



Lost Topology

La Topologie Perdue

By R.Groome (2004)

Independently of the propositions on culture and nature that thematize the field of psychoanalysis, Lacan has constructed its discipline in a topology (Greek *topos* [place] + *logos* [discourse/reason/logic]) which has become a basis on which to achieve Freudian psychoanalysis in its theory and practice.

What is called the *structuralism* of Lacan is inseparable from a psychoanalysis where place — *topos* — is more primary than the contents that fill it. The crucial problem of contemporary psychoanalysis, then, is neither the multiplication of its contents through applications to cultural or clinical fields, nor that of borrowing ideas from the sciences and philosophy to renovate its theory, but of establishing a practice of *structure* that Freud had left at the level of a mythology of the drives and the Oedipus complex. This is very well to set forth the proposition that psychoanalysis, since Lacan, operates an involution in theory and practice that marks a passage from *psychoanalysis in intension* to *psychoanalysis in extension*; said otherwise, that marks the passage from a *place of a psychoanalytic practice* to a *practice of a psychoanalytic place*.

Yet, with the marketing of bookcovers and paraphrase on Lacan and topology so far advanced that one can no longer ignore it, we must raise the unavoidable question whether this commerce is compatible with a construction of a psychoanalytic *place* - or clinic - beyond an illustrative use. Without prohibiting anyone from the use of a fantasy, we should ask if there is not a more fundamental *un-doing*, *un-reading*, or indeed *traversing* of such fantasies in the production of an effective topological and psychoanalytic work. In this short web essay, we only begin to respond to such a question by bringing out a genealogy of the problem of a topological structure in the tradition of Freud and Lacan. We will begin, therefore, by a 'soft' historical introduction to the problem and will only follow in the next chapters to determine our structural monstrations. No doubt, the current opinion on Lacanian topology — including those

of many psychoanalysts and topologists — is that such a topology would be, at best, an illustrative metaphor, or at worst, an imposture. Here, then, a fitting name for our project is *La Topologie Perdue de la Psychanalyse* - The Lost Topology of Psychoanalysis -; a title which appears to be so simple and regular that it renders account of the vertigo of the savant and the ignorant alike.

Psychoanalytic Topology: Metaphor, Analogy, or just Structure ?

If as Jacques Derrida would have us believe, "*stricto sensu, the notion of structure only refers to space, morphological or geometrical space [...]*" and "*it is only by metaphor that this literal topographic can be displaced towards its aristotelian and topic signification (the theory of places in language and the manipulation of motifs or arguments)*", then Derrida's conception of structure — and thus psychoanalysis — is, no doubt, decidedly different than that of Lacan who stated that his topology was "not metaphorical" and has as its goal "*to articulate the space of the speaking being*".

If Sokal and Bricmont's critique of Lacan: "*Everything is based — at best — on analogies between topology and psychoanalysis that are unsupported by any argument*" is founded, then it becomes difficult to explain Lacan's response to a question posed by Harry Woolf in an American seminar:

Woolf: May I ask if this fundamental arithmetic and topology are not in themselves a myth or merely at best an analogy for an explanation of the life of the mind?

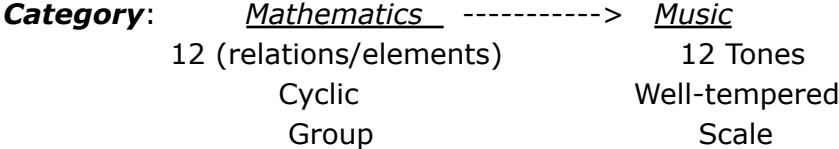
Lacan: Analogy to what? [...] It is not an analogy. It is really in some part of reality, this sort of torus. This torus really exists and it is exactly the structure of the neurotic.

To attempt to either justify such a response or contradict it without marking the difficulty of situating the concept of structure in a theory itself, is to take for granted what requires explaining in the first instance: the relation of structure to topology.

