

WILL GREENSHIELDS

RELATIONALITY, MATERIALITY AND THE REAL
IN LACAN'S BORROMEAN KNOT

Everyone knows the famous aphorism that closes [Wittgenstein's] Tractatus logico-philosophicus: "Whereof one cannot speak, thereof one must be silent." If the real is unsymbolizable, it is ultimately that about which one cannot speak; therefore, one must be silent. But remaining silent always implies as well, and this is still Wittgenstein's perspective, the duty to indicate, to point. You must show that about which you must remain silent. I imagine the late Lacan as someone who continues to point his finger at an unsayable real. Except that, in the end, we can no longer know what this gesture indicates and truly implies.

Alain Badiou¹

What is important is the Borromean knot and that for the sake of which we accede to the real it represents to us.

Jacques Lacan²

While numerous invaluable studies detailing the place and effect of the Lacanian real in diverse domains such as ethics, politics and art have appeared in recent years, relatively little attention has been paid to what Lacan proudly referred to as his "geometry of the real".³ In the rare instances that the principle figure of this geometry — the Borromean knot — is discussed it is usually treated in one of two ways. In the first approach, it is banalised by being deployed as little more than a glorified Venn diagram that efficiently summarises the theoretical developments that emerged in Lacan's seminars of the 1970s. In doing so, one skips a step; exploring the theoretical developments contemporary with the appearance of the knot in Lacan's work without asking why the knot was, for Lacan, the *only* viable support for such developments in the first place. In the second approach, any effort to understand the knot is foregone when preference is given to what Luke Thurston has referred to as its "legendary penumbra" — that is, the "predominant image of the knot as the em-

blem of a *terra incognita* of dark, abstruse speculation, the incomprehensible grand finale of Lacanian theory".⁴

If we accept Badiou's observation, which serves as our first epigraph, how can we overcome a critical paralysis that risks equating this final "gesture" with a vague mysticism without doing the very same thing that makes baffled paralysis look like the only suitable attitude — without, in other words, transforming the act of showing the real into an articulation of knowledge? If Lacan spent a considerable portion of his final seminars pointing at the knot as a "writing [that] supports a real",⁵ how best can "we accede to the real it represents to us"? Why is the knot the best possible support of the real and how might an appreciation of the real's integral role in a nodal structure help us to better understand this most vital and elusive of Lacan's concepts? In what follows I hope to demonstrate that, far from being either an inscrutable enigma or a handy map of Lacanian jargon, the knot is instead a topology established and particularised by a relatively simple spatio-temporal logic and that its chief purpose is the formalisation of the structural paradoxes that qualitatively define the psychoanalytic subject. Studying this topological architecture also enables one to better understand the relation between Lacan's three categories (the real, the symbolic and the imaginary). This is not a structure in which the symbolic dominates, producing a linguistic idealism (which Badiou refers to as "idealinguistry"⁶), but one in which the categories acquire a materiality by virtue of the absence of hierarchy in their Borromean relation.

Giving a Bit of Real

The Borromean knot represented the final phase of Lacan's effort to produce a psychoanalytic topology — a project that explicitly began in 1953 with his first reference to a torus or "ring" which was accompanied by the provocative contention that such a reference constituted "*more than a metaphor* — it manifests a *structure*".⁷ A non-metaphorical writing of the structure of the psychoanalytic subject: the appeal of topology hinged on the possibility of this being realised. It would take almost two decades for three tori to be organised into a Borromean knot — the fundamental property of which is that since no two of its rings are directly linked it requires a third to hang together (see Fig. 1).

Now, while this might be a diverting *amusette* which we might derive a little pleasure from drawing or constructing for ourselves, it hardly seems sufficiently substantial to support the years of obsessive study and explication devoted to it by Lacan and a small band of mathematicians. And as for the suggestion that this figure is not metaphorical or that it has an important contribution to make to psychoanalysis — well, this is surely the height of ridiculousness.

For many of Lacan's readers, his use of topology is simply a step too far. David Metzger perfectly captures the pragmatic mindset of those who "suggest that we can do without some such thing as a Lacanian topology. 'Remember the phallus?'"

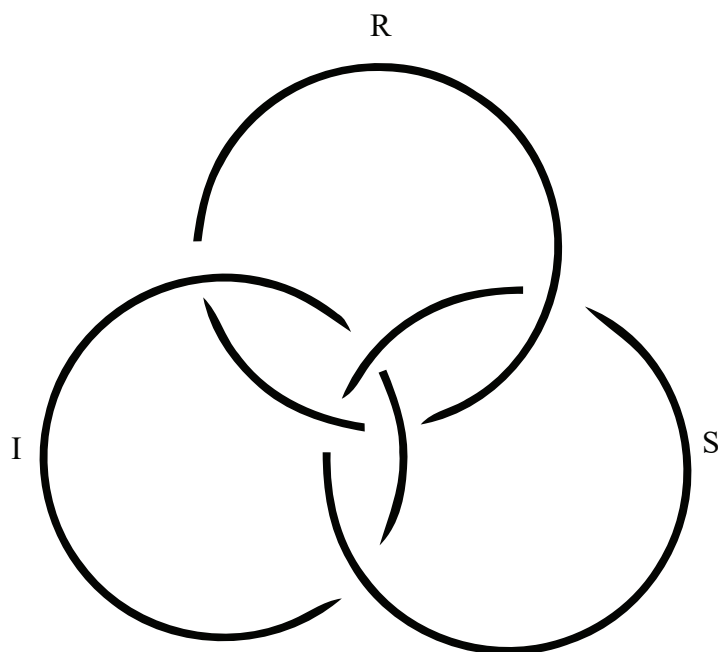


Fig. 1

they tell us. ‘We had a difficult enough time explaining that away. Why bother talking about something that is sure to discourage people from reading (about) this important thinker?’⁸ Indeed, why bother? It is a reputation from which Lacan’s topologisation of psychoanalysis has never quite managed to extricate itself: the impression of utter superfluity, an unnecessary extra layer of self-indulgent difficulty that has come to represent the worst excesses of Lacanian obscurity. And yet, there is, throughout Lacan’s work, the frequently asserted declaration of topology’s non-trivial and self-evident relevance to psychoanalysis — its supreme precision cutting through the obscurantism that language, no matter how concise, invariably generates — which critics find as, if not more, off-putting. How could it possibly be appropriate to point to a tangle of rings, as Lacan did, and say not only that this peculiar weave is the most suitable support of the psychoanalytic subject but — further scandalising those who expect a little more post-structuralism inspired hand-wringing when it comes to the stability of representation from their continental thinkers — also straightforwardly assert that such a depiction is not a metaphor, image or model?⁹

A significant part of the responsibility for the Borromean knot’s popular reputation as a wholly regrettable bit of psychoanalytic esoterica lies with Élisabeth Roudinesco’s characterisation of Lacan’s fascination with the knot as a “search for the absolute”¹⁰ — a reference to Balzac’s *La Recherche de l’Absolu*, the tale of a man

(Balthazar Claës) who haemorrhages a substantial fortune and spurns his family during the course of an obsessive hunt for the alchemical absolute. If, however, this particularly wretched chapter in Balzac's vast *Comédie humaine* testifies to the folly of utterly committing oneself to a realisation of the desire for absolute knowledge or knowledge of the absolute, Lacan was keen to impress upon his readers and listeners — who had either reverentially, or, in the case of Derrida, critically, regarded him as the “purveyor of truth”¹¹ — that his nodal writings would not be a curative panacea that provided all the answers: “The desire for knowledge [*connaître*] encounters obstacles. As an embodiment of this obstacle I have invented the knot”.¹² The function of the knot is clearly established here: far from amounting to a grand synthesis and completion of psychoanalytic theory, it is instead deployed as the non-signifying support of that which cannot be theorised.

In an illuminating dialogue with Badiou, Roudinesco suggests an alternative literary doppelgänger for Lacan: *Oedipus at Colonus*.¹³ Towards the end of his life Lacan was indeed enacting an extraordinary dissolution; disbanding his school and the theoretical foundations of his thought as his physical incapacity grew increasingly pronounced and the periods of muteness became more prolonged. If the union of these two literary figures seems incongruous — Claës suffers because he does not know enough, Oedipus suffers because he knows too much — and yet oddly appropriate, this says much about the difficulty of assessing the significance of this last phase of Lacan's thought in terms of its contribution to knowledge. According to Roudinesco, the act of dissolution, for all its earnest authenticity, constituted not just a dereliction of theory but also a dereliction of duty which left the future of Lacanian psychoanalysis in a perilous state: “Unlike Freud, Lacan leaves nothing as a legacy. He undoes what he built by knitting his knots and his pieces of string. And this is why Lacan's heritage is in danger, more so than that of Freud: the psychoanalysts of the first Lacanian circle received nothing as a legacy, they received the dissolution”.¹⁴ However, it's worth remembering that Freud's “heritage” was endangered precisely because he had left a legacy; his successors inherited a direction, an institution and a body of knowledge that they set about embalming. We should ask why it was that Lacan referred to the knot in order to escape Freud's fate.

