 'impure reason', the field of delusion. Although there are delusions provoked by brain injury (Young 1998; Young 2000, 47-73) – for example the so-called Capgras delusion, according to which patients believe that someone close to them has been replaced by an impostor who looks like the replaced person - of course I am not going to address this problem in terms of pathology or physiology of brain. Likewise, I am not going to deal with delusions provoked by drugs (Henquet, Di Forti, Murray, Van Os, 2008, 268-279), as Luca or Guillermo would in case do. My approach is philosophical and logical, and, in this written paper it is also a little bit more technical than in my oral presentation. You have to consider it, therefore, as a mental exercise or as a very mild brainstorming.
- 2. Why the delusional person believes in what for everyone else is the contrary of any logical line of reasoning and of any empirical evidence? What is it in delusion that persuades? Who is the hidden sophist, who mixes the true with the false, deduces or infers the false from the true, while preserving (and even increasing) the subjective certainty of the false? In the course of delusion, we can easily observe that truth and certainty do not coexist: paradoxically, the more the delusional subject moves away from the core of truth, the more his false conviction is strengthened. With the subtle diplomacy of diversion, evidence operates in the delusional subject as much to conceal as to reveal. His psychic apparatus does not only raise smoke screens

or secrete ink, like cuttlefish, in order to hide from itself: to dazzle and confuse it also uses light.

If the transmission of certainty can thus take place separately from that of truth, we are faced - in reverse - with the question raised by Descartes in the *Regulae ad directionem ingenii*: namely, how is it possible to transmit certainty on the basis of prime and irrefutable evidence. In Descartes evidence is transferred through the chain of proof in a way that is analogous to the passing of the torch, thus lending cohesion and correctness to the proof while making it possible for each one of us to understand and judge according to the *lumen naturale*, with nothing imposed by authority. The cogency and persuasiveness of the argumentation are given by the passage of the light of evidence through all its parts.

Delusion, instead, conflictual formation is a compromise (logically insubstantial from the standpoint but in fact extremely real) between a subjectively intolerable core of truth and an internal or external world felt to be unlivable. At the mercy of contradictory commands that compel him to know and not know, to speak and remain silent at one and the same time, the delusional subject attempts in vain to obey commands that are simply out of the question: he attempts to follow paradoxical orders that are analogous to asking a shy and uneasy person to be free and easy, or to the insomniac's inviting himself to sleep. This accounts for the apparent absurdity of delusion, in which one denies on the one hand what one affirms on the other.

What he affirms derives sometimes from the authority of other voices (commenting, dialoguing, or echoing thought) that, detaching themselves from the ego, come to the subject from a distant past that is historical, familiar and individual. These are phantasmal voices of absence, of unreality - generally accusatory, unpleasant, mocking, tormenting or self-congratulatory in tone - that are incapable of entering into

fruitful dialogue with the logic and the contents of the present. In "cries and whispers" they reproach and praise; they ratify and condemn words or behavior; they give sibylline orders and advice, saddling the delusional subject with the exhausting effort of interpretation.

The delusional subject is consequently torn between the need to manifest what torments him and the fear that, if he does, the *nefas* - that of which he must not speak but which oppresses and obsesses him - will be proclaimed. Comprehending the incomprehensible as if it were comprehensible, guessing what is behind the opaque glass of repression, solving the enigma that he himself - who was supposed to interpret it - has muddied: this becomes his absolute purpose in life, his wager (and a losing one, until he finds the strength to face his conflicts resolutely). The exaggerated evidence, the feeling of conviction and the substitutes of truth all provide delusion with the armor and the fanaticism to defend itself against any confutation. Delusion opposes logical cogency and normally interpreted perception with an inner experience of obligation, loyalty and fidelity to the created new world. Subjectively, for instance, the delusional person is quite right when he sees sense and intention in the apparently accidental behavior of others. He often has vision sharper than the normal mind, except that he overinterprets and displaces certainty at the cost of truth.

