February 25, 2017

Fourth discussion session on Marc Darmon's book *Essays on Lacanian Topology* with Marc Darmon and Charles Melman.

From the L schema to the L chain

Marc Darmon – Sir, shall I begin or shall you?

Charles Melman – Yes, please go ahead.

Mr. Darmon – So we will resume our reading of my "Essays on Lacanian Topology." Last time, as you will recall, we examined *Schema L,* which divides the subject's points of reference into a symbolic axis and an imaginary axis. Today, I will start with Lacan's remark that *Schema L* coincides with the four terms of what he called the "L chain," that is, a chain that I have translated as the "elementary signifying chain."
That is to say, based on Markov's work, Lacan constructed a formal, syntactically defined chain that has the properties of an elementary symbolic chain. So this is an essay, and we will show why this chain is elementary and minimal. It is an attempt at formalization that highlights the fundamental properties of the symbolic chain. This chain was developed at the same time as a reflection on Poe's text on *The Purloined Letter.*
This is Lacan's analysis of the short story *The Purloined Letter*. If you recall, in *The Purloined Letter*, there is a description of a game of odds and evens in which Dupin recounts an anecdote
about a kid who was particularly good at this game of odds and evens and relied on his opponent's physiognomy, that is, on an appearance like that, on an imaginary impression to guess what move his opponent was going to make. Lacan tells us that this is a trick by Edgar Allan Poe to mislead us, that it is not on the appearance, on the aspect of his opponent's appearance, that we can base a winning strategy in this game of odd and even, but on symbolic laws. And it turns out that in the 1950s, and more precisely in 1953, mathematicians, who were cyberneticists at the time, became interested in the game of odd or even that Edgar Poe presents in *The Purloined Letter* in order to build machines, machines capable of playing odd or even with a human subject and winning against a human subject. Machines, in particular Shannon's from 1953, were based on what Lacan called symbolic inertia, that is, the inability of a human subject to create a random symbolic sequence. Certain regularities impose themselves in the game of a human subject, and the machine is able to detect these regularities and thus win. So Shannon's machine won, I believe, 60% of the games. Lacan had the listeners in his seminar play the game of odd or even to demonstrate what he then called this symbolic inertia that imposed itself and showed that chance, for example free association, actually followed laws that are symbolic laws.
So the sequence α, β, ɤ was constructed in this spirit, at a time when Lacan was arguing that we were dealing with the unconscious, with the primary processes of the unconscious, with symbolic determination, and this chain of α, β, ɤ was constructed in this spirit to show that, beyond chance, beyond a real random sequence, a

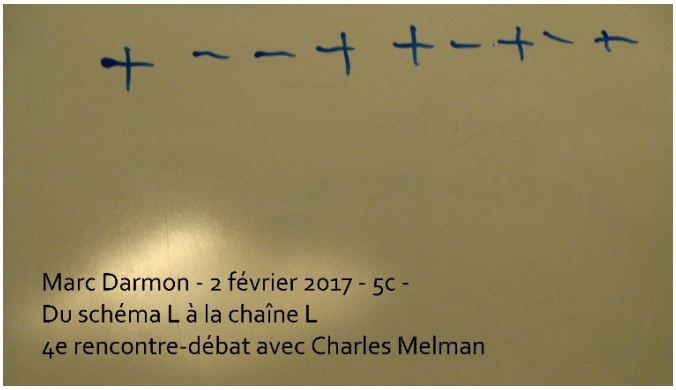
A minimal symbolic syntax could therefore be imposed, and we will see how he proceeds.
There is a fundamental text on which Lacan draws to present this elementary signifying sequence, namely *Beyond the Pleasure Principle*, which mentions an 18-month-old child playing fort-da. Through this game, says Freud, the child masters and copes with the absence of his mother. It is the game of the reel that you know by heart, for which Lacan highlights two facts: on the one hand, the opposition of two signifiers, "OOO..." and "Da," thus two elementary signifiers opposed to each other, through which he connotes, in this game of the reel, absence and presence.
What is interesting in what Lacan says about this game is that, in a way, the phonemes are reversed depending on the presence or absence of the spool. That is to say, *Fort*, the "OOO" is pronounced by the child when he has the spool and is about to throw it away. And *Da* is when the spool is not there and they call out, in a way; there is this dimension of calling out, and this alternation of presence against a backdrop of absence and the absence of a possible presence. Lacan refers to this process as a "banishing vocation," that is, the call to throw and the rejection when there is presence. Clinically, it's very interesting because many romantic relationships are based on this principle, but you see what it comes down to... [Laughter].

