



Nervousness as a nosographic category in the early twentieth century

Luiz Fernando Duarte

Associate Professor, Graduate Program in Social Anthropology
Museu Nacional, Universidade Federal do Rio de Janeiro

Museu Nacional, Quinta da Boa Vista, s/nº
20940-040 – Rio de Janeiro – RJ – Brazil
lfdduarte@uol.com.br

Received for publication in January 2010.
Approved for publication in October 2010.

Translated by Rebecca Atkinson.

DUARTE, Luiz Fernando Dias.
Nervousness as a nosographic category
in the early twentieth century. *História,
Ciências, Saúde – Manguinhos*, Rio de
Janeiro, v.17, suppl.2, Dec. 2010.
Available at: <http://www.scielo.br>.

Abstract

The paper presents the conceptual framework surrounding the category of nervousness in Brazilian psychiatry in the early twentieth century as represented in an article by Henrique Roxo published in *Arquivos Brasileiros de Psiquiatria, Neurologia e Medicina Legal* in 1916, and contextualizes it in the history of psychiatric classifications and representations about nerves and the nervous system. As such, it intends to contribute towards mapping out physicalistic naturalism (or epiphenomenalism), which can be seen throughout the representations of the human person and their disturbances in modern western culture.

Keywords: Nervousness; psychiatry; nervous system; nosography; mental disorder.

Any understanding of the presence of the category of nervousness (*nervosité, Nervosität*) in psychiatric classifications in the first decades of the twentieth century cannot fail to take account of information about its most immediate lexical and cultural roots: the representations of nerves and the nervous system. It also involves explicating the threads in the complex conceptual web it was part of at the time. To address this task, we will analyze a text by Henrique Roxo entitled “Nervosismo” published in *Arquivos Brasileiros de Psiquiatria, Neurologia e Medicina Legal* in 1916, which serves as the backbone for an investigation into the psychiatric and psychological knowledge and practice that were current in Brazil at the time. We will also bring to light some properties of the different manifestations of physicalistic or epiphenomenalistic reductionism that constitute one of the most important theories about the human person and their disturbances in modern western society. The emphasis will be not so much on the author, about whom there is ample literature, as on the text itself and the concepts that underlie it.

Nervousness is one of a group of variations of the ‘nerves’, a term that gained ground and was established in scholarly and lay language throughout the nineteenth century. The original word had been used since classical philosophical medicine, but underwent a relatively sudden change when the representation of the nervous system was consolidated in the mid eighteenth century. Formerly seen as a physical element of the bodily structure of animals, among other things, nerves started to be the focus of the imaginary dimensions that were central to the new conception of the human subject as conceived in modernity (Figlio, 1975; Lawrence, 1979). As I showed previously (Duarte, 1986), the new nervous system, whose invention was based on original contributions by the great physiologists Albrecht von Haller and Hermann Boerhaave, provided the physical groundwork required for the model of the person that came to be known as the individual, the indivisible wholeness, endowed with an internal system that articulated all the parts and dimensions of his/her existence and equally depended on it for his/her communication with the outside world and peers in every kind of social intercourse. The idea that every person was constituted identically provided the solid empirical foundations for this communication and a basis for public general agreement.

This model took shape within very important cultural forms, making up part of what I call a ‘nerve configuration’ and gradually supplanting the former, long-standing configuration, which could be summed up under the label of humor-based or melancholy-based. Some of the older features of the new configurations underwent change throughout the nineteenth century, when they started to clash with the alternative model, psychological configuration, although they can still be clearly perceived in the most recent developments in neurology and psychiatry.

Lying at the heart of these changes was the gradual erosion of the original egalitarian universalism by successive theories of nerve-derived differences, the most important of which undoubtedly affected representations of the female gender. The theory of degeneration was built up on a number of differentiation criteria according to race, gender, behavior and civilization, and consolidated a means for interpreting human beings that became widespread from the second half of the nineteenth century until the Second World War (Carrara, 1996).

The development of knowledge about nerves came primarily from mainstream western science, with its naturalistic assumptions and highly controlled empirical strategies. The representation of the nervous system became increasingly complex as new medical knowledge was acquired about how the organs, tissues and cells are organized and the new science of biochemistry was applied to understanding the human body. This knowledge was gradually consolidated alongside concerns about the relationship between the human body and its natural and social environment. A science of animal nutrition emerged from these concerns, as did the knowledge that would later be consolidated under the labels of sanitarianism and hygienism. Concerns about the natural and social conditions for the emergence and development of the human species gave rise to the formulation of the first theories of evolution from lower life forms. This model, which proved to be of crucial importance to modernity as of its consolidation as formulated by Charles Darwin, allowed a more complex interplay to be admitted between the natural and socio-cultural conditions of this historical process.

The theory of degeneration mentioned above was one of the most prestigious and influential articulations of the model, combining the physical and moral conditions for the phylogenetic and ontogenetic development of humans. Yet this combination was not interactive: it clearly implied that moral conditions were encompassed by physical conditions. The superior logic of the evolutionary process was taken for granted, and the disturbances associated with the state of civilization only went to underline its random and artificial nature.