While Roudinesco's effort to mythologise Lacan, to see in him the shuffling gait of an aged Oedipus or the mad ambition of a deranged alchemist, to say that we have seen his like before, — to declare, as Freud did, that we can understand *Hamlet* and, indeed, every other troubled soul, because we have seen *Oedipus Rex* — is certainly a start, her reluctance to regard his preoccupation with the knot as anything other than a case study in melancholic senility or a vainglorious search for the absolute, threatens to reverse the passage “from myth to structure”¹⁵ to which Lacan devoted himself.

Lacan's late conceptual and institutional dissolution was not a purely destructive act; there was a productive and hopeful aspect to it: “my only excuse for telling you something today is that it is going to be *meaningful*. In exchange for this I will not achieve what I want. What I want is to *give you a bit of real*”.¹⁶ This *gift* would

surpass the Freudian *legacy* because “Freud himself produced only things that were *meaningful*”.¹⁷ It was with the knot that Lacan would achieve his aim of giving “a bit of real.”

If the knot of Lacan's dissolved school (the *École freudienne de Paris*) had been unravelled,¹⁸ it is apt, then, that the knot should appear again, retied, in Lacan's ‘Overture to the First International Encounter of the Freudian Field’. At this first annual gathering of the newly minted *École de la Cause freudienne* at Caracas in 1980, Lacan helpfully offered to summarise “the debate I've been keeping up with Freud”:

My three are not the same as [Freud's id, superego and ego]. My three are the real, the symbolic and the imaginary. I came to situate them by means of a topology... The Borromean knot highlights *the function of the at-least-three*. This is the one that ties in the other two that are not tied to each other.

I gave [*donné*] that to my pupils. I gave it them so that they might find their way in their practice. But do they find their way any better than with the topography Freud *passed down* [*léguée*] to his?¹⁹

Bearing in mind Lacan's expressed desire “to *give* [*donner*] you a bit of real”, it is worth taking careful note of his language here. Freud's knowledge (of which the static topography of the id, superego and ego is a pertinent representative) is bequeathed (“*léguée*”) as part of a scriptural will or legacy guaranteed by the Other. A gift is something quite different; it has no legal or institutional foundation. The knot itself reflects this absence of law and decree: put simply, it is the structural result of the fact that, for the subject-as-knot, the Other is incomplete. It is in taking this lack in the Other as his primary reference point that the analyst finds his way in his practice. The most obvious consequence of Lacan's presentation of the structural relation between *his* “three” (the real, the symbolic and the imaginary, or, as they will be known for the remainder of this paper, R, S and I) as equivalent to the structural relation between a Borromean knot's three rings is that there is no hierarchical order as there was in Lacan's earlier work where S (the Other), through the Name-of-the-Father's *legacy*, dominated R and I (“idealinguistry”). For the constitution of the knot, each ring fulfils a strictly equivalent structural function — the “function of the at-least-three.” There can be no one or two-ringed knot, no linear count from an original one: “In the sequence of whole numbers, 1 and 2 are detached — something [i.e. R, S, I and the relation between them] begins at three”.²⁰

As figure 2 makes clear, no one ring acts as the enveloping, final frame containing the other rings just as no one ring has the privilege of being the first term. In the knot, there are no closed sets or contained elements (see Fig. 2).

This absence of order, as the consequence of the “function of at-least-three” that is inherent to the Borromean knot's structure, is in marked distinction to Freud's second topography, the vertical organisation of which Lacan held partly responsible for ego psychology.

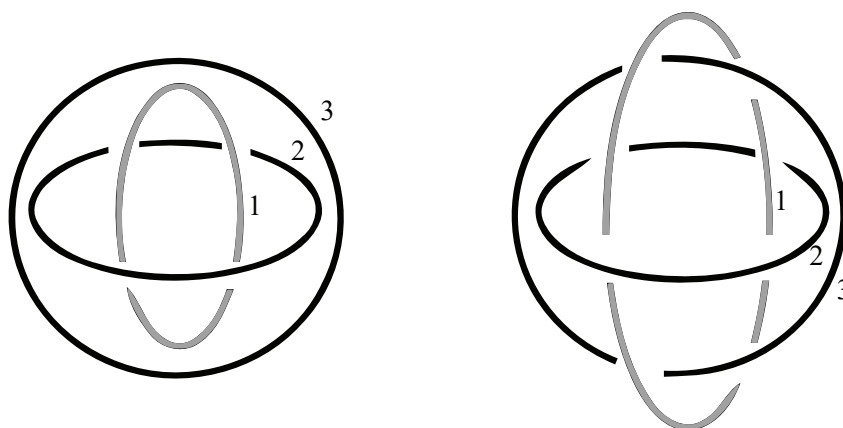


Fig. 2

Trapped at the bottom, “the *Es* [Id] is not sufficiently emphasized by the way it is presented”.²¹ This topography’s influence in the development of ego psychology was partly due to interpretative error but this potential for error is, Lacan argues, endemic to topographical representation itself: “it is the exemplary fate of diagrams — insofar as they are geometrical, that is — to lend themselves to intuitions based on ego-like errors”.²² After this implicit hierarchy the second “ego-like error” encouraged by the topography is the naive intuition of a clearly defined interior and exterior. Freud has created a “geometry of the sack” that “is supposed to *contain...* the drives”²³ and is kitted out with the ego’s “acoust” or “cap of hearing” which Lacan, in reference to the 19th Century inventor of sound recording devices, sardonically labels “a black box of some contraption worthy of [Étienne-Jules] Marey”.²⁴ Rather than being contained by the body, the drives are linked to bodily orifices and perhaps nowhere is the continuity between the body’s interiority and exteriority more disquietingly asserted than in the spoken and speaking being’s experience of a voice, as the object of the oral drive, that both invades the holed body from the outside and escapes from the inside. If Lacan’s pupils are to “find their way in their practice” “better” with the topology given to them “than with the topography Freud passed down to his”, it will be precisely because it challenges the misguided egoic assumptions to which Freud’s topography is so amenable. Lacan’s “three” and Freud’s “three” are distinguished not just by terminology and concept but by *place*. We will examine the structural importance of the knot’s holes later — for now, let us see how a “bit of real”, as that which the Other cannot assimilate, is written by the knot as a result of the “function of the at-least-three.”

If the Borromean knot is a “writing [that] supports a real”, how does it do so beyond our simply appending the letter ‘R’ to one of its rings? How is it that R can be beyond S and I without being an ineffable absolute or *ding an sich* residing outside

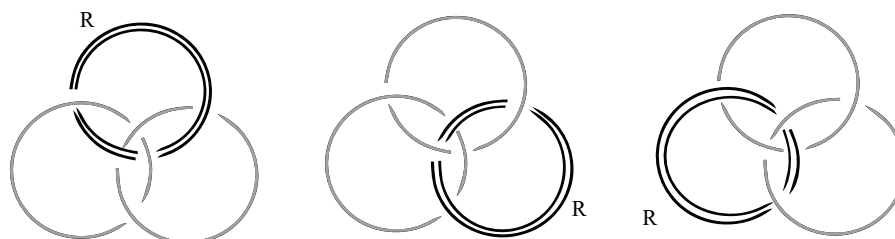


Fig. 3

subjective structure? The knot does not resolve this structural paradox but instead embodies it, showing us how, if “the real is not, as such, linked to anything”²⁵ in terms of a symbolic chain, it is nonetheless knotted. In this peculiar structure, each ring is both separate and bound (see Fig. 3).

Rather than existing as an assimilated part of imaginary-symbolic reality, the real, to use the Heideggerian term Lacan favoured, *ex-sists* as an atheistic Beyond. It is at once a non-recuperable illegibility and an effective presence, both immanent and inaccessible: while the subject cannot grasp it, he cannot straightforwardly expel it either. While the ring of R *ex-sists* to the others (it is, of course, legitimate to attribute the function of *ex-sistence* to any of the rings), it is also necessary for the knot to hold together and be whole — to, in other words, *consist* (which is the function of I). It is, in other words, both integral and impossible to integrate. Throughout *Seminar XXII* and *Seminar XXIII*, Lacan presents R, S, and I not in terms of letters secondarily affixed to the knot but as structural qualities that, together, *are the knot*. The knot does not serve as an analogical map for R, S and I, but instead *is* R, S and I. Since each of the rings *ex-sist* to the others, each ring is real and, furthermore, since it is *impossible*, thanks to this structuration of parts, that the knot’s minimum be anything other than it is, “[t]he real that is at stake, is the knot in its entirety.”²⁶ Since each of the knot’s elements are circles that comprise a consistent unity that hold together through a consistency imparted by the other two circles in a collective structural accord, both its parts and whole are also imaginary. Since each of the rings organise a hole and it is on the basis of this incompleteness that the knot is formed, the function of the symbolic (which we will focus on shortly) is equally present and effective.