Jul***ien Maucade*** – Religion too.

Mr. Darmon – So, right from the start, these two basic signifiers that oppose each other and play on this ambiguity, because that's what Lacan emphasizes, that is to say, *Da!* is not necessarily when it is there, it is also this ambiguity, ultimately, of saying *Da!* to bring something closer and saying *Fort* to chase away the object that is there. So in Lacan's formalization, this alternation of presence and absence is inscribed by + and –, + for presence and – for absence, but as we have just seen, this level of + and –, which Lacan qualifies as the Real, the Real level, or the Real, is already contaminated by the symbolic, one might say, since these + and – bring with them this equivocation, this ambiguity of the signifier. So what matters is the opposition between the + and the –, that is to say, what will matter in this sequence of + and –, is the difference. So much so that what Lacan will retain in this sequence of + and –, is the constancy or the alternation. It is not the + and the – in themselves, it is the constancy of the signs ++, – –.
That is to say, ++ will denote constancy as much as – –, and alternation +–, –+. That is what will be emphasized. If you write a line under the + and – signs where you will record constancy or alternation, that is, by examining two signs +–, –+,
++ – –, if you transcribe this line of + and – into another line where you note the constancy and alternation, you will be able to construct a graph where we will pass, where on one side there will be ++ – –, that is to say constancy, and on the other side –+ +–, alternation, but there will be no symbolic law characterizing the sequence obtained since it will only translate the chain of + and –, therefore as random as this chain. This is why Lacan groups the signs + and – by 3, and with this 3 we see something appear that establishes the symbolic law. That is to say, grouping the signs not in pairs but in threes, in order to transcribe this first series, known as the real series of + and –, into a different series, as we shall see... Lacan refers to the Imaginary level for this first grouping of + and – in the form of alternation and constancy and their grouping in threes. So, starting from this first grouping, which he describes as imaginary, but we can clearly see that the symbolic is already there, so at this point, by grouping the signs in threes, we encounter a symbolic law.

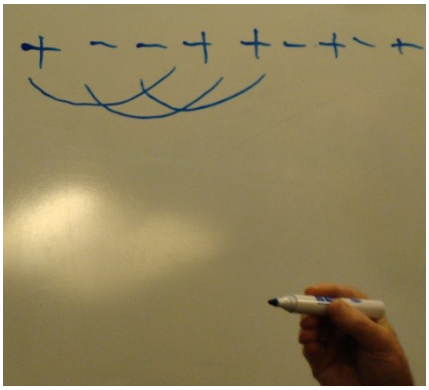
So I will remind you... [Mr. Darmon goes to the board]

Fig. 1



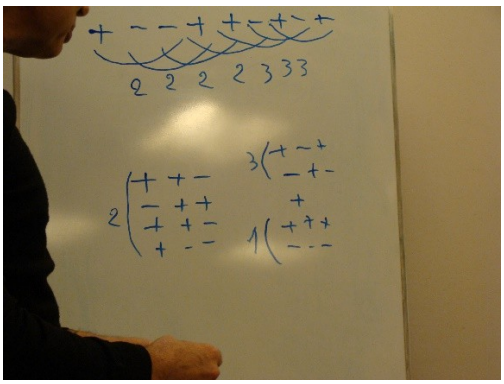
... here, I continue with the + and – signs, and I group the signs in threes, shifting each entry (fig. 2).

Fig. 2



So I see here: there is + – –, which is the grouping that Lacan describes *as odd,* to borrow a term from Edgar Allan Poe's story, so it is a grouping of signs that could be described as "unbalanced," and that is what he describes as 2. That is to say, 2 will transcribe all the groupings described as odd, 2 will also translate all the groupings of this order, that is to say, asymmetrical ones will be inscribed as 2. So you can see that there are two groupings of three that are inscribed as 2. (fig. 3).