The 'nerve configuration', initially made up of an anatomic and functional structure, thus started to take account of new interpretations of the physical and moral disturbances¹ that were characteristic of modernity (Foucault, 1978), unleashing a whole gamut of conflicting lines of thought. Very briefly, one might say that two main approaches were consolidated throughout the twentieth century, setting the mindset for how humans can be conceived to this day: a naturalist model and a symbolizing model. The former, essentially monistic view sees moral (social, cultural, symbolic, psychological) life as an epiphenomenon of physical or natural life. The latter, dualistic model sees moral life as being constituted and organized by its own rules – *sui generis* – which are relatively autonomous from the natural substrate.²

Nineteenth century psychiatry and psychology developed along these two routes. The moral treatment pursued by Philippe Pinel's school was taken as the original focus of the symbolizing interpretations, while brain 'locationism' became the first main flagship of naturalist interpretations – at least as of the description by Antoine Bayle in 1825 of the encephallic anatomical lesions of general paralysis, later recognized as deriving from syphilis (Foucault, 1980). The symbolizing route was consolidated around Sigmund Freud's psychoanalysis at the cusp of the twentieth century. The naturalist route, whose anatomical 'locationism' had provided the opportunity for ambitious projects like phrenology and craniology, opened up to more functional versions where the nervous system continued to reign, but under other names.³

The article by Henrique Roxo⁴ (1916a) we will focus on here was written against this backdrop. The author was operating in a field in which the abovementioned epistemological

tension had not yet been translated into institutional consolidation (especially in Brazil) and in which the concern with mental ailments / nervous diseases allowed engagement with a wide range of influences under the broad umbrella of medicine. In actual fact, this epistemological approach is a constant in modern science (especially medicine), as naturalist assumptions, with their empirical foundations, lead to the understanding that truth is imposed on the spirit (in so-called evidence) by means of experimental or clinical research.⁵ The boundaries would be drawn on a different level: what may or may not be deemed a research finding.

The article's structure is very typical of its genre: a review of a nosographic category⁶, with a detailed examination of the international literature on the topic, the drawing of parallels with clinical cases recorded personally by the author, and a final proposal to consolidate the field of classifications. The review is designed to highlight the anatomical and physiological conditions underlying the pathology, setting the bases for the proposal of the most suitable treatment.

There are many authors cited (albeit without any specific bibliographical references), most of whom are from outside Brazil. The leading figures of his day are mentioned as the author highlights different details of his arguments. Excepting the reference to Galen, all the other cited authors are relatively contemporary: Joseph Babinski, Janet (certainly Pierre), Jean-Martin Charcot, Theodor Meynert, George Beard, Richard Von Krafft-Ebing, Benjamin Ball, Jean-Pierre Flourens and Sigmund Freud are the most easily recognizable today of the many names mentioned. The only Brazilians he cites as authors (rather than clinicians) are Antonio Austregésilo and Faustino Esposel (Roxo, 1916a, p.96).

The concept of nervousness is closely connected to the imaginary of the nervous system; it is, in fact, no more than its pathological dimension (or one of these). As such, in my analysis of the concept as expressed by Roxo, I can turn to the analytical structure I established in another work about nerves (Duarte, 1986).

In the previous work, I proposed that the imaginary of the nervous system may be comprehended by a number of structuring topics and ideational nodes. Of the seven topics raised, six appear very clearly in the article. The first is that of wholeness⁷: the fact that the nervous system is like an axis or articulation center for the human person. Although its most traditional expressions do not receive explicit mention in the text, the topic can be deduced from the importance the author gives to cenesthesia. Above all, nervousness is considered a disturbance of this nature, i.e. of the total, integrated perception of the human being, which includes the bodily senses and affections and everything to do with the mind, consciousness and behavior.⁸ This is clearly underlain by the idea that the nervous system operates as the ultimate instance of articulation for a person and the assumption that this person should be considered a relatively autonomous individual with respect to the world around them.

The second topic is physicality (Duarte, 1986, p.75), or the purely natural, material, physical nature of nerves and their disturbances, subordinating them to an order of explicability that is specific to science rather than anything relating to spirituality or idealism⁹. As the author encapsulates so well, nervousness "is a natural fact of biological life," (Roxo, 1916a, p.81).

A clear example of this topic can be seen in the reduction Roxo makes of his patients' complex complaints to disturbances of the brain and the nervous system. They often actually refer to sensations or disturbances related to the head, an entity with moral and physical attributes that is given much attention in Western lay culture (Duarte, 1986, p.154, 155, 180): headaches, vertigo, nerve pain, buzzing, dizzy spells, hyperesthesia, numbness and insomnia. The physical entity of the brain is the core of the human nervous experience and as such is made up of clearly definable parts, whether on the plane of its cells or of its major anatomical areas. Its centrality extends to the peripheral nuclei of the autonomic nervous system and the local nerve ganglia.¹⁰ It is no longer within the anatomical and pathological 'locationism' of the nineteenth century, nor has it reached the biophysical 'locationism' of the late twentieth century. The functional correlations are somewhat diffuse, as they depend exclusively on clinical evidence, but they continue to be implicit, as if they were inescapable or taken for granted.

Nervousness is a pathology of this physical basis and can be distinguished from others precisely by its diffuse, mobile and broad nature. The emphasis on cenesthesia-related disturbances is fundamental, focusing more on the symptoms of the afflictions and malaises than on the pain or obsessions, impulses or phobias (Roxo, 1916a, p.76). It therefore occupies the gap between the great figures of psychopathology from the early twentieth century – from former hysteria to the more recent dementia and schizophrenia –, while at the same time being more widespread, insidious and ubiquitous in its association with the diagnosis of neurasthenia.