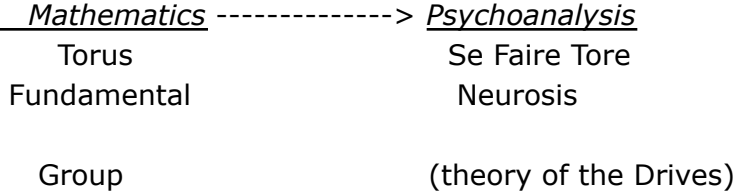
If structure is presupposed given as a concept and defined in a mathematical theory, then topology is one structure among others: group structures, vector space structure, manifold structure, etc. — and the conjunction of topology and psychoanalysis is a metaphor. But if the definition of the concept of structure cannot be taken for granted in a mathematical text — but is always more or less assimilated or trivialized to the particular theory of the mathematician¹ — then the term topology can only be taken as an adjective in the phrase *topological structure* if one considers that the question of structure has been regulated beforehand. Consequently, the question of whether the conjunction of topology and psychoanalysis is a metaphor or not, is secondary to the question of how to situate precisely the relation between *topology, structure, and theory*. Indeed, in following the great strides that have been achieved by the logicians and mathematicians in determining a concept of *structure*, nothing prohibits the

psychoanalyst from proceeding to give him or herself the same literal methods of transliteration between *theories*. For, in fact, this method of transliteration is comparable to both Champollion's method of going between two languages in the deciphering of the rosetta stone and Freud's method of going between two languages in the interpretation of a dream.

For instance, just as it is possible to introduce a structural interpretation of a site by posing a *Functor F* from the category (or theory) of mathematics to music:



it is possible to introduce a structural interpretation by posing a *Functor* (or Signifier) from the theory of mathematics to psychoanalysis:



No doubt, the arrow between the two theories requires a concept of structure that is not a simple isomorphism, but a more modern *Functorial* conception corresponding to what in analysis is called a *Signifier*. It remains to be shown in what way a functorial doctrine of structure would suffice to encompass a psychoanalytic gesture in its work with tori; or further still, whether the arrow itself carries with it the semantics of a topology (as an initial probe one could present this *double category* as the *homology* - or pasting together - of two triangles:see footnote 1/below).

In the end, it is neither a question of applying mathematics to psychoanalysis, nor of doing a psychoanalysis of mathematics. Just as it is not a question of whether someone must become a mathematician in order to do psychoanalysis, but rather one of asking what type of ignorance does a psychoanalyst participate in by avoiding the use of such a rigorous writing ? Or inversely, it is not a question of asking someone to become a psychoanalyst in order to do mathematics, but rather of asking what type of ignorance would a topologist participate in by avoiding an analysis of the space of the dream, illusion, and hallucination ?

Psychoanalytic Topology: The Nature of its Lack

We aim to situate how a notion of structure emerges in terms of a topology which has always been missing from mathematics, or at least has always posed an obstacle to its mathematization. In this regard, such a topology is not merely in default, but as the celebrated biologist Buffon remarked "absolutely missing" or as Husserl would claim, that "*Whatever the development of an exact science, that is to say operating on ideal infrastructures, it can not resolve the authorized and original tasks of a pure description*". Without stopping here to argue for or against what is being presumed in such statements, it suffices to note that the notion of structure has always emerged, whether in physics, biology, Gestalt psychology, or phenomenology precisely at the point of formulating the desire for something like a topology or *analysis situs* which has been thought missing.

A Short Genealogy

In all the domains — physics, biology, psychology, anthropology, linguistics, economy, philosophy, etc. — where a structure possesses an empirical or cultural value and is revealed as necessary to the explication of its experience, its theoretical function has always been to go beyond one of the most ancient *obstacles* (in the sense of Bachelard) posed to scientific rationality: that between mechanism and vitalism. Briefly, this opposition comes to the fore once the former is determined as an entity in which the whole is reducible to the sum of its parts (a machine), while the latter can be determined as an entity of which the whole is greater than the sum of its parts (an organ). It is by no means established that a mechanism and organism are incompatible. What is established is that their compatibility, or lack of it, is discovered when the totality of the organism contains a supplement, an 'error of the vital', that creates an obstacle in the representation of an organ in terms of a machine.

