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Schizophrenia, language and evolution (or the schizophrenias as logopathies)

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Ever since the distinction between praecox dementia and manic-depressive illness made by Kraepelin in 1899, many changes have occurred in the way these conditions and especially their boundaries are conceived. The clearest example is the extraordinary increase in the diagnoses of bipolar disease with respect to those of schizophrenia. But there have also been important changes within each one of these categories. In the first case, the separation of schizo-affective and cycloid psychoses, and in the second, the distinction between mono and bipolar disease. Then there is the description of innumerable forms of monopolar depression¹ or, on the contrary, the postulation of the existence of only one endogenous-melancholic syndrome by Tellenbach^{2,3}, an idea which is shall come up again, although from another methodological perspective, in the concept of major depression of DSM III. The present author thinks that this state of nosological confusion has to do, on one hand, with the improper combination of descriptive and etiological criteria, and on the other, with the application of categorical criteria to complex realities, without an organic basis supporting them.

The present author proposes a logopathies/thymopathies dichotomy. The first would include all forms of schizophrenia, paraphrenias and paranoias. The second would correspond to the affective disorders and also to a great part of the so called "anxiety disorders". In this first part he develops the subject of the logopathies, trying to demonstrate the legitimacy of the concept upon the basis of three fundamental arguments: (i) Alteration of the thought/language as a nucleus of schizophrenic suffering. (ii) Schizophrenia is a constitutive element of the human condition. And (iii) Schizophrenia appears as a perturbation of *Verstehen* (understanding), as described by Heidegger in *Being and Time* as one of the ways *Dasein* (human being) is present in the

world, together with *Befindlichkeit* (attunement or state-of-mind), which is precisely what would be altered in thymopathies.

Key words:

Schizophrenia. Language. Evolution. Crisis of the categorical systems of diagnosis and classification of mental illnesses.

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Esquizofrenia, lenguaje y evolución (o las esquizofrenias como logopatías)

Desde la distinción que hiciera Kraepelin en 1899 entre demencia precoz y locura maniaco-depresiva, se han producido muchos cambios en la manera de concebir estas entidades y, sobre todo, sus límites. El ejemplo más claro es el aumento extraordinario de los diagnósticos de enfermedad bipolar con respecto a los de esquizofrenia. Pero también dentro de cada una de estas categorías ha habido cambios importantes. En el caso de la primera, la separación de las psicosis esquizo-afectivas y de las cicloides y en el de la segunda, la distinción entre enfermedad mono y bipolar (que antes eran concebidas como una sola), la descripción de innumerables formas de depresión monopolar¹ o, por el contrario, el postular la existencia de un solo síndrome endógeno-melancólico^{2,3}, idea que va a reaparecer, aunque desde otra perspectiva metodológica, en el concepto de depresión mayor del DSM III. El autor piensa que este estado de confusión nosológica tiene que ver, por una parte, con la combinación indebida de criterios descriptivos y etiológicos y por otra, con la aplicación de criterios categoriales a realidades complejas, sin una base orgánica que las sustente.

El autor propone la dicotomía entre logopatías y timopatías. Las primeras abarcarían todas las formas de esquizofrenia, las parafrenias y las paranoias. Las segundas corresponderían a las enfermedades del ánimo y a gran parte de los llamados «trastornos ansiosos». En esta primera parte desarrolla el tema de las logopatías, intentando demostrar la legitimidad del concepto sobre la base

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de tres argumentos fundamentales: a) la alteración del pensamiento/lenguaje como núcleo del padecer esquizofrénico; b) la esquizofrenia como un elemento constitutivo de la condición humana, y c) la esquizofrenia como perturbación del *Verstehen* (comprender o comprensión), que Heidegger describiera en *Ser y Tiempo* como uno de los dos «existenciales» que caracterizan al ser humano (*Dasein*), junto a la *Befindlichkeit* (disposicionalidad o disposición afectiva), que es justamente lo que se alteraría en las timopatías.

Palabras clave:

Esquizofrenia. Lenguaje. Evolución. Crisis de los sistemas categoriales de diagnóstico y clasificación de las enfermedades mentales.

INTRODUCTION

Our intention is to propose a new dichotomy within the so called "endogenous" diseases, that is to say, those lacking a demonstrable organic basis and which unlike neuroses, reactions to traumatic experiences or personality disorders, affect the totality of the person and his/her world. We owe to the German author Hubertus Tellenbach^{2,3} a psychopathological and philosophical elaboration of the endogeneity problem, which in our opinion has not been overcome so far.