The cenesthetic disturbances are generalized, but are also palpable, concrete, part of a patient's real sensations. Aside from the aforementioned symptoms, there are others, such as shivering, cramps, asthenia, depression, neurasthenic asthenopia, dyspepsia and frigidity.

The physical life of the nervous system depends fundamentally on feeding the nerve cells. The main ideational node of nerve-related diseases is that of weakness, as evoked explicitly by Roxo. This weakness arises from malnutrition, caused by the circulation of "scarce or bad blood" (Roxo, 1916a, p.87). It implies a state of nervous exhaustion, with the corollary conditions of mood swings, irritability and fatigue, as part of a more generalized decadence of nerve function. This incursion into the realm of mood swings makes explicit the huge potential this node has to slip into the moral dimension of a person, albeit with a strong foothold in physicality.

As I described in the aforementioned work, using another edition of this text by Roxo as an example (1916b),

The 'weakness' node ... traverses the whole 'nerve' configuration in different directions. The qualities of generality and flexibility this opposing pair is surrounded by make it possible for symbolic frames and shifts to be established that are crucial for the history of modern representations about the person. ... it is present in different models of human anatomy and physiology from the seventeenth century onwards, feeding into the topics of 'wholeness' and 'physicality'. It is notable, however, how each of these models, whether the 'firmness' propounded by Thomas Sydenham (1624-1689) or the 'esthenia/asthenia' of John Brown (1735-1788), the *vis nervosa* of Albrecht von Haller (1763) or the more recent model of 'nervous weakness' proposed by Paul Hasse (1855), 'neurasthenia' by George Miller Beard (1868) or 'stress' by Hans Selye (1925), had always served to tie

together 'physicality' with 'morality' – both when they were affirmed and even more so in their later appropriations – in this admirable game that permeates the history of modern physical and moral knowledge. The 'strength' and 'weakness' of fibers or substances, the 'strength' and 'weakness' of feelings or personality become enmeshed in intricate webs of meaning and value. In the texts we mention as examples ..., we find ... the concerns of Henrique Roxo with the 'feeding' of 'nerve cells' ... [with a view to strengthening them] ... (Duarte, 1986, p.75).

It is no surprise, then, that the proposed treatment involves a combination of physical and moral interventions. Cell nutrition should be fostered by the ingestion of phosphorus¹¹ or arsenic. Chloral, bromide and strychnine should be avoided because they are likely to further 'irritate' the nerve matter. Some plant-based sedatives have the opposite effect, such as extracts of valeriana, henbane, camphor, *Cannabis indica* and *Datura stramonium* (Roxo, 1916a, p.104). And finally it is recommended that the patient rest, sleep, avoid hard work or exertion, and be moderate in their indulgences (social events, smoking, drinking, etc.).

It is also important to note the connection between weakness of the nerves and the occurrence of pathologies that could in theory be considered more directly physical, such as syphilis, enterocolitis, fevers and infections in general or toxic infections. This leads us to our third topic: the ills of civilization. This is a denouncement of the pathological qualities or conditions of the social milieu in which subjects live, especially in the context of modern society or civilization. "The 'nervous system' is seen not just as the conduit between the individual organism and this threat-ridden environment, but also the place where unnatural 'stimuli' received from it are fixed, develop and even reproduce perversely. The tradition that sees human pathology as having 'moral causes' draws on this for the development of 'hygienist' proposals," (Duarte, 1986, p.73).

Roxo also develops a topic that addresses the relationship between constitution and degeneration (which probably encompasses hereditary predisposition). Constitution is one of western culture's many traditional physical and moral categories that are associated with the humor-based configuration and were reworked semantically within the context of nerves. It designates the set of physical qualities that are characteristic of a given subject, inevitably also involving their moral qualities. In this sense, it also encompasses the category of personality, which is directly related to qualities of a moral nature and helps us understand the following statement: "A well-nourished, developed nervous system should correspond to a clear, defined personality," (Roxo, 1916a, p.84).

Constitution and personality depend on many conditions for their development that are rooted in civilization. Habits like smoking or drinking seem to contain a more obviously 'social' dimension, although this is also present in medical conditions like syphilis, colitis or dyspepsia – all mentioned in the article "Nervosismo".

Syphilis was one of the main components of the model of degeneration (Carrara, 1996). As this venereal disease was so contagious, practically incurable, and resulted in radical degenerative effects in the long term, it provided the clearest link between body and morality; immediate proof, as it were, for the model. Colitis and dyspepsia, meanwhile, represented an important set of disturbances of the digestive apparatus that could be

associated with some moral etiology. The potential excitability and irritability of the nervous system seemed to become more evident in people struck by these afflictions, in which the threats of self-poisoning by the vice of eating and the use of stimulants were directly at play.

I called the next topic will x determination (Duarte, 1986, p.74). Underlying the various formulae for articulating a physical determination with a moral one, a space for interiorization is created within the nerve configuration thanks to the topic of wholeness. It is the room for maneuver instated by what Foucault (1978, p.285)¹² called the ethics of nervous sensitivity. It is under the aegis of this topic that there unfolds, for instance, a concern with discarding the accusations of fantasy or pretence, which comes up twice in Roxo's text (1916a, p.106).