For example, in its origin and development psychology has been the province of philosophers of the soul/organism (a *Gestalt Psychology* in the sense of Kohler or *Descriptive Psychology* in the sense of Brentano) and the mind/machine (*Atomistic Psychology* based on the association of ideas in the sense of Locke and Helmholtz). Yet, neither explication has succeeded to unite a mechanistic or organistic explication of the human being in one single synthetic judgement.

What ought to be recognized, but is rarely, is that this *obstacle* of representing the human being, is found in a more significant way the moment the human being attempts to represent the act of representation itself. From a purely logical viewpoint, it is under the aegis of a paradox of representation (more properly spoken of here as 'mimesis') that the problem of structure should be interrogated. For instance, it would involve recognizing a conflict between a classical conception of the function of art as composition with a romantic conception of the *work of art* (the *oeuvre*) as symbolic construction (see Wofflin's distinction between *graphic* and the *painterly styles*). For the attention to the *aporia* that exists between a mechanist attempt to explain art as a

composition of its parts - a representation - is not the same as a holistic attempt to explain the *work of art* as a construction of a whole, an *oeuvre*. The latter, requires a reference to an '*essence of Life*' - a style, plasticity, vital error, subjectivity, genius, spirituality, etc. - which is a stranger to the composition of its parts.

Finally, all those psychologies that have taken *Life* as their domain of analysis have ended up replacing an analysis of *representation* with that of *expression* and giving it a content — in a *Psychology of the Mind*, or *Philosophy of the Personality* — irreducible to an atomist psychology. Heidegger reformulates this holistic reading of *Life* as a question of *Dasein*. For as long as one opposes an objectal domain of man as mere machine and automaton to a subject of analysis which escapes such representations, then the place of the subject is reduced to a science of the whole: genres of being, intentionality, spirit, psyche, mind, etc. annotated in an anthropology or a science of the personality. For Heidegger, such common readings of the totality of beings, impedes posing the fundamental question of *Dasein* and the place of *Being itself*. Indeed, it is well known that it is this *ontic-ontological* difference that Heidegger aims to establish as the basis of not only aporias of representation, but of all philosophical discourse. In this way, his critique of psychology and phenomenology occurs in the name of existential *structures* and a *Topology of Being* defined as the "locality of all localities". A 'dwelling place' or 'locality' which Heidegger was to underline was "lacking a place", or rather constantly being assimilated to the places of beings and facticity.

Towards a Topology of Repression

Without going further here into the problem, it suffices here to restate it: Why, then, the constant lack of place in the formulation of problems of topology and structure?

It appears that Lacan's return to Freud by way of topology — whether it occurs casually or in line with highly self-conscious, philosophical mutations — upsets the taken for granted assumptions with which the profession of psychoanalysis has been operating for some time now. As a result, the attribution of a reliable or even exemplary knowledgeable and ethical function to psychoanalysis becomes much more difficult. But this is a recurrent psychoanalytic quandary that has never been resolved. The latest version of the question, which still determines many analysts' present-day convictions about the aims of psychoanalysis, goes back to the rise of neurophysiology as an independent discipline in the 19th century. The link between representation, knowledge, and truth is the burden of Freud's failed attempt to explain the psyche in a purely mechanical and quantitative modelization. Or rather, the construction of such a neuronal model is lacking, because it fails to render account of qualitative elements: the observing ego and the occurrence of consciousness. It is because it is common to teach psychoanalysis as a form of psychology, at least in the anglo-saxon inspired countries, that such 'qualitative elements' are classified as psychological properties, and not more precisely as invariants of a topological theory. This echoes a generally admitted position among professors of the 'psy' and is the reason one can nowadays

pass so easily from neurophysiology to its apparent prolongations in the field of psychology. Whether a reading of Freud's *Scientific Project (Entwurf)* and *Beyond the Pleasure Principle* would confirm this passage between mechanism and organism certainly stands in need of careful examination, which we can only touch on in such an essay.