As is well known, the first great differentiation in the field of "insanities" was made by Emil Kraepelin in the sixth edition of his *Handbook of Psychiatry*,⁴ with his distinction between *Dementia Praecox* and manic-depressive insanity. The latter came to be called manic-depressive psychosis and the former, starting from Bleuler, became schizophrenia. This distinction has been maintained through more than 100 years, in spite of multiple attempts to abolish it; among those attempts are the theory of unique psychosis and the description of many intermediate syndromes. The last attack on Kraepelin's conception is hidden, paradoxically, in the American DSM,⁵⁻⁸ which do recognize that it is a matter of different entities, but they deprive them of their category of "endogenous", by using the same term "disorder" for personality, anxiety, organic, etc. syndromes. To transform these puzzling illnesses, which – as we will see – are a part of the human condition itself, in a mere list of symptoms (9 in depression, 5 in schizophrenia, adding in this last case the criterion of social and working dysfunction), constitutes a dramatic impoverishment of psychopathology, as it was understood by the tradition and until the phenomenological-anthropological movement of the second half of the 20th Century. This was recently soundly denounced by Héctor Pelegrina in his book *Anthropological Fundamentals of Psychopathology*.⁹ Besides the implicit error in attempting to use categorical criteria in the definition of syndromes without an organic basis, this type of conceptualization omits very evident phenomena which appear to be associated to the so called endogenous diseases, as for example, their relationship to a determined corporal biotype, as was first

claimed by Kretschmer¹⁰ and later demonstrated in empirical studies –although with some variations and precisions– by Detlev von Zerssen;¹¹ their association with maturative crises and cosmic rhythms, developed by Tellenbach, specially in the last edition of his book *Melancholy*,³ or the interesting nexus between endogenous disease and biography, as they have been studied by Tellenbach for affective disorders and by Binswanger,¹² Blankenburg^{13,14} and this author¹⁵⁻¹⁸ for schizophrenia.

Now, apart from what in our opinion has been a failed attempt to operationalize the psychiatric diagnoses and particularly the two great "endogenous" diseases that constitute the centre of daily clinical work, the history of this distinction has been full of problems, above all as regards the affective disorders, to which we will refer in the second part of this research, entitled *The affective disorders as thymopathies*. Schizophrenias, on the contrary, have been maintained as a more or less coherent group and with the same name, in spite of the broader or narrower criteria with which they have been diagnosed through the years. Any case, we want to advance that the fact that DSM has finished with the distinctions between endogenous and reactive, neurotic and psychotic, primary or symptomatic etc. forms of presentation, has not resolved the problem of the nosology of depression. Thus, the concept of "major depression" is very wide, the differences with respect to the other two subtypes (*dysthymia* and depression with melancholic features) are not very clear and even worse, the limits with respect to the so called anxiety disorders, the somatoform ones and some of the personality disorders are so diffuse, with so many overlaps, tautologies and redundancies, that serious doubts about the consistence of these constructs arise. Only two examples of the impracticability of the categorical diagnoses: there are several studies which demonstrate a comorbidity of personality disorders and major depression of over 50%.^{19,20} The arbitrariness of these categorical diagnoses reaches the extreme in the case of antisocial personality, in which, according to the studies by Widiger and Sanderson,²⁰ there are 149,495,616 possible ways to meet DSM-III-R criteria for this category. The situation has not changed very much in DSM-IV-R. The problem lies in the fact that in creating these constructs, only descriptive criteria have been used and that for the sake of a pretended "objectivity", both the subjectivity of the patient and the one of the examiner have been fully omitted. Reasonably Pelegrina⁹ says that every psychopathology should try to transform itself in "a rigorous, critical and revealing knowledge of mental disorders" and must orient itself toward the Gestalt of the "logos of the sufferings structure". In its absence, psychopathology will be a mere "semiotic or semiotechnique with only transcriptive character of the ingenuously given in its spontaneous appearing in the eyes of the patient and/or of the explorer of the signs of the disease..." (p. 45).