The issue of consciousness, with its psychological and moral facets, is mentioned here explicitly. The author discusses the implications of what he calls self-analysis, self-suggestion, introspective analysis or autoscopia (Roxo, 1916a, p.92) on the development of nervousness, offsetting them against the beneficial effects of medical suggestion or psychotherapy (Roxo, 1916a, p.96). For him, the excessive observation of the self and excessive self-awareness, certainly associated with the self-oriented technologies of civilization, was one of the sources of nervous disturbance. On the other hand, submission to the skilled, controlled influence or suggestion of a medical agent could only be healthful. There is even a reference to hypnosis, which was practiced by one of his "distinguished colleagues", albeit without bringing about any positive effects in the clinical case in question.¹³ It is likely, although not expressed explicitly in the text, that Roxo included in his negative appraisal of self-examination the ideas of self-blame that Foucault refers to in his description of this peculiar modern ethic.

In essence, this topic has to do with the implications of individualization inherent to civilization and concerning consciousness. Understandably, the author does not address all the variations on the topic. His almost unwaveringly negative stance towards individual will is remarkable, while at the same time stressing the importance of medical authority.¹⁴ One way or the other, it is in this ambit of the individual sensations and emotions that are to a greater or lesser degree determined by the state of the nerve cells that he sets out his ideas about the primary symptoms of anxiety, malaise and affliction. It is in this same register that he makes his rapid review of the diagnostic methods established by Freud for neurotic angst, which he associates with nervousness. Later, however, he distances himself from psychoanalysis, believing it only to address the intrapsychic phenomenon (Roxo, 1916a, p.78).

In this context, it is also worth alluding to specific references to purely moral causes, so to speak. Moral offense, great moral shocks, moral worries, or the harmful effects of a "toilsome struggle in a life full of hurdles and hardships," (Roxo, 1916a, p.80) emerge as scattered indications of the consideration of these other etiologies of nervousness addressed by psychiatry.

The topic of treatment (Duarte, 1986, p.74), meaning the association of nerves with the provision of medical relief from their disturbances, is a dimension that pervades the whole configuration. It shadows every twist and turn of this physiology of the interior,

attendant to its specular pathology. It is a corollary of the topic of physicality because it would expel any vestige of superstition from investigations of human life, and would arm medicine and medicine alone with the weapons of scientific rationale. It runs perpendicular to the topic of the ills of civilization, because it sustains the long crusade carried by hygienism (when not by eugenics). And it holds a jealous monopoly over the agents of biomedicine.

The topic of the universal diffusion of 'nervous diseases' is less explicit in the text. Yet, as I said:

It may be deduced almost logically from the articulation between the topics of 'wholeness' and the 'ills of civilization'. Since the 'nervous system' has this quality of providing an axial articulation for individuals, and all individuals live in 'society', and in 'civilization' nobody is free from immediate or virtual exposure to nervous 'imbalances', 'disturbances' or 'tensions'. Depending, however, on certain 'physical' ... and moral ... categories, there are some differential distributions of this diffusion that make certain types of people more vulnerable or predisposed to these disturbances. In this sense, another node, 'weakness', can be linked to this topic ..., as can that of the 'nervous woman' (addressed within the node of 'differential allocation'). This topic of 'universal diffusion' further embraces a central issue: that of the relationship between 'nervous diseases' and 'mental illness' or 'madness' ... different constructions have been built up around this topic, some of which emphasize the 'continuity' between these two phenomena (partly thanks to the articulation with the ... proposed normal/pathological identity), while others emphasize their polarity in different classifications, thanks in part to the tradition of classifications into 'species' seen in the 'naturalism' of the seventeenth and eighteenth centuries (Duarte, 1986, p.73).

In his article, Roxo does not make any generalizations about the universality of nervousness, but does note how commonplace it is in the demands for specialized medical care. He reckons that 35% of his patients are diagnosed with this in his own clinical work.

Another topic that is not given much attention is the node of communication, which encompasses the huge semantic area that immediately underpins the topic of wholeness. One assumption used in this analysis is that the 'nervous system' consists of a person's highest articulation, enabling all the necessary flows between the brain's command centers and the extremities of the body, between the sense organs and the sense centers, permitting memory, consciousness and all the superior qualities.¹⁵

The fourth node, that of irritation (Duarte, 1986, p.76), is just as explicit and structuring in the text as the 'weakness' node. It can only be understood as a function of the topic of wholeness and the node of communication, against which it can be seen as a specifying formula. Likewise, it also runs parallel to the 'obstruction' node, since it also addresses a pathology affecting nerve communication. Irritation involves a scattered group of notions such as excitation, sensitivity and tension. Each category is imbued with the general representation of a certain physical quality of the 'nervous system' that is also a moral quality of the subjects it articulates. Irritation, tension and excitation or sensitivity qualify both a state of the nerve 'fibers' or 'cells' and also the general reaction of the subject that harbors that state in his/her 'nervous system' or vice versa, since the basic theory is that there is an intrinsic homology between both planes, varying only according to the situation. For the author, irritability is always linked to weakness. "Irritable weakness is therefore

based on the first degree of malnutrition; if it progresses, left to its own devices, it is clear that cell death may follow," (Roxo, 1916a, p.80, for instance). There is a significant image in the text that stresses this strictly physical dimension of irritation: "the famished cell 'vibrates' in its urge to retemper itself with healthy and plentiful food," (Roxo, 1916a, p.80).

