

# *II*

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## Topology of Surfaces

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# *Clinic and Topology: The Flaw in the Universe\**

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## FIRST PART: THE FAULT IN THE UNIVERSE

By way of introduction to the fundamental logic that renders clinic and topology solidary for us, I will make twelve remarks, the generic subtitle for which could be: “the fault in the universe.”

### *1. Structure*

The clinic operates on the basis of structure and, why not advance ourselves here as Lacan does in *L'étourdit*, it operates on structure.<sup>1</sup>

The term “structure,” as conceived by Lacan, is the Real itself in play in the analytic experience.

Structure is what concerns the speaking subject: from the moment he or she inhabits language, is parasited by language, he

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\*Translated by Ellie Ragland and Véronique Voruz, from *La Revue de l'Ecole de la cause freudienne*.

or she is submitted to the logic of the signifier and to the specifications proper to language: in other words, to the order which is that of the register of the Symbolic.

Structure is what accounts for this seizing of the living body in the Symbolic. It is what supports the manner in which subject, Other, and object are articulated to one another, and by which language and *jouissance* are conjugated. It is also the way in which the three registers—the Real, the Symbolic, and the Imaginary—are knotted together for the speaking being.

Structure is thus also what allows one to orient oneself in the clinic.

And this structure is articulated in terms of places and relations: in other words, in terms of positions, and of properties which result from those positions. Consequently, structure is itself a topology since this last formulation is none other than Euler's, which in 1736 defined a nascent topology as a new domain in mathematics.

There is no subject, then, who is not a topologist, even without knowing it—and this is even more true of analysts—but the analyst might well want to know something about this topology in spite of everything.

This is where Lacan leads us, to pass beyond the effects of inhibition, even horror, that topology produces in us, in order to confront us with the very structure with which we are engaged.

## 2. *The Fold*

In order to try to make it immediately apparent that clinic and topology are indissociable, let us chance putting ourselves in the position of witnesses: that is to say—since it is the same thing, as Lacan reminded us—martyrs of this knotting of the subject to topology.

Let us begin, not with a topological object, but with an equivocal representation, starting with the Imaginary of the figure which is called the Necker cube.

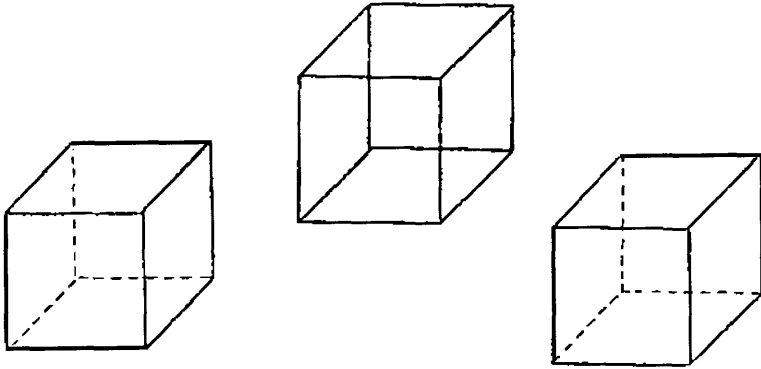


Figure 4-1.

An American specialist of what one can call scientific amusements, Rudy Rucker, has described this figure of an invertible cube in a work entitled *The Fourth Dimension*,<sup>2</sup> and noted the illusory effect it produces in the Imaginary. One of our colleagues<sup>3</sup> drew inspiration from it not long ago, and used it as a support and as a metaphor of the signifying equivocation in the vacillation it produces for a subject between two positions, between  $S_1$  and  $S_2$ , and thereby drew attention to the effect of aphanisis—insofar as it is felt at the level of the body—of the subject represented by a signifier for another signifier, this effect of cut, of division of the subject by the signifier.

But we can just as well put the accent on a more fundamental aspect of what this figure introduces us to, which is not that of metaphor, but of structure. Thus we recognize, first, the effect of the object—here of the object-gaze—on the subject, we recognize the split of the subject by the object-gaze.

Indeed, this is what this equivocal perspective produces insofar as it puts the subject before a choice between two ways of bringing its gaze to bear in space, on the imaginized cube: that is to say, a choice between two possible positions of this subject, determined by the object-gaze.

Otherwise said, it is the subjective division which is presented by the object-gaze.

These two positions of the subject are mutually exclusive; there is a radical discontinuity of the one from the other: between the two, there is no place for the subject. It is an untenable in-between, an effect of the aphanisis of the subject which seizes the body.

The Möbien structure—namely, the topology which accounts for the structure of the speaking subject, as Lacan shows in his Seminar on identification—unfolds on the basis of the way in which the subject gets hold of and frees himself from the object, if only to be caught by it otherwise; it unfolds on the basis of the subject's division by the object and of what already pertains to a choice and a consent of the subject with respect to this division.

To show this, one only needs two dimensions: those of a piece of paper represented on this sheet of paper.