As *ex-sistence*, R can only be experienced in relation to S and I. For example, if the third ring (we can ascribe to each ring the position of ‘third’) *ex-sists* to the two others by not being directly linked, it is nevertheless necessary for the knot’s consistence, which, in turn, is what grants the third ring its *ex-sistence* (as opposed to the virtual non-existence of an unattached theological real that floats off into the ether). This amounts to what Lacan called “a new imaginary”²⁷ — a consist-

ency that, rather than being founded (or feigned) through the jettisoning of the ex-sistence that is the real and the hole that is introduced by the symbolic (the ideal of the ego psychologist's "conflict-free sphere"²⁸) is instead *derived from* ex-sistence and the hole.

What "begins at three" is not just the concept of R but the *place* of R. It is only the presence of the two other rings that gives R its ex-sistence as an immanent impasse in representation, an anomaly exposing a model's incompleteness (more on this below), rather than an always absent thing-in-itself: "The mode in which one round of thread ex-sists to another is that with which I displace the by itself unsolvable question of objectivity. Objectivity thus displaced seems less silly than the noumena."²⁹ Two positions are argued against here:

1. The scientific position which, with its systematising models, "has recourse... to the imaginary to give oneself an idea of the real".³⁰ In scientific reasoning a model functions by allowing one "to *foresee* what would be the results... of the functioning of the real".³¹ Science is concerned with identifying laws or what Lacan referred to as "knowledge in the real": the scientific real seems to know what it must do; it *works*. Forces and matter obey certain laws. The psychoanalytic real is precisely that which *does not work*; this "real... must be said to be without law".³² Its emergence is unforeseeable and its functioning is inexplicable. The knot, in which the real *ex-sists* as that which is both inassimilable and ineradicable, will not serve as a generalisable model since such "models", insofar as they are only said to work when anomalies have been eradicated (when, in other words, there are no results of a repeatable experiment that cannot be explained or predicted by the model), "recur to the pure imaginary. Knots recur to the real".³³ Lacan poses his topological entanglement as antithetical to the spherical envelopment of R by I: "What I put forward in my Borromean knot of the imaginary, the symbolic and the real, led me to distinguish these three spheres and then, afterwards, re-knot them"³⁴ in a fashion that makes them both distinct (as ex-sistence, consistence and the hole) and structurally interdependent. The necessary condition of this knotting — which poses the categories as neither completely separate (the pure real or *ding an sich*) nor reducible to the other ("idea of the real") — is that each of the "three spheres" are *holed* (as rings). Each ring is indirectly knotted to the other *by virtue of this incompleteness*. Lacan subtly shifts from a negation of a connection to a positivised negative: while it is true to say that the real "the real is not, as such, linked to anything [*c'est de ne se relier à rien*]," this does not mean that it is simply separate; it is instead quite literally "linked to nothing [*c'est de se relier à rien*]"³⁵ — the nothing that each ring contours. The rings are not three Ones, three self-sufficient and stable spheres, but three rings ex-sisting and consisting as One *that derive their specificity of function and effect*

from an interaction with the other categories at the point at which they are incomplete: "The imagination of consistence immediately extends to the impossibility of rupture, but it is in this that rupture can always be the real... as impossible, which is no less compatible with the said imagination, and even constitutes it".³⁶ In the knot, ex-sistence and consistence are not simply separate or dichotomous but are instead structurally interdependent because each are experienced by the subject in their relation to the other (i.e. a rupture ruins consistency, a false consistency masks ruptures).

2. The philosophical (or, more precisely, Kantian) position according to which we can have no "idea of the real" — that, once distinguished (as phenomena and noumena), the "spheres" cannot be re-knotted. What the Borromean knot shows, not as a representation or model but in its logic of *topos* (the qualitative and non-metaphorical structure that makes it 'Borromean'), is that if we cannot have a totalising "idea of the real" this does not mean that the real is ineffable but rather that *it exists as this failure*. The noumenal real stands alone as a spherical totality, tautologically defined by itself. The psychoanalytic 'real is *not all*':³⁷ it is as holed and in 'bits' that it interacts with the other rings. "Language... make[s] a hole in the real"³⁸ by introducing difference and lack: the logic of the differential signifier means that no signifying system can be complete. S cuts a hole in R, knotting itself with R not by means of a direct concatenation but by striking it into *ex-sistence*. This is not to suggest that R pre-exists S but that R only comes to ex-sist when S is introduced. As Lacan puts it in *Seminar XI*, "the cry does not stand out against a background of silence, but on the contrary makes the silence emerge as silence".³⁹ Once the cry (S) and silence (R) have simultaneously emerged, neither can exist purely and independent. In the words of Samuel Beckett, what results is a mutual incompetence, "the inability to speak, the inability to be silent".⁴⁰ There is, in both S and R, a hole — the inability to speak (to produce univocal and completed meaning) and the inability to be silent (to access a virginal, lackless, pre-discursive real) — that is the structural condition of their knotting. The real that discourse affects is not made non-existent by representation (this is not a matter of the letter straightforwardly killing the spirit) and nor is it brought into existence by representation (the revealed truth of Biblical testimony). It is as a consequence of the signifier that something does not work in R and *it is as that which does not work that R emerges*: "what Freud discovered about what he called sexuality makes a hole in the real".⁴¹ There is no sexual relationship, no faultless union between the subject and a totalised Other, because desire cannot be immaculately communicated and, in any case, the desired ontological unity and wholeness is, for the subject (as that which one signifier represents

for another signifier), impossible. It is as this malfunctioning that R is encountered by S and I and it is to the hole that S creates that it is *indirectly* knotted.

The psychoanalyst has a non-religious, non-scientific and non-philosophical access to the real: “we can only get hold of bits of real”,⁴² the bits that emerge in its interaction with S and I. It was in order to support this not-all real — a real that is both holed and ex-sistent — that Lacan wrote the knot: “my knot is... uniquely that by which the real is introduced as such”.⁴³ R could not be introduced through language (S) or through an image or model (I): such attempts supposed a real that could be represented or domesticated. However, the question of the real’s structural *place* cannot be resolved by separating it from S and I. As Lacan admits, his teaching “implies a notion of the real which we must distinguish from the symbolic and the imaginary. The only trouble is that in this process the real is given meaning, whereas in fact the real is founded to the extent that there is no meaning”.⁴⁴ Just as the source of a signifier’s meaning lies not in itself but in its differential relation to other signifiers, so too is the real “given meaning” when it is defined purely by its distinction to the other categories. In contradistinction to this conferral of meaning through binary relations, the knot, as “that by which the real is introduced as such”, poses a structure in which R is both a necessary component alongside I and S (with ex-sistence, consistence and the hole all being integral and interdependent qualities) and irreducible to I and S.

Here, Lacan anticipates the dialectical critique to which his conceptualisation of the real is treated by Fredric Jameson:

[T]he moment we recognize a boundary or a limit, we are already beyond it — calling something a limit is a way of transcending that limit towards a *plane* on which the “limit” itself is little more than a category and no longer a genuine boundary. So it is that anything identified as the unassimilable gets assimilated by virtue of this very act of identification.... [I]s not the very fact of naming all this the real a first move towards domesticating it and finding it a place within symbolization?⁴⁵

Once it has been thought of as a distinguished or excluded element, the real is no longer genuinely unthinkable since it is defined by its distinction. The knot’s real is subject to neither inclusion nor exclusion (which, through a quick dialectical procedure, can be made equivalent to a certain form of inclusion) but instead *ex-sists*. While it does not have “a place *within* symbolization” it is nonetheless maladroitly *knotted to* symbolization — knotted by means of hole within itself and within symbolization. When confronted with a real that is both integral to structure and irreducible to structure’s other two components, Jameson’s binary terms (i.e. “assimilated” and “unassimilable”) are no longer appropriate. It was precisely in order to avoid Jameson’s *idea of the real* as a “limit” that can be recognised and localised on a geometric “plane” that Lacan turned to topology. A plane is two-dimensional: a *binary logic* operates when closed lines are inscribed on the plane as a limit or

frame. We can distinguish between what is inside and outside the line-as-limit but this limit and, indeed, the exteriority that it produces, become only elements in a wider set (i.e. the plane itself). We might imagine that the third category lies beyond the plane itself and that to access it we would only have to tumble off the edge, suffering the fate that awaited ancient explorers journeying to the edge of a flat earth, but this would be to adopt another misconception that Lacan sought to avoid — that of a massive envelopment of S and I by R as the great outdoors. What makes the knot the *only* adequate support of the psychoanalytic real *qua ex-sistence* is that its lines allow what Lacan referred to as a “trinitary logic”⁴⁶ to function. In other words, the particular way in which the knot is written in three dimensions, the Borromean fashion in which its lines intertwine, accomplishes what the two-dimensional plane cannot by supporting all three of the dimensions (without incorporating one into the other or excluding one) that comprise the psychoanalytic subject.