The penultimate node is 'obstruction', the negative aspect of communication, which is clearly set against the different privileged formulae for the conception of nerve flows (Duarte, 1986, p.76). This node is also not as explicit as others in Roxo's work, though the references to the harmful effects of excessive introspection could be included under this label.¹⁶ What stands out most clearly is the reference to how nerve cell malnutrition can lead to disturbances of blood circulation in the brain. He calls them a blockage in vein circulation (Roxo, 1916a, 88) and describes in detail the process that leads from weakness to obstruction and from this to irritation, such as disturbances of intra-corporeal physical communication. In addressing its direct connection with nervousness, he describes it as "a small point, there being a slight circulatory blockage that is nonetheless big enough to excite the small nerve fibers of the dura-mater and the terminal expansions of the rising parietal circumvolution," (Roxo, 1916a, p.87).

Finally, we come to the ideational node of differential allocation. In my terms:

The range of representations by which the social places that are or can be affected to a greater or lesser extent by 'nervous disturbances' as a function of certain specific emphases and approaches are designated come under this name. This is an extremely significant node, since it results from the intersection of the universalizing topics with the specific nodes listed above. In one way, the 'differential allocation' represents the transposition to the sociological plane of the blockages and confrontations that can be deduced from the collision between these different physical and moral lines. The first major demarcation that can be seen is that of the 'woman'. It can be found clearly in the texts mentioned at the start of this article. One can see how the entrance of 'hysteria' in Chernoviz (which is presented as an alternative category for an 'attack of nerves') defines it as a "nervous ailment that is exclusive to women". One can see how it is in a reference to a female character that Machado de Assis calls a 'nervous constitution'. One can see how in Aloísio de Azevedo the occurrence of disturbances of this nature in a male character requires that he be described as being of "a nervous and feminine sensibility" ... The differential determination of the 'woman' as a privileged place for nervous phenomena ... is a clearly visible nexus in this fraught area because of the specific qualities she is given and how she is represented in the opposition between nature and culture seen in our society, allied with the peculiar ambivalences this differentiation has come up against in modern individualistic ideology. There are, however, other equally important links. The first brings to light the issue of the 'environment', which may equally well be felt within the terms of the 'ills of civilization', where the modern 'city' is deemed a disturbing place par excellence, or in the specific predispositions anchored in social differences, such as the predominance of moral causes in elite groups and the predominance of physical causes in the poorer groups. The second has to do with 'biological factors', and is articulated around the issue of 'heredity' or even within the ideas of evolution when addressing the issue of 'race' (Duarte, 1986, p.77).

Roxo makes passing reference to heredity and degeneration (especially in his review of theories by other authors), even though it is well known that in his complete work he is constantly concerned with racial difference, which is imbued with the characteristic

overtone of the degenerative model, with its many negative connotations for non-whites (Engel, 1999; Facchinetti, Venancio, 2006). It is even clearer here, albeit in a practical, non-reflexive state, that there is a preeminence of female nervousness. Nine of the 11 clinical cases presented are of women. And there inevitably emerge in the descriptions of clinical cases the many attributes that set women apart from men: pregnancy- and delivery-related problems, menstruation, the state of genital and reproductive organs (Rohden, 2001). The gender dimension of nervous disturbances therefore overlaps with the sexual dimension, which would only otherwise have appeared in references to Freud's references to the sexual etiology of nervousness. The issue of syphilis (in the omnipresent Wassermann reaction) also comes up here as a vector that links the ills of civilization with the differential diffusion of nervousness. This same connection also appears again in the parties and balls that are blamed for the ailments reported by one of his patients, as well as the aforementioned concern with excessive self-examination: "M. M. is a nervous young lady who is constantly exhausted by a life of parties and balls and great moral duress. The despair with which she presented herself in my office was extraordinary. She was convinced she would go mad. She felt a great affliction in the head ... As each day passed she refined her capacity for introspective analysis further and became more fearful for her brain," (Roxo, 1916a, p.99-100). This also implies a difference in social conditions given the peculiarity of this behavior in Brazil's social fabric at the time.

To contemporary observers, the nervousness expounded by Roxo could be seen as a mid-point between the original forms of western naturalism and those that today seek to reinstate the hegemony of the representations of the human person. As I already mentioned, it is not expressed in the codes of anatomical and pathological 'locationism' of the nineteenth century, nor in the biophysical 'locationism' of the late twentieth century. We might say that Roxo's is a more physiological version, if one takes into account the predominance of the function of nutrition and the properties of excitation and irritation of the nerve matter in the human body.

What he does share with his predecessors and successors is a physicalistic reductionism (or epiphenomenalism) which has consistently been the mainstay of western science, applied to the human condition. This approach, which I have labeled here the naturalist approach, is a direct descendent of the monistic ambitions of Enlightenment science, instructed and enabled by empirical methods. Its symbolizing counterpart, which originally took shape around what could be called romanticism, emerged as early as the eighteenth century as an ideological reaction to scientific reductionism or materialism, and remains alive and well to this day, where it is deemed more or less legitimate within the ambit of the institutions and mechanisms that produce and reproduce academic, scholarly, western knowledge (Duarte, 2004). The humanities (formerly *Geisteswissenschaften* or *sciences morales*) are, in their strictest sense, the offspring of this reaction, in the ambit of both sociology and psychology.

