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Triplicity in Spencer-Brown, Lacan, and Poe

Object oriented ontology argues that objects—and objectivity itself—should be considered apart from subjects and subjectivities. For proofs of this, Quentin Meillassoux recommends the "objective" domain of mathematics, which banishes subjectivity on principle. In this spirit, Levi Bryant (*The Democracy of Objects*) takes his project of 'onticology' to George Spencer-Brown's Boolean calculus (*Laws of Form*), also endorsed by other famous travelers down the flat ontological road of speculative realism: sociologist Niklas Luhmann, autopoieticists Francisco Varela and Humberto Maturano, and architectural theorist Patrik Schumacher.[1]

Spencer-Brown's calculus uses only one symbol, ⌐ , an angle representing a distinction, frame, or enclosure, equivalent to a closed circle or square, what mathematicians call a 'Jordan curve.' This mark divides a space into two parts, an unmarked space inside the (concave) mark and the space outside the mark.[2] At the same time, it constitutes a semantic operation of indication, identifying the status of the new spaces and their relationships. Because indications interact with, represent, or point at something 'in the world,' Bryant subordinates the function of indication to the function of distinction. For example, an indication that the sun in shining requires an implicit prior binary distinction, light/darkness.

Bryant represents this as Spencer-Brown's position on the matter.[3] But, this does not tally with what Spencer-Brown himself wrote in his *Laws of Form*: 'We take as given the idea of a distinction and the idea of an indication, and that it is not possible to make an indication without

drawing a distinction.'[4] Possibly, one could read this as meaning 'without *first* drawing a distinction.' But, Louis Kauffman, Spencer-Brown's leading advocate in the United States, has on many occasions emphasized that indication and distinction are simultaneous: '[T]here can be no mark without a distinction and there can be no distinction without indication … *the act of distinction is necessarily circular.* …The act of drawing a distinction involves a circulation as in drawing a circle, or moving back and forth between two states.'

What does this mean, and why is this important? I aim to show how Kaufmann's point is revealingly Lacanian. Kauffman/Spencer-Brown's slogan, 'self-reference and reference are intimately intertwined' echoes Lacan's argument about *triplicity* in relation to metalanguage.[5] Spencer-Brown recognizes Form as a 'self-awareness' that goes past the binary of appearances *versus* realities. Lacan's version of this addresses the problem of having to talk about language (the Symbolic) with language (the language theory). Pierre Skriabine summarizes Lacan's position: 'There is no metalanguage … because the Other of the Other does not exist; there is only a barred Other [represented by the *matheme* A̶, for *Autre*, 'O̶t̶h̶e̶r̶'], marked by inconsistency or incompleteness.'[6] To solve this duplicity problem, Lacan creates a triplicity through the addition of the idea of 'ex-sistence,' the status of the category of the Real, which supplements the 'appearances' of the Imaginary and the 'realities' of the Symbolic through conditions of absence, negation, and lack.[7] Lacan's *matheme* for the signifier of the lack in the Other, S(A̶), is the defect *within* the Symbolic's signifying chains that 'extimates' an other-ness that 'ex-sists' rather than exists. Spencer-Brown echoes this in his insistence that Form is 'self-aware' because it includes the *means* of representing within the grammar of representing.

In providing an appearance/reality counterpart to Lacan's language/metalanguage duplicity, Spencer-Brown, I would claim, out-speculates speculative realists and nearly out-Lacans Lacan when he says that 'there can be no appearance that is not an awareness of appearance and, of course, no awareness that is not an appearance of awareness.'[8] This is a deep-space version of the axiomatic coincidence of distinction (appearance of awareness) and indication (awareness of distinction), CDI. Spencer-Brown replaces the duplicity of scientific doctrine based on the binary of appearance/reality with a triplicity that reveals, beneath his Boolean calculus, a pre-/non-Boolean basis. That Lacan's resistance to the idea of a metalanguage involves pre/non-Boolean stratagems nearly identical or at least sympathetic to Spencer-Brown's is both striking and indicative.[9] Triplicity refers to the necessity that the Symbolic create and then rely on a zone *outside* of itself, related to an *internal* defect, gap, or lack. This 'action at a distance,' this *entanglement*, associated with metonymy rather than metaphor, constitutes a form of 'vertical meaning' in relation to the 'horizontal' signifying chains of the Symbolic (Fig. 1). Its indication function is embodied as an *injunction to cross* a boundary distinguishing two spaces, where one space contains representations concluding with an unmarked empty space, the other contains containing.