The knot does not partake in the binary logic that characterises the spatial intuition beloved by the ego (i.e. the binary opposition between interior and exterior) and which runs through language itself (i.e. R is “given meaning” by being defined as that which is not S or I). “Language” — and, indeed, the two-dimensional plane upon which Jameson bases his argument — “is always *flattened* out”.⁴⁷ It reduces the three dimensions of RSI to two dimensions — a dualism, dichotomy, dialectic or metaphoric substitution that confers meaning — “and that indeed is why my twisted business of the imaginary, the symbolic and the real, with the fact that the symbolic”, or any other category, “is what goes above what is above and which passes beneath what is beneath,... [has] value”:⁴⁸

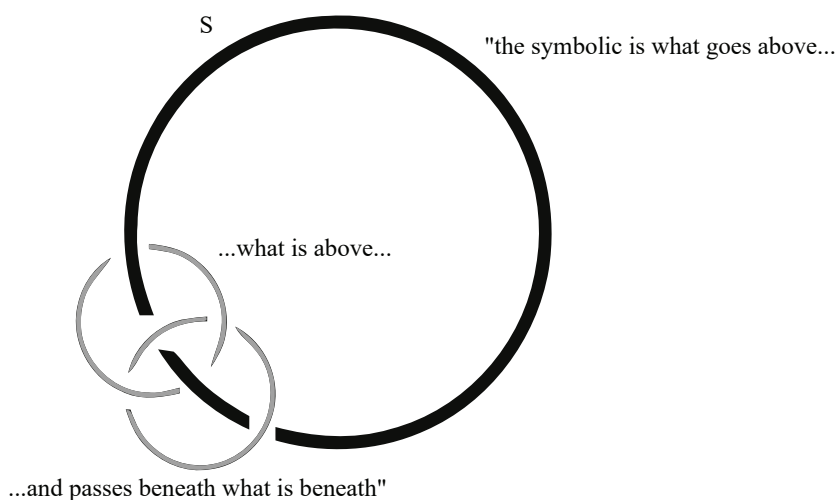


Fig. 4

It is this “twisted business” of the Borromean knot that allows a real to be written that is irreducible to the options offered by a binary opposition. This real *exists* as both included and excluded because the knot in which the “function of the at-least-three” is operative cannot be flattened. Its lines cannot be inscribed on a two-dimensional plane. As we can see from Figure 2, the coherent space of linear envelopment in which one line contains another is always ruined by an *ex-sistent* third that “goes above what is above and... passes beneath what is beneath”. There is, in this topology, no limit as such.

If Lacan managed to renew the scandal of Freud's *articulation* (“what he *called* sexuality...”) by *topologising* it (“...makes a hole in the real”) — by, that is, presenting Freud's naming of the incurable as an incompleteness *upon which the formation of structure depends* — his nodal writing also allowed him to reinvigorate some of his own formulae such as “*il n'y a pas de rapport sexuel*.” Even this drastic expression was to be disowned because the “bit of real” that it was supposed to carry as the expression of an impossibility was at risk of being betrayed by the binary logic of language: “I am trying to give you a bit of real, concerning... the human species. And I say to you that there is no sexual relation. But it's embroidery... because I take part in ‘yes or no’.”⁴⁹ Embroidery is decorative, thread passes *directly* through fabric's holes in order to produce a coherent image. Reference to the knot, whose rings do not link directly but instead disjunctively turn around one another by means of a third (love's overlapping of two lacks does not make a directly linked chain), allowed Lacan to make a subtle shift from stating that the sexual relationship does not exist and that this non-existence is written by his logic of sexualisation⁵⁰ to *there exists a sexual non-relationship that is written by the knot*: “A topology is what permits us to grasp how elements that are not knotted two by two can nonetheless make a knot... It is in this that the term sexual non-rapport can be supported in a sayable fashion.”⁵¹ It is not that the relationship is non-existent (this would partake in the binary of “yes or no” that could be subjected to a dialectical procedure) but that it *ex-sists* as impossible and this is why it troubles us.⁵²

If we might be tempted to vaguely refer to the real (of sexuality) as an obscurity we should, argues Lacan in a distinctively Borromean formulation, be aware that the word, “obscure”, is “only a metaphor... because if we had a bit of real, we would know that the light is no more obscure than the shadows, and vice versa”.⁵³ This statement jars with our expectations: we anticipate the dull profundity of an amateur poet or dialectician — that shadows are no more obscure than light — and instead find that the sense has been given a further disorientating twist. This dissolution of the linguistic binary beyond mere reversal, such that the couple (light and shadow) no longer exist solely through their capacity to signify but also come to exist through their failure to make sense, is induced by the intrusion of a third dimension (“if we had a bit of real...”). R, as that which cannot be adequately conceptualised as an obscurity, a beyond or a limit, *ex-sists* through its effects on S and I; its emergence ruptures the imaginary consistency of symbolic reality, constituting it *as holed* at the moment of knotting.

Towards the end of his life Lacan frequently spoke of psychoanalysis in less than favourable terms. His principle concern was that if R is considered to be absolutely distinct from S then it is difficult to see how the latter (in which, and with which, the psychoanalyst works) can in the course of analysis affect the former. How, if R is *beyond* discourse, can the analyst effectively operate? With respect to this problem, how might the knot help analysts “find their way in their practice”? In a talk given in 1977, Lacan sounded his most provocatively pessimistic note:

The real is in extreme *opposition* to our practice. It is... a *limit* idea of what has no sense. Sense is what we operate with in our practice... The real is this *vanishing point*... Our practice is a swindle [*escroquerie*], *at least considered beginning from the moment we start from this vanishing point*.⁵⁴

This is a naive, pre-Borromean real, thought in terms of a dichotomy (“opposition”), a geometric boundary (“limit”) or an interminably deferred finality (“vanishing point”). Lacan’s final sentence is vital: it is only when the real is thought of in these terms that psychoanalysis begins to look like a swindle. He had, in the previous month’s seminar, announced in a deceptively forthright fashion that “[a]nything that is not founded on matter is a fraud [*escroquerie*]” before allaying fears that he was readying a late career move into neuroscience by adding that if “people want to identify [the real] with *la matière*” then the latter should be written as “*l’âme à tiers*”.⁵⁵ The homophonic resonances of this untranslatable neologism combine the *transcendence* of the soul (*l’âme*) and *matter* (*matière*) by means of a third reference that is threeness itself (*tiers*). If, in his earlier work, Lacan had endeavoured to articulate why a practice devoted to I at the expense of S was a fraud (ego psychology) before arguing that a practice devoted to S at the expense of R would be interminable and ineffective, he now argued that it should be founded on R as “*l’âme à tiers*.” How exactly does this Borromean materialism come to be written?

La matière as l’âme à tiers

In an effort to avoid a naive materialism or a substantivist ontology, Lacan had in earlier works equated the existence of the barred subject with the activity of fading. Its appearance as a spoken or speaking being was simultaneous with its disappearance behind the articulated signifier. The dynamic that characterises the signifying chain is that of “incessant sliding [*glissement*]”.⁵⁶ Thanks to the bar that separates the signifier from the signified that slides under it (S/s), signification is fluid and unstable. Such is the fate of the subject as that which one signifier represents for another signifier. At this point in Lacan’s work, *jouissance*, as that which is prohibited by the effect of S on R, was unequivocally excluded from the castrated subject’s *topos* because R was considered to be beyond S. There was no place in the chain’s endless metonymic *glissement* for anything so substantial and indivisible as the absolute *jouissance* of an ontological unity that is supposed (wrongly, because it never existed in the first place) to have been lost following the accession to sym-

bolic subjectivity. However, by *Seminar XX* Lacan was able to declare that “[s]tructure... demonstrates nothing if not that it is of the same text as *jouissance*, insofar as, in marking by what distance *jouissance* misses — the *jouissance* that would be in question if ‘that were it’ — structure does not presuppose merely the *jouissance* that would be it, it also props up another”.⁵⁷ There is, in other words, another mode of *jouissance* accessible to the subject that is not that of an ideal (re)union with the non-barred (m)Other. This *jouissance* is supported by the *knot* — a structure in which *both* S and R function — rather than the *chain*.

