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Freudian Psychoanalysis and Epistemology

Political Disputes

Psychanalyse freudienne et épistémologie

Disputes politiques

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Abstract:

This article problematizes the position that Freud took with respect to the perspective of psychoanalysis as a natural science, as well as the later epistemological discussions. Following the distinction between *sciences of the mind* and *sciences of nature*, we evaluate what a Freudian epistemology might be. Then, we present some debates on the subject of the scientificity of psychoanalysis, and our conclusion sketches out a proposition that articulates this discussion to some of B. Latour's ideas.

Résumé:

Cet article problématise la prise de position de Freud concernant la perspective de la psychanalyse en tant que science naturelle, ainsi que les discussions épistémologiques ultérieures. Après la distinction entre sciences de l'esprit et sciences de la nature, il s'agira d'évaluer ce qui pourrait être une épistémologie freudienne. Puis seront présentés quelques débats au sujet de la scientificité de la psychanalyse, et notre conclusion esquissera une proposition qui articule cette discussion à quelques idées de Latour.

Keywords: science, psychoanalysis, epistemology

Mots-clefs: science, psychanalyse, épistémologie

Plan:

Freud's envisaged psychoanalysis as a science of nature, which only makes sense if one takes into account the distinction between the sciences of nature (*Naturwissenschaften*) and the sciences of the mind (*Geisteswissenschaften*)[1] that was operative in the Germanic world of the late nineteenth century, which was deeply marked by the so-called "quarrel of methods". Having occurred in Germany in the late nineteenth century and early twentieth century, the quarrel of methods harks back to a period when the epistemic field was undergoing a great revolution due to its having taken on board the sciences of the mind. The irruption of a knowledge that was calling for a specific object and method implied a veritable epistemological split in the scientific community, which resulted above all in the production of a new founding couple: the

Naturwissenschaften and the *Geisteswissen-schaften*. The main thesis, which holds that psychoanalysis would be a *Naturwissenschaft*, needs to be viewed in light of the connotation that these terms suggest in the context, and in the face of the challenges of the time. In the Freudian texts, it is even very rare to meet the term *Geisteswissenschaften*, because, according to the author, psychoanalysis would be, without a shadow of a doubt, a *Naturwissenschaft*. As P. L. Assoun has underlined (1981)[2], Freud was effectively unaware of the quarrel of method: for him, a science was necessarily a *Naturwissenschaft*. Consequently, in order to assimilate fully the reasons that made Freud situate psychoanalysis among the sciences we have to understand what was meant by this opposition in the German context of the time. It is important to point out that, in this day and age, the division that separates these two domains is no longer quite the same, which makes it possible to place psychoanalysis within the field of the human sciences (like history, ethnology, and so on), which is exactly what R. Mezan has done (2007).

It was W. Dilthey (1883), in his *Introduction to the Sciences of the Mind*[3], who systematized the opposition between the two types of science, by justifying the sciences of the mind by means of hermeneutic method. This method consisted in interpreting the realities to which they were applied, thereby clarifying their meanings. In order to reach a sufficiently clear understanding, in a first phase the meaning of a reality was compared with other facets of a same cultural system. Next, one would look for differences in relation to equivalent realities in different cultural systems, in order to thereby reach a wider comprehension of mankind, and thus a scientific one. We should bear in mind that Freud did not conceive of psychoanalysis as a discipline that would slot in to this definition.

In short, the distinction between the two classes of science may be understood in the following way: faced with knowledge, there would be, at bottom, two types of object, *natural objects*, which exist without humans playing any role in their advent, and *historical* or *cultural objects*, that is to say, everything that results from life in society and which characterizes human existence. Disciplines like history and economics have to do with cultural realities that are distinct (from the qualitative point of view) from physical realities or those of living organisms, the objects of astronomy, chemistry and biology. Thus, if there is an ontological difference between the human and the natural, in order to respect it, diverse methods are required in the study of each of these regions of the real (Mezan, 2007).

As far as the natural entities are concerned, what one learns about any given individual is valid for the class of being to which it belongs. What is important is not the singularity of the specimen, but that which, within it, partakes of the universal. Moreover, in order to subsume the particular into the universal, one uses inductive procedures and one formulates laws on the basis of which it would then be possible to deduce further properties that can be verified through observation and experience. One may note that this approach is absolutely intrinsic to Freud's work in the construction of his discipline (Mezan, 2007). Furthermore, in the domain of the human, the domain of the sciences of the mind, the procedures cited above are not pertinent because each object presents singularities that cannot be reduced to a class or to a universal. Civilizations, their rituals, their beliefs and values, works of art, religious norms, and so on, are many examples of objects of this type. The knowledge and investigation of such objects does not refer to their classification in universal categories, but to their understanding, which amounts to grasping their meaning and revealing their signification (Mezan, 2007) – an approach that is also very close to psychoanalytical procedure. But why, then, did Freud affirm that psychoanalysis is a natural science? In the text "An Autobiographical Study", Freud (1925) writes:

> I have repeatedly heard it said contemptuously that it is impossible to take a science seriously whose most general concepts are as lacking in precision as those

> of libido and of instinct [the drive] in psychoanalysis. But this reproach rests on a complete misconception of the facts. Clear basic concepts and sharply drawn definitions are only possible in the mental sciences in so far as the latter seek to fit a region of facts into the frame of a logical system. In the natural sciences, of which psychology is one, such clear-cut concepts are superfluous and indeed impossible. Zoology and botany did not start from correct and adequate definitions of an animal and a plant; to this very day biology has been unable to give any certain meaning to the concept of life. Physics itself, indeed, would never have made any advance if it had had to wait until its concepts of matter, force, gravitation, and so on, had reached the desirable degree of clarity and precision.[4]