3. Is there a kind of logic, although anomalous, that can explain why patients firmly believe in the contents of their delusions? Let us analyze some of the most interesting answers given, in particular, after the second haft of the Twentieth-century. With the publication in 1956 of an article by Gregory Bateson and a group of his colleagues, schizophrenia and delusion began to be widely attributed to the effect of "double binds"; that is, to messages that cancel one another out or to orders that cannot be followed. For instance, when a mother

insists that she loves her child, but does not want to let him grow up as an independent person, the truth is that she "loves the child not mainly for his own sake but for hers." In this way the child receives contradictory messages of the type: "I (don't) love you" = "I (don't) love myself" (Ciompi 1988, 16, 167 [It. transl.]). The paradoxicality of such messages may be summarized in the command "Be who you are not!" (Selvini Palazzoli *et alii*, 44), the exact opposite of the classical precept "Become that which you are!" formulated by Pindar and by Aristotle and later reproposed by Nietzsche.

The "sender" of this message - in this instance the mother - is, indeed, in the grip of narcissism, but of a lacerated and unhappy kind (in which love and hate are turned, simultaneously, towards the self and towards others). She thus transmits ambiguous signals of connivance and conflict to the "recipient."

In technical terms, Bateson and his group are convinced that the schizophrenic individual also transgresses Russell's theory of logical types, according to which there is a discontinuity between a class and its members: "The class cannot be a member of itself nor can one of the members be the class, since the term used for the class is of a different level of abstraction – a different Logical Type – from terms used for members" (Bateson et alii, 251, 254). To give a simple example: All cats are feline, but not all felines are cats. Consequently, whenever a double bind situation occurs, delusional individuals are unable to discriminate between logical types.

The logic of delusion is not the logic of that "common world" - shared by those who are awake - of which Heraclitus speaks; but neither is it the logic of an *idios kosmos*, of a private world of the individual, analogous to the world of dreams (as Binswanger 1993, 97-99 would have it, and as is generally believed). Delusion, rather, would appear to constitute a paradoxical intermediate world in which the public dimension

and the private one, the logic of the mind and the logic of passions, the correct perception and the hallucination, the prohibition and the fulfillment of wishes, the complete adaptation to and the absolute flight from the world all come together and intersect. It may be compared to a life parallel to our own or to the alphanumeric sequence of a safe: letters and numbers are common, known to one and all, but in this case their combination is specific. For that matter, when we all share a common language and a detailed system of the organization of experience - the fruit of traditions going back thousands of years - a wholly private world is unimaginable: even the most capricious and extravagant mental constructions are in fact composed of universally recognizable parts.

In delusion the will to strike up and to avoid relationships with others - to reveal and to conceal - clash and reconcile, giving rise to an allusive and initiatory style. For example, when the feeling of shame reaches a pathological stage (see Ballerini and Rossi Monti) in which the tendency to conceal is constitutive, the language of the delusional subject adequately expresses his divided and contradictory will to communicate and not to communicate. But even here detachment from the social dimension is not complete, as is shown, in other types of delusion, by the constant presence of conspirators, spies or slanderers. To admit their existence means, in fact, to maintain a slender thread of contact with the reality of others.

4. When we try to understand this problem, we find one obstacle blocking our way. It is represented by the incongruity of those who maintain that in the delusional subject the mechanisms of thought remain intact, because the delusional subject does attempt to give meaning to his landscape of ruins (Minkowski 1923, but also Jaspers, 97; Clérambault, 41). Consequently, according to them there is no essential difference between delusional thought processes and thought processes in

normal discourse and judgment. Now, it is true that the delusional subject has no clear perception of his contradictions as such, but does this mean they are not contained in the text of his delusion? Undoubtedly the delusional subject necessarily twists the generally accepted rules of reasoning. Even if, for the sake of argument, we grant that the elementary mechanisms of logical thought and of judgment remain intact – at least until the delusion becomes chronic – their way of functioning has been altered, both in the formation of concepts and in the development of discourse.

The notion of "overinclusion," first proposed by Cameron, thus appears particularly worthy of attention with regard to the formation concepts, even if it may need some correction (see Cameron 1944 and 1947). Overinclusive thought, frequent in acute schizophrenia, consists in the inability to choose the pertinent elements of a concept, eliminating the ones that are less relevant or completely unrelated. Let me give an example: placing "Saint Joseph", who was a carpenter in the category "furniture" constitutes an overinclusion. Its complementary opposite is underinclusive thought, which can be found in cases of chronic schizophrenia, and where by contrast the conceptual range is restricted, such that the category "furniture" is applied to tables, but not to wardrobes or chests of drawers.