Given the specific scope of the functions that psychiatry addresses, it has always drawn a taut line between naturalistic monism and symbolizing dualism (to read more about the fascinating historical example of the thinking of Wilhelm Wundt in the late nineteenth century, see Duarte, Venancio, 1995). At the time when Roxo wrote his text, the naturalist

approach, the ultimate representative of which was the prominent figure of Emil Kraepelin (1856-1926), was gaining new ground after being brought to Brazil by his follower, Juliano Moreira (1873-1933) (Venancio, Carvalhal, 2001). Meanwhile, the symbolizing approach had been consolidated in the formidable work of Sigmund Freud (1856-1939), which had immediate repercussions around the world. While one might think that from many perspectives psychoanalysis may have gained a hegemonic position across much of the western world between 1940 and 1970, it always depended on some general conditions inherent to the naturalist approach. The fact that Freud was a natural scientist with a background in neurology was far from immaterial in the acceptance of his new proposal for understanding the human psyche, and though he himself may have wished for his proposal not to be subordinated to medicine, its transmission was highly dependent on its reception by psychiatry (for the case in Brazil, see Russo, 2002).

Roxo's case exemplifies well the way the symbolizing approach was embraced by the naturalist approach in the first few decades of the twentieth century: physicality is the primary trait of the vital processes examined, while the moral dimensions of human life appear, if not entirely as epiphenomena, at least as vague, imprecise, unsystematic forces. The social sciences were going through their first structuring systematizations through the work of Max Weber, Émile Durkheim, Bronislaw Malinowski and Franz Boas, but had not yet garnered enough prestige to influence those who were educated in the far more powerful medical establishment. Psychology wavered between psychodynamic trends and experimental currents, both naturalist and medical. Also, the whole period until the Second World War was imbued with the prestige of the model of degeneration, which embraced not only academic knowledge, but also the sociopolitical technologies, expressed in eugenics and, at the far extreme, in fascist racism. In Brazil, it is well known that this zeitgeist triggered discussions about how relevant the racial conditions of the population were in terms of civilization and progress.

Set against this period, the decades following WWII saw a widespread institutionalization of symbolizing interpretations – be it in psychoanalysis or the social sciences (Duarte, 2000) – which managed to coexist (under constant tension) with the continued manifestations of naturalism in medical science, to mention just one area.

More recently there has been a remarkable resurgence of monistic and epiphenomenalist ambitions, epitomized by what has come to be known as neuroscience. This new field, enabled by new imaging techniques and based on the measuring and interpretation of the physical and chemical activity of biological matter, has refocused attention on naturalist dispositions, gaining popularity by the systematic use of the media (Azize, 2010). The focus has shifted from the nervous system as a whole to the brain in particular, but the topics of universalization and physicality remain at the root of its ideological formulations.

Something else that Roxo's naturalism has in common with today's neuroscience is its ambition to impact on treatments on the individual and social levels. One might even speak of a new form of hygienism to describe the way biophysical knowledge about the human body is converted into self-help techniques. The psychiatry of the nervous system purported by Roxo gave precedence to individual pathological phenomena and their treatment, but this did not prevent him showing interest in the collective conditions for

disease. Similarly, while neuroscience provides inputs for contemporary psychiatry and psychopharmacology, it also, at least in some of its manifestations, has the explicit aim of becoming an agent of psychological and social hygiene.

This rereading of such an apparently dated text as “Nervosismo” is a refreshing tonic for reflection about the perennial properties of our scientific ideologies and how they are applied to understanding people, their traits, their conditions, their disturbances and their destinies. We will certainly continue to need phosphorus for our nerves, but never just this.

NOTES

¹ I use this expression to cover the broad gamut of human experience that is considered exceptional or abnormal and that cannot be interpreted as being immediately physical. This is a concept that is strongly dependent on the conditions under which these experiences emerge in modern western culture, where the physical-based naturalism of biomedicine is hegemonic.

² There is no room here to explore in greater detail the reference to the approaches that would combine both models on a more equal footing (like that expounded by Eugen Bleuler, for instance) or articulate them with some kind of spirituality or transcendence (such as Kardec’s Spiritism).

³ The references to nerves arise in the more restricted world of academia in Brazil in the nineteenth century, as of 1846, in theses produced at medical faculties (Machado et al., 1978, p.64).

⁴ Henrique de Brito Belford Roxo (1877-1969) graduated in medicine from Faculdade de Medicina do Rio de Janeiro, where he defended his thesis on the *Duration of elementary psychic acts in the insane* in 1900, under the supervision of Teixeira Brandão. From 1904 to 1907, he sat on the board of the Observation Pavilion at Hospital Nacional de Alienados as a substitute for Teixeira Brandão, who had been elected a federal deputy. Roxo visited the Heidelberg and Munich psychiatric clinics, where he made the acquaintance of German psychiatrist Emil Kraepelin. He was one of the leading lights of Brazilian psychiatry at the time: between 1908 and 1910 he was a member of a commission set up by the Brazilian Society of Psychiatry, Neurology and Legal Medicine to devise a Brazilian classification for psychiatry. In 1919, Henrique Roxo was already working as a replacement teacher at neurology and psychiatry clinics; he became a tenured professor of psychiatry in 1921, the same year in which he published *Manual de Psiquiatria*. He was a member of *Société de Médecine Mentale* and *Société Médico-Psychologique*, both based in Paris, and the International Committee on Mental Hygiene, New York. He was the first director of the Institute of Psychiatry at the University of Brazil (Universidade do Brasil) (1938/1946), where he was known for defending the science of psychiatry (Facchinetti, Venancio, 2006, p.151). Other scholars have noted his interest in experimental psychology and his attempt to foster interaction between this, psychiatry and psychoanalysis (see Psi Web Explorer, under ‘Henrique Roxo’). Carrara and Russo (2002) regard his interest in psychoanalysis as secondary, unlike his contemporary Antonio Austregésilo. Facchinetti and Venancio (2006) explore other aspects of Roxo’s relationship with psychoanalysis throughout his career.