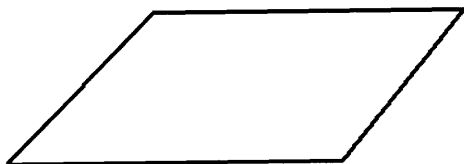


Figure 4-2.

Seen in perspective, we can imagine this sheet as seen either from below or above: this is the choice that the gaze imposes on the subject, just as with the Necker cube.

We can however make these two ways of seeing, which are mutually exclusive, appear synchronically by folding the represented sheet.



Figure 4-3.

The function of the subject is what assures this coexistence as possible. We can see in this fold the very fold of the subjective division mentioned by Lacan in *Seminar XX, Encore*: “For every speaking being, the cause of its desire is, in terms of structure, strictly equivalent, so to speak, to its bending, that is, to what I have called its division as subject” (*Seminar XX*, p. 127 in the English).<sup>4</sup>

To make the topology of the subject appear—topology of the interior eight—namely, the Möbien structure, reducible to its cut which is also its edge, this interior eight where precisely the subject of the signifier and the object are articulated, it suffices to complete the drawing of the fold.

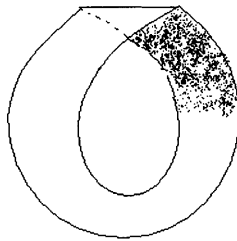


Figure 4-4.

Thus, what the Necker cube, as a representation, makes particularly apparent in the Imaginary and in the body, is nothing other than what Lacan has articulated, on the sole basis of this elementary and fundamental topological structure which the Möbius strip is. It is here that we find the topological advance made by Lacan in his *Seminar on identification*.

Indeed, this Möbius strip introduces us to Lacan's first development of his topology at the beginning of the 1960s, which corresponds to a period of his teaching, announced as early as 1953 in the *Rome Report*, which was specifically dedicated to emphasizing the Symbolic order and the notion of structure.

Lacan, in this sense, bases his progress on the topology of a-spherical surfaces, the elaboration of which culminates with the formulation he gives of it in *L'étourdit*. This topology, which

articulates subject, object, and Other, which topologically articulates discourse itself, stems, as Lacan tells us in *L'étourdit*—"from the fault in the universe."<sup>5</sup>

### 3. *Topology and Science*

At this point, we can formulate a remark which can be phrased as follows: topology is a domain of science by means of which science accounts for its failure to suture the subject; this is in what topology and psychoanalysis are solidary.

This topology—which forms part of that which defines psychoanalysis as deriving from science, as correlative with science—is that of the subject, the very subject which science aims to foreclose, to suture, but it is precisely there that science fails.

The subject, as Lacan writes in his article "Science and Truth," "remains the correlate of science, but an antinomial correlate since science turns out to be defined by the deadlocked endeavour to suture the subject."<sup>6</sup>

This introduces the mode of the subject "for which the only index I have found is topological, that is, the generating sign of the Möbius strip that I call the 'interior eight.'" Lacan adds that "the subject is, as it were, internally excluded from its object." (*loc. cit.*)

This is the divided subject, equivalent to its division:

- its division by the signifier in alienation, the forced choice of the Other and of the signifying chain, at the cost of a lack-in-being;
- its splitting by the object, there where it could find a complement of being.

### 4. *The Fault in the Universe*

It is essential to stress that language, the Symbolic, puts this "fault in the universe" into play in a fundamental and intrinsic fashion.

The function of the fault, of the lack, of the hole, is strictly equivalent to language; it supports all notions of structure: a structure is nothing else than a mode of organization of the hole—that is to say, a topology.

For example, with the Möbius strip, it is apparent that it closes back upon itself, that, like the torus, it puts a central hole into play. But one can see that it is necessary to circle the hole twice to return to one's point of departure while moving along the surface of the Möbius strip: it is a double-circuit topology of the hole.

First of all then, the hole is the fault in the universe which has to do with language and with nothing else. This means that the Other of language is fundamentally flawed, that it does not stand as guarantor for itself: there is no ultimate guarantor, there is no Other of the Other; and more fundamentally, the Other as complete, as consistent, does not exist. Lacan writes this fault in the universe  $\emptyset[A]$ .

$\emptyset$  is what makes the link between the topology of surfaces we just evoked with the Möbius strip and the torus, and the topology of knots.

Let us note that Lacan's topology of the 1960s starts from the Other to then succeed—precisely through these surfaces, torus, Möbius strip, cross-cap, Klein bottle—in putting into function the incompleteness of the Other, the structuring position of the lack in the Other. Starting from  $O$ , it ends up in  $\emptyset$ , while the topology of the 1970s, that of the knots, is explicitly founded on  $\emptyset$ .

This is where one finds the fundamental point of coherence: both of Lacan's topologies, of surfaces and of knots, are topologies of  $\emptyset$  which are grounded on the fact that the Other does not exist.