The results of the phenomenological research in psychopathology and psychiatry are very different. The studies

by Tellenbach, or by Binswanger, by Zutt, by López-Ibor Sr., and by Blankenburg, among others, carried out in the 1950s and 60s, still have validity and each time attempts have been made to demonstrate them empirically, the results have only served to confirm them. It is not our case here to refer in detail to these contributions. Today it is a matter of laying the foundations for the proposition stated at the beginning: to separate all non organic psychopathological syndromes in logopathies and thymopathies. There are three fundamental reasons for thinking that our proposition is correct. The first is that since the initial description of schizophrenia and of bipolar disease, the most important authors have seen as a fundamental phenomenon of them, respectively, the compromise of thinking/speaking and of mood, that is, in Greek *logos* and *thymós*. This last, as we will see, is a rather more complex phenomenon than it is usually understood to be. The second is that a lot of features induce one to think that both diseases are not a mere accident of human life, but rather something concerning his/her essence in itself. Finally, the fact that the great philosopher Martin Heidegger, in his rigorous and revolutionary description of human being as *Dasein*, states that the two fundamental forms of being the *Dasein* in the world are "Befindlichkeit" (attunement or state-of-mind) and "Verstehen" (understanding), which is in turn the pre-supposition of interpreting and talking. In other words, the human being is in the world primarily and simultaneously as *thymós* and as *logos*. Affective diseases constitute the failure of the former in regard to being in the world and schizophrenias in the latter. We will here try to demonstrate the aforesaid.

SCHIZOPHRENIAS AS LOGOPATHIES

The introduction of the logopathy concept is due to this author,²¹ who in 1991 published a study in Germany, with the title "From the destruction of language to schizophrenic logopathy". The reaction to this concept was scarce or null. In the following, we will try to demonstrate that we were not wrong in proposing this conceptualization.

Disturbance of thinking/speaking as the nucleus of schizophrenic suffering

In the sixth edition of his Handbook,⁴ Kraepelin characterizes Dementia Praecox by the evolutionary criterion we all know and by a series of symptoms, the majority of them have essentially to do with thinking or speaking: difficulty in comprehension, auditory hallucinations, thought broadcasting, thought of being influenced and disturbance of the course of thinking and above all the incoherence of thoughts (*Zerfahrenheit*). In the previous edition of his Handbook, the fifth,²² Kraepelin had already mentioned the concept of incoherence as a symptom of the dementia praecox described by Morel,²³ but without differentiating it yet

from the incoherence proper of the organic syndromes. And thus, he speaks of it as "confusion with clear signs of intellectual deterioration" (p. 142). In the sixth edition, instead, he separates it from organic incoherence (*Inkohärenz*) and attributes it an essential and specific role in this disease: "In view of the flight of ideas, we want to oppose here, as another form of loosening the course of thought, incoherence, which is the most specific of Dementia Praecox... In the framework of a speech whose exterior form is conserved, we find a total loss of the internal and external connection between the ideas."

As well known, Bleuler puts "the disturbance of the associations" as the first among the "fundamental" symptoms of schizophrenia. Then, from Schneiders²⁴ eight first rank symptoms, five have to do with thought and/or language: thought echo, auditory hallucinations, hallucinations commenting on one's own actions, thought withdrawal, thought insertion, thought of being influenced and thought broadcast. Besides, in the Present State Examination (PSE)/Catego-System, inspired in Schneider, four of the five symptoms constituting the "nuclear schizophrenia" are referred to thought and/or language. In the criteria of other North American diagnostic systems, such as Taylor-Adams or Research Diagnostic Criteria (RDC), these disturbances also appear in the first place. DSM IV enumerates five characteristic symptoms, two of which are referred to thought and/or language, while in ICD-10,²⁵ they are four of the eight. Finally, the research criteria of the Vienna School, headed by Peter Berner²⁶ should be mentioned, as it represents, in our opinion, the closest to clinical experience of all classification and diagnosis systems. There we find the schizophrenia defined by only three phenomena, two of which are explicitly referred to thought/language: the formal disturbances of thinking, among which the constraint, the derailment and the vagueness of thoughts, the neologisms and the affective flattening are mentioned. There is no doubt, then, that both for the classic authors and for the supposedly empirical and operational modern systems of diagnosis and classification, thought and/or language disturbances constitute the core manifestation of this disease. Now, it is interesting that this relationship between psychosis and language disturbance had already been suggested in the 19th Century. Only few time after Paul Broca²⁷ discovered that the centre of language was found in the left hemisphere, the alienist James Crichton-Browne²⁸ —son of William Browne, one of the most radical evolutionists of Darwin times— made the following observation respecting the weight of the brain in the "insane": "It seems not impossible that those areas of the brain that are latest evolved and that are supposed to be localized on the left side, might be the first to suffer in 'insanity'" (cited by T. Crow).