Consequently, Freud asserted that in the sciences of nature, the basic representations (*Grundvorstellungen*) or the general concepts lack clarity. Only later analysis of the material gathered from observation and experiments will add some precision to these *Grundvorstellungen*, and therefore they stand in contradistinction to the sciences of the mind, which have to do with the domain of facts in the framework of a systematic intellectual construction. Now, psychoanalysis being founded upon clinical practice and therefore upon observation, it only remains to it to develop its results such as they present themselves – that is to say, in a necessarily fragmented form – and to resolve the problems step by step. Freud (1925, p. 32) claimed that psychoanalysis was nothing other than an *Ergebnisse herauszuarbeiten*, that is to say, quite literally, the elaboration of results from which one extracts hypotheses (*herausen*). In this sense, Freud underlined that the hypotheses were virtually contained in the results, but he also suggested that we should highlight the scientist's imaginative capabilities, which allow him or her to *arbeiten* (to work) on these results in order to extract concepts and hypotheses from them. Here we can find some kinship between this Freudian method and the pattern of argumentation that Darwin built in *On the Origin of the Species*.

In one of the passages of the thirty-fifth *New Introductory Lecture*, Freud (1932) compares the work of the analyst with the work of the scientist, going so far as to declare that their resemblance makes them identical: the analyst is a scientist. From this stems Freud's assertion that the progress of scientific work is the same as the progress that occurs during an analysis. At the start, the analyst would be full of expectancies that must be eliminated. He must give up his early convictions so as not to be led to neglect unexpected factors. During the analytical process, it is not rare for new or unexpected elements to arise, hence the difficulty in putting the pieces together. Conjunctures and hypotheses are then created (and abandoned when they do not find confirmation), while at any time great patience and sagacity are required so that at the end the efforts can be compensated by the *montage* of disparate elements and by producing a piece of insight across an entire portion of the psychical processes.

It is important to underline that what Freud was referring to in his "An Autobiographical Study" as belonging to the *Geisteswissenschaften* corresponds to what in his thirty-fifth *Introductory Lecture* (1932) he called a *Weltanschauung* (a vision of the world), that is to say, a construction in which the facts should be included in the positions that correspond to them, when indeed there are elements in them that resist such an operation. This amounts to saying that the *a priori* judgment takes precedence over observation, the desire for completeness over tolerance when faced with non-knowledge, arrogance over humility when standing before the facts – observation, non-knowledge and humility being characteristic of the scientific spirit (Mezan, 2007). It is not surprising that metapsychology should have fled the company of the philosophers of mind, preferring instead the scientists of nature: Freud considered that the *Weltanschauung* corresponded to an anti-investigative attitude of the infantile psyche (omnipotence of thought) and was responsible for bringing about religions, which aim

to minimize the sense of distress through the supposition that there are superior being watching over us. This is to say that, for Freud, both religion and systematic intellectual constructions – like those of the *Geisteswissenschaften* or the *Weltanschauung* – lie on the same side of the frontier, while on the opposite side lie science and, therefore, psychoanalysis.

It is still possible to understand why Freud should have refused to conceive of psychoanalysis as a *Geistwissenschaft* by virtue of the fact that the sciences of mind are suffused with value judgments. We only need to call to mind the importance that is attributed to neutrality, in other words, to the refusal to proffer moral judgments on the patient's desires and fantasies. An explanation in the manner of the *Naturwissenschaften* dispenses with moral judgments: murderous fantasies, like those that appear in the analysis of the Rat Man, are studied with the same exemption as any other fantasies and are associated with causes that are considered only from the point of view of their efficacy in producing such effects (Mezan, 2007).

This is especially visible when Freud looks at the themes treated by the *Geisteswissenschaften*, as in *Totem and Taboo*: in this book there is not the slightest trace of any deprecatory judgments – judgments which were otherwise very commonplace at the time – on the intellectual or moral inferiority of primitive peoples. On the contrary, the argumentation is sustained precisely by the points of resemblance between the psychical life of "savages" and that of neurotics, as well as children raised in the West. It has seldom been noted that this position, which is a starkly progressive one, faced with the prejudices of his time, is one that refuses any form of racism and asserts the unity of the human race. This is equally true for the Freudian position with regard to homosexuality: when he considers homosexuality as the result of a fixation at the pre-genital stages of development, he removes it from the catalogue of crimes (which is how it was indexed in the German Penal Code of the time) in order to situate it on the ground of the possibilities that lie open to the sexual drive. It is true that it is included among the perversions, but this term is not connoted with perversity: this has only to do with the infantile character of sexual life, and it is for this reason that Freud is able to speak of the child as a polymorphous pervert, thereby referring to the plurality and the plasticity of the infantile erotic tendencies (which can, in a certain sense, be prolonged throughout a lifetime).

In any case, when Freud considers psychoanalysis to be one of the sciences of nature, the model of *Naturwissenschaft* was invariably that of physics, which is a constant presence in the manifest Freudian discourse: from this stems the idea of psychical forces, as well as the ongoing employment of the notion of "mechanism" and innumerable mechanical, hydraulic, and electrical metaphors that crop up in his description of the psychical processes. In this respect, Freud does not set himself apart from his contemporaries: the prestige that this discipline enjoyed was immense, with its spectacular progress seeming to confirm with each new challenge the truth of Newton's doctrine.