## 5. $\emptyset$

The fault in the universe, in the universe of the signifier—in other words what authorizes us to write  $\emptyset$  with Lacan—is based on this: that the signifier is only defined by difference, this being the very basis of linguistics.



Let us recall the differential definition of the signifier as it is formulated by Saussure in his course on linguistics (pp. 166–168):

In language, there are only differences [. . .]. Applied to the unit—namely, a fragment of spoken chain corresponding to a certain concept—the principle of differentiation can be formulated as follows: the characters of a unit are confused with the unit itself. In language, as in any semiological system, what distinguishes a sign is the only thing which constitutes it. It is difference which constitutes a character, just as it gives value to the unit.<sup>7</sup>

To operate with the signifier is to operate with difference. Lacan insists that the signifier as such is used to connote difference in its pure state; at first, signifiers only manifest the presence of difference as such, and nothing else.

This entails consequences of different orders. The first one is immediate: the signifier is correlative with a loss, that of the reference. While a sign represents something for someone, the signifier, which is only worth something through the difference it introduces and through nothing else, implies that the relation between the sign and the thing be erased. It is at the cost of this loss, of the erasing of the trace which the sign was, that the signifier comes into being. The signifier as such is the product of a loss.

A second consequence bears upon the Other as the treasury of signifiers. I am going to try to summarize here the development made by Jacques-Alain Miller in his course entitled “Extimité.”<sup>8</sup>

The Other is the treasury of signifiers, but does that constitute a set, can it make a whole, given that the operation which structures it is difference?

Let us take a set of four elements,  $a$ ,  $b$ ,  $c$ , and  $d$ , and the following operator of difference: of  $a$  we can say that  $a \neq b$ ,  $a \neq c$ ,  $a \neq d$ . Starting with  $a$ , we have a set  $\{b, c, d\}$  defined through their difference from  $a$ . Similarly, starting with each one of the elements, we will obtain a set, that of the three other elements, defined by their difference with this element. In other words, we will be able to

define a whole, a set, on condition that each time, one will not be there, that there will be an exception.

To obtain an exhaustive set, another operator would have been necessary, for example identity:  $\forall x, x = x$ . This yields a complete whole, but one which is founded on  $x = x$ , that is to say on a zero of meaning. It is because language aims at sense that the logic of the signifier which supports it is a logic of difference.

And since the signifier is differential, there is no possible whole of signifiers; one of them will always be lacking; and to make a whole, one must have one extra signifier [*un de plus*], which will not be there itself, which constitutes an exception.  $O [A]$  is thus incomplete; it includes a lack and, at this place, what makes  $\emptyset$  consist is this exterior signifier which draws its border, and which Lacan writes as  $S(\emptyset)$ .

However, there is nonetheless a way of remedying the incompleteness and of integrating the signifier which makes an exception into the completed set: it consists, in the example we chose of  $a, b, c$ , and  $d$ , in accepting to write  $a \neq a$ , which transforms the function of the “one extra” [*un-en-plus*] into the function of the element which is not identical to itself.

These are logical functions. That any signifier whatever may come to this place does not change anything in this: that it is necessary either that one element remain excluded, or—and this is what can replace the preceding condition—that a heterogeneous element be introduced, one that would be different from itself. If it comes to complete the Other in this way, it also renders it inconsistent.

Incomplete or inconsistent, the Other only exists as barred.

And let us note with Lacan that each time the question of nomination is posed, each time, for example, that one tries to designate a signifier with itself, to write  $a = a$ , this signifier will come to the logical place of the point of inconsistency: there is no tautology.

“A signifier,” says Lacan in *L'identification* (6 December 1961), “can be defined in no other way than through its not being what the other signifiers are. From the fact that it can only be defined

precisely by virtue of not being all the other signifiers, there arises another dimension: it is equally true that the signifier could not be itself.” In other words, one cannot write  $a = a$ . Lacan adds that “the signifier is essentially different from itself; nothing of the subject could identify itself with it without excluding itself from it.”

## 6. §

This brings us back to the subject—to the speaking subject—who is only a subject through the signifier.

It is thus only in the field of the Other, the Other which is always already there, the Other where it [*ça*] speaks of him or her, that a subject can come into being by recognizing him- or herself under a signifier, under the master-signifier  $S_1$  of the fundamental identification.

$S_1$  designates the signifier inaccessible to the subject and which however supports the subject. This is why Lacan, in his formulation of the analytic discourse, writes:

$$\frac{S}{S_1}$$

$S_1$  is under the bar, forever separated from the subject, insofar as it constitutes the *Urverdrängung* spoken of by Freud, that is to say primal repression: the subject remains cut off from this signifier which nonetheless determines him or her as such.

In this logical and mythical time of the originary repression, the subject, who is nothing other than  $S_1$ , finds him- or herself excluded from this  $S_1$  as he or she attempts to get hold of him- or herself in it. This pertains to the very structure of the Other, to the differential definition of the signifier which cannot get hold of itself, if not as different from itself, which can thus only grasp itself in its self-difference.