Fig. 3

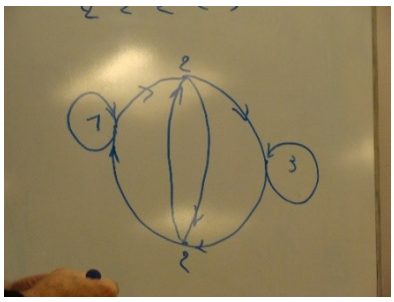


The third one too, the fourth one too. Ah, so the fifth one, you see, it's a symmetrical movement
+–+, so it's a symmetrical movement, and in this symmetrical grouping, the signs will alternate. So the alternating signs will be + – + like here, or – + –, that's all, and it will be qualified by the number 3.
There you go. So the sequence of + and – will be translated by a series of 2 followed by a series of 3.

And if we have a simple constancy, it will be translated by the number 1. Well, it's not in this series that I constructed completely at random.
Lacan—I'll talk for another 10 minutes—and we'll discuss this first translation, where he talks about an imaginary level.

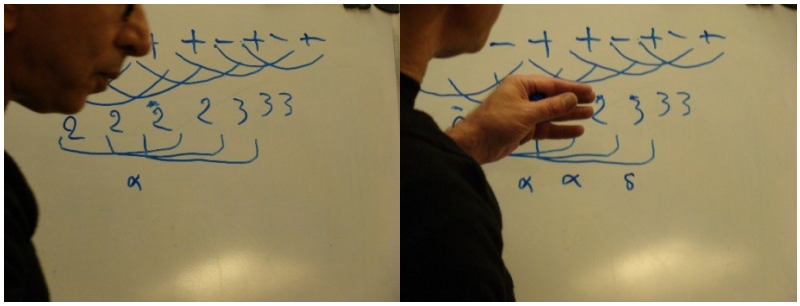
Already with this simple grouping by 3, noting the consistency or alternation (fig. 2), we can construct this first graph, called "the graph of three" I believe, where the sequence resulting from the transcription of the + and - signs, into 1, 2, 3, will follow a rule (fig. 3). That is to say, we can have any sequence of 1s, followed by any sequence of 2s, and depending on whether the 2s that follow are even or odd in number, if they are odd in number; then here, I have written three, the 2 will necessarily be followed by a 1, if the number of 2s is even, a first 2, a second 2, the sequence will necessarily continue with a 3. Then any number of 3s, followed by a 2, necessarily, a 3 cannot be followed by a 1, and from this 2, an even number, here: 4, will be followed by the number 1. So a first graph (fig. 4). So why not stop there?

Fig. 4



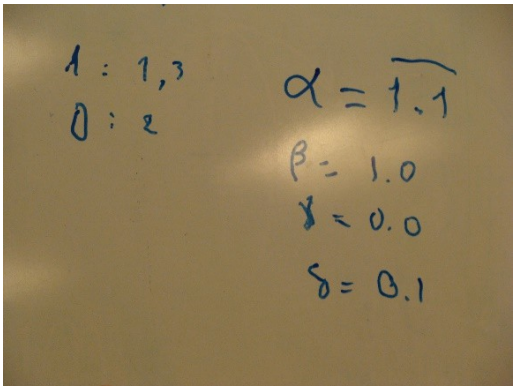
Already in this first graph, we can see that it resembles the L schema, somewhat. With an imaginary axis, symbolic terms, but it is described as imaginary by Lacan, an imaginary level. Because it is a graph that is inverted by the mirror, in a way. At least, that is my hypothesis. This level is not sufficient because it is sensitive to the mirror. And then the frequency of the signs 2 is greater than that of 1 and 3. So the signs do not have the same chance of appearing. So Lacan moves on to another level, a level where there will be four letters that will inscribe groupings of 1, 2, and 3, and this is the level of α, β, ɤ, δ.