But there are other researches suggesting something similar. Thus, the study by the World Health Organization about the incidence of schizophrenia²⁹ concludes that "schi-

zophrenic illnesses are ubiquitous, appear with similar incidence in different cultures and have features that are more remarkable by their similarity across cultures than by their difference". And it occurs that the method used by the authors for diagnosis of schizophrenia was precisely the Catego concept of "nuclear syndrome" that, as we saw, requires the presence almost exclusively, of symptoms related to thought and language disturbances in order to reach a diagnosis. In his latest research, the well known author Timothy Crow³⁰⁻³⁵ has managed to determine even the way how the symptoms of the nuclear schizophrenic syndrome referred to language have their correspondence in specific alterations of the neuronal circuits. Starting from old works by Karl Buehler,³⁶ Crow suggests that every language is structured in relation to the Self and that every experience only has sense in the interaction between what is generated by the Self and what it receives from significant others. The centre of this interaction is the Self. On the other hand, a difference between both hemispheres with respect to language has been established: Language as such would be found in the dominant hemisphere and thought in the non dominant, that is respectively signifier and signified, in accordance with the famous distinction proposed by Ferdinand de Saussure.³⁷ Then Crow³³ affirms the following: "The hypothesis is that a unitary focus of neuronal activity mediates the interaction between dominant and non- dominant hemispheres (between 'speech' and 'thought') and relates the sequences generated by the speaker to those that he receives as hearer. This mechanism can go wrong and when it does so, the phenomena that are generated are the first-rank symptoms of Schneider. Nuclear symptoms can be regarded as 'language at the end of its tether'." These symptoms also indicate the separation process of the function of the two hemispheres, something which is the species defining characteristic of the brain of homo sapiens. They suggest, among other things, the following: that the notion of the Self, the distinction between speaker and hearer and, more particularly, the distinction between the signals that the individual generates as speaker and those that he receives as hearer, constitute fundamental elements for the success of language.

Schizophrenia as a constitutive element of human being

The first who stated the hypothesis that schizophrenia would be specific to homo sapiens was the Hungarian psychiatrist Miskolczy in 1933.³⁸ Two decades later, David Parfitt³⁹ developed the same idea in his book "Neurology of schizophrenia". But it is Timothy Crow^{32,40} who has most worked on this subject. To confirm the hypothesis of a very ancient genetic cause of this disease, he had to eliminate the possibilities of an environmental origin. In successive works starting in 1983, he demonstrated the falsehood of the theory of the viral origin, as those which claimed that schizophrenia was the product of infections or traumas during pregnancy

or the period after delivery. In 2000 Kendell⁴¹ arrived to the same conclusions. The exclusion of exogenous influences led then Crow to face the paradox of why schizophrenia, if it is genetic in origin and represents an evident biological disadvantage, was not selected out in the process of evolution. This paradox had already been identified in 1964 by the biologist and evolutionist Julian Huxley,⁴² famous for having tried to make the synthesis between Mendel genetics and Darwin theory. Huxley even suggested the hypothesis that the biological disadvantage of being schizophrenic would be balanced by a higher resistance to stress. But Kuttner et al (1965) pointed out that, besides the fact that this last hypothesis was not demonstrated, "it makes no sense in physiological terms to postulate an advantage in an area which is quite unrelated to the thing to be explained."⁴³

Now, when did this mutation which permits schizophrenia take place? The already mentioned study by the World Health Organization included populations in India, Japan and the north of Europe, which with absolute certainty had had no contact between them for at least ten thousand years. And yet, the schizophrenic syndromes detected in them showed the same first-rank symptoms by Schneider and in particular, thought/language alterations. Identical symptoms were found in Australian aborigines (Mowry et al.)⁴⁴ who have never moved from that place and it is now known that humans arrived in Australia as far back as sixty thousand years ago (Stringer).⁴⁵ As it is unlikely that a genetic mutation of this type would have occurred in different places of the earth and in the same way, it can only be concluded that it is as old as homo sapiens, and homo sapiens begins in the moment when the hominid starts to speak.