<insert Figure 1 here>

For Spencer-Brown, triplicity is the necessity of including the observer in the observed, radically, at the level of the calculus: 'An observer, since he distinguishes the space he occupies, is also a mark. … We see how that the first distinction, the mark, and the observer are not only interchangeable, but, in the form, identical.'[10] And, because the mathematician-observer is not describing a sunset or anything else in the spatio-temporal landscape but rather specifying an

injunction, an action, the indication that *necessarily* accompanies distinction indicates action, not the kind of 'pictorial' condition based on a binary distinction that Bryant seems to suggest.

If we compare Lacan's 'thirdness of the Real' to Spencer-Brown's 'thirdness of injunction,' we can see the logic behind CDI, the coincidence of distinction (appearance of awareness) and indication (awareness of appearance). The Real amounts to an act that follows a binary impasse and is in some ways the password that is enacted in a register outside of language's normal semantic functions. Thirdness as action recalls Lacan's treatment of the dilemma of the Three Prisoners, who must decide whether the dot pinned on their back is one of two black dots or three white dots. Robert Samuels has summarized the prisoners' response in terms of a tripartite temporality.[11] Because all three prisoners have white dots, the first temporality is the *moment* each prisoner, without knowing what his two fellow inmates see, sees two white dots. The second temporality is a 'time of understanding,' structured by the binary of having *either* a black *or* white dot. The third is the moment of concluding. All three prisoners realize that their colleagues would have moved immediately if they had seen a black dot but *instead have hesitated*. Once this hesitation registers *simultaneously*, all three prisoners rush for the door. The time of understanding is closest to what we might call 'normal time,' dominated by the binary of knowing/not-knowing, visibility/invisibility. This is the time of the ticking clock, of anxiety aimed forward and memory backward. The key point is that this binary time is sandwiched between two 'non-time times,' the moment of seeing only white dots (but not knowing that all see these) and the instantaneous rush to the door propelled by the retroactive realization of the meaning of hesitation.

This time triplet seems to invite us to consider C. S. Peirce's thirdness, a 'product of an interpretive *pro*-ject.' This product is an *act*. So, when Spencer-Brown calls indication an *injunction*, we think of the Real of Lacan. This is the Real of absence, the lack, that enjoins a temporality that, in Spencer-Brown fashion, *moves past* any 'picture of the situation,' any 'contextualizing' of place or time, to an identification connecting the mark and the maker of the mark, the subject and the *signifier* of its deficient construction, the Other, S(Ⱥ).

There are two spooky coincidences that connect Lacan and Spencer-Brown. First, there is the coincidence of Spencer-Brown's and Lacan's determination to critique scientific 'duplicity,' and, further, to specify a thirdness around the idea of construction and retroactive temporality. Second, both Spencer-Brown and Lacan connect their thirdnesses to a knowledge that lies outside of the 'flat' or 'horizontal' Symbolic but within the project of theory in the form of *automaton*. For Lacan, this is the unconscious's perfect memory: how (according to Bruce Fink) the unconscious 'topologically' maintains both (1) grammatical rules excluding incorrect combinations and (2) an internal totalizing-accumulative 'trash pile' that has *no need of any subject whatsoever*—an *automaton*.[12] Thirdness in Spencer-Brown depends critically on the simultaneity and circularity of distinction and indication, CDI, where *automaton* is found in the re-entry of the form into itself.[13] Lacan's exteriorized thirdness, the category of the Real that indicates the discovery of a password written in a 'parallel register' to escape the Symbolic, identifies (= discovers the escape route connecting) the 'interior' of the prison with the 'outside' of the construction of the puzzle. The bounded space is thus escaped in an act that, in Spencer-Brown fashion, identifies the maker with the mark, J = ~J.