None the less, while physics appeared in the manifest Freudian discourse, the latent presence of Darwin's style of doing science has been little exploited – a style that diverges from the Newtonian model in many different important aspects, given that evolution through natural selection cannot be proved in the same manner as a hypothesis in physics or chemistry. So it is that the argumentative strategies of both Darwin and Freud when it comes to defending their theories have many points of resemblance because both of them were encountering the same problem: the impossibility of proving by means of immediate and conclusive evidence the truth of the inferences that they were drawing from the data. In the case of Darwin, this impossibility stems from the fact that his hypothesis requires intervals of time that are far superior to the duration of a human life, as well as the infinitesimal character of the adaptive

variations and the monumental time scale required for their sedimentation. As for psychoanalysis, the impossibility of proving hypotheses on the basis of immediate and conclusive evidence stems from the fact that causal explanation calls upon factors that can only be supposed and cannot be strictly demonstrated (whether it is a matter of the actual action of unconscious motivations or resulting past developments in the psychical frame at issue). Consequently, what produces conviction in the truth of something is the interior consistency of the argument added to the simplicity and the plausibility of the central hypothesis (the action of natural selection in Darwin; the existence and efficacy of the unconscious dynamic in Freud) and again to the immense explicative power of the theory when taken as a whole. If this is how it is, Darwin was much more present in Freud than the mere thirteen explicit references to Darwin in his oeuvre would allow us to suppose: it is their understanding of the way in which science should be done that brings them together (Mezan, 2007).

In "On Narcissism: An Introduction" (1914), Freud set out his position as an empiricist and denied the presence of any speculative factor in his method of investigation, even though he openly acknowledged it in various other passages: "without metapsychological speculation and theorizing – I had almost said 'phantasying' – we shall not get another step forward", he writes. It is for this that he refers to metapsychology as the "witch" (Freud, 1937)[5]: it is metapsychology, through its sometimes obscure means and along the paths of imagination, that allows for the step forward towards creation to be taken, leading us away from the idiocy of the datum while preventing theoretical formalism from paralyzing us.

Nevertheless, the fact is that in 1914, in view of the changes made to the libido theory, he draws a distinction between a science built on the basis of empirical interpretation and a speculative theory: while the former is privileged because it presents an irrefutable foundation from the logical point of view, in the case of empirical interpretation the starting concepts are not the foundation upon which the full edifice sits. Rather, this foundation is observation. One starts off from nebulous concepts that will take on firmer outlines – or will be replaced – in the course of investigation. The same is true in physics: fundamental notions like the notion of matter, centers of force and attraction, and so on, may be contested almost as to the same degree as certain psychoanalytical notions that are also accused of being contestable.

For a Freud (1917) who was anxious to gain recognition for psychoanalysis in the Olympus of Sciences, poor formulations in psychoanalysis stem from the very fact of having strayed away from empiricism. For this reason, he insisted a great deal so that the scientists would not consider the entirety of psychoanalytical concepts as a speculative system: it was a matter of convincing them of the contrary: that psychoanalysis was derived from empiricism, either as a direct expression of observation or as a result of a trustworthy process in which the hypotheses are investigated and tested exhaustively.

According to Freud, if this exhaustive work is executed in an adequate and well-founded manner, it will lead to progress. On the other hand, when he sought to gain legitimacy for the science of dreams, the interpretation of which is the method that was appropriated for the production of a knowledge, Freud assumed that the science that he had created could not be subjected to scientific dogma, even though he considered it himself to be a *Naturwissenschaft*. Despite his belief in the scientific character of psychoanalysis, Freud recognized, in an article from 1913, that his inaugural work, *The Interpretation of Dreams* (1900), crowned the first conflict of psychoanalysis faced with scientificity, thus sealing its destiny.

Freud declared that dreams were psychical acts that carried meaning, despite their apparent strangeness, their apparent incoherence, and their apparent absurdity:

> I have been driven to realize that here once more we have one of those not infrequent cases in which an ancient and jealously held popular belief seems to be nearer the truth than the judgment of the prevalent science of today. I must affirm that dreams really have a meaning and that a scientific procedure for interpreting them is possible. (Freud, 1900)[6]

Interpretation in psychoanalysis is not the same thing as hermeneutics (Grünbaum, 1984)[7] – an interpretative method used in the sciences of the mind. Psychoanalytical interpretation is oriented by the principle of determinism that is also present in *Naturwissenschaften*. In other words, the *Deutung* (interpretation) aims to meet up with the *Bedeutung* (signification) of a psychical event, without this operation being of the hermeneutic type. It is not about attributing the meaning of a dream or a bungled action to something that finds expression in them as the equivalent of a principle that can be grasped through its manifestations. In the case of the *Deutung*, to interpret is to construct a meaning, to explain.

It is for this reason that one must not neglect the correlation that Freud puts forward between his science of unconscious psychical processes and the approach to cultural manifestations. If, on the one hand, he recognized in his epistemology the link between psychoanalysis and biological research, on the other hand, he found in cultural creations an echo in favor of the confirmation of his hypotheses.

This is to say that Freud was operating in exactly the same way when he approached historical or cultural questions (remember that a good portion of what he wrote concerned religion, social life, art works, theatre and the literature of fiction). Each of these objects were considered as having been produced by perceivable causes: for example, religion as a response to childhood distress, moral norms as a consequence of the murder of the primal father, works of art as the fruit of sublimation, and so on and so forth.

With regard to literature in particular, Freud (1908) thought that "creative writers", who were free of any scientific intention, presented valid theories about human life. Freud was astonished at the coincidence between the findings of empirical science and the grasp of psychical processes as set out in literary works, thus considering them to be precious allies whose testimony should be taken very seriously. The considerable interest that literature gives rise to in humans would come about precisely on account of the fact that novels are capable of exposing, albeit in a veiled form, the unconscious aspects of psychical life. In this sense, all the aesthetic pleasure that a creative writer brings, the true satisfaction that one feels when reading a literary work, would stem from a liberation of tension in the psyche. Perhaps even a large part of this effect is due to the possibility that the writer offers the reader of deriving pleasure from his own day dreams, which would bring reading to the very threshold of the psychoanalytical investigation of unconscious processes (Freud, 1908).