How, then, in this movement of the constitution of the subject, does one account for the originary repression by which the subject comes into being as lack of signifier, as one-minus [*un-en-moins*] in the very logical movement in which he or she is constituted?

It is as support of this logical time of the birth of the subject in this effort of self-grasping of the  $S_1$ , in this redoubling of the  $S_1$  by  $S_1$ , that Lacan introduces the figure of the interior eight in *L'identification*.

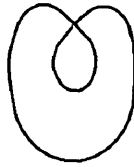


Figure 4-9.

Lacan illustrates the logical time of the constitution of the subject as lack with the help of an operation of logic constructed on the basis of Euler's circles. This operation is that of symmetrical difference; that is to say the union minus the intersection: that is, either A or B, in which this *or* is exclusive.

In a conjunction of logic and topology, Lacan inscribes these figures on a torus and shows that on this condition, and thereby departing from the support of the plane and that of the sphere, logic continues to function, but otherwise: on the torus, union and intersection cannot be written, they do not stop not writing themselves. The torus excludes the intersection; there where one would expect to find it; one is outside the field.

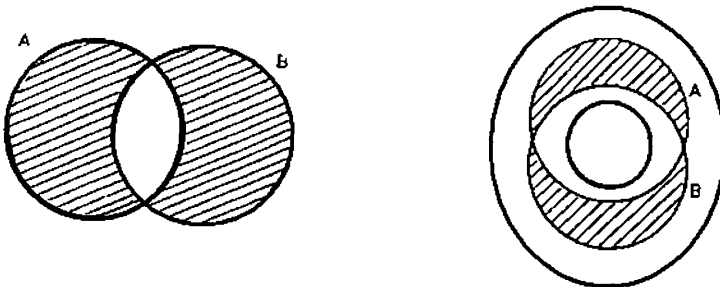


Figure 4-10.

The fields A and B cannot re-find themselves in a second moment.

A signifier which would try to get hold of itself in redoubling itself in the figure of the interior eight traced on the torus, can only subsist there in what becomes a field of self-difference, and only grasps itself at its limit, in its fading.

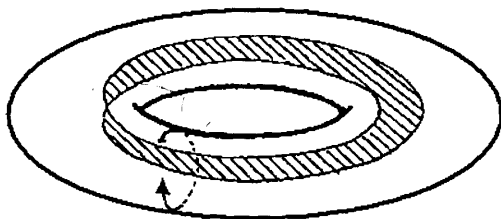


Figure 4-11.

One sees there that the signifier, in redoubling itself, only grasps a void, homogeneous with the field exterior to the signifier, and the subject designates itself there as an excluded field.

In order to account for the foundational entrapment of the subject in the signifier and the primal repression correlative to the emergence of the subject, we need a topology that is no longer that of the sphere, but constructed on the basis of the structuring function of the hole, in other words a topology of the *a-sphere*. The impossibility of saying  $a = a$ , in other words, that which founds the differential structure of the signifier upon this exclusion, is supported by the torus, insofar as the exclusion of the intersection is revealed there.

The Real of the signifier is homogeneous with the Real of the torus; it is, one could say, of the same order of Real: the impossible which is manifested there is the very one on which the subject founds itself.

Lacan writes in *L'étourdit* that "Structure is the real which shows itself in language." Its topology is this structure itself, such as the foundation of the subject in the signifier necessitates it.

Thus it is as a logical consequence of what the very characteristic of a language is—to wit, the differential definition of the sig-

nifier—that each speaking subject, parasited by language, thereby comes to answer this structure founded on the hole: it is at the very point of the lack in the Other, at the point where the signifier which could name him or her lacks, that the subject finds him- or herself suspended, excluded. For lack of being named, he or she can only be represented in the signifying chain.

The subject we first introduced as split by the object is thus found again here, divided by the signifier:  $\$$ .

## 7. *The Cut*

Lacan had already laid the foundations of this topology, which he develops from the Seminar on identification onwards, as early as 1953, in the *Rome Report*, at the same time as he put the accent on the Symbolic. Those are the terms in which he developed it<sup>9</sup>:

To say that this mortal meaning reveals in speech a centre exterior to language is more than a metaphor; it manifests a structure. This structure is different from the spatialisation of the circumference or of the sphere in which some people like to schematise the limits of the living being and his milieu: it corresponds rather to the relational group that symbolic logic designates topologically as an annulus.

If I wished to give an intuitive representation of it, it seems that, rather than have recourse to the surface aspect of a zone, I should call on the tri-dimensional form of a torus, in so far as its peripheral exteriority and its central exteriority constitute only one single region. [Sheridan's translation, at 105]

In this center exterior to language where death dwells, this Real of which one cannot say anything, but where, however, the mortifying effect of the signifier attaches itself as an umbilical cord, let us recognize this structure of internal exclusion, the one of the *vacuole* which Lacan tells us about in *The Ethics*, and the scope of which Jacques-Alain Miller has shown in the different stages of Lacan's teaching under the term of *extimité*.