Yes, because even from Darwin times most researchers have been sustaining that language is the only truly distinctive feature of human beings. Now, unlike the strictly evolutionist vision of Darwin and of his closest followers, modern science postulates that language appearance was not gradual, but abrupt⁴⁶ and the product of an impressive and in a certain way inexplicable rapid transition in the evolutionary process, occurred not more than hundred thousand years ago. This phenomenon led the linguist Elizabeth Bates to manifest with perplexity that: "If the basic structural principles of language cannot be learned (bottom up) or derived (top down), there are only two possible explanations for their existence: either universal grammar was endowed to us directly by the Creator (Wallace's explanation) or else our species has undergone a mutation of unprecedented magnitude, a cognitive equivalent of the Bing Bang."⁴⁷ It is not now the moment to enter in the details of the researches which led Crow and other scientists to associate this mutation with sexual chromosomes and in particular, with chromosome Y, and even less to the complex changes occurred in this chromosome in two moments of discontinuity within the evolutionary process: one six million years ago, when we separated ourselves from the chimpanzees, and the other

about a hundred thousand, when we took the step from homo erectus to homo sapiens and we definitely took leave from our cousins, the Neanderthals. The important issue to underline is, first, that language appearance was associated with brain asymmetry and with hemispheric dominance (the primates are all ambidextrous, while the humans are 85% dextrous and 15% left-handed); second, the origin of the genetic variation which made possible the appearance of schizophrenia is contemporaneous with the mutation which permitted our species to accede to language and finally, that the key thought/language alteration of the schizophrenic patients is the syntax, which is precisely that part of language which had to appear all of a sudden, unlike emotional and onomatopoeic language, already possessed by our ancestors and that could certainly evolve gradually. Besides, schizophrenia nuclear symptoms teach us the transcendental importance for human communication of knowing how to distinguish between self-generated messages and those received by another significant (Crow).³³

It would be difficult to find a stronger argument to support the formulated hypothesis of the specifically human character of schizophrenia and why it is justified to call it "logopathy".

Schizophrenia as a perturbation of the existential feature of *Verstehen* (understanding), in the framework of the description of human being (*Dasein*) made by Heidegger in his transcendental work, *Being and Time*

As we said in the introduction, there are two elements characterizing the *Dasein* in his/her way of being in the world: *Befindlichkeit* (attunement or state-of-mind) and *Verstehen* (understanding). About we will talk later, in reference to the affective disorders. We will focus now on the second existential feature. The *Dasein* is in the world above all and fundamentally as understanding, even more than as attunement. The world is a totality of relations and of references. The world is not given to the *Dasein* as a set of "objects" with which in a second moment he/she would relate him/herself to and would attribute to them a meaning or a function. Things are always given to him/her already provided of a function and therefore, of a meaning. But they can be presented to him/her as such only if they are inserted in a totality of meanings, of which the *Dasein* already disposes. An evident circularity is stated here, because the world is given to us only in the measure that we already have a patrimony of ideas or of prejudices which guide us in the discovery of things. Let us remember in this context that Plato said that "cognition is always recognition". Now, this does not mean that *Dasein* disposes from the beginning of a complete knowledge of the world. The meanings of the things are nothing but possible uses for our goals. The human being is constitutively a *able-to-be*. All his exis-

tence has this character of openness and of possibility. That is why *Dasein* is always in the world as a project. Now, the articulation of this original understanding of things is what Heidegger calls *Auslegung* (interpretation). But this is not a capricious or loose interpretation, because *Dasein* is not something closed, from which he/she has to go out of to reach the world; *Dasein* is always already and constitutively in a relationship with the world, before every artificial distinction between "subject" and "object" is made. "The interpretation is the appropriation of what is understood", says Heidegger⁴⁸⁻⁵⁰ (§ 34). But knowledge as interpretation is not development and articulation of the fantasies that *Dasein*, as an individual subject, could have about the world, but it is the elaboration of the original relationship with the world of which he is constituted.