Invoking the very same declaration from Wittgenstein’s *Tractatus logico-philosophicus* that Badiou cites in our epigraph, Lacan first unveiled the knot as a topologisation of the following aphorism’s grammatical structure (with each ring corresponding to a verb): “I *demand* that/ you *refuse* what/ I am *offering* you/ because: it is not *that* [*ça*]... It is very precisely... what one cannot speak about that is at stake... [when I say] it is not that”.⁵⁸ Lacan’s aphorism twice relays between “I” and “you” before abruptly concluding that nothing final and definitive can come of the communion between two desirous subjects. The “bit of real” at stake here is the object *a* — the impossible-to-grasp element that, while always lacking from any signifying structure, acts as the object-cause of desire, compelling the desirous subject to subsist in and utilise the signifying structure (to speak and be spoken of) in a hopeless effort to restore ontological unity and wholeness. Whatever the subject does manage to ask for and receive is always “not that.” The *jouissance* he receives from a particular commodity or partner is inevitably less than “the *jouissance* that would be in question if ‘that were it’”.

While Lacan’s Borromean aphorism (“I demand that...”) might at first appear to be a no more than a theatrical reiteration of the impossibility of obtaining the object *a*, thereby re-confirming its straightforward exclusion from S, he instead contends that this aphorism is a “knot” — rather than a chain — “of meaning” from which “the object arises”.⁵⁹ Rather than being non-existent or strictly absent from the construction, the object and “the *jouissance* that would be in question if ‘that were it’” are instead negatively denoted as that which has been missed. It is a positivised absence or a nothing that counts as something because “[w]e are confronted with it” *as missed* “at every instant of our existence”.⁶⁰ The object has a certain “nullibiquity”,⁶¹ its absence is ubiquitous and it is as that which can be found nowhere that it asserts itself everywhere. What Lacan is attempting to present is a “system of nowhere [*nulle parte*]” because while accession to subjectivity means that “*jouissance* is excluded [and] the circle is closed”, this “exclusion of *jouissance* is only stated from the system itself”.⁶² It is *as missed* that *jouissance* — “the *jouissance* that would be in question if ‘that were it’” — is experienced. If the object were simply non-existent or beyond language it wouldn’t bother us; instead, it ex-sists as that which is missed by language. Refusing to align himself with Wittgenstein’s asceticism, Lacan states that this aphorism “is carefully designed to have an effect”⁶³ — an effect that goes beyond the production of meaning, an effect that exceeds the sum

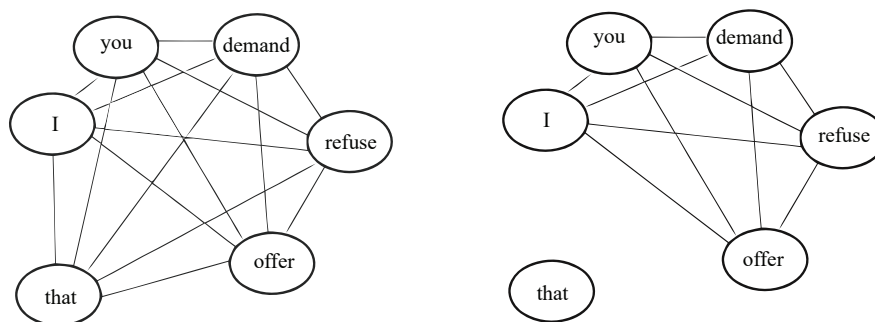


Fig. 5

of the aphorism's constituent parts. How exactly does that which cannot be verbalised "arise" from a knot of verbs?

Lacan experiments with several *flat* diagrams — that is, lines that could be inscribed on a *plane* — in an effort to schematise the 'place' of the object as neither definitively excluded by the aphorism's knotted chain nor incorporated as another ring (see Fig. 5).

The above figure shows the object dropping out of the aphorism's matrix of verbs and pronouns. It does not, however, sufficiently testify to the paradoxical way in which the object is both the *structural ground* of Lacan's aphorism — it quite literally being this aphorism's object, the 'something' that this aphorism is about, the motivation for Lacan to demand that we refuse what he is offering — and, through its absence, the *structural hole*. Lacan patiently demonstrates how, if we assume the object's absolute absence or non-existence, the three-verbed/ ringed construction collapses because it becomes under-motivated and nonsensical. With the "it is not that" erased, there would be no reason for Lacan to demand that you refuse what he is offering. Furthermore, if the negatively denoted object is the necessary support of this construction, the latter is also the necessary support of the former: if we remove any one of the verbs/ rings, "that" becomes completely non-existent because the construction supporting it collapses (e.g. why would Lacan demand that you refuse if he had not made an offer?). The object does not pre-exist the statement; it is not simply the thing or spirit that the letter kills. It is instead, as missed, an *effect* of the knotting of verbs just as these same verbs derive their meaning effect from this object since it is what "justifies a demand such as to refuse what I am offering you."⁶⁵

The failure of various schemas to adequately inscribe a structure in which the object is neither completely absent nor an assimilated part of the chain provided an apposite prelude to Lacan's first presentation of the Borromean knot — a structure in which the knotting of three components and the creation of a central void neces-

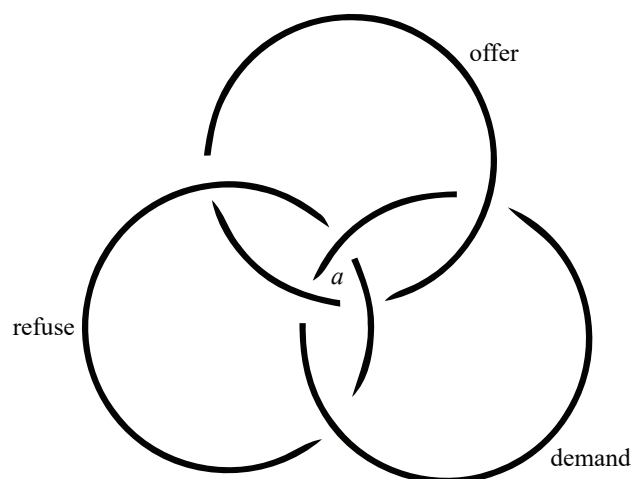


Fig. 6

sarily occur simultaneously. It is in this hole — that is both beyond the materiality of the knot and integral to it — that Lacan places the object *a* (see Fig. 6).

Lacan contends that whereas the chain's metonymic *glissement* can only displace the object, the knot *wedges* it, with this “wedging” constituting “the initial phenomenon of a topology”.⁶⁶ The “lines” are knotted in such a fashion that they “realise the essence of the Borromean knot... determining, gripping, a point”:⁶⁷ the object *a*. Lacan's apparent reliance here on the lexicon of Euclidean geometry (i.e. lines and points) is not to be taken seriously. Indeed, he had devoted considerable time in seminars pre-dating the arrival of the knot to arguing why this geometry is unsuited to the task of formalising the psychoanalytic subject. Both the geometric point and line are mathematical *ideas*, objects of imagination and speculation. The line has just one dimension while the point, created at the intersection of two lines, has zero dimensions since it derives its ideic ‘existence’ entirely from the presence of other forms such as the line. While the ego is captivated by the notion that it occupies the central point towards which lines converge, the divided subject is not a unitary point localisable by means of geometric coordinates. The challenge that the knot's lines were called to answer was that of situating and “wedging” an irreducible ‘place’ that is not a point.