In opposition to Bryant's delay of indication as 'interpretation afforded by binary distinction,' Spencer-Brown and Lacan both seem to agree that distinction's coincidence with indication is not simply labeling spaces that have been divided, but an unconscious *self-awareness* that works in absence of the subject; and that the *automatism* required to move from the 'flat space' of demonstration to topological spaces, where self-reference can be understood through recursive structures such as the Möbius band, cross-cap, and Klein bottle. Spencer-Brown asserts that, to maintain consistency of his axiomatic interactions of marked and unmarked spaces, one must presume that the surface of demonstration is flat, but then he opens the way to a 'corrected' phenomenology of contradiction once the outside marked space is allowed to be curved, and the form is able to 're-enter' itself.[14] For Lacan, curvature gets past the dialectic opposition of elements that are contradictory on the surface of the something, which will be relatable in a space (and time) of nothing.[15]

Bryant would center Spencer-Brown's calculus on its purely Boolean ability to distinguish and thus overemphasize the binary contradictions and the flatness of their surface of demonstration. But if, in the spirit of Kauffman, CDI extends the calculus toward questions of self-reference, recursion, and trans- or pre-Boolean functions, the calculus shows how the idea of triplicity is the necessary critical-theory complement to binary distinctions and phenomenological-positivistic duplicity of appearance/reality. Indication, in its thirdness, is this supplement. Lacan writes indication in the key of the unconscious, Spencer-Brown prefers the minor key of identity of opposites, $J = \sim J$. Both open up a stranger truth about thirdness: *automaton*.

The Lipogram and the Perpendicular Player

In Georges Perec's famous lipogram novel, *A Void*, the text tells stories in a seemingly normal way, but entirely without words containing the letter 'e.' The reader begins to notice strange diversions and eddy currents ('clinamen') in the narrative flow, and where convention should dominate, Perec's circumlocutions to construct 'non-e' ways of writing finally give away the secret. The reader him/herself has unconsciously created metaleptic meaning effects based on the absence—'something has come of nothing,' to quote Spencer-Brown's *Laws of Form*—and it is imperative to ask if the emergence of this something owes to the thirdness of distinction and indication coincidence, where indication takes on the role of the external/internal 'vertical' vector shown in Figure 1.

Such presence of absence is the focus of Lacan's analysis of another text dealing with the absence of a letter, this time the kind of 'letter' that has a destination in Lacanian terms, the basis of Edgar Allen Poe's short story, 'The Purloined Letter.' As most readers will know, an unnamed Minister D--, to gain control over the Queen of France, steals a letter that would create a scandal if made known to the King. The minister hides it in his apartment with the simple ruse of leaving it out in the open, where the police, acting for the Queen, will least expect to find it. Lacan: 'For [the police's] imbecility is … the imbecility of the realist who does not pause to observe that nothing, however deep into the bowels of the world a hand may shove it, will ever be hidden there, since *another hand* can retrieve it' [emphasis mine].[16] The imbecility of the realist is represented by its *interior* journey inside the original mark; while the genius of Dupin, Poe explains, is that he engages the role played by the point of view (POV) by retroactively realizing the *exterior* of the mark—where the mark *coincides precisely* with the indication of *its own* space of demonstration/representation and realizes a thirdness of identity past the hide-and-seek binary.

Poe himself notes this identity function: 'The boy [who] won all the marbles of the school … had some principle of guessing; and this lay in mere observation and admeasurement of the astuteness of his opponents.'[17] This reference to Morra, the game of odds and evens, points us to the issue of how binaries operate not just in the plane of representation but between the frame and its implied point of view. While binaries of the either/or variety lie flat in the plane of representation, as so many 'lefts and rights' of a given condition, Poe's 'admeasurement of the astuteness of [one's] opponents' is logically independent from, and graphically orthogonal to, this binary of hide and seek. Admeasurement of one's opponent erects a graphic standpoint above the entire plane of representation, a POV line metaphorically placing the player perpendicular to the played (again, see Figure 1). This is indication—awareness of appearance— in its purest and most radical form. Its super-dimensional status is transferred to the concavity of the mark on the page. Poe signals this inside the story by referring to 'odd' and 'even' in other senses, as 'unusual,' 'equal,' or even 'evening.' The story takes place, after all, on an 'odd evening.'