Now, language (discourse) is existentially equiprimordial with attunement and understanding. Even further it is what makes possible the interpreting understanding or the interpretation of what is understood. For Heidegger, the discourse (speech, language) is the "articulation of intelligibility". "The totality of significations of intelligibility is put into words. Words accrue to significations. But words-things are not provided with significations."⁴⁸⁻⁵⁰ (§ 34). And later he states: "The discourse is the significant articulation of the intelligibility of being-in-the-world to which belongs being-with and which maintains itself in a particular way of heedful being-with-one-another" (§ 34). In these statements by Heidegger we find several elements which seem to us of the highest interest and which have to do with the subject we are dealing with. The first one is the use of the expression "*Wörterdinge*" (words-things), with which the philosopher identifies the word with the thing. Let us remember the verse by Stefan George: "There is nothing there where the word is missing" (cited by Dörr).⁵¹ Things exist because there is a word that names them or because the man who is able to say those words exists. The other fundamental element is the statement that words accrue to significations and not inversely. This sentence by Heidegger shows an amazing correspondence with formulations coming from the theory of language, as well as with some of the discoveries of the evolutionary theory. Darwin himself had already affirmed that "articulated language is peculiar to man" and that "it is not the mere power of articulation that distinguishes man from other animals, for, as everyone knows, parrots can talk, but it is his large power of connecting definite sounds with definite ideas". A few years later Friedrich M. Müller,⁵² an opponent of Darwin's gradualist theory and defender of the unique character of the human being, distinguished between an emotional and a rational language. We would share the emotional or onomatopoeic language with some animals. The rational, instead, is specific to man. Now, the essence of this rational language, fundamentally lying in the dominant hemisphere, would be the capacity to form "roots". And Müller claims: "Take any word you like, trace it back historically to its most primitive form, and you will

find that besides the derivated elements, which can easily be separated, it contains a predicative root, and that in this predicative root rests the connotative power of the word [...] These roots, which are in reality our oldest title-deeds as rational beings, still supply the living sap of the millions of words scattered over the globe, while no trace of them, or anything corresponding to them has ever been discovered even among the most advanced of catarrhine apes." There is an evident correspondence between those linguistic roots by Müller and these "significations from which words appear" by Heidegger. And the more interesting in our context is based on the fact that the qualitative jump from the hominid to the homo sapiens was precisely the acquisition of "rational language", or "roots" in Müller terminology, or of the syntagmatic structure in the terms of Ferdinand de Saussure, and not of the emission of sounds or even onomatopoeic words which—as we saw—our pre-human ancestors already managed to do. The previous is not only demonstrating us the validity of the description of Dasein made by Heidegger, but also the verisimilitude of Crow hypothesis of the remote origin of schizophrenia and of its association with the emergence of language.

Now, according to Ferdinand de Saussure,³⁷ spoken language would be characterized by two principles: a syntagmatic structure, which corresponds to the organization of the elements within a sentence, and a paradigmatic mechanism, according to which every component of the sequence (proposition or sentence) can be substituted by another member of the same class. This distinction has served as fundamental to the bi-hemispheric theory of language, according to which the syntagmatic structure (the signifiers) would have fundamentally its origin in the temporal-occipital region of the dominant hemisphere (Wernicke area), while the paradigmatic, that is to say, the multiple meanings and their associations, in the non dominant hemisphere. Both functions would be associated through the corpus callosum, which has excessively large dimensions in the human being in comparison with other species.⁵³ Every signifier is associated through the threads of the corpus callosum with a number of meanings that can be indefinite. This is what gives the paradigmatic flexibility to the sentence. Now, the accommodation of these possible associations in a syntagmatic and comprehensible lineal structure takes place in the frontal lobe of the dominant hemisphere (Broca's area). The basis of these interconnections and, therefore, of the adequate structuration of language, is the asymmetry of the brain, that, as it is well known, is given in the anterior-posterior direction, being the frontal region of the non dominant hemisphere and the temporal-occipital of the dominant hemisphere wider. Well, Crow mentions a series of studies, both anatomic and functional, mostly carried out by himself, which demonstrates the lack of differentiation of brain hemispheres in schizophrenia. And this could be the basis of a lower control over the associations, perturbation which since Bleuler we recognize as the most characteristic of this disease.

Finally, it would be necessary to underline the other Heidegger quote mentioned, which referred to the relationship between understanding, that is to say, language and the being-with and the being-with-one-another, something that he complements later, when he states that the possibilities to hear and to be silent also belong to the essence of talking. The importance of this passage is the relationship of language and the other person, a subject we have developed on another occasion (Dörr).²¹ The absence of the other person (in autism, for example) leads necessarily to the destruction of language, since "every assertion is already an answer", as Gadamer says.⁵⁴ But this destruction of language arises today, as we know, only in extreme cases, or in very abandoned or insufficiently treated patients. What is certainly maintained as a fundamental symptom of this perturbation of understanding in Heidegger's sense is, on one side, the loosening of associations, given the lessening of the intentional arc, in the sense of Berze,⁵⁵ and on the other, that difficulty to move among the different levels of language of everyday life, in spite of a perfect conservation of the intellectual capacities (Peters).⁵⁶ This is showed, among other things, through the frequent lack of sense of humour observed in schizophrenic patients.