Not all holes are created equal and “if”, Lacan told his long-suffering audience, “I made you do so much topology... it was precisely to suggest that the function of the hole is not univocal”: we might, for example, ask “[w]ithin a circle inscribed on a plane, what is the hole?”⁶⁸ Such a circle, as a one-dimensional line inscribed on a two-dimensional plane, would be incapable of producing a hole worthy of

the name since it would have no depth and, therefore, no edge. Furthermore, we must remember that Lacan is referring to a topology, not a geometry: the former is concerned not with measurable quantity but with axiomatic qualitative relations, thereby “mak[ing] *meaning* (=quantity) dependent on *structure* (=quality)”.⁶⁹ This rubber geometry can entertain continuous deformation (expansion or contraction without cutting or suturing) to its quantitative form without its qualitative structure being altered. For example, rings the size of a galaxy or a bagel are topologically indistinguishable: the specific topology in question (i.e. an unbroken, material contouring of a hole) remains unchanged. Because it cannot actually contain a hole, a circular line inscribed on a plane can be reduced to a dimensionless point. Because there is no obstacle, such as a hole, that would impede this contraction, the one-dimensional circle is homotopy equivalent to the point.⁷⁰

What is required, to cite the title of the twenty-third session of *Seminar X*, is “a circle that is irreducible to a point”:

It’s a matter of knowing how a hole can be filled, how it can close up. It can be represented as a shrinking circle. Even though any old circle drawn on the *plane* can shrink down to nothing more than a point, a vanishing limit point, and then disappear altogether, this is not the case on the surface of the torus... *Structures exist that do not entail the hole being filled in.*⁷¹

One might adjust Lacan’s final statement: structures exist *because* the hole cannot be filled in. Originally, he referred to the torus in order to formalise the subject’s lack in terms of a topological irreducibility. The circle of demand, oriented around the torus’s tubular hole, and the circle of desire, oriented around the torus’s central hole that stretches out around and beyond the torus itself,⁷² cannot be closed (that is, homotopically reduced) and it is in this impossibility of closure that the “Freudian *cogito*” as a lacking or holed “*desidero*”⁷³ ex-sists. Significantly, it is impossible to

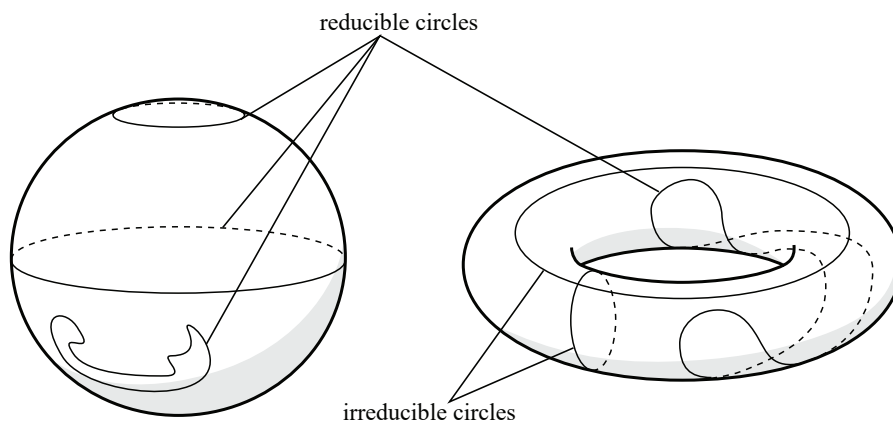


Fig. 7

inscribe an irreducible circle on a sphere — a topology that Lacan associates with egoic self-apprehension and imaginary cosmology (see Fig. 7).⁷⁴

Recalling that Lacan defined the real as the impossible, this impossibility of closure was the real of the torus and it was as an irreducible hole that the torus became the key component of Lacan's Borromean architecture: "The torus", unlike the geometric line, "is not a puff of air... it has all the resistance of something *real*".⁷⁵ If a toric circle cannot be reduced to a point, if the hole that it circumscribes cannot be resolved, then a knot composed of three tori cannot be dissolved through a *quantitative* reduction. The *qualitative* knot, in other words, *resists*: "In this... geometry of weaving (which has nothing to do with Greek geometry, which is made of nothing but abstractions), what I try to articulate is a geometry that resists".⁷⁶ Here, however, we should recall the *primary* real of the knot from which the real resistance of its whole and parts is *secondarily* derived: it is *impossible* that the knot be made with anything less than three rings. This is the "function of the at-least-three". Without three rings, there is no knot and no resistance. The rings of R, S and I only subsist through their effect on one another, their *resistance* to one another:

In its '*sistence*' outside of the imaginary and the symbolic, [the real] knocks up against them, its play is something precisely in the order of limitation; the two others, from the moment when it is tied into a Borromean knot with them, offer it resistance. In other words, the real only has *ex-sistence*... in its encounter with the limits of the symbolic and the imaginary.⁷⁷

The consequence of this mutual resistance is that no one ring can dominate the others and no one ring can absent itself from the structure of which the others are a part. The "function of at-least-three" is pertinent to both Lacan's categories and the rings that formalise their structural relation. The categories are not experienced by the subject in isolation. Similarly, in the Borromean architecture, a circle only becomes a torus when it is knotted to another two tori that resist it. If "[t]his geometry is not imaginary" but "a geometry of the real, of rings of string",⁷⁸ the real at stake here is not simply that of the rings themselves, inasmuch as they are 'real things' that possess an irreducible materiality that lines do not, but what the materiality *conferred by nodality* (*la matière* as '*l'âme à tiers*') makes *impossible*. The ring's resistant materiality does not precede nodality; it is the latter that constitutes the former. Similarly, the categories do not pre-exist one another but only function in their interaction with one another (as *ex-sistence*, *consistence* and the hole).

Suppose we observe this logic (according to which materiality is a consequence of nodality) and attempt to draw the first component of this "geometry of the real". This would be a single circle, an immaterial, one-dimensional line reducible to a point. Having no *ex-sistence* or hole, this imaginary figure is liable to vanish. Suppose we now draw a second circle that sits atop the first. While we would be forced to include a break in one of the lines in order to show how the second line passes over it, thereby inferring three-dimensional depth, there is no reason for our circles to be where they are, there is nothing *resisting* their movement and preventing

them from becoming circles in solitude. Now suppose that we produce a writing in which the “function of the at-least-three” is operative. Since three is the minimum, we do not go one, two, three but instead begin with a Borromean triunity. Suddenly, our feeble circles have been lent body, *not in and of themselves but through their topological entanglement*: they knock against each other, each providing material resistance to the other’s movement. Furthermore, the holes that they materially wedge *as a consequence of this resistance are now irreducible*, having previously completely failed to manifest themselves in the flat circles. “[T]he real”, in both its guises as an *ex-sistent* ring and the impossibility of closure, “only begins at number three”.⁷⁹

This Borromean materialism also provides the most apposite formalisation of the “body” as that which “only enters into the analytic perspective inasmuch as it makes an orifice, and is knotted to some symbolic or real”.⁸⁰ As neither a point nor an enclosed sphere with a clearly defined interior and exterior (unlike Freud’s topography), the psychoanalytic body’s qualitative structural feature is the hole (of the mouth, anus, eye or ear) that derives *jouissance* from an object that covers over the real lack in S to which this body is knotted. In Lacan’s terminology the material “ring of string” became the visceral “gut-torus”⁸¹ but, once again, this was not an appeal to an unvarnished nature that exists beyond or prior to discourse: the “gut-torus” — essentially defined by the hole that is *both the consequence and the condition of its being knotted* — “is not a body all alone. If not for the symbolic, and the *ex-sistence* of the real, the body would have no aesthetic at all, because there would be no gut-torus. The gut-torus... is made from this non-existent relation between the symbolic and the real”.⁸² The non-rapport between S and R is most keenly felt following the event that serves as the *desidero*’s ‘cause’ — the traumatic missed encounter with *das Ding*, that is, the real lack in the Other that manifests itself in the Other’s desire. This encounter is always missed, thereby retaining its traumatic quality, precisely because the real that it presents cannot be made legible or articulable (i.e. the envelopment of R by S). The body that “is made from this non-existent relation” between S and R is not the body that the ego — constituted when the infant jubilantly experiences a mastery over a consistent and coherent body during the Mirror Stage — imagines itself to have.

Let us take, for example, the invocatory drive mentioned in our discussion of Freud’s topography above: “If the desire of the subject is founded on the desire of the Other... [t]he voice is... the instrument in which there is manifested the desire of the Other”.⁸³ When *topos* and *logos* combine, with the latter introducing an incomprehensible *ex-sistence* that it cannot subsequently expunge, the space of the body is not that of a self-contained bubble: the corporeal “*parlêtre*” suffers from topological “extimacy” as a voice escapes his interiority, exceeding conscious ownership, and another, radically foreign voice conditions his desire. The body does not pre-exist this encounter; *it is instead constituted (as holed) by being knotted to the indirectly linked S and R*. The irreducible hole is both the means by which the “gut-torus” is knotted and that which is constituted by the knotting. To put it another

way, a voice invades the ear but it is only then that the body is experienced as *holed* and as a *jouissant* substance. With the formation of the consistent knot, the ideal of imaginary consistence is replaced by a “[m]aterial [that] presents itself to us as *corps-sistance*”,⁸⁴ a consistence founded on a corporeal hole.