In its origins and development, Freud proposes a vitalist hypothesis of the finality of an organism in order to explain *repression* (*verdrängung*) and *attention*. Otherwise said, he supplements the psychic machine determined by an analysis *partes extra partes* with a reflex circuit — an inertial system voiding quantity according to a principle of pleasure/unpleasure — in the attempt to explain the functioning of the whole in terms of an organism. From this ideal principle of 'least action', Freud progressively recognizes a *spatio-temporal* deployment of an internal organizing force and gives it the name of the libido and the drive. But one of the central results of Freud is the discovery of a drive irremediably disjoint from the spatio-temporality of *Life* or the auto-conservation of the organism: the *Death Drive*. It is in this respect, in the recognition of a *non-biological* relation of the sexed individual, that Freud passes from a *neurophysiology* seeking to model adaptation as 'least action' and defense (movement from an exterior stimuli), to a *neuropathology* seeking to model nonadaptation as 'excessive or missed acts' and pathological defense (*repression* or an impossible flight). At this point, *Beyond the Pleasure Principle*, Freud's reading of in-forms and discontinuity become more important than a continuous hypothesis of an internal organizing force of *Life*.

Psychoanalytic theory raises here the unavoidable question whether neurophysiological and psychological themes of *Life* can be compatible with the topological structures that make up the reality of the entities from which these themes are derived: their *Sexuality* and *Death*. What is established is that the insufficiency of such themes has to remain an open question and that the manner in which the teaching of psychoanalysis, at least since the middle of the 21st century, has foreclosed the question is unsound, even if motivated by the best of intentions. What also ought to be established, but rarely is, is that the clinic of psychoanalysis ought to take place under the aegis of this question.

From a pedagogical point of view, this is not difficult to achieve. It involves a change by which psychoanalysis, instead of being taught only as a historical and a humanistic subject, should be taught as a topology prior to any psychology or hermeneutics. The resistance to such a Lacanian move in France has been predictable, but can today be used to show what is being avoided by culturalist and humanist programs. For by re-theorizing the qualitative element of Freud topologically — as we will see in terms of the *petite a* — Lacan removed an *obstacle* to its theory and practice that continues to haunt many contemporary analysts. Attention to the *formal* differentiation of the individual and its milieu - or we will indicate later one signifier, then another - is prior

to any *theory of contents* which would try to understand the individual as adapting to its environment or as developing according to an innate program of heredity. Counter the dominant continuist interpretations of the human subject emerging in the 20th century - primarily focussed on the individual's adaptation to the environment and an innate genetic formation - Freudian psychoanalysis began to recognize a discontinuous relation of the individual to the formation of its milieu: one that determines the very differentiation of the individual in a theory of narcissism. Lacanian psychoanalysis disengages this *natural observation* in the formation of a *structural concept*: the *obstacle* between a theory of the individual and the milieu (the group, society, culture, etc.), between the part and the whole, is resolved by a seemingly innocuous move founded on a definition of *structure* exemplified in Cantor's set theory. Here, the whole is equal to its part (even numbers are equal to the natural numbers for instance) which is further complicated by a problem of the invariance of dimension (the first dimension seemed, to Cantor, to be equal to the second). Psychoanalytically, these problems can be used to landmark the emergence of structure in the topological isolation of the individual: the milieu (whole) is equivalent to the individual (part) as an oddly interior exteriority, thus making the problem of the individuation and the relation to an object particularly delicate. In a parallel manner, the obstacle opposing a vitalist to a mechanist explication of the formation of the individual becomes obsolete the moment one begins to theorize the organism as a *transfinite machine* or '*cyborg*' (see George Canguillem's *Machine and Organisme* and John Conway's *Game of Life*).

Later, Lacan would state that language itself is a biological organ (as Chomsky had), and as such it is in a discontinuous relation to its milieu that the problem of the signifier is first raised. Lacan states "*The speaking subject has the privilege of revealing the mortifying sense of this organ, and by this his or her relation to sexuality. This is because the signifier as such has, in barring the subject in its first intention, made the sense of death enter into it (the letter kills but we learn this by the letter itself). This is why every pulsion is virtually a pulsion of death*" [E.848].