In summary, the fundamental symptom of schizophrenia is the perturbation of thought and language, schizophrenia appears as a contemporaneous genetic variation which allowed the access of man to the word and finally, seen from Heidegger's fundamental ontology, schizophrenia appears as a perturbation of one of the two fundamental ways of being the man in the world, which is the understanding, the interpretation as appropriation of what is understood and the language as the articulation of both. For all these reasons, we consider we have laid the foundations of our initial proposition of conceiving schizophrenias as logopathies.

REFERENCES

1. World Health Organization. The ICD-9 Classification of Mental and Behavioral Disorders. Geneva: World Health Organization, 1987.
2. Tellenbach H. Melancholie. Berlin-Göttingen-Heidelberg: Springer Verlag, 1961, 1974, 1976, 1983.
3. Tellenbach H. Melancholy. Pittsburgh: Duquesne University Press, 1980.
4. Kraepelin E. Psychiatrie. Ein Lehrbuch für Studierende und Aerzte (6. Auflage). Leipzig: Johann Ambrosius Barth, 1899.
5. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, DSM-III. Washington, DC: APA, 1980.
6. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, DSM-III-R. Washington, DC: APA, 1987.
7. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, DSM-IV. Washington, DC: APA, 1995.
8. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, DSM-IV-TR. Washington, DC: APA, 2000.
9. Pelegrina H. Fundamentos Antropológicos de la Psicopatología.