Figs. 5 and 6



So, we can discuss this, we can already start the discussion, as I pointed out earlier, the symbolic is present from the outset. So there is an artificial or mythical side to this establishment of the symbolic. And then there will be a question of letters, that is to say, at the time of the seminar on *The Purloined Letter*, we can say that Lacan relied on letters to talk about the signifier, unlike Lacan in *Lituraterre,* where he gives us a way to distinguish between letter and signifier with a formula that, he says, will soon become a refrain, that is, the signifier is symbolic, the letter is of the order of the Real. You see, there is an evolution of what he calls the Real at the time of *The Purloined Letter,* since the Real here is simply the random chain of + and -. We will also talk about chance, since Lacan contrasts *tuchê* and *automaton,* we will talk about everything at the same time. So the letter will again form a grouping of three, signs consisting of numbers. He will consider the first and third terms of these triplets. Here, we will have a triplet that will be designated α (fig. 5), the second triplet will also be designated α, you see that if we take the third term of the triplet, it is the same, here (fig. 6), the third triplet will join a 2 and a 3, it will be designated δ. So, it's a little difficult because Lacan will establish a first translation of 1, 2, 3 , into 1 and 0 (fig. 7), that is to say that the symmetrical groupings 1 and 3 will be noted 1 [say "big one"], the asymmetrical triplets 2 will be noted 0.

Fig. 7



From here, α will be defined as a triplet where the first term will be symmetric and constant, as will the third term. β is a triplet 1.0 in the definition shown here (Fig. 7), ɣ will be a triplet whose extreme terms are asymmetric, and δ will be the transition from an asymmetric grouping to a symmetric grouping. It's a bit complicated because there are several levels: a level of + and –, a level of 1, 2, 3, which will be transcribed as level 1, 0, and a level of α, β, ɣ, δ.

H. Cesbron Lavau – Can you explain how 1 and 1.3 are related?

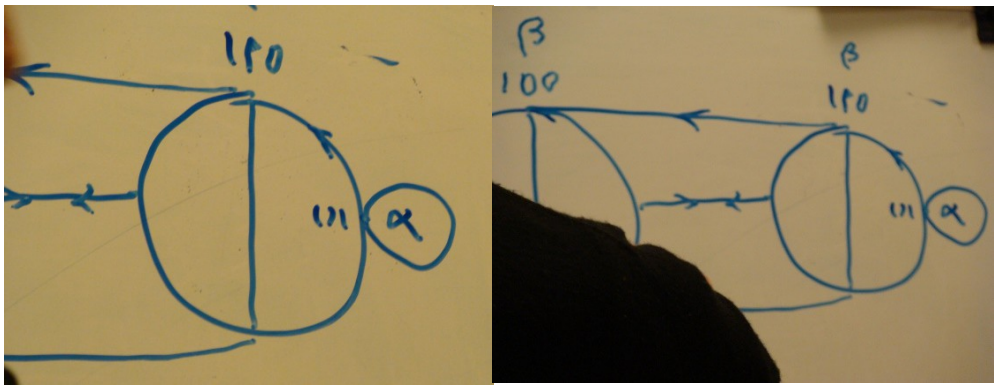
M. Darmon – These are the groups that are classified in the level above as symmetric and asymmetric, that is, we have 1 and 3 which are symmetric and 2 which are asymmetric, instead of writing 1, 2, 3, we write 1 when they are symmetric and 0 when they are asymmetric.

H. Cesbron Lavau – And they regain equiprobability...

M. Darmon – They find equiprobability, but in the meantime, we have lost the law. We find it again with α, β, ɣ, δ. Where?

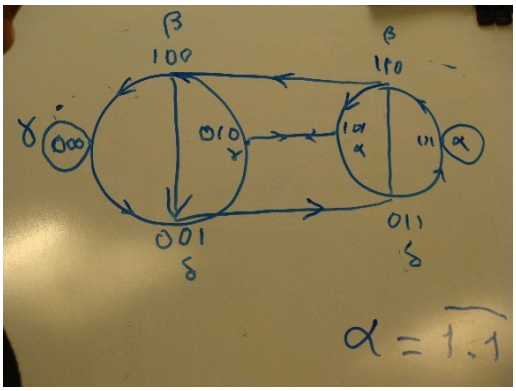
You see how it's done, that is, it's triplets where the middle term is irrelevant, meaning that α can be either 1-1-1 or 1-0-1, so the symbols α, β, δ, and ɣ are ambiguous. Since α can mean either 1-1-1 or 1-0-1, this will be important in constructing the graph.
So if we write all the signs 101, 111, etc. from the first translation, the translation of 1, 2, 3 into 1.0, we have here 111 which will be written as α (fig. 7), if it is followed by a 0, we will therefore have 110, which will be written as β (fig. 8)