Contrary to what Philippe Lacoue-Labarthe and Jean-Luc Nancy have argued,⁸⁵ Lacan's identification of a hole at the heart of structure does not mean that he merely repeated negative theology or ontology. Instead, the hole is what enables ex-sistence to be knotted and, in turn, it is the ex-sistent presence of the third ring that enables the hole to subsist. Rather than having to choose between the options afforded by a *binary* logic—that is, the dichotomy between imaginary consistency and the symbolic hole, an egoic ontology and a negative ontology—“the function of the at-least-three” holes is to support an existence that is evenly distributed across consistency, the hole and *ex-sistence*. Topologically speaking, the positivity of the knot materialises in simultaneity with the negativity of the hole: the knot is tied by means of the hole but the hole is only constituted when the knot is tied.

What is particularly striking about the knot's mutual interdependence of mutually exclusive categories is that, despite lacking a final framing ring or limit (there is no dominant, binding category that envelops the others [see figure 2]), it does not spiral off into a post-structuralist ‘bad’ infinity since it can, without its ex-sistence or constitutive emptiness being compromised, be written or made as a consistent whole that can be contained on a page or held in one's hands. If the knot enables Lacan to once again distinguish psychoanalytic subjectivity from philosophical ontology (insofar as “my little knot intervenes” in any Aristotelian “chatter” that treats existence as an instantiation of a universal by showing that “existence is of its nature ex-sistence”⁸⁶ and thus irreducible to the symbolic-imaginary constellations into which syllogistic shifts from the general to the particular attempt to force existence) it also allows him to settle his accounts with Derrida.

Because it is a “writing [that] supports a real” the knot “changes the meaning of writing” — the writing that “Derrida has emphasised, namely the result of what could be termed a precipitation of the signifier”.⁸⁷ While Derrida challenges the apparent solidity of binary oppositions by reading the inherent and permanent vacillation of *différance*, he maintains that access to a third-dimensional *hors-texte* can only occur in a delusional, positive sense (immaculate capture of the referent) or negatively, through a deconstructive performance for which the extra-discursive target is always “to come.” Regarding this precipitous *archi-écriture*, Lacan claims that he preceded Derrida by writing the signifier as “S” in his re-vamping of the Saussurean sign (by, that is, disjoining signifier from signified: S/s) in “The Instance of the Letter”.⁸⁸ By contrast, the nodal “writing in question comes from somewhere other than the signifier”.⁸⁹ The knot is somehow firmer than the signifier without fixing a signified or posing a transcendental master-signifier that would artificially halt the signifier's slippage. The material resistance that each of the knot's rings offer to one another, the “wedging” of an object that the chain's “*glissement*” can only displace, the fact that the knot's writing involves not only the hole created by the

signifier but also consistence and *ex-sistence* — none of these features or effects of the knot are the result of a philosophical naivety that Derrida might balk at. They are instead the result of the knot's "trinitary logic", its qualitative "function of the at-least-three".

Concluding Remarks

Let us recall here Badiou's characterisation of the "late Lacan as someone who continues to point his finger at an unsayable real" with the hope that we are now more certain about the basis for, and legitimacy of, such a gesture. If the Borromean knot is a "writing [that] supports a real", it does not do so by being the best possible imagistic representation of the real or by doing away with representation altogether, offering itself as the noumenal real beyond structure. It instead "supports a real" by means of a non-metaphorical set of spatio-temporal relations that are both particular to the knot and *are* the knot: "The knot", *insofar as it is Borromean*, insofar as it is a structure established by the "function of the at-least-three", "is the *only* support conceivable for a *relation* between something and something else [i.e. the categories R, S and I or the subject and object *a*]. *If on the one hand the knot is abstract, it must at the same time be conceived as concrete*".⁹⁰ To borrow a deprecatory term deployed by the new materialists, we might think of this as a Borromean "correlationism" that operates in concert with a Borromean materialism. At stake, then, is a logic particular to the Borromean knot in which relationality and materiality are interdependent: each mutually guaranties the other.

The rings, in accordance with an inalienable (topo)logic, "knock up against" each other, with each offering the other resistance, in such a fashion that an irreducible hole is wedged and the relation between subject and object is established. These two relations "between something and something else" — that is, the relation between subject and object and the relation between the categories *qua* rings that *are* the subject — are structurally interdependent. It is important to note that the relation between the categories is a relation between structural qualities or functions (i.e. *ex-sistence*, consistence and the hole). Therefore, it is not that the knot secondarily inscribes connective relations between previously isolated qualities but that the qualities are what allow for relations — relations that are written the moment the knot is written. For example, without the hole there would be no means for the knot to consist or for its 'third' ring to *ex-sist*. If the knot did not consist, if its *tori* became individual *circles*, then the holes would not be established *as irreducible* and, once again, there would be no means of supporting the real *qua ex-sistence*.

While we have not even begun to explore the diverse forms, qualities and aspects that make up what Lacan called "the dossier of this Borromean knot"⁹¹ — such as the infinite line, the trefoil, the orientation of the knot, the function of the fourth term (*qua* symptom), the three modes of *jouissance* that the knot wedges (i.e. $J\bar{A}$, $J\Phi$ and *sens*), etc.⁹² — it is hoped that the reader is convinced that if we are to better

appreciate Lacan's "gift" of "a bit of real" then it is time to place alongside his more notorious definitions of the real (as, for example, the impossible or that which always returns to the same place) the following aphorism: "The real is characterised by being knotted".⁹³

Notes

1. Alain Badiou and Élisabeth Roudinesco, *Jacques Lacan, Past and Present: A Dialogue*, trans. Jason E. Smith (New York: Columbia University Press, 2014), pp. 54-55.
2. Jacques Lacan, *Seminar Book XX: Encore, 1972-1973*, ed. Jacques-Alain Miller, trans. Bruce Fink (New York: Norton, 1998), p. 133.
3. Jacques Lacan, 'Yale University: Lecture on the Body', trans. Adrian Price and Russell Grigg in Jacques-Alain Miller and Maire Jaanus (eds), *Culture/ Clinic 1: Applied Lacanian Psychoanalysis* (Minneapolis: University of Minnesota Press, 2013), p. 6. For examples of such work see Todd McGowan, *The Real Gaze: Film Theory after Lacan* (Albany: SUNY Press, 2007), Yannis Stavrakakis, *The Lacanian Left: Psychoanalysis, Theory, Politics* (Albany: SUNY Press, 2007), Alenka Zupančič, *Ethics of the Real: Kant and Lacan* (London: Verso, 2001).
4. Luke Thurston, 'Ineluctable Nodalities: On the Borromean Knot' in Dany Nobus (ed.), *Key Concepts of Lacanian Psychoanalysis* (New York: Other Press, 1998), p. 139. It should be stated that this is Thurston's characterisation of a stance rather than a stance that he himself adopts.
5. Jacques Lacan, *Seminar Book XXII: RSI, 1974-1975*, text established by Jacques-Alain Miller, unpublished trans. Jack W. Stone *et al*, p. 9. Jack W. Stone's translations are available at: <http://www.lacanianworks.net/?p=286> [Date accessed 10 September 2015].
6. Alain Badiou, *Theory of the Subject*, trans. Bruno Borsteels (London: Continuum, 2009), p. 188.
7. Jacques Lacan, *Écrits*, trans. Bruce Fink (New York: Norton, 2006), p. 263. Unless otherwise stated, all italics are my own.
8. David Metzger, 'Interpretation and Topological Structure' in Ellie Ragland and Dragan Milanovic (eds), *Lacan: Topologically Speaking* (New York: Other Press, 2004), p. 134.
9. For example: 'What makes a knot is not imaginary, not a representation... The knot is not a model; it is a support. It is not reality; it is the real.' Lacan, *Seminar XXII*, p. 58.
10. See Élisabeth Roudinesco, *Jacques Lacan: Outline of a Life, History of a System of Thought*, trans. Barbara Bray (New York: Columbia University Press, 1997), pp. 351-411.
11. See Jacques Derrida, 'The Purveyor of Truth', trans. Alan Bass in John P. Muller and William J. Richardson (eds), *The Purloined Poe: Lacan, Derrida, and Psychoanalytic Reading* (Baltimore: The Johns Hopkins University Press), pp. 173-212.
12. Jacques Lacan, *Seminar Book XXIII: The Sinthome, 1975-1976*, text established by Jacques-Alain Miller, trans. Luke Thurston, appendix to Luke Thurston, *Writing the Symptom: Lacan's Joycean Knot* (Ph.D. thesis, University of Kent, 1997), p. 133.
13. Badiou and Roudinesco, *Lacan, Past and Present*, p. 36.
14. *Ibid.*, p. 60.