Lastly, we may observe some of the important characteristics that were unveiled when Freud carried his project through to its end. The first of these consequences refers back to the fact that the Freudian discourse claims to encapsulate something that stretches from the individual psyche through to social organizations, from quantitative and psychodynamic aspects through to qualitative and subjective aspects. For this reason, even though Freud declared that the only science was natural science, his conception of science shifted during the time of his investigative enterprise: interpreting became synonymous with explaining while meaning (motivations and reasons) was considered as a cause (Simanke, 2011).[8] Due to this fact, the concept of nature that is presupposed by Freudian naturalism has not been sufficiently exploited. For metapsychology, nature seems to refer back to the idea of process and history, rather than referring back to the idea of mechanism – in a conception that is close, perhaps, to that of Whitehead. This is such that the comparison between Darwin and Freud is probably deeper than is commonly thought.

In Favor of a Freudian Epistemology?

From the outset, we should be suspicious of any attempt that seeks to promote a study of the Freudian theoretical edifice on the basis of a grasp of psychoanalysis by means of overly established and restrictive epistemological schemas. Assoun (1981) also suggests that we should problematize, with a hint of illegitimacy, any mix between the term "epistemology" and the name of Freud. In other words, it would be a matter of proposing in this project something that could lead to a certain theoretical Freudianism with all its inherent risks and limits. None the less, we have to acknowledge that it was Freud himself who, to a certain extent, called for the establishment of this kind of investigation. Indeed, metapsychology elaborated a *sui generis* epistemological discourse by formulating at certain key moments a kind of epistemological platform that is at once extraordinarily explicit and excessively concise. This may be observed in the epistemological manifesto (Mezan, 2007) set out in the opening paragraphs of the text "Drives and their Fates" (Freud, 1914).[9]

One of the first attempts at establishing a Freudian epistemology was undertaken by Maria Dorer in Germany in 1932.[10] In looking for the historical origins of Freudism, Dorer (1932) showed the filiation between psychoanalysis and psychology following Herbart[11] – she called this "Freud's Herbartism" – whom Freud had met through the intermediary of his mentors in Vienna, notably Theodor Meynert. Dorer (1932) concludes that psychoanalysis would be a form of ingenious materialism, that is to say, the extension of an anterior materialist and naturalist theory that is completely inadequate for the study of the human object. In this sense, Dorer (1932) exaggerated the influence of Herbart's scientific models in the theoretical formulations with respect to Freud's practice, looking in the history for an alibi to avoid having to appreciate the novelties that Freud begat.

A similar movement, but in the opposite direction, can be observed in the appreciations that Ludwig Binswanger proposed on Freudianism. Taking into account the so-called opposition between natural sciences and the sciences of the mind, Binswanger (1936)[12] asserted that the mode of knowledge derived from the natural sciences – which he identifies with Freudianism – would be absolutely inappropriate for the study of human reality, proposing the alternative of a phenomenological approach. Nevertheless, Binswanger (1936) recognized that Freud should not be removed from the historical and epistemological determinants that led him to conceive of psychoanalysis as a *Naturwissenschaft*, in such a way that epistemology would not emerge as a problem but as a determinant. Despite the fact that the inventor of psychoanalysis had gone beyond the epistemological models of his time (when he introduced a new object into the field of the natural sciences), his naturalism was in fact to be a restriction that relegated the specifically existential dimension of humankind to a secondary plane.

In France, an entire philosophical current approached the question of Freudian phenomenological identity. For example, Jean Hyppolite (1955)[13] assumed his ambivalence in relation to the Freudian oeuvre: at the same time as he nurtured the sense of a perpetual discovery, of in-depth work, that could not avoid calling into question its own results in order to open up new perspectives, he also felt a certain sense of disappointment with it. For Hyppolite, despite the fact that in Freud's work we find the character of research and discovery, this aspect contrasts with the positivist language that comes from the methodology of the *Naturwissenschaften*. Thus, one would only be able to save Freud's precise contribution by translating it back into the structured language of phenomenology, thanks to the supplement afforded by an existential psychoanalysis: Freud's rough positivist language would have to be civilized (Assoun, 1981).

Presented here in rapid succession, these analyses may be considered in keeping with the terms of the political disputes on the terrain of

the sciences: Freudian psychoanalysis versus phenomenological psychoanalysis. The former, contaminated by the positivism of the natural sciences, and the latter, purified, renewed, in a word: superior! It seems to us that in the Hyppolite episode we are able to grasp not only an important part of the debates surrounding the epistemology of psychoanalysis, but also the incessant dispute and the power games to be observed in the domain of the sciences in view of the knowledge that is held by one particular group and not by some other group. Who will be allowed to walk off with Freudian theory: the doctors, sons of the natural sciences, or the philosophers, heirs to the sciences of the mind? This leads us to how the question of how models at issue are organized into a hierarchy. In other words: it seems here that a certain theoretical presupposition, as well as the methodological presupposition that results from it, were considered to be more valid than another presupposition.

Is not the very same thing at issue when the neurosciences, in keeping with their innocence and epistemological poverty, present themselves as being the savoir of psychoanalysis? What previously presented itself as the sciences of the mind trying to save psychoanalysis, in our day corresponds to what the natural sciences – the neurosciences – claim to offer: its validation. In other words, just as Hyppolite (1955) claimed that Heidegger and Sartre took on the load of rectifying Freud's incorrect vocabulary, Eric Kandel (1999)[14] took on the charge of presenting what he thought of as biological insights that would be capable of validating psychoanalytical theory. In the same way as the phenomenologists had done, it was a matter of reformulating the psychoanalytical concepts by replacing them with those of cognitive neurosciences, whose level of research was actually weaker. The conclusion imposes itself on its own: the players change, but the scenario remains the same. Certainly, this is not about refusing phenomenology or the neurosciences: we know that phenomenological philosophy can enrich the mind of the psychoanalyst, just as the more recent neuro-scientific findings can. The question lies elsewhere: when one domain tends to make another domain conform to its own way of thinking and to produce a body of knowledge, suspicions start to arise.