Fig. 7 and 8

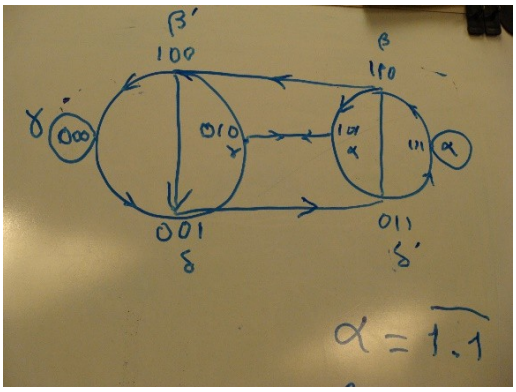


Then let's imagine that it's another 0, 100, and it's still β. If this β is followed by a 1, 001, it will be δ, but if it is followed by a 0, it will be ɣ. A ɣ followed by a 1 gives us δ again. Here is the complete graph (fig. 9).

Fig. 9



We can see that there are vertices that are labeled with the same letter, α here on the right side of the graph, α on the left, β here and β there... This is not done in mathematics. When we have different vertices in a graph or geometric figure, we label them with different letters. Here we have α, 111 and α, 101, we have ɣ, 010 and ɣ, 000. But calling them α and ɣ allows us to account for this ambiguity, which we find in this graph.
We will see later in this work that this graph will be used to develop Lacan's own graph, where you will find the letters α, β, δ, ɣ in the construction of Lacan's large graph, and Lacan will name the second β, β' and the second δ, δ'. (fig. 10)
Fig. 10



Okay, I'll stop there to give you a chance to speak, and we'll come back to this question because there's a lot to say about it.

Ch. Melman – Well done, Marc, well done for the friendship you show us by allowing laymen to enter into this combinatorics, which is not necessarily complex but which we are not accustomed to and whose interest and meaning we may not fully grasp, nor why Lacan took this trouble, certainly not alone since he worked with mathematicians, or rather, he sought help or supervision, whichever you prefer. So thank you very much, thank you again for explaining these concepts to us so kindly and simply.

The points I would like to question, which may seem peripheral to your presentation or to what you write, are first of all... You immediately use the term "symbolic," the symbolic chain. Would you like to clarify for us what you mean by a symbolic chain? Allow me this question, naive as it may be, but we are here to clarify these various terms. Especially since, as we can see, the break made by Lacan in a sequence of signs, for example + or - before they become α, β, etc., the type of break made seems to be determined essentially by the Imaginary. Symmetrical, asymmetrical, it has no other support than that of an imaginary division of a chain that could be described as random, writing a random sequence of + and - and then introducing order into this sequence, grouping them first by 2 and then by 3, which is purely, purely imaginary. With this paradox that you rightly note right from the start, and that Lacan emphasizes, and which is not insignificant, it perplexes me that in *Fort-Da, Fort* is presence, the name that means further away, the naming of the presence of the object because there is distance, that is to say, as if this reversal were taking place, and that what mattered to the child was precisely the presence of this "not there," and that its enjoyment was, in a way, to materialize that the object was only there as a representative of a "there isn't," "not there," "gone." ." Which would mean, if we continue, I would simply say that from this duality of *Fort-Da,* the child celebrates the presentification of the defect, of the absence, of the "not there," and that therefore the object already takes on its value only as a representative of this "not there." This is what leads me to ask you a question. Would you be willing or able to tell us how you use the term "symbolic chain" and what you mean by "a symbolic chain"? May I ask you this question?

Mr. Darmon – I emphasized what appears to be a simple connotation of absence and presence, that is, a nomination. I insisted that it was more than just a nomination. It was a call or a banishment. That is to say, in effect...

Ch. Melman – Yes. The banishing vocation.

M. Darmon – That is to say, when the subject is there, we chase it away. When the object is there, we say *Fort* to chase it away.

Ch. Melman – Yes.

M. Darmon – And *Da* when it is far away. I very much appreciate your idea that the object, or rather the reel, counts for what is far away.

Ch. Melman – So you see, that's where I substitute the term "symbol" for your term "counts."

M. Darmon – Yes.

Ch. Melman – That is to say, the object, there, would only have value as a symbol of what is not there.

M. Darmon – Yes. That is to say, effectively as a symbol, as the murder of the thing.

Ch. Melman – Exactly, absolutely.