⁵ Recent research by Jane Russo into the history of medical and psychiatry classifications in recent decades show the particular thrust towards ‘atheoricism’ that underpinned the physical-based approach of DSM III (Russo, Venancio, 2006).

⁶ Foucault (1978) brilliantly explores the relationship between the classificatory spirit of the natural sciences, which were consolidated in the eighteenth century, and the classification of psychiatry (“the madman in the garden of species”).

⁷ This is a “basic totalizing quality that permits the ‘brain’ to be put at the apex of a hierarchy of functions within the organisms of animals, and ‘man’ (with this ‘brain’ and this ‘nervous system’) at the apex of an evolutionary hierarchy of organization and capacity within the context of living beings,” (Duarte, 1986, p.73).

⁸ In the diagnostic review, ‘cenestopathy’, as seen in the article published by Camus and Dupré in 1907, is one of the categories that most interests Roxo in his characterization of nervousness.

⁹ Roxo was especially outspoken against the dangers of spirituality and religious fervor in general – and not just as competing interpretations of human disturbances (Almeida et al., 2007).

¹⁰ This is a reference to the dura mater and meninges, the solar plexus, the vagosympathetic, pneumogastric, splanchnic and the celiac ganglia – to mention a few of the many forms of nerve location.

¹¹ The association between phosphorus and the correct functioning of brain cells was established in the nineteenth century and continues to be a principle adopted by scholars and laypersons alike in the imaginary about this organ. In around 1860 Jakob Moleschott made his famous pronouncement that “without phosphorus there is no thought”. In an aforementioned paper I explore the symbolic resonance of the word ‘phosphorus’ in my ethnographic material and in historical iconography, such as in the labels of Biotônico Fontoura, a popular medicine that claimed to contain “phosphorus for the muscles and nerves,” (Duarte, 1986, p.147). Today, if you search Google using the keywords “fósforo + cérebro” [phosphorus + brain] you will get 577,000 hits (data from 01/15/2010), the first of which is called “Lembre de alimentar seu cérebro” [Remember to feed your brain].

¹² “Henceforth one gets ill for feeling too much; one ails from feeling overly sympathetic towards one’s fellow man. One is no longer forced by a secret nature, one is a victim of everything which, on the surface of the world, makes demands on the body and the soul. And for all this one is at the same time more innocent and more guilty. More innocent because one is made more unconscious by the irritation of the nervous system the sicker one becomes. Yet more guilty, far more so, since everything we had been attached to in the world, the life one led, the affections held, the passions and imaginations one cultivated with too much complacency, is melded in the irritation of the nerves, which is its natural effect and its moral punishment,” (Foucault, 1978, p.293-294).

¹³ The author seems to correlate the therapeutic potential of hypnosis only to the diagnosis of hysteria – where the dimension of suggestion would be unfettered.

¹⁴ In actual fact, at the end of the article and while drawing attention to the need for better ‘criteria’ in medical interventions, he remarks that it is possible in some cases for the sick person’s ‘rationale’ to awaken the *vis medicatrix* (Roxo, 1916a, p.105).

¹⁵ “This *system* is often present in general works as being homologous to the ‘apparatus’ that the different vital functions of the organism are divided into, although it is hierarchically superior. This presupposes the idea of a central organ, a communication network and some kind of flow between the organ and the network. As for the central organ, there does not seem to be any speculation that would jeopardize the hegemony of the *brain* (even though in Esquirol there seems to be a revival of the tradition of the secondary center of the *cerebrum abdominale*, retained in the form of the representation of the ‘solar plexus’). As for the network, the representation of *fibers*, which in the eighteenth century replaced Galen’s classical image of *tubes*, does not seem to be arguable either, despite being made more complex by the modern formulations around neurons. Meanwhile, as the topic of flows is so hard to anchor in any clear biological quality (the current ‘scientific’ solution is of a physico-chemical order), it has served for many ideas and speculations that even today allow room for unexpected re-appropriations. In fact, modern man’s most immediate homology for representing the nervous system has been the circulatory system, which was first described ‘physiologically’ by Harvey [1628]. The *head* has always been partnered with the *heart*, at least since Plato’s *Timaeus*, just as *nerve* tubes seem akin to *blood* tubes. For perfect homology it has therefore always been necessary to have a simile for *blood*, for what was used by the *animal spirits* (*pneuma psychikon*) proposed by Galen [130-200 AD]. The eighteenth century saw the formulation of nervous vapors, nervous gases and nervous energy within the successive reworkings of naturalist models,” (Duarte, 1986, p.75).