In the nineteen-fifties, the epistemological problem of psychoanalysis was approached head on. On this subject, the decisive event was the symposium held in Washington D.C. in 1958 on the theme of "Psychoanalysis, Scientific Method and Philosophy". During this symposium, psychoanalysis was called into question as the target of critiques from a general epistemology. In parallel to the fact of having taken into account the requirement from Freud himself as to the scientificity of psychoanalysis, it was exposed as suffering from an epistemic handicap. The discussions led by Ernst Nagel (1959)[15] can be essentially summed up as the critique of the scientific claims of psychoanalysis, whose results could not be verified. He then condemned a would-be epistemological misery of psychoanalysis: not only would it not possess the objective means of empirical validation, since it would not be capable of constituting processes of verification that would be acceptable for a natural science that would be deserving of the title – in other words, psychoanalysis would have stopped in time, appearing at the very most to be an old form of science. The central arguments developed by Ernst Nagel (1959) and his group embrace the idea that psychoanalysis does not lean on facts and procedures, thus leading it to be connoted as metaphysics, to the point that they give credence to the idea that Freudian interpretation would be arbitrary, because it would not lean on procedures that would be capable of objectifying the configuration of statements. It has since become a notorious fact that this approach opened above all a path towards the vast domain of research proposed by the formalization of statements from the perspective of the Vienna Circle or English analytic philosophy. Simultaneously, we note that the question of Freudian epistemic idiosyncrasy is left to one side. In other words,

Freudian idiosyncrasy is thus brought before the epistemological tribunal and condemned, in keeping with a law that is defined by a rationality that lies outside this idiosyncrasy. This idiosyncrasy would be nothing more than a historical residue that would have been overcome by scientific evolution: thus Freudianism is reduced to a conglomeration of outmoded notions and unverifiable facts.

This epistemological approach was to generate in the United States a movement dedicated to the revision of the psychoanalytical concepts in the direction of their conformity with pre-established epistemological parameters in the form of the natural sciences. The question consisted – and this is still the case today – in deciding whether it meets the conditions that are stated to be characteristic of theory, or whether it might even be subsumed under categories that define the formality of a theory worthy of the name, that is to say, one that is open to empirical validation and to existing procedures of verification. David Rapaport (1958)[16] was one of the architects of the adaptation of psychoanalysis to positivist epistemology through his attempt to translate psychoanalytical concepts into observable features: conduct, structure and organism. If one sticks to the level of directly and positively observable processes, psychoanalysis moves closer to behaviorism in such a way as to surmount any speculative dimension. One can say that, with this author, Freudian metapsychology would have finally found itself relieved of its mythology. This time, we are able to see how the purification of principles would be carried through to the end: the dynamic of repression would be pluralized into a sum of verifiable manifestations, the topography would be broken up into a hypothetical puzzle, and the energetics would be stubbornly quantified by means of indictors. Converted into an operational objectivity, Freudianism would evaporate at the very moment of its purification (Assoun, 1981).

The discussion we have set out above shows the delicate relationship between questions concerning psychoanalysis and epistemology, drawing back the veil on the political questions that lie deeply embedded in this epistemological problematic and out beyond it, questions that are linked to the power games that rear their head in disputes in the name of the sovereignty of one scientific model to the detriment of another.

Is Psychoanalysis a Science?

A few objections, some of the most notorious to be leveled against the scientificity of psychoanalysis, were set out by K. Popper (1963)[17] on the basis of views that were developed in the first phase of his epistemology. When he sets about establishing a criterion for the demarcation between science and pseudo-science, Popper sees psychoanalysis – and astrology too – as a good example of this latter category, with regard to the fact that it does not offer any possibility of being tested by any fundamental statement that would refute it. Furthermore, in his criticism of the clinical observations of psychoanalysis, he declared that they were theories that were likely to interpret the data and that, in the best of the hypotheses, they would fall into the old vices of inductive processes.

While this criticism may be accepted, one is none the less astonished that a whole rather vast range of scientific production should be relegated to the status of pseudo-science in a heterogeneous epistemological limbo: psycho-analysis, astrology, Darwin's theory of natural selection, and so on. This stems from the fact that Popper's critique of the line of demarcation between science and pseudo-science is an excessive one – which, in a certain way, was remarked upon by Popper himself (1963), leading him to the method of conjectures and refutations and to analysis or to situational logic (which would give psychoanalysis a treatment that was just as insufficient).

According to the strictly Popperian criteria of scientificity, in spite of this pseudo-reformulation, psychoanalytical theory would