In what way and to what extent, then, does the delusional subject stray from the correct form of defining concepts and of reasoning? Let us begin with definitions. If, for example, on the plane of elementary logic we wish to give the exact definition of "square," we say that it is a quadrilateral (next-highest class) with equal sides and angles (specific difference). We begin with the broader family of quadrilaterals and then we specify their types. If we were to affirm that the square is a geometrical figure we would be saying nothing false, but we would be using a far more general class (we would, in fact, be generic). If, by contrast, we just say that it is a quadrilateral with equal sides we

would not be specific, because rhombuses, too, have the same property. In the same way, if we just attribute it with equal angles, it would be no different from a rectangle.

Quite normal people too are often generic or not specific, be it out of ignorance (how can someone with an average education define an iguana or a meson if not, at best, as an exotic animal or a subatomic particle?), or laziness, or out of the implicit confidence that, in any case, they will be understood in everyday conversation. Still, they would never seriously include a four-sided stronghold, a square headed person or even a donkey among quadrilaterals, and never the rhombus but not the square.

Overinclusion implies, then, on one hand that the concept takes on a broader extension than is commonly accepted and, on the other, that within it subsidiary or inappropriate connotations are taken to be relevant. The two processes are complementary. If we hold the key to the specifics of the delusional subject's experience and to the relevant features of his culture, we are also well placed to understand how the elementary associative chain that generated the overinclusion "furniture / carpenter/ Saint Joseph" was formed. In this case he makes use - literally - of a metaphor, a "moving" of meanings, that leads - in our civilization based on Christianity - from furniture to Saint Joseph. In normal reasoning this association, were it ever to come to mind, would be taken as irrelevant or misleading for the purposes of normal communication (though conceivably of use in some witty remark). Delusion is, in this respect, highly metaphorical, for it pollinates and hybridizes unrelated (or very distantly related) ideas and images according to subjective analogical intentions, at times inadvertently producing poetic effects, but more often creating associations that are eccentric or absurd.

As Frith sees it, overinclusion derives, paradoxically, from the delusional subject's hyperawareness. He is incapable of filtering and processing that enormous flux of information which reaches him from the external and internal world and, above all, that surplus lying beneath the threshold of consciousness in the clinically sane and which, if it breaks through, is immediately eliminated or disregarded. Such a position is diametrically opposed to the hypothesis - which Jung took over from Pierre Janet, transforming it in the process - that in schizophrenia there is an *abaissement du niveau mental* to a "fatal extreme degree," at the moment in which the individual enters into contact with the archetypes or the symbols of the collective unconscious, whose "flood" sweeps him away (see Jung 1939, and Jung 1945).

Consequently, in Frith's view, delusions are not the products of a troubled consciousness but the result of an unsuccessful attempt to interpret coherently the incoming collection of data. I would amend this hypothesis by adding that the flux is not entirely without filters. The filter changes: consciousness is ready and able to take in much of what is normally considered insignificant, but this surplus of data is assimilated according to other - lax but significant - criteria. It may even be said that logics of delusion are modeled on the form of these filters, which select significant experience and thought, making them pass through the bottleneck of consciousness.

5. Let us now attempt to extend the validity of this modified notion of overinclusion from the sphere of conceptualization to other fields, and in particular to those of: discursive or syllogistic reasoning; the intersection between categories; and the contamination between regions of experience normally thought to be distant from or incompatible with one another. To gage the maturity of the results we have attained so far, I will refer to the theses of von Domarus, Arieti and Matte Blanco.

For them the most striking anomaly of schizophrenic thought lies in the presence within it of a logic based on the identity of the predicates - and not of the subjects - of prepositions. Dogs and tables are thus considered similar on the basis of the common property of having four legs.