In starting with the torus, Lacan brings forth the three principal topological objects on which he will rely at the beginning of the 1960s.

Let us take the Möbius strip, precisely as Lacan makes it surge forth from the torus after the fact, in *L'étourdit*, on the basis of a cut in the form of the interior eight, and of a sticking together onto itself of one of the two edges thus produced.

The inverse operation, which consists in cutting a Möbius strip in its middle, produces a new edge—in the form of an interior eight—and makes the Möbius structure disappear: in this, the Möbius strip is this cut itself. There, the subject is designated, insofar as the signifier unveils its structure through its cut at the same time as it makes it disappear into what Lacan names the *ab-sense* of the Möbius void produced by the cut: it is the subject such as is constituted in alienation.

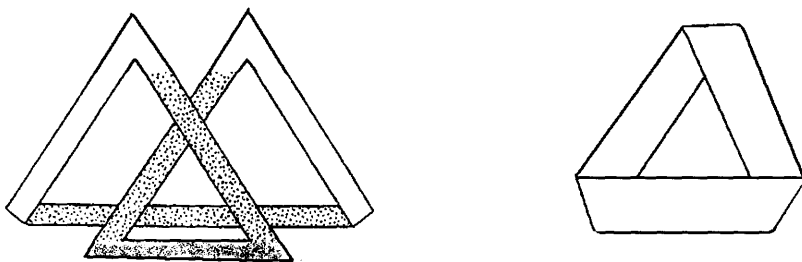


Figure 4-12.

Conjoining inside and outside in each of their points, the Möbius strip accounts for the question of the Freudian double inscription, conscious-preconscious on the one hand, unconscious on the other. This is what Lacan writes in *Radiophonie* (p. 70) concerning the Möbius strip:

The Freudian double inscription [. . .] would thus be of the order [. . .] of the very practice which calls it forth as question, namely the cut: for in withdrawing from it, the unconscious attests to the fact that it consists solely in it; or again, that the

more discourse is interpreted, the more it is proved to be unconscious.

In this respect, the Möbius strip, as topological support, accounts just as well for interpretation and its effects—and thus for the analytic act insofar as it lays down the interpretative cut.

## 8. “*There Is No Metalanguage*”

Let us now try to approach the *a-spheric*, Möbien structure, which supports the Other, the subject, the unconscious, from another perspective, under an other angle.

The unconscious is structured like a language: this implies that any theory of psychoanalysis, any theory of the unconscious, would be a metalanguage. How, then, can we conciliate theory with what Lacan formulates when he states that “there is no metalanguage,” and which we can just as well understand as follows, that there is no Other of the Other? What status are we to give Lacan’s formalizations, whether they be logical or topological?

A formal language is not conceivable without the support of a common language: the common language is necessary for communication and for the introduction of any formal language, failing which it would only be a “cryptogram without a cipher.” On this point, we can refer to an article by Jacques-Alain Miller, published in *Ornicar?* no 5, on the unique language, the “U language” of Haskell Curry.<sup>10</sup>

A language can always be considered as a metalanguage for the object-language of the preceding rank. This gives rise to a recurrent series, and at the beginning of this series, there is a language which is only pure object; its words are things—letters, drawings, and so forth—which signify nothing, which are only materiality. Miller noted that any formalized language, insofar as it is a being of writing, is in this sense an object-language, and that the common language, the “U language,” is the metalanguage of writings. There is here an inversion of the starting position: a theoretical elaboration formalized on facts of common language—thus



a metalanguage—is at the same time an object-language, the common language of which is precisely a metalanguage. Miller proposed to resolve this paradox—and it is here that we meet up again with topology—with the concept of the unique language, in the following terms: “There is no object-language, there is no metalanguage. The unique language is to itself both metalanguage and object-language which intertwine and interlace; not stratified, but coiled in a Möbius way, the unique language does not cease citing itself: autonymous, it is inconsistent.”

There is no metalanguage then, not only because there is no Other of the Other, but more fundamentally because the Other does not exist; there is only a barred Other, marked by inconsistency or incompleteness.

There is thus cause for us to distinguish the formal constructions of the linguists and the logicians, which aim to make the Other exist, and Lacan’s formalizations, logical or topological, which derive from a logic of  $\emptyset$ . In this respect, the logical formalizations of Lacan, like his topology, aim to encircle the place of what is not symbolizable, to circumscribe the point of inconsistency of language, the point of failure of the Other: they arise from the fault in the universe.

## 9. *Logic and Topology*

In this respect, how can we articulate logic with topology?

There is certainly a creationist effect in topology; with writing, the drawings, one achieves a small gain on the Real. This small gain pertains to the sole fact that such writings and drawings serve to apprehend a mathematical object, outside of any meaning; they serve to put some Symbolic on a pure structure, which exists as Real.