not be able to be maintained as a science, but only as a rational approach. This means that it is constituted as a set of hypotheses that allow for the critical discussion of its propositions and its implications, whether or not this is open to being tested and refuted.[18] As a consequence of this, psychoanalysis ought to be able to find its rationality as a Metaphysical Research Program which, in spite of the fact of being non-scientific, would be useful for science. In other words, psychoanalysis would be able to have claims to rationality, despite not being scientific. When Popper (1963) lumped together Freud and Darwin with the argument that Freudian theory and Darwinian theory offered what he called a logic of situations, he was openly acknowledging the rational character of Freudian theory – but nothing more. It was in the first chapter of *Conjectures and Refutations* (1963) that Popper set out his criticisms of psychoanalysis in an extended and incisive way. There seem to be two chief criticisms: the *excessive capacity for explanation* and the *lack of criteria of refutation*, in favor of which he presents a series of arguments and conceives of the psychoanalytic model of investigation as something that does not establish itself as a scientific approach that would be capable of validating its hypotheses. As concerns this first criticism, he declared that he could not imagine any type of human behavior that could not be explained by Freud's theories. His argument was that the clinical observations, like any kind of observation, are interpretations undertaken in light of the theories, and this is the reason they seem only to confirm the theories in the light of which they had been interpreted. In relation to the second criticism, Popper (1963) underlines the lack of observations undertaken in the form of tests (attempts at refutation) that would be capable of establishing the conditions in which the theory (and not any diagnosis in particular) could be refuted. The epistemologist also criticizes the idea of a confirmation of the theory on the basis of former experiences, given that Freudian analysts assert that their theories are constantly being verified in clinical practice. On this point, he relates an interview with Adler on the subject of a clinical case in which the analyst had no difficulty analyzing it in the terms of his theory of the "sense of inferiority", despite the fact that he had not seen the child in question. So, he questioned him on the fact of his having had such certainty, to which Adler replied that he had already had a thousand experiences of this type. Popper argued that, with this new case, the figure would now stand at one thousand and one, in such a way that his previous observations would hardly be worthy of any more certainty than this most recent one: each observation had been examined in the light of the previous experience and was added on to the others as a mere complementary confirmation (Popper, 1963).

Popper (1963) argued that while science often commits errors, pseudo-science only encounters truth by accident. Thus, theories like those of Marx and Freud seem to be able to explain practically everything in their respective fields. When one can see examples being confirmed here, there, and everywhere, the world becomes full of verifications for the theory. Theories such as these are not, therefore, tested, since they are based on experience: they are results that are interpreted in light of the theory. Whereas the theory of relativity could be proved wrong or confirmed by testability, the theories of Freud or Marx do not allow of being subjected to the criteria of falsifiability. Hence the fact that psychoanalysis will never be able to be a science because it can only be refuted by the analyzed subject himself and the modifications on the subject cannot always be observed by a third party. Consequently, it would be impossible to attribute a predictive or transformative character to psychoanalysis, or even one of truth.

While Popper's critiques are the ones that have become famous, Grünbaum (1984) was the one who carried out what is, to the best of our knowledge, the most painstaking and consistent critique of psychoanalytical theory. On several occasions, he expresses his disagreement with Popper's criterion for the line of demarcation

between science and pseudo-science, supporting psychoanalysis as a testable theory and, more to the point, asserting that tests (based on clinical experience) refute it. According to him, the refutability of psychoanalysis is highlighted in several citations from Freud, in which possibilities of clinical cases were proposed that would invalidate psychoanalytical theory.

None the less, in spite of the apparently highly severe critiques from Grünbaum (1984), his principle interlocutor was always Popper: his notion of scientificity was based on the notion of refutability and the basic models of rationality and scientificity in both authors are roughly the same. This influence was to present itself with great clarity when Grünbaum (1984) asserted that, to the extent that evidence in psychoanalysis stems from what is produced by patients in analysis, this can only ensure a lesser guarantee. As a consequence of this, there would be epistemological faults that are inherent to psychoanalytic method and the validation of the Freudian hypotheses would only be able to come, if at all possible, from extra-clinical, epidemiological or experimental studies. Here we see the same old criticism reiterated by the epistemologists of psychoanalysis emerging once again: the validation of psychoanalytic theory can only be performed on the basis of the adequacy of its epistemological model.

We know that psychoanalysis theorizes at two different levels (Mezan, 2007). The first level refers back to the domain of universality and generality such as Freud conceived of it. At this level, the theory presents a view of the human being as being transformed by forces of which he is unaware, and which he has, at the same time, to promote, and whose discharge (satisfaction) he must restrain in keeping with the limits imposed upon life by society. The repression of the most intense and primordial desires gives rise to harmful effects which range from "commonplace neurosis" to the psychoses. The enormous complexity of the Freudian construction should not allow us to lose sight of the fact that it brings into play a very limited number of factors (at bottom, the drives and the defenses) and a rather small number of operations that have an impact upon them (the primary process and the secondary process): it is the propulsive character of these factors that determines the highly diversified combinations of what one calls psychical life.

As for the other plane of theorization, which is closer to therapeutic practice, it aims at constructing a theory on the subject of an individual in particular: the patient who is in search of treatment. This theory rests on what the patient reports with respect to his life and that which comes to the surface under the conditions of the transference. It is upon these givens that the imagination of the analyst will operate. It is up to him or her not only to interpret one by one the elements that arise bit by bit, but also to reconstruct the probable chain of events that go to make up the systems, the fantasies and the other particularities of the subject. Likewise, the goal here is to construct an idiographic hypothesis that is apt to account, for example, for the reasons that the Rat Man is obsessed by rats rather than by flies, of the reasons why Little Hans is afraid of horses rather than spiders, or the motivations that lead to Schreber's delusions and not to some other form or with different content. Freud's originality would thus consist in performing this task by having recourse to explanation rather than to comprehension – in the sense that this is defined above in accordance with the methodology of the *Naturwissenschaft*, that is to say, without any value judgment as to what has been observed. So it is that, through the combination of general theories (the unconscious, psychical conflict, the Oedipus complex, the defenses, and so on) with the unique circumstance of a subject's life (childhood experiences, traumas, evolutive fixations, the intensity of forces in presence, and so forth) one would arrive at a plausible reconstruction (Mezan, 2007).