Mr. Darmon – That is to say, this object, this coil that is there, symbolizes a hole.

Ch. Melman – Absolutely, and so you immediately see the complexity that ensues in the relationship to the object.

Mr. Darmon – Yes.

Ch. Melman – Our ordinary complexity in relation to the object, that is to say, how there is a death wish...

M. Darmon – Yes.

Ch. Melman – ...ordinary in our relationship with the object. I think it was called *destrudo*, something like that. We gave it a Latin name to make it sound better. Do we agree?

M. Darmon – Yes, absolutely. You asked why the symbolic, why I call it the symbolic chain.

Ch. Melman – Yes.

M. Darmon – It's because it's made up of *symbols*, in the sense *of signifiers*, and because there's a link, a law that organizes these symbols.

Ch. Melman – Symbols of what?

Mr. Darmon – Not at all. Not at all. That is to say, they are not signs, they are terms that refer to other terms.

Ch. Melman – If I may, I would like to express a slight reservation on this point. That is to say, I would tend to say, it seems to me that what you have so clearly demonstrated with the graph is that all these terms are symbolic of an impediment.

M. Darmon – Yes, that is what Lacan calls the *caput mortuum*.

Ch. Melman – That's right. It's because there's something there that can't come.

M. Darmon – Yes.

Ch. Melman – That isn't possible.

M. Darmon – That's more accurate than saying this relationship is possible.

Ch. Melman – Yeah. So that means that there is a relationship, as you rightly say, in a certain place that is impossible, that there is a term there that cannot come.

Mr. Darmon – Yes.

Ch. Melman – We were at the random sequence, with the + and – appearing as they please, and then we will group them in threes. So let me repeat that the constituent elements are purely imaginary. Symmetry, asymmetry, constancy. These are elements of the Imaginary.

M. Darmon – Yes, in fact Lacan talks about the level of the Imaginary.

Ch. Melman – That is what you pointed out, indeed, the level of the Imaginary. And to arrive at the constitution of a symbolic chain with this level of the Imaginary, since the elements will each become symbols only in that place, there, it is not possible.

Mr. Darmon – Yes. Doesn't Lacan introduce what he means by the Real more accurately through the *caput mortuum*? More so than in the chain of + and –?

Ch. Melman – Certainly. Now, in principle, I would say that what you are reminding us of, what you are explaining to us, I would say that in principle, the principle is very simple. To put it another way, it's not rocket science. How is it very simple? Once you have established a random chain of specific identities based on issues of symmetry, constancy, or asymmetry, you are bound to arrive at this conclusion: what was random will be replaced by a

law. I have to say that in principle, I would almost say it's very simple. It's fair and scholarly in its writing and rigor, but in principle...

Mr. Darmon – Provided you group them in threes. It doesn't work in twos.

Ch. Melman – Provided that they are grouped in threes. So we're not going to make a philosophy out of it, saying, you see, you need three. We're not going to get into what were the interpretative modalities, I would say, or rather what the analogy brings to mind for us. We're not going to say, "Ah, you see, you have to go through t h r e e." We're going to drop that. But in any case, in principle, yes, it goes without saying. In other words, it's not something surprising, nor is it a law that would be a fantastic discovery. When you operate like that, it can't be any other way.

Mr. Darmon – It's surprising the first time, though.