15. See Jacques Lacan, *Seminar Book XVII: The Other Side of Psychoanalysis, 1969-1970*, ed. Jacques-Alain Miller, trans. Russell Grigg (New York: Norton, 1998), pp. 118-132.
16. Lacan, *Seminar XXIII*, p. 169.
17. *Ibid.*, p. 174.
18. 'The problem is revealed as such, at having a solution: which is a *dis* – a dissolution... That it be enough for one to go away for all to be free is, according to my Borromean knot, true of each, but must be so of myself in my *École*.' Jacques Lacan, *Television/ A Challenge to the Psychoanalytic Establishment*, ed. Joan Copjec, trans. Denis Hollier, Rosalind Krauss, Jeffrey Mehlman and Annette Michelson (New York: Norton, 1990), p. 129.
19. Jacques Lacan 'Overture to the First International Encounter of the Freudian Field, Caracas, 12 July 1980', trans. Adrian Price in *Hurly-Burly 6* (London: NLS, 2011), p. 18.
20. Lacan, *Seminar XXII*, p. 5. For an alternative and illuminating discussion of "Borromean Numericity" see: Duane Rousselle, 'Numbers and Things: A Contribution to Number Theory within Psychoanalytic Theory' in *S: Journal of the Circle for Lacanian Ideology Critique 8* (2015), pp. 141-172.
21. Jacques Lacan, *Seminar Book VII: The Ethics of Psychoanalysis, 1959-1960*, ed. Jacques-Alain Miller, trans. Dennis Porter (New York: Norton, 1992), p. 137.
22. Lacan, *Écrits*, p. 560.
23. Lacan, *Seminar XXII*, p. 3.
24. Lacan, 'Overture', p. 18.
25. Lacan, *Seminar XXIII*, p. 171.
26. Jacques Lacan, *Seminar Book XXIV: l'insu que sait de l'une-bévue s'aile à mourre, 1976-1977*, trans. Cormac Gallagher from unedited French manuscripts, p. 88.
<http://www.lacaninireland.com/web/wp-content/uploads/2010/06/insu-Seminar-XXIV-Final-Sessions-1-12-1976-1977.pdf> [Date accessed 1 February 2015]
27. Lacan, *Seminar XXIII*, p. 170.
28. Lacan, *Television*, p. 109.
29. Lacan, *Seminar XXII*, p. 46.
30. Lacan, *Seminar XXIV*, p. 4.
31. *Ibid.*
32. Lacan, *Seminar XXIII*, p. 179.
33. Lacan, *Seminar XXII*, p. 48.
34. Lacan, *Seminar XXIV*, p. 4
35. Lacan, *Seminar XXIII*, p. 171.
36. *Ibid.*, p. 133.
37. Lacan, *Seminar XXII*, p. 58.

38. Lacan, *Seminar XXIII*, p. 132.
39. Jacques Lacan, *Seminar Book XI: The Four Fundamental Concepts of Psychoanalysis, 1964*, ed. Jacques-Alain Miller, trans. Alan Sheridan (London: Vintage, 1998), p. 26.
40. Samuel Beckett, *Trilogy: Molloy, Malone Dies, The Unnameable* (London: Calder Publications Ltd., 1994), p. 400.
41. Jacques Lacan 'Spring Awakening', trans. Silvia Rodriguez in *Analysis 6* (Melbourne: Centre for Psychoanalytic Research, 1995), p. 33.
42. Lacan, *Seminar XXIII*, p. 171.
43. *Ibid.*, p. 185.
44. *Ibid.*, p. 141.
45. Fredric Jameson, 'Lacan and the Dialectic: A Fragment' in Slavoj Žižek (ed.), *Lacan: The Silent Partners* (London: Verso, 2006), pp. 391-392.
46. Lacan, *Seminar XXIII*, p. 169.
47. Lacan, *Seminar XXIV*, p. 44.
48. *Ibid.*
49. Lacan, *Seminar XXIII*, p. 171.
50. See Lacan, *Seminar XX*, p. 78.
51. Lacan, *Seminar XXII*, pp. 56-57.
52. For a more detailed discussion of the sexual non-relationship and the Borromean knot see Guy le Gaufey, 'The Scholion: A Misuse of Metaphor', trans. Cormac Gallagher in *The Letter 47* (Dublin: 2011), pp. 67-83.
53. Lacan, *Seminar XXIII*, p. 171.
54. Jacques Lacan, 'Remarks on Hysteria', unpublished trans. Jack W. Stone, p. 1.
55. Lacan, *Seminar XXIV*, p. 45.
56. Lacan, *Écrits*, p. 419.
57. Lacan, *Seminar XX*, pp. 111-112.
58. Jacques Lacan, *Seminar Book XIX : ...ou pire, 1971-1972*, trans. Cormac Gallagher from unedited French manuscripts (London: Karnac, n.d.), session 5, p. 9.
59. *Ibid.*
60. *Ibid.*
61. Jacques Lacan, *Seminar Book XVI: From an other to the Other, 1968-1969*, trans. Cormac Gallagher from unedited French manuscripts (London: Karnac, n.d.), session 21, p. 1.
62. *Ibid.*
63. Lacan, *Seminar XX*, p. 111.

64. This is my adaptation of a figure that can be found in: Jacques Lacan, *Seminar Book XIX: ...ou pire, 1971-1972*, ed. Jacques-Alain Miller (Paris: Seuil, 2011), p. 88.
65. Lacan, *Seminar XIX*, session 5, p. 9.
66. Lacan, *Seminar XX*, p. 132.
67. Lacan, *Seminar XXII*, p. 6.
68. Jacques Lacan, *Seminar Book X: Anxiety, 1962-1963*, ed. Jacques-Alain Miller, trans. Adrian Price (Cambridge: Polity, 2014), p. 132.
69. Alexandre Leupin, *Lacan Today: Psychoanalysis, Science, Religion* (New York: Other Press, 2004), p. 24.
70. "In general, two closed paths in a set are compared by verifying if they can be reduced to the same geometric object in the set. A circular path on a surface can be reduced to any given point of the same surface by moving the centre to the given point. The same is true for a spherical path in a solid... In more general cases, however, holes and gaps can be obstructions to the transformations described above." Margherita Barile, 'Homotopy Type', from 'Mathworld — A Wolfram Web Resource', created by Eric W. Weisstein. <http://mathworld.wolfram.com/HomotopyType.html> [Date accessed 3 December 2015].
71. Lacan, *Seminar X*, p. 133.
72. For a more detailed exposition of this point see Joël Dor, *The Epistemological Status of Lacan's Mathemes* in David Pettigrew and François Raffoul (eds), *Disseminating Lacan* (Albany: SUNY Press, 1996), pp. 109-121.
73. Lacan, *Seminar XI*, p. 154.
74. Figure adapted from 'Cycles on a 2-sphere', by Steelpillow — Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=46361437> & 'Cycles on a torus', by Steelpillow — Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=46361438>. Retrieved June 5th, 2016.
75. Jacques Lacan, *Seminar Book IX: Identification, 1961-1962*, trans. Cormac Gallagher from unedited French manuscripts (London: Karnac, n.d.), session 12, p. 13.
76. Lacan, 'Remarks on Hysteria', p. 2.
77. Lacan, *Seminar XXIII*, p. 138.
78. Lacan, 'Lecture on the Body', p. 6.
79. Lacan, *Seminar XXII*, p. 48.
80. Ibid., p. 68.
81. Ibid., p. 46.
82. Ibid., pp. 47-48.
83. Jacques Lacan, *Seminar Book XIII: The Object of Psychoanalysis, 1965-1966*, trans. Cormac Gallagher from unedited French manuscripts (London: Karnac, n.d.), session 20, p. 10.
84. Lacan, *Seminar XXIV*, p. 49.

85. Jean-Luc Nancy and Philippe Lacoue-Labarthe, *The Title of the Letter: A Reading of Lacan*, trans. Francois Raffoul and David Pettigrew (Albany: SUNY Press, 1992), pp. 126-127.
86. Lacan, *Seminar XXII*, p. 18.
87. Lacan, *Seminar XXIII*, p. 180.
88. Ibid.
89. Ibid., p. 181.
90. Lacan, *Seminar XXIII*, p. 133.
91. Jacques Lacan, *The Seminar of Jacques Lacan, Book XXV, The Moment to Conclude, 1977-1978*, trans. Cormac Gallagher from unedited French manuscripts, session 1, p. 4. <http://www.lacaninireland.com/web/wp-content/uploads/2014/03/Book-25-The-Moment-to-Conclude.pdf> [Date accessed 5 February 2016]
92. I intend to provide a full account in my forthcoming book-length study of Lacan's topology: *Writing the Structures of the Subject: Lacan and Topology*.
93. Lacan, *Seminar XXII*, p. 57.