It is important to understand how, in spite of the differences between the levels of explanation – that of the human psyche in

general and, in one person, that of any given realization of his or her potentialities – the procedures that are employed are the same: with the use of reason, one essentially undertakes a search both for the causes and for the mode by which these causes combine to produce their effects. This is why the psychoanalytical method is constituted in the following way: starting off from the observation of the patient's discourse in the sessions, the analyst reads the given elements and reflects on them by formulating theoretical hypotheses. These hypotheses orient in turn the interventions of the analyst who is aiming to modify the balance between the factors at play, producing greater psychical mobility through, for example, the lifting of repression or the restoration of the capacity to love and to work. To put it briefly, it is a matter of investigating that which structures an individual's experience at two levels: the level of generality and the level of particularity.

It is for this reason that Calazans (2006)[19] is able to maintain that the irreducibility of psychoanalysis to objectification does not make it incompatible with the scientific world. On the contrary, there would precisely be a logical compatibility between psychoanalytical thought and scientific thought, such that one would be the condition of possibility of the other. Furthermore, scientific thought as well as psychoanalytical thought would refuse realism in all its nuances in order to think in terms of that which structures an experience. For Calazans (2006), the concept of reality has to be expanded, because what is given – always for a subject (and which may thus be, consequently, subjective?) – would not be enough, to the extent that reality sends one back to the object, independently of the sensation. So, one ought to take into account how the constitution of a knowledge goes beyond experience, because it sends one back to the mediation that thought establishes, producing a relationship between the given elements. It is in keeping with this relationship, which has been calculated, that thought would determine each given or variable in a relation of dependence upon other givens. Only thought would be capable of establishing relationships with a view to constituting facts, such that a fact would be a deed of thought. There would be no such thing as pure givens, because a given can only be given in a specific system of thought that can consider it as such. Thought, in turn, cannot itself be an objective reality because the latter would be precisely the result of the operation of thought.

Consequently, thought would be a condition for the production of a real and in this way one ought to give up on the conception of a grasp of reality that exists in and of itself.

We may note that one of the presuppositions of traditional science is that a certain proposition receives the criterion of truth or of scientificity only if the repetition of the experiment obtains the same result. Calazans (2006) contradicts this aspect in reference to psychoanalysis, raising language, in the study of the psyche, to the status of principle matrix. According to this author, when one takes into account someone who thinks, one can no longer situate that person – the subject – in an experiment that can be repeated. One has to treat him or her as a function that evaluates – and this is where we come to the register of language. A subject can evaluate something only by being affected by language and consequently by losing any natural orientation.

In the same way, language will serve as a reference for psychoanalysis; it is only through the abandonment of realism in epistemology that one will be able to justify the psychoanalytic praxis.

As for Chararelli (2003), he strives to contextualize psychoanalysis within the framework of the epistemological schools of thought on the basis of the thought of Thomas Kuhn. In relation to the epistemology of the scientific process, Kuhn (1962)[20] establishes the following order:

1) In a first phase, pre-science would be marked by a disorganized and incoherent activity, as well as by disagreement and constant debates over the fundaments of a practice, which are set out prior to the structuring of a science;

2) Next, a normal science ensues in the most coherent phase of the scientific activity, when the scientific community would converge towards one single paradigm that would have the function of orienting the science for a certain while;
3) This normal science would go through a crisis when anomalies arise – from the experimental results that have not been assimilated by the theory – which one would laboriously strive to resolve in light of the paradigm in force;
4) A revolution would be triggered, generating another paradigm. So it is that the sequence would start again with a change of paradigm.

We might recall that at the stage of normal science, science would progress in a cumulative manner, and the paradigm would regulate all the (theoretical and experimental) practices of research, including standard forms of the application of fundamental laws to a variety of different types of action. In other words, the paradigm would, for just one single time, be a practical and theoretical model that is imposed upon the scientist by the force of evidence, likewise defining which facts would possess greater importance or higher priority among those that would be able to refer to a science (Stengers, 2002). The paradigm would thus be a set of values that are shared by a scientific community, on the basis of which one would decide which ongoing research projects and which problems are important and which solutions are acceptable, those that will be promoted, who will publish the articles, and even who shall remain anonymous.
It is a fact that one can apply the theory of the paradigms proposed by Kuhn to the framework of the advent of psychoanalysis. At a time of paradigmatic crisis when mental illnesses, and principally the hysterias, were highlighting various anomalies in the paradigm then in force, psychoanalysis proposed a new way of partitioning these phenomena. It established another paradigm, thus making it possible to find solutions that previously seemed impossible. According to the Kuhnian criterion, it went about things in such a way that a whole scientific community formed around this new paradigm, giving rise to various different research projects based on one single common idea: that psychoanalysis corresponded to a stage of normal science.
An argument that reinforces the conception of psychoanalysis as a normal science is to be found in the contribution from D. Biebel (1999)[21], even though this author does not make specific mention of Kuhn. Biebel (1999) affirms that clinical findings in psychoanalysis, due to the fact that they present a certain degree of consistency and cohesion, would have made progress possible with respect to the comprehension and the treatment of psychopathological structures like hysteria, obsessional neuroses, phobias, narcissistic disturbances of personality and borderline structures, among others. It seems self-evident that all of this progress is structured on the basis of a refinement of certain clinical and extra-clinical methods of investigation into the psyche, into concepts, hypotheses, and the logical articulation between them, encouraging the appearance of rules of correspondence that are able to generate generalizations. It is for this reason that Biebel (1999) affirms that the path that psychoanalysis took during the twentieth century, and which it has continued to travel up to the present day, cannot be distanced or dissociated from scientific method.
Even though Kuhn (1962) considered psycho-analysis to be a pre-science, Chavarelli (2003)[22] finds in the theory of paradigms some allowances for comprehending what is meant by psychoanalysis as a science in modernity, inscribing it as a post-paradigmatic science, that is to say, a thought of permanent ruptures and points of transcendence. Socially speaking, psychoanalysis would have caused a deep impact by shaking up the previous held belief in the idea that man, based on his consciousness and reason, would be capable of fully governing his life and society. When it introduced the notion of unconscious psychical processes, psychoanalysis instituted human irrationality as

a phenomenon that acts upon the life of the human being. Likewise, this irrationality instituted by psychoanalysis was to provoke shake-ups in the private lives of individuals, generating personal resistances that may be identified not only with those who undergo the process of analysis, but also those who show themselves to be contrary to the legitimization of psychoanalysis as a field of knowledge – which is an argument that was used by Freud himself.