The fallacy "All Indians are fast; all deer are fast; all Indians are deer" (Arieti) depends technically on the lack of distribution of the middle term of a syllogism. In fact, "in a valid categorical syllogism, the middle term must be distributed in at least one of the two premises, and thus must appear either as the subject of an affirmative universal proposition or as the predicate of a negative particular proposition." In this case, the middle term acts as predicate in both the major and the minor premise (and therefore functions neither as the subject of an affirmative universal proposition, nor as the predicate of a negative particular proposition). The predicate "fast," including in the same manner both Indians and deer, thereby broaches their equivalence within the wider class of fast beings. Thus overinclusion now presents itself as the construction of a wider category capable of assimilating diverse categories on the basis of a common quality that connects them and makes them indistinguishable.

A logic of this kind, traced back by its expounders to the modus operandi of "primitive thought", assumes that delusions are a form of regression to phases philogenetically and culturally surpassed, to "paleologic" thought. By the criteria of classical logic, the paleologic syllogism is incorrect. From the standpoint of the patient, however, it obeys another logic, at least the cognitive styles of which can be established: "As long as he interprets reality with Aristotelian logic, he is aware of the unbearable truth, and the state of panic persists. Once he sees things in a different way, with a new logic, his anxiety decreases or changes in character. This new logic either will permit him to

see reality as he wants to, or will offer him at least a partial pseudo-fulfillment of his wishes" (Arieti, 229).

In both cases the desire contained in delusion tears down the wall of the "contraddizion che nol consente" and makes its way towards the conciliation of the irreconcilable. The principle of omnipotence, the will to deny and the delight in denying common logic, takes the place of the principle of non-contradiction. Desire tends no longer to recognize the *aut-aut* but only the *vel...vel*, the compatibility - in principle - of all with all.

It is a condition that has its pleasant sides. As Jung recalls, "I once treated a schizophrenic girl who told me that she hated me because I made it [delusion] impossible. At the same time, however, the schizophrenic is an individual who has sought refuge from unbearable tension in his psychosis, but this has only created him more difficulties, in the end becoming both his prison and his undoing" (Ciompi 1988, 203 It. transl.). Delusion as an "insecurity exit" - an emergency exit in reverse, leading not away from but towards the emergency - distorts normal logic the more, the higher are the stakes for the delusional subject, and the more uncertain and frightening are his lot and prospects.

Von Domarus has been rightly criticized for his equating of delusional with primitive thought (see, for example, Piro, 240-245, 530-532). It is true, however, that the limits of delusion are culturally determined, as are the limits of categorization and of the creation of taxonomies that are surprising at first blush, but which prove to be entirely coherent in their own way. As Lévi-Strauss has remarked, it would seem absurd (or - for us - a glaring case of overinclusion) to put together, as the "savage mind" does in some cultures, "wild cherries, cinnamon, vanilla and sherry." And yet chemical analysis shows that they "are grouped together by the intellect as well as the senses, because they all contain aldehyde" (Lévi-Strauss, 12 [It. transl.]).

6. The paleologic model does not hold up at the ontogenetic level either: in terms, that is, of individual regression to superseded stages of childhood or of adolescence. After Vygotskij's attempt in his 1934 essay to equate the thinking of schizophrenics with that of adolescents, Cameron, in his insubstantiality experiments, demonstrated the such conclusions: delusion, for Cameron, was not simply mental regression, but rather the break-up of an already developed structure. For that matter, G. E. Morselli formulated a theory in 1948 that was diametrically opposed to the position of von Domarus: for Morselli delusion produces not a paleo- but a neologic, "subordinated to paradoxical schemata of the processing of experience" and compared "to the planting of fresh vegetation" on the scorched earth of a burnt forest (Morselli, 297 ff.; Stanghellini, 54-55).

The confusion of logical classes is one of the possible strategies the delusional subject adopts to resolve his aporias, but is not the only one. Distinguishing paranoiac delusions, which well structured, from paranoid are characterized by a loosening of logical connections (and without considering the affective side for now: the conversion of love into hate, for example), along with overinclusion, the paleologic syllogism and symmetry, there are other aspects - which I shall not dwell upon - that can define both delusional thought and Regarding thought, we language. have the phenomena: violation of the principle of the excluded middle; of interference between ideas; instability connections; overflowing metaphor. Delusional language, in turn, is characterized by the following symptoms, among others: semantic distortion; fluctuation in the semantic fringe; phonetic alterations; neologisms; a "salad" or a carillon of words (Wortsalad and Wortklingel). Regarding the syntax schizophrenics, with the exception of a few who are chronically ill, psycholinguists have reached a remarkable conclusion:

"schizophrenic language is not formally disturbed, and most investigators of its content have found that irrelevance rather than incompetence is the most characteristic feature" (Cutting, 260) - which, by another route, brings us back to the reasons for overinclusion in delusional thinking.