<insert Figure 2 here>

The addition of the dimension of the POV of the 'perpendicular player' is the topological equivalent of self-reference (Fig. 2), where indication and distinction are coincident once the innermost space of interiorizing concentricity is 'found' by the new n+1, the outermost point whose view has trumped that of its 'opponent.' Its astuteness gains it access to the innermost frame. The theme of the palindrome, reverse reading, reinforces the theme of the lipogram. Dupin knows the hiding place because he 'knows' the Minister, and even the hiding place is a phonetic palindrome ('card-rack' = 'kcar-drak'). The palindrome converts dimensions to vectors

<insert Figure 3 here>

in order to open up a *double channel* linking left with right and, thus, disguises/occults the negation. Lacan: 'To purloin is thus *mettre de côté* (to set aside) or … *mettre à gauche* (to put to the left side … and to tuck away).'[18] Adjusting to Spencer-Brown's way of writing marks with the unmarked innermost space to the left, we say in following this convention, 'to put to the *right* side,' with the benefit that this switch emphasizes how the Minister's point of view is 'a-*droit*-ly' folded into the plane of representation to create a double channel, occulting invisibility within visibility (Fig. 3).[19]

Lacan begins his essay on 'The Purloined Letter' with a reference to repetition compulsion. How would this play out in the onto-topology of the calculus? Concavity of the mark makes the interior of demonstration into a *mise-en-abîme* whose bad infinities convert into an onto-topology that corrects this infinite regress by enclosing the whole expression with an

<insert Figure 4 here>

external frame. The result is, in Spencer-Brown's terms, 're-entry into the form'; in Lacan's terms, this is extimity, *extimité*. Considered as a circuit, linearity versus non-linearity can be compared to paired inverter gates that regulate a perfect division between positive and negative states (Fig. 4, left). A single inverter gate, however, causes a passing signal to oscillate, $1 \rightarrow 0 \rightarrow 1 \rightarrow 0 \rightarrow 1 \rightarrow 0 \ldots$ (Fig. 4, right). Oscillation of the circuit functionally returns energy to the gate, which, as a 'pure binary,' *cannot* distinguish between inside/outside, subject/object, left/right. Identity, Kauffman explains, is the same as confusing one thing with another. The '=' means 'is indistinguishable from.'[20] Dupin 'equates' the concealed space of the letter with the

open display position of the card-rack. The circuit of the story returns the 'left' of concealment to the 'right' of discovery.

Lacan's example of the 'technique of the ostrich' inspires me to characterize the death drive circuit in optical terms: 'the way in which subjects, owing to their displacement, relay each other in the course of the intersubjective repetition … [thanks to] the place that a pure signifier— the purloined letter—comes to occupy' in a trio (for Lacan: the Queen, the Minister, and Dupin).[21] My version would substitute, for the Queen, the *invisibility* of her letter, which, as purloined/set-aside, Lacan aptly identifies as a 'pure signifier.' My second term is *blindness*, which the Minister creates by leaving the letter out in the open. My third term is the operation of *theft*, more specifically, theft-by-stealth, the 'Dupin function.' My justification for these substitutions is the way blindness and invisibility must form a dyad to allow for the pickpocket's art of 'body loading'—creation of numbness around the victim's body to facilitate the entry of the hand and the exit of goods.[22] Because invisibility is on the side of the object and blindness on the side of the subject, the dyad's symmetry 'works the perpendicular' to accomplish re-entry into the form, whose primitive cultural counterpart is theft by stealth.

The 3-Monster: the trinity is the composite subject, which we may view as a divinatory sign, a *monstrum*, in the same way that the chimera whose lion's head, goat's body, and serpent's tale was really a fable about the mysterious *temporal* conjunction of seasons in the annual cycle. Optical monstrosity here means the blindness of the one, the (illusion of) invisibility of the second, and the theft-by-stealth of the third. The inverter gate, the 'Dupin function,' converts/ inverts blindness and invisibility allowing the circuit to *steal* from the one to *return* to the other.