Final Considerations

Our aim here is not to classify psychoanalysis as a category of science, nor to prove (or otherwise) its status as a science, but to understand the issue at stake in this debate. Over and above the epistemological discussion, one ought to analyze the alliances that are established between the different powers implicated in the production of knowledge and the way in which these alliances are capable of constructing social and technical networks. In other words, in place of the traditional conception of science which takes the subject / object distinction as a presupposition and reduces knowledge to just one pole, one has to consider it on the basis of the alliances that have been established in a network, within which one given discourse is legitimized to the detriment of another (Stengers, 1989).

According to B. Latour (1987)[23], the most important characteristic of a science is the fact of being a collective practice. In his player / network theory, the notion of network refers to situations of flux, circulation, alliance, and movements that cannot be reduced to one player or network. A science defined in this way as a network of players would not be characterized by its rationality, its objectivity, or by the veracity of the facts that it generates. In truth, a scientific fact exists only if it is sustained by a network of actors: one can neither affirm nor deny scientific facts in an isolated way.

Latour (1987) introduces the concept of the "black box" in order to designate the moments at which a statement attains the solidity of a fact, that is to say, when it is introduced in new formulations like an undeniable premise in a major controversy. With each new formulation, the solidity of a fact grows to such an extent that it depends more on those who maintain it in movement – whether humans or non humans – allies that are put in relation with one another – than on its intrinsic truth. Scientific texts are excellent points of recourse: the more an idea is cited in different articles, the more important it becomes. A black box would thus be the term of a discussion and the establishment of a fact through the continuous citation of a given text. This is the case, for example, with Darwin's *On the Origin of the Species*. Natural selection has become a fact in the wake of innumerous citations, displacements, translations and repetitions – even if, from the point of view of some epistemologists, it may not be considered to be a scientific fact, since it has not been demonstrated on the empirical plane. Just like Darwin's theory of natural selection, Freud's psychoanalysis, in spite of the initial criticisms with respect to its scientificity, was not prevented from stretching out into the domain of science, and one was thus able to observe the proliferation of the theory, which was the pre-condition for it to enter the network. Along the path taken by psychoanalysis, Freud's thought has been deployed in different schools, such as Kleinian, Bionian, Lacanian, Kohutian, Winnicottian, and so on. From its inception, it has spread not only on the geographical plane – to the extent that in this day and age it is present on every continent – but also in domains of knowledge that lie beyond its limits, establishing alliances with different forms of knowledge and lying at the origin of new practices and discussions with other domains.

In applying the ideas of Latour (1987) in particular to debates between psychoanalysis and the neurosciences, one is able to see certain points of correspondence. Latour (1987) remarks that the truth of a statement is established by its circulation, and that, for this

reason, one seeks to extend alliances between the members of a scientific community. On this aspect, it has been remarked that a group of neuroscientists and psychoanalysts have promoted the circulation, through scientific articles, of the statement that psychoanalysis ought to put itself to the test of experimentation in order to become scientific and scientists have been spreading this would-be truth, each time a little more, through the intermediary of the presentation of data that has been obtained during experiments in laboratories, for example – which Eric Kandel designated as biological insights. These insights, which one supposes to be more valid as a true statement, would be apt to demonstrate, or not, the efficacy of psychoanalysis.

Nevertheless, what they do not circulate is the project that supports their ideas, a project which holds that it is a matter of purifying the sciences of the mental dimension, thereby removing any trace of subjectivism – hence the imperative of experimentalization as the criterion for the line of demarcation between science and non-science – and of reducing the subjective to the cerebral, in keeping with an ontological maneuver rather than a mere methodological requirement. They are reproducing the hegemonic project that had its heyday between the nineteen-thirties and the nineteen-sixties, that of the scientific naturalism that was put forward by neo-positivism: to purify the sciences through the elimination of any metaphysics whatsoever, to find natural regularities that may be considered to be causes, and to exclude any proposition concerning the processes that are not able to be subjected to observation and to the deductive articulation of statements (from the particular to the universal). Anything that is not in accord with these directives would not be deserving of the "scientific" label.

Given the fact that truth depends in no way whatsoever on a rational definition, but rather implies essentially the terrain of the political, one may consider that the proposition from this grouping refers rather to a socio-political requirement rather than to a strictly speaking scientific requirement. Here we meet what the anthropology of science has referred to as the "power games" inherent to scientific construction.

This text has not been the subject of any litigation between the authors.

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Notes:

[1][Translator's note: in English, these two notions are often subsumed under the related terms: "natural sciences" and "human sciences".]

[2]Assoun, P. L. (1981). *Introduction à l'épistémologie freudienne*, Paris: Payot & Rivages.

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[11]One may note in Herbart's work certain echos of the Freudian concepts of representation (*Vorstellung*), repression (*Verdränung*) and so on. On this subject, see Assoun (1981).

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[18]A good example of the possibility of the character of refutability can be found in Freud (1915) "A Case of Paranoia Running Counter to the Psycho-Analytic Theory of the Disease", translated by J. Strachey, in *The Standard Edition of the Complete Psychological Works of Sigmund Freud, Vol. XIV: On the History of the Psycho – Analytic Movement, Papers on Metapsychology, and Other Works*, Hogarth Press, London, 1957, p. 261-272.

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