This place of language is now the milieu proper to the subject: it is no longer a question of situating the milieu of the biological individual or explaining its paradoxical defenses, but of situating the place of the speaking being in a *topology of the subject*.

To conclude, the early elaboration of structure by the biologists is in accord with the observations of the psychoanalysis in recognizing that a topology sufficient to the formalization of *Life* has always been radically in default - not because science has not yet discovered its secret - but because it is repressing. One sees that the whole problem is to determine a purely structural reformulation of the vitalist's '*part maudite*' (in the sense of Bataille); or in an algebraic '*petite a*' (in the sense of Lacan); or the *alpha* and *beta* functions (in the sense of Bion) permitting psychoanalysis to escape from a purely speculative biology and the philosophies of *Life*.

The Missing Clinic of Psychoanalysis and the Current Lack of Psychoanalytic Literature on the Subject

Lacan drew attention to structure in a clinical theory by showing how the reading of the relation between *what is seen* and *what is heard* is able to transform the methodology of psychoanalysis in a manner that would only be subversive to those who think of teaching of psychoanalysis as a substitute for teaching philosophy, psychology, theology, zen, or literature. Clinical psychoanalysis becomes a topology almost in spite of itself because it cannot fail to respond to the problem of structure which it has been more or less the implicit aim of analytic teaching to avoid.

Since Lacan, students, as they began to analyze a case were instructed not to consider anything that was not derived from the case at hand. They were asked not to make statements that they could not support by a specific construction: instead of merely trying to understand the place of Man discursively in terms of philosophy, Lacan asked himself and his students to construct a thing — graphs, surfaces, or knots — that would exhibit the properties of holding together or connectedness and disconnectedness. They were asked, in other words, to begin by not taking for granted the materiality of language and its place in the presentations of their own practice, while not to remain at the level of representing others in the context of human history or experience. Much more humbly, they were to start out from the misunderstandings that such a practice was bound to produce in clinicians and practitioners perceptive enough to notice them and courageous enough not to hide their ignorance behind the screen of received ideas that often passes in psychoanalytic instruction for humanistic research.

These very simple guidelines have had far reaching consequences in the training analysis. Yet, some never saw the point of focusing their attention on the matters at hand, and of presenting a structure as a way to construct experience, rather than commenting on experience itself. Indeed, the norm of the current literature in Lacanian psychoanalysis and its clinic was created by those who never found the time for such lessons. For what they see as the great power of Lacanian theory to critique and generalize just about anything — from politics to science — is in fact, nothing but a loss of precision and the foreclosure of any possible discourse on structure and the clinic. Others, no doubt, took the time, so much so that psychoanalysis, at least in France, would never be the same. Yet, a didactic in topology did not make their writing in psychoanalysis any easier for they no longer felt free to 'free associate' and fantasize without at least having a manner to construct the results of their practice. Today, in spite of the factitious paraphrases of Lacan, a book on clinical Lacanian analysis has yet to be written — as sound practitioners are slow writers, and in the present state of psychoanalysis, this can only be a sign of progress.

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NOTES: ¹ For instance, the notion of structure as modelled by sets in the early theory of Bourbaki is insufficient as it still presupposes an ontology without ever clarifying the functional status of its object. Yet the latter Bourbaki rectifies this misreading, beginning with the use of *echelons* (or species) in its last chapters with Charles Ehresmann, then with the theory of *faisceaux* and *esquisses*, a concept of structure is de-ontologized from sets resulting in the birth of the notion of a *category*. In the United States this revolution of method began with Saunders MacLane, Eilenberg, and Lawvere. Needless to say, this *algebraization of topology*, whether in the notion of an *esquisse* or in the modern *topos* theory still carries with it the semantics of its algebraization to the extent a topology remains bound to an algebra. It remains to be shown if there is, then, an opening here in what has been called the 'old' polish school which proceeds in the opposite way: in the *topologization of algebra* (see Tarski's: *Topological Algebra* and forthcoming article).

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