We can indeed illustrate it by using the Möbius strip. The signifier could not account for this elementary structure, which however is its very own, before the intuition, the form, and the study of it were progressively uncovered by Gauss, Listing, and Möbius. And once this strip is invented, the signifier continues to remain below the Real of the structure which the strip incarnates.

Lacan is, without a doubt, making use of this creationist effect to encircle this Real, to circumscribe this structure. But he also warns us against what could become a mysticism of topology, against any fascinating effect or initiatory drift associated with it—through capture by the image, the putting into play of the Imaginary of the body. Is it not precisely on this point that we may recognize the reason of the tour de force accomplished by Lacan in *L'étourdit*, a text in which he articulates his topology for us with no other support than words, in which he shows us how discourse itself is topologically articulated?

What Lacan formidably demonstrates in this text—and this is what gives all its weight to topology in his teaching, in psychoanalysis, and simply for the speaking being who, like Monsieur Jourdain [in Molière's *Bourgeois Gentilhomme*] can only be a topologist, be it without knowing it—what Lacan demonstrates then, is that one can do without topology on condition that one make use of it. Is this to say that one should oppose, on the one hand, topology as structure, and the logical formalizations on the other hand, or would they not, rather, be homogeneous?

Let us stress first of all that Lacan's theoretical discourse is homogeneous with its object: just as language harbors within itself its point of lack, its point of inconsistency, the discourse which accounts for what happens for the subject of language is *a-spherical* topology, founded on the structuring function of the hole.

Likewise, let us note that it is because Lacan's formulations do not arise from a metalanguage disjoined from common language, but from a process of ciphering, substitution, and metaphor internal to this language, whose own structure is already Möbien, that they are homogeneous with his topology.

And indeed, topology stems from a combinatory and, more precisely, from the impossible in the combinatory: this is where topology emerges from, as *analysis situs*, with the problem of the bridges of Königsberg. The impossible is just as well what every signifying structure harbors, as Lacan demonstrates in *The Purloined Letter*, with the *caput mortuum* of the signifier, this remainder excluded from the operation, which makes a hole, and thereby takes

its structural and causal value, exactly like the hole of the cross-cap, or of the Möbius strip.

This remainder, this fault in the universe, comes to parasite science and introduce scandal in its most elaborated constructions. We can evoke here, not only Gödel's theorem, but also what brings us even closer, perhaps, to the questions which preoccupy mathematicians; namely what one of our Japanese colleagues, Shin'ya Ogasawara, recalled last year<sup>11</sup>: in the rational mathematical universe, that of the set theory of Zermelo-Fraënkell, thus in a universe which presents itself explicitly as excluding the subject, there nonetheless appeared an extimate object where the subject could lodge itself, showing—as Lacan stated in *Science and Truth*, as we just recalled—that logic fails to suture the subject. In this universe, an indiscernible heterogeneous set slips in and conceals itself, and it is one which does not have any specific signifier. It is a kind of inevitable parasite, demonstrated by the mathematician Paul J. Cohen, who named it *the generic*: it is a mathematical version of the Lacanian myth of the lamella.

For one, this leads us to accentuate the solidarity and the continuity of logic and topology. There is no way for either to avoid the structuring function of the hole: indeed, on the contrary, both the one and the other arise from it.

And this is at the heart of Lacan's theoretical progress, of his advance on the basis of the Freudian discovery. Two essential points—essential for the orientation of the clinic—of this advance have been formulated by Lacan in his famous aphorism: “The unconscious is structured like a language” and in his elaboration of object *a*.

## 10. “The Unconscious Is Structured Like a Language”

In effect, when Lacan formulates that the unconscious is structured like a language, let us note that this implies and condenses three successive articulations.

- First of all, Lacan proposes that what Freud discovered—to wit, that there are some repressed representations which are produced on the basis of a repressed prototype, an *Urverdrängung*, namely the logical necessity of originary repression as foundation of the unconscious—is nothing other, for a speaking subject, than the primary consequence of the differential structure of the signifier. Primary repression and the constitution of the subject in the field of the signifier are equivalent.
- Secondly, Lacan formulates the consequence of his proposition: the unconscious and language have the same structure.
- And finally, the whole of Lacan's work of elaboration and formalization precisely targets this structure on the basis of this second consequence: namely that it is founded on a lack, on a hole, and that it is *a-spherical* topology.

### 11. *The Object a*

It is on this point of umbilical attachment of the structure that the place of the object *a* is designated, in its double valence of lack, of pure absence on the one hand, of cork on the other. Or, to say it otherwise, the object as cause and the object as remainder, or again, agalma and waste.

The object *a* is what comes to suture the lack of the subject in a fallacious completeness which misrecognizes its division, in the fantasy.

The object *a* is, just as well, what comes to split the subject, to cause it, beyond the fantasy.

