A YEAR IN THE COMPANY OF KNOTS

Problems

This will concern a workgroup on knots. This workgroup started at the beginning of the year 1973-1974 when Lacan started talking about the Borromean knot again.

In the past, I had tried many times to get a hold of the Lacanian mathemes. It never happened. Here, it happened, it happened not alone, it happened with two. We made a workgroup of two.

What was our point of departure? There was the passage on braids, in the special case of the Borromean. Then there was the definition of a puzzle. A puzzle is not a math problem. A puzzle is a simple problem without precondition, for which the solution is not easily repeatable, consciously transmissible, or teachable. The puzzle in question was: how to render any knot in “tangles.” We were lucky that many people were trying this puzzle. It was this puzzle that taught us to respect the difficulties of knots. From then on, these difficulties were confirmed as constitutive. This was our happy accident, to respect the difficulties of knots.

From this point of departure onward, when the two of us made a workgroup (or speech group), there was always a certain hesitancy. We scheduled regular meetings. We had difficulties of speech. We instituted a speech protocol called “the interruption—association protocol.” This was a rule of asymmetric speech. This asymmetry was inverted from one meeting to the next.

The interruption—association protocol: There are two persons. One among them has a monopoly on interruption, that is to say can interrupt freely, speak, interrupt himself, stop. The other person has to speak without stopping, in a place left up to him to define. Speaking is taken here in the wider sense of speaking, writing, drawing, manipulating.

There was a crisis of speech that, latent or acute, remained irresolute. There were three prohibitions, in the sense of three badly maintained censorships:
—don’t talk about the person of Lacan;
—don’t make free use of Lacan’s words and concepts;
—don’t make free use of mathematical words and concepts.

Thus a progression took place. I will not give a full account of this progression, but rather make a few points.

The Borromean knot is a guide. It is not a guide in the desert.1 There is a multitude of artisanal motifs that are present throughout. At times I found this presence intolerable.

To have a work of the knot, in the sense of a work of knitting, is useful. It’s useful as a way of splitting one’s attention.

The borromean knot brought us up against three references that must, I believe, from what Lacan says, be distinguished from the Borromean knot itself. This is not done. They are:

The 2. The 2 gets in the way. The 2 is a source of error, error is the source of the 2. The 2 has to be left to proliferate. You can’t master the uncertainty linked to the 2, like we have the bad habit of doing with mnemonics. But you can get around this uncertainty, thanks to the fact that: uncertainty linked to the 2 is itself binary.

The combinatorial of the 3 of the 4 and of the 6, and the tetrahedron. The combinatorial put me into a state of sadness. “The sadness of these infinite spaces scares me.”ii

The braid and the tangle. These are some knot presentations. They make sure that a knot is like a ring. or again, that many rings are like a ring. As said already, it was this reference, under the form of a puzzle, that was our point of departure.

Two problems here:

Tetrahedron problem. It is necessary to distinguish the tetrahedron and the Borromean knot. It takes very little for a tetrahedron to appear. It takes two things:

—Orientation of the rings;
—The equivalence “three rings are like a ring.” It’s a particular case of “many rings are like a ring.” This is made by rendering in tangles or rendering in a braid.

Said otherwise, in order for the 4 to appear, it takes the two following things:

—Elements of the 3 are of the 2;
—There is an equivalence “1=3.”

Said otherwise, the tetrahedron appears as an intermediary between one part: oriented knots of three rings or of three colors; and another part: the oriented ring.
Thus, the tetrahedron has nothing to do with the property of writing, in the sense that: the three elements are linked and two by two independent.

The combinatory of the 3 and of the 4 is present elsewhere. It is present in the equations:

\[ x(1-x)(1+x)=0 \]
\[ 1+1=0 \]

Problem of "stupidly using the Borromean knot." The Borromean knot is a guide, a common thread, it doesn't "end well." Can there be a relationship between "using it stupidly" and "using it humbly" [platement]?

We have seen the mathematical literature on knots. It's not nothing, but it's not fundamental, in the sense of the Borromean knot being a foundation. All the same there are reasons to remain cautious about this literature, for which Lacan has defined a project that can be called "the reversal of algebraic topology"—that is to say, to found space from knots and not knots from space.

In general, knots evoke amused or even smug reactions.

Not long ago, we were thinking of meeting up with other workgroups taking an interest with knots, and for this, asked the EFP about it.

We gave one talk, soon to be two, at the seminar of Lacombe, B. Jaulin, and R. Jaulin.

Acknowledgements


Translator’s Notes

i. Possibly a pun on Edward Elgar's Un voix dans le désert (A Voice in the Desert).
ii. A reference to Pascal’s Pensées: "Le silence éternel de ces espaces infinis m'effraie" ("The eternal silence of these infinite spaces scares me").
iii. ça ne "tourne pas court"—a pun combining two expressions: 1) ne tourne pas rond (doesn’t work well); and 2) ne tourne pas court (doesn’t end quickly). My translation here is very approximate.