7. Delusion and hallucination, although unstable, do not simply (or not only) represent the result of a "degeneration" of cerebral tissues, as was widely believed in psychiatric circles in the late nineteenth century. Indeed, subjectively, they manifest an immense effort - the labor of Sisyphus - to remake and unmake the lost world, incessantly, making it livable, coherent and consistent from within by means of an induced and accelerated growth of its connective tissue. It is the whole universe as previously perceived, imagined, thought, enveloped in passions and desires that suddenly collapses and must therefore be rebuilt as soon as possible. The contents of delusion appear, at first blush, like tow or rags anxiously picked however and wherever possible - to plug the leaks in the relation between the self and the world. And the fear of seeing life founder increases when one realizes that the cracks concentrated at the very points where the dividing wall between subject and object is thinnest and most fragile. Ideas, perceptions, affects, persons, things, forced to abdicate their old meaning, are feverishly invested with new meanings and values. This comes about thanks to an ars combinatoria capable of quickly filling the voids provoked by abnormal experiences and of tamponing major hemorrhages of intelligibility, utilizing all the materials or splinters of reality to be met with in an adroitly tactical manner (and overinterpreting by compensation).

In normal thought too, the range of possible connections between ideas, sensations and fantasies is broad and indefinite. In fact they amount to thousands of permissible combinations and references. In delusion the trap is set by one or more thematic cells, which develop a full and proper orchestration of delusion with multiform variations and plots. In principle they can be accounted for and listed, individuating a reliable repertory of themes and a grammar of motifs and matrices. These initial cells or "postulates" of delusion are - especially in the early stages - lively, lush, "florid" and virulent. In some ways they resemble cancer cells, their physical homologues, for their ability to multiply rapidly.

When coherence and evidence, normally considered signs of rationality, become *ab-solutae*, they constitute the most typical expression of delusion. This means, by contrast, that the idea of reason is bound up with local borders and with particularizing, pertinentizing exceptions, while that of delusion seems, rather, to be connected with the nonobservance of logical boundaries in the name of absolute coherence and evidence. 'Sane' thought has learned to content itself with what is fragmentary and incomplete, sacrificing harmonies that are more complete and premature.

With a provisional conclusion, my thesis is that the most significant difference between common logic and delusion seems to lie in the fact that the former sets limits and restraints to "reason," while the latter multiply its cells following an anomalous but partly intellegible logic.

Endnotes

- S. Arieti, *Interpretation of Schizophrenia*, New York 1974 (translation into Italian: *Interpretazione della schizofrenia*, 2 voll., Milano 1978).
- A. Ballerini M. Rossi Monti, La vergogna e il delirio, Torino 1990.
- G. Bateson D. D. Jackson J. Haley J. W. Weakland, Towards a theory of schizophrenia, *Behavioral Science*, I (1956), 251-264.
- L. Binswanger, Wahn, Pfullingen 1965.