¹⁶ The reference to ‘worries’ in the etiology of nervousness (which Roxo attributes to Jules Dejerine) can also be understood thus, as I was able to describe elsewhere (see Duarte, 1986, p.171).

REFERENCES

ALMEIDA, Angélica A.; ODA, Ana Maria;
DALGALARRONDO, Paulo.
O olhar dos psiquiatras brasileiros sobre os
fenômenos de transe e possessão. *Revista de
Psiquiatria Clínica*, São Paulo, v.34, suplemento
1; p.34-41. 2007.
AZIZE, Rogério.
A nova ordem cerebral: a concepção de ‘pessoa’

na difusão neurocientífica. Doctoral Thesis.
Graduate Program in Social Anthropology,
Museu Nacional, Universidade Federal do Rio
de Janeiro, Rio de Janeiro. 2010.

CARRARA, Sérgio.
*Tributo a Vênus: a luta contra a sífilis no Brasil,
da passagem do século aos anos 40*. Rio de
Janeiro: Editora Fiocruz. 1996.

Luiz Fernando Duarte

- CARRARA, Sérgio; RUSSO, Jane.
A psicanálise e a sexologia no Rio de Janeiro de entreguerras: entre a ciência e a auto-ajuda. *História, Ciências, Saúde – Manguinhos*, Rio de Janeiro, v.9, n.2, p. 273-90. 2002.
- DUARTE, Luiz Fernando Dias.
Da vida nervosa nas classes trabalhadoras urbanas. Rio de Janeiro: Jorge Zahar; CNPq. 1986.
- DUARTE, Luiz Fernando Dias.
Dois regimes históricos das relações da Antropologia com a Psicanálise no Brasil: um estudo de regulação moral da pessoa. In: Amarante, Paulo (Ed.). *Ensaio: subjetividade, saúde mental, sociedade*. Rio de Janeiro: Editora Fiocruz. 2000.
- DUARTE, Luiz Fernando Dias.
A pulsão romântica e as ciências humanas no Ocidente. *Revista Brasileira de Ciências Sociais*, São Paulo v.19, n.55, p.5-18. 2004.
- DUARTE, Luiz Fernando Dias; VENANCIO, Ana Teresa.
O espírito e a pulsão: o dilema físico-moral nas teorias da pessoa e da cultura de W. Wundt. *Mana. Estudos de Antropologia Social*, v.1, n.1, Rio de Janeiro. 1995.
- ENGEL, Magali G.
As fronteiras da anormalidade: psiquiatria e controle social. *História, Ciências, Saúde – Manguinhos*, Rio de Janeiro, v.5, n.3, p.547-63. 1999.
- FACCHINETTI, Cristiana; VENANCIO, Ana Teresa.
Entre a psicanálise e a degenerescência: sexualidade e doença mental no início do século XX no Brasil. *Revista Latinoamericana de Psicopatologia Fundamental*, São Paulo, v.IX, n.1, p.151-161. Available at: http://www.fundamentalpsychopathology.org/art/v09_01/07.pdf. Accessed January 14, 2010.
- FIGLIO, Karl.
Theories of perception and the physiology of mind in the late Eighteenth Century. *History of Science*, Cambridge, v.13, p.177-212. 1975.
- FOUCAULT, Michel.
História da loucura na Idade Clássica. São Paulo: Perspectiva. 1978.
- FOUCAULT, Michel.
O nascimento da clínica. Rio de Janeiro: Forense Universitária. 1980.
- HENRIQUE ROXO.
Psi Web Explorer. Available at: <http://www.ims.uerj.br/psicorio/>. Accessed January 14, 2010.
- LAWRENCE, Christopher.
The nervous system and society in the Scottish Enlightenment. In: Barnes, Barry; Shapin, Steven (Ed.). *Natural Order: historical studies of scientific culture*. Beverly Hills: Sage Publications, p.19-40. 1979.
- MACHADO, Roberto et al.
Danação da norma: medicina social e constituição da psiquiatria no Brasil. Rio de Janeiro: Graal. 1978.
- ROHDEN, Fabíola.
Uma ciência da diferença: sexo e gênero na medicina da mulher. Rio de Janeiro: Editora Fiocruz. 2001.
- ROXO, Henrique.
Nervosismo. *Arquivos Brasileiros de Psiquiatria, Neurologia e Medicina Legal*, Rio de Janeiro, n.1-2, p.73-106. 1916a.
- ROXO, Henrique.
Nervosismo. Rio de Janeiro: Hospício Nacional de Alienados. 1916b.
- VENANCIO, Ana Teresa; CARVALHAL, Lázara.
A classificação psiquiátrica de 1910: ciência e civilização para a sociedade brasileira. In: Jacó-Villela, Ana Maria et al. (Ed.). *Clio-Psyché ontem: fazeres e dizeres psi na história do Brasil*. Rio de Janeiro: Relume/Dumará; Faperj. 2001.
- RUSSO, Jane.
O mundo psi no Brasil. Rio de Janeiro: Jorge Zahar. 2002.
- RUSSO, Jane; VENANCIO, Ana Teresa.
Classificando as pessoas e suas perturbações: a 'revolução terminológica' do DSM III. *Revista Latinoamericana de Psicopatologia Fundamental*, São Paulo, v.IX, p.460-483. 2006.