The object *a* is also, as correlate of the failure in the Other, the logical consistency which comes to complete the inconsistency of the Other.

That is why this object, which comes to close up the gap of the Möbius structure of the subject as of the Other, also has the interior eight for edge in Lacan's topology.

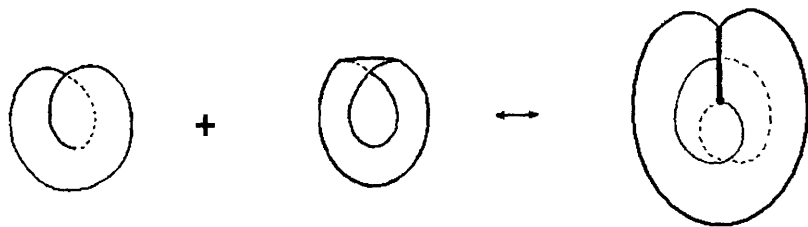


Figure 4-13.

It is this disc [*rondelle*] which can come to suture a Möbius strip along its unique edge, and this produces a new surface, the projective plane and, insofar as it derives from it, the cross-cap.

## 12. Identification, Drive, Fantasy, or the Topology of the Transference According to the Interior Eight

Lacan gives us an example of the fact that one can do without topology on condition that one makes use of it concerning the end of the treatment, in the last pages of the *Four Fundamental Concepts*.

Its topological structure is not immediately apparent, and this is what we can try to uncover, all the more so since this example evidences the solidarity of logic and topology on the one hand, and on the other shows in what way the clinic and its concepts—transference, identification, fantasy, drive—find their articulation in topology: namely, that clinic and topology are solidary as well.

Let us underline here that two major concepts of Lacan's concerning transference, the subject-supposed-to-know, and the enactment of the—sexual—reality of the unconscious find their coherence in their common reference to the function of the object *a* and to the status of the Other as barred:  $\emptyset$ . The Other does not exist. It is marked either by incompleteness or by inconsistency. The inconsistency of the Other implies that the reference to the signifier is not sufficient to situate transference.

The subject-supposed-to-know supposes that the Other does not know, that the Other in question is at the antipodes of the Other

of knowledge, as Miller stresses in his course entitled *Réponses du réel*.<sup>12</sup> The knowledge in question pertains to what remains of unknown knowledge, unknown by the Other, a knowledge which does not flow from the signifier, but which has to do with the object.

Miller highlighted in this same course the very illuminating distinction between alienation-transference and separation-transference, which correspond very precisely to the couple alienation-separation introduced by Lacan in the Seminar on the *Four Fundamental Concepts*. In alienation-transference, it is truly the Other as incomplete, as amputated of a signifier, which is in play; it is, on the other hand, insofar as it is rendered inconsistent by the inclusion of the object *a*, which is not one of its elements, that the Other of desire functions in separation-transference.

The function of the subject-supposed-to-know, just like the enactment of the sexual reality of the unconscious, aims at the Other precisely there where it is lacking, where it is revealed as  $\emptyset$ .

We have seen how the gap of the subject, like the fault of the Other, can come to be filled by the object coming to suture, along its edge, the Möbius strip which supports their structure, thereby producing a cross-cap. Lacan topologizes the relation of the subject with the Other by drawing support from another surface, the Klein bottle.

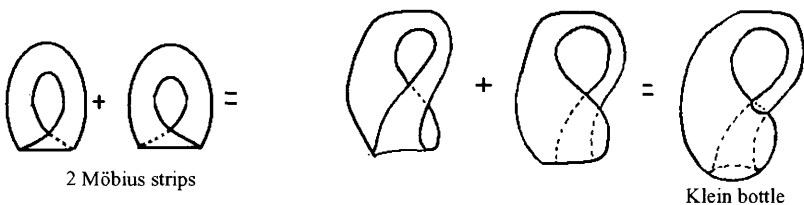


Figure 4-14.

Lacan underlines in the Seminar that follows the *Four Concepts*, *Les Problèmes cruciaux de la psychanalyse*, the topology which accounts for the articulation of the subject with this Other, which is first of all the Other subject, as absolute Other which can make

the subject itself disappear; this topology consists precisely in the articulation of two Möbius strips along their single edge. And what results from this is the surface called the Klein bottle.

In this conjunction, which is that of alienation, the subject is prey to the metonymy of the signifying chain, of the lack-in-being. But it cannot find its identity there as being; it can only disappear beneath the signifier which represents it for another signifier. This is the closed field of identifications and of the slope towards the idealizing identification, which is that of the transference.

So let us return precisely to the question of the transference and the end of the treatment, starting with these two facets of transference which Lacan brings to the fore in the Seminar of the *Four Fundamental Concepts of Psychoanalysis*.