- W. Blankenburg, *La perte de l'évidence naturelle*, Paris 1991.
- N. Cameron, Experimental Analysis of schizophrenic thinking, in AA. VV., Language and Thought in Schizophrenia, cit., 50-64.
- L. J. Chapman J. P. Chapman, *Disordered thought in schizophrenia*, New York 1973.
- L. Ciompi, Evoluzione a lungo termine della schizofrenia, New Trends in Schizophrenia, Atti, Bologna 1989, p. 272-290; Id., Affektenlogik. Über die Struktur der Psyche und ihre Entwicklung. Ein Beitrag zur Schizophrenie-Forschung, Stuttgart 1982 (translation into Italian: Logica affettiva. Una ricerca sulla schizofrenia, Milano 1994).
- G. G. de Clérambault, Automatisme mental et scission du moi [1920], now in Les édifices du délire. De Clérambault, Magnan et Sérieux, J. Séglas, Analitica, 50 (1987), 39-50.
- J. Cutting, *The Psychology of Schizophrenia*, Edinburgh-London-Melbourne-New York 1985.
- E. von Domarus, The Specific Laws of Logic in Schizophrenia, in AA. VV., *Language and Thought in Schizophrenia*, Berkeley and Los Angeles, 1944, 104-114.
- C. D. Frith, Consciousness, information processing and schizophrenia, *British Journal of Psychiatry*, 134 (1979), 225-235.
- J. M. Gold Ph. D. Harvey, Cognitive Deficits in Schizophrenia, *The Psychiatric Clinics of North America*, 16, n. 2 (June 1993), 295-312.
- K. Goldstein, Language and language disturbances, New York 1948.
- C. Honquet, M. Di Forti, R. M. Murray, and J. Van Os, The Role of cannabis in inducing paranoia and psychosis, in *Persecutory Delusions. Assessment, Theory and Treatment*, ed. by D. Freeman, R. Bentall, Ph. Garety, Oxford, Oxford University Press, 2008.
- C. G. Jung, On the Psychogenesis of Schizophrenia, *Journal of Mental Science*, 85 (1939), 999-1011, now in *Psychogenese der Geisteskrankheiten*, Zürich 1968; Id., Über die Psychologie des Unbewussten, [Zürich 1945⁵], now in *Zwei Schriften über Analytische Psychologie*, Olten 1981.

- K. Jaspers, Allgemeine Psychopathologie [1913], Heidelberg 1959.
- G. Lazorthes, *Les hallucinations*, Paris 1996.
- H. Lenz, Wahn-Sinn. Das Irrationale im Wahngeschehen, Wien 1976.
- C. Lévi-Strauss, *La pensée sauvage*, Paris 1962 (transl. into Italian: *Il pensiero selvaggio*, Milano 1964).
- J. McGrath, Ordering thought on thought disorder, *British Journal of Psychiatry*, 158 (1991), p. 307-316.
- I. Matte Blanco, *The Inconscious as Infinite Sets. An Essay in Bi-Logic*, London 1975; Id., *Thinking, Feeling, and Being. Clinical Reflexions on the Fundamental Antinomy of Human Beings and Wordld*, London New York 1988.
- E. Minkowski, Étude psycologique et analyse phénoménologique d'un cas de mélancolie schizophrenique, *Journal de psychologie normale et pathologique*, 20 (1923), n. 10, 543-560; Id., *Le temps vécu* [1933], Neuchâtel 1968.
- G. E. Morselli, Esiste un'attività psicopatologica originale?, *Archivio di Psicologia, Neurologia e Psichiatria*, IX (1948), pp. 297-306..
- S. Nacht P. Racamier, La théorie psychanalitique du délire, *Revue Française de Psychanalise*, 22, nn. 3-4 (julliet-octobre 1958), 417-507.
- A. Olivennes, La rupture avec le réel. Essai sur les délires, Paris 1972.

Persecutory Delusions. Assessment, Theory, and Treatment, ed. by D. Freeman, R. Bentall, Ph. Garety, Oxford, Oxford University Press, 2008.

- S. Piro, *Il linguaggio schizofrenico*, Milano 1967.
- C. Rabant, Délire et théorie, Paris 1978.
- P.-C. Racamier, Sur la réalité, in *De psychanalyse en psychiatrie*. Études psychopathologiques. Travaux réunis, Paris 1979, 283-313.
- K. Schneider, Über Wahn, Stuttgart 1952.
- M. Selvini Palazzoli L. Boscolo G. Cecchin G. Prata, *Paradosso e controparadosso. Un nuovo modello nella terapia della famiglia a transazione schizofrenica* [1975], Milano 1993¹¹.

- G. Stanghellini, Antropologia della vulnerabilità, Milano 1997.
- L. S. Vygotskij, Tought in schizophrenia, *Archives of Neurology and Psychiatry*, 31 (1934), 1063-1077.
- G. C. Zapparoli, La psicoanalisi del delirio, Milano 1967.

Andrew W. Young, *Face and Mind*, Oxford, Oxford University Press, 1998; Id., The Neuropsychology of Abnormal Beliefs, in *Pathologies of Belief*, ed. by M. Coltheart and M. Davies, Oxford, Blacwell, 2000.