- Madrid: Ediciones Polifemo, 2006.
10. Kretschmer E. Körperbau und Charakter (21 & 22 Auflage). Berlin-Göttingen-Heidelberg: Springer Verlag, 1965.
 11. von Zerssen D. Methoden der Konstitutions- und Typenforschung. En: Enzyklopaedie der geisteswissenschaftlichen Arbeitsmethoden (Hrsg. Thiel M) 9 Lfg: Methoden der Anthropologie. S. 35. München-Wien: Oldenburg, 1973; 115.
 12. Binswanger L. Schizophrenie. Pfullingen: Neske Verlag, 1957.
 13. Blankenburg W. Dasein sanalytische Studie über einen Fall paranoier Schizophrenie. Schweiz. Archiv für Neurol Neurochir u Psychiat 1958;81:S 9-105.
 14. Blankenburg W. Die Verselbständigung eines Themas zum Wahn. Jhb. für Psychol., Psychotherapie und Med. Anthropologie 1966;13:S 137.
 15. Dörr O. La esquizofrenia como necesidad de la historia vital. Rev Chil Neuropsiquiat 1970;9:3-11.
 16. Dörr O. Verdad y delirio. Rev Chil Neuropsiquiat 1984;22:193-9.
 17. Dörr O. Racionalidad e irracionalidad en el delirio. Revista de Filosofía (Chile) 1986;27-28:107-130.
 18. Dörr O. Psiquiatría antropológica. Santiago: Editorial Universitaria, 1997.
 19. Morey LC. Personality disorders in DSM III and DSM-III-R: Convergence, coverage, and internal consistency. Am J Psy, 1988;145:573-7.
 20. Widiger TA, Sanderson CG. Toward a dimensional model of personality disorders. En: Livesley WJ (Ed.). The DSM-IV Personality Disorders. New York-London: The Guilford Press, 1995: pp. 433-58.
 21. Dörr O. Die Destruktion der Sprache zur schizophrenen. Logopathie. En: Kraus A, Mundt Ch (Eds.). Sprache und Schizophrenie. Stuttgart-New York: Thieme Verlag, 1991: pp. 97-104.
 22. Kraepelin E. Psychiatrie. Ein Lehrbuch für Studierende und Aerzte (5. Auflage). Leipzig: Johann Ambrosius Barth, 1896.
 23. Morel BA. Traité de dégénérescences physiques, intellectuelles et morales de l'espèce humaine. Cit. por Pichot P. Un siglo de psiquiatría. Paris: Editions Roger Dacosta, 1983: p. 16.
 24. Schneider K. Klinische Psychopathologie (sechste, verbesserte Auflage). Stuttgart: Georg Thieme Verlag, 1962: S. 91.
 25. World Health Organization. The ICD-10 Classification of Mental and Behavioral Disorders. Geneva: World Health Organization, 1992.
 26. Berner P. Diagnosekriterien Für Schizophrene Und Affektive Psychosen. Wien: Weltverband für Psychiatrie, 1983.
 27. Broca P. Remarques sur la siège de la faculté du langage. Bull Soc Anat Paris 1861;6: 330-57.
 28. Crichton-Browne J. On the weight of the brain and its component parts in the insane. Brain 1879;2:42-67.
 29. Jablensky A, Sartorius N, Emberg G, Anker M, Korten A, Cooper JE, et al. Schizophrenia: manifestations, incidence and course in different cultures. A World Health Organization Ten Countries Study. Psychol Med 1992;20 (Suppl.):1-97.
 30. Crow TJ. Constraints on concepts of pathogenesis: language and the speciation process as the key to the etiology of schizophrenia. Arch Gen Psychiatry 1995;52:1011-4.
 31. Crow TJ. Language and psychoses: common evolutionary origin. Endeavour 1996;20:105-9.
 32. Crow TJ. Is schizophrenia the price that homo sapiens pays for language? Schizophr Res 1997;28:127-41.
 33. Crow TJ. Nuclear schizophrenic symptoms as a window on the relationship between thought and speech. Br J Psy 1998;173:303-9.
 34. Crow TJ. March 27, 1827 and what happened later-the impact of psychiatry on evolutionary theory. Prog Neuropsychopharmacol Biol Psychiatry 2006;30:785-96.
 35. Crow TJ. The speciation of modern homo sapiens. London: The British Academy, 2002.
 36. Buehler K. Teoría del lenguaje. Madrid: Revista de Occidente, 1979.
 37. Saussure F. Curso de lingüística general. Buenos Aires: Editorial Losada, 1966.
 38. Miskolczy D. Über das anatomische korrelat der Schizophrenie. Z Neurol 1933;147:509-44.
 39. Parfitt DN. The neurology of schizophrenia. J Ment Sci 1956;102:671-718.
 40. Crow TJ. Temporal lobe asymmetries as the key to the etiology of schizophrenia. Schizophr Bull 1990;16:433-44.
 41. Kendell RE, McInnery J, Juszcak E, Bain M. Obstetric complications and schizophrenia. Two case-control studies based on structures obstetric records. Dr. J. Psychiatry 2000;176:516-22.
 42. Huxley J, Mayr E, Osmond H, Hoffer H. Schizophrenia as a genetic morphism. Nature 1964;204:220-1.
 43. Kuttner RE, Lorincz AB, Swan DA. The schizophrenia gene and social evolution. Psychol Rep 1967;20:407-12.
 44. Mowry B, Lennon DP, De Felice CM. Diagnosis of schizophrenia in a matched sample of Australian aborigines. Acta Psychiatr Scan 1994;90:337-41.
 45. Stringer C. Los orígenes de la morfología y del comportamiento de los humanos modernos. En Crow TJ (Ed.). La especiación del Homo sapiens moderno. Madrid: Triacastela, 2005; pp. 35-44.
 46. Bickerton D. Del protolenguaje al lenguaje. En Crow TJ (Ed.). La especiación del homo sapiens moderno. Madrid: Triacastela, 2005; pp. 119-136.
 47. Pinker S. The Language Instinct: How the Mind Creates Language. New York: William Morrow and Company, 1994.
 48. Heidegger M. Ser y Tiempo (trad. Rivera JE). Santiago: Editorial Universitaria, 1997.
 49. Heidegger M. Sein und Zeit (10. unveränderte Auflage). Tübingen: Max Niemayer Verlag (1963).
 50. Heidegger M. Being and Time (translated by Joan Stambaugh). New York: State University of New York Press, 1996.
 51. Dörr O. Acerca de las relaciones entre lenguaje y ética. En: Espacio y tiempo vividos. Santiago: Editorial Universitaria, 1996; p. 23.
 52. Müller FM. Lectures on Mr. Darwin's Philosophy of language. Fraser's magazine vols. 7 and 8. En Harris R (Ed.). The origin of language. Reprinted in Harris. Bristol: Thoemmes Press, 1873, 1966.
 53. Cook ND. Callosal inhibition: the key to the brain code. Behav Sci 1984;29:98-110.
 54. Gadamer HG. Wahrheit und Methode. Tübingen: JCB Mohr (Paul Siebeck), 1965; p. 361.
 55. Berze J, Gruhle H. Psychologie der Schizophrenie. Berlin: Springer Verlag, 1929.
 56. Peters UH. Die Verwerfungen im Sprach- und Textverhalten Schizophrener. En: Kraus A, Mundt C, Hrsg: Schizophrenie und Sprache. Stuttgart-New York: Georg Thieme Verlag, 1991; pp. 8-21.