The side indexed by  $O [A]$ , referred to the Other—the Other of Truth and the deceiving Other—is that of the supposition of knowledge, but also that of the deception of love and of the idealizing identification. Here, transference is ordered between  $\$$  and  $\emptyset [A]$ , and puts into play a supposition of knowledge which only has to do with the signifier. The Other is there as Other of knowledge, and what is deployed is in the register of alienation-transference. Here, the subject has no other choice than the register of the signifier; we are in the field, or the plane, as Lacan says, of identification.

The side  $a$ , that of transference as moment of closure of the unconscious, but which nonetheless remains referable to the subject-supposed-to-know, requires an Other therefore completed with the  $a$  as logical consistency, an Other to whom the subject will have entrusted the cause of its desire. Transference then puts into play the Other of desire, and supposes a knowledge which has to do with the object.

Here, separation is possible, and this is what the desire of the analyst allows, insofar as it brings demand back to the drive. The subject can then come to this place of the  $a$ , and the relation to the Other will play itself out at this point between  $a$  and  $\emptyset$ , on the axis of a subjectivization without a subject—acephalic, as Lacan puts it. It is the axis, the plane of the drive, and it is because the subject has been able to come to the place of the  $a$ , to identify itself

with the object, finding there its complement of being in separation, that what Lacan calls the crossing of the plane of identification is possible.

There, thus, remains the fantasy to account for, which we evoked earlier:  $\$ \diamond a$ . When the subject in analysis has experienced this crossing, has passed through the place of the  $a$ , has felt him- or herself as being, in the  $a$ , “the experience of the fundamental fantasy becomes the drive,” says Lacan, which is to say that it is played out beyond the pleasure principle (*Four Concepts*, p. 273 in my English edition). It is insofar as it has been able to occupy this empty place in the Other, that of the  $a$  and insofar as it has been caused by the  $a$  that the subject as  $a$  aims at itself in the Other, beyond the fantasy.

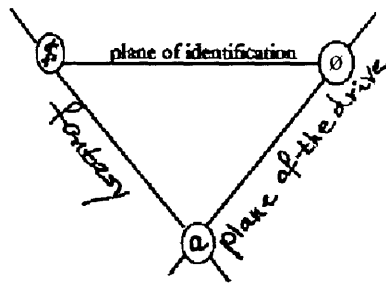


Figure 4–15.

As we saw earlier, it is on the basis of what makes for the articulation of subject and Other, of object and Other, on this curve of the interior eight that Lacan proposes to topologize transference in the Seminar of the *Four Fundamental Concepts*.

Thus, here is what could be the deployed schema of this interior eight, insofar as we can decline it, as Lacan does at the end of the *Four Concepts*, in reference to transference and to the operation of the analyst’s desire. We can inscribe this deployed schema as a logical schema on the condition that we do not forget what has led us to it, and that what makes its essential coherence, we could even say its intrinsic coherence, is the topology of the interior eight.



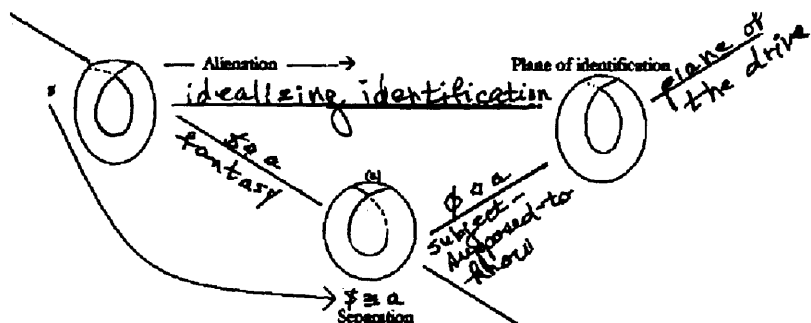


Figure 4-16.

Here we can read what Lacan announces at the end of this Seminar *The Four Concepts*:

"The transference operates in the direction of bringing demand back to identification. It is in as much as the analyst's desire, which remains an  $x$ , tends in a direction that is the exact opposite of identification" namely, it maintains the distance between the  $I$  of the fundamental identification and the object of the drive,  $a$ —"that the crossing of the plane of identification is possible, through the mediation of the separation of the subject in experience. The experience of the subject is thus brought back to the plane at which, from the reality of the unconscious, the drive may be made present" (p. 274).

Thus, to end these preliminary remarks and to continue resonating with the end of the Seminar of the *Four Fundamental Concepts*, we hope to have shown that topology is not to be classed among the obscure gods. It is not a mystique, nor is it an autarchic research, a topology for topology's sake. It is the structure of the clinic, the structure of the analytic experience, because it is above all valid for each speaking being.

This is why Lacan can say in *L'étourdit* that topology is structure, nothing other than this structure, that is to say, in his own terms in *L'étourdit*: "the  $a$ -spherical harboured in the articulation of language insofar as an effect of the subject avails itself of it."

Lacan developed this topology for us in his teaching, but, just as with structure, he made himself its dupe—something which he

also exhorted us to do. Topology, he could do without it, because he made use of it: his practice was topology.

## ENDNOTES

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