Ch. Melman – It's surprising, it's surprising. Yes. So it may be surprising, but I'll stop there—on that point—because what does he want with all this? Why is he bothering with all this, and why is he bothering us with all this? I am bothered by the fact that, for me, there is a gap between the seminar on *The Purloined Letter* and then the L schema and the elementary signifying chain. What gap? *The Purloined Letter* is, I would say, an illustration, let's say amusing, recreational, of what happens when the letter that should not be circulated comes into circulation. In other words, the letter that was not meant to be present in the said environment, insofar as it represents forbidden desire, the desire to which the queen is not entitled. Yet there it is. It so happens that this desire forbidden to the queen is made present, as it should be, by a letter, and we will follow the effects of this letter in this tale, which is obviously brilliant. Edgar Poe is a strange character. If you look into his life, particularly his relationship with his father, it is very unusual. Well, I mean that he is not a genius who came out of nowhere. Here, in this case, it is therefore the presence of the letter that should not be there and thus the illustration, the first illustration given by Lacan, of the problem that is still not accepted as such, that is to say, that the relationship to the impossible, to what is refused, is not linked to a malaise in civilization, nor even to an incidence of religion, and even less, and I think this is present in Lacan from the outset, to what would be a reference to a father. But no! It has nothing to do with that. But that the major flaw specific to our psychic organization and our relationship to jouissance is linked to the literal organization of the signifier, not even the signifier. That's it. You have pointed out very well that he moved from the letter first to the signifier in *Lituraterre*, but even there, at the outset, it was not linked to the signifier, since the signifier retains the power of the One. Well, it is not even the One that can be blamed for this nasty business. So without saying it, as I am embroidering around it, but without saying it, this is the central question that opens Lacan's teaching. And so his attempt to show that it is a matter of combinatorics, that it is a matter of literal organization, not of the One but precisely of the object that has fallen from an organization, from pure combinatorics. It is therefore, if I may express it this way, a matter of absolute materialism. It is audacious, poof! And as we know, it has still not entered into psychoanalysis.
So well done and thank you again for summarizing these points for us. As far as I'm concerned, I would say that we can only attempt to place them within the context of Lacan's main point here, which is indeed essential for each and every one of us. And that includes, in my opinion, the fact that it is scholarly and at the same time

In principle, it's pretty simple. But in his demonstration, there is this arbitrariness that the cutting... in other words, he creates the symbolism of an intervention, of a purely imaginary cut. This is not entirely consistent with the fact that for a whole period he wanted to denounce the dimension of the Imaginary, to the point of writing this article on *L'Étourdit,* that is to say, an article on topology without images. I have already said that, as it happened, I was in charge of the journal because there was no one else to do it, not because of my merits. Well, when he gave me his article on *L'Étourdit,* at the time I had hair, I pulled some of it out. I pulled some of it out because I thought it wasn't possible, and not just because of the difficulty it caused everyone, when it was very simple to do these topology drawings, which he then took up again, the tori, the things, the stuff. And on the other hand, I didn't agree with the fact that he was trying to expunge the dimension of the Imaginary. Why? It is essential to the constitution of desire. Should the object of desire be purely symbolic and real?

Mr. Darmon – He says in *L'Étourdit* that he is compelled to create images, that it was still too much.

Ch. Melman – That it was still too much!

Mr. Darmon – He is compelled to create an image of something that could be written in pure algebra.

Ch. Melman – That's right. Yes.

Mr. Darmon – Catherine Millot says that he rewrote *L'Étourdit* four times to make it increasingly obscure [laughter].

Ch. Melman – That's quite possible. But then when I told him, because I did tell him, when I told him, I said, listen, it's not feasible. We're going to publish it, of course, but who, who is going to agree to this text? Well, I can tell you what his reaction was: he took it very badly. He wasn't happy. Well, yes, what do you want?

Pierre Coërchon – He goes to extremes, to the point where he almost refutes one of the elements. He makes one of the elements refutable, a bit like he described in the scientific approach where the Imaginary is refutable. In this respect, he almost goes to extremes in this kind of text.

Ch. Melman – Yes, but here it's not a question of refuting it, it's a question of canceling it out, whereas he will then be forced to bring it back and be in what I would call a major position in the knot. That is to say, to do what must be done and, as is already present here, an unstoppable constituent element of...

P. Coërchon – He goes so far as to make it refutable, perhaps to make us feel the irrefutability of each element.

Ch. Melman – Yeah. Definitely.

P. Coërchon – He goes that far, to the extreme, to make us feel the irrefutable.

Ch. Melman – Maybe, let's hope so. Okay.

J. Maucade – You say it's not a question of the One, it's a question of the object. But isn't there still a return to the One in the question of the object?

Ch. Melman – There is a presence, but you cannot say what it is.

J. Maucade – In the object?

Ch. Melman – Yes. There is a presence, but you cannot locate it.

J. Maucade – And isn't that One?

Ch. Melman – You don't know where to place it, you don't know if it's real or symbolic, and that's where the maternal object and the paternal object differ, that is, the object that comes from the mother and the object that comes from the father. They're not the same. But we're getting sidetracked. Marc, thank you very much.

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