Because Spencer-Brown's mark is concave, the *mise-en-abîme* of the 'invisible' letter becomes susceptible to the theft-by-stealth of the detective who stands 'at one remove from a fool'—the Minister—while the Minister is made to *look away* at the moment of theft.[23] Dupin enacts the coincidence of distinction and indication when he 'crosses the line' between invisibility and blindness to fool the poet-mathematician Minister. His '=' ('failure to observe a distinction' in the sense of failing to notice a 'no trespassing' sign) is the point of Lacanian *extimité*, which we can locate at the inverter gate of the 101010… cycle in Fig. 4. Whether the lipogram is a missing 'e' or a letter that will eventually reach the Queen, we recognize that the 'something that comes of nothing' does not simply come, it must be stolen—stolen by stealth, that is, by art; and that this kind of theft-by-stealth requires a particular kind of thief, a Hermes able to confer on that which is stolen the power of the secret.[24]

The Optical Monstrosity of Sorites

An astute Poe scholar, Richard Kopley, has demonstrated how 'The Purloined Letter' benefits from a chiastic lambda (Λ) structure, where eight paired statements frame the center of the story.[25] In some cases, the pairs are perfect mirror images, as in 'all fools are poets' and 'all poets are fools.' The pairings pile up the story toward the apex of the Λ where Dupin produces the previously invisible letter in exchange for the reward money, itself a chiastic trade. Between the separated pairs, the story itself constructs a 'reader's lipogram' in that the linear reader, like the police in the story, cannot see the purloined space framed by symmetrical elements, even though these echoes are set out in plain view.

'The Purloined Letter' pairs statements to create a flip point, a chiastic mirror. The echo chamber created by the delays separating the pairs frames this optical function with precision.

The invisible letter is made visible in the *moment* Dupin produces it out of invisible nowhere, a moment that is expanded as the basis of the story of how that same invisibility is engineered within the logic of the left-right game of Morra.[26]

Lacan does not mention this lipogram ploy, but it would seem to fit in nicely with (1) his own 'thirdness' (the addition of a demonstration of numerical sequences, attached to the main Poe critique); (2) the idea of a Real that constitutes an externality for the appearance/reality binary of the Imaginary and Symbolic; and (3) the here-but-not-here status of Poe's own supplement of mystery story's narrative, an elaboration about the chirality of the game of Morra, Poe's triplicity added to the duplicity of the appearance *vs.* reality hide-and-seek game. When Spencer-Brown makes it clear that his thirdness holds the key to the 'Eigenform,' a pre-Boolean way of getting past appearance/reality duplicity, we are invited to compare the Lacanian Real to a combined solution that is subject-free in both mathematical and psychoanalytic terms. Isn't this what speculative realists are looking for?

Near the end of *Laws of Form*, Spencer-Brown shows off a bit by using calculus notation to solve—with astonishing speed—one of Lewis Carroll's sorites puzzles.[27] To give away the secret of how Carroll constructed these, it's first necessary to pay our respects to the idea of sorites. It's the process of gradual accumulation or attrition: how grains of sand fall one by one, to the point that they become a pile; or how the hairs of a balding man disappear one by one, until his head becomes bald. The processes are gradual, but the *moment* the ideas of a sand pile or bald head come in focus is accompanied by a *retroactive realization* that the 'pile' or the 'bald head' had already been in place before that moment of recognition, not just as predecessors but as efficient causes, analogous to the prisoners' rush to the door after realizing the meaning of

their mutual *delay*—which we as readers of Poe's story do when we realize the delay of the

lambda chiasmus. Without revealing the formal name for this 'one grain more' logic, Žižek has

credited it as nothing less than the logic of (Hegelian) emergence: how necessity arises out of

pure contingency.[28]

<insert Figure 5 here>

      Carroll's puzzles are made up of an even number of statements paired in mirrored

versions (Fig. 5) so that an odd couple will remain as the 'answer,' even though the 'answer'

concept is not known as such until our retroactive realization that it is the remainder. Each

orphan appears as predicat*ed* and predicat*ing*. One term of each pair is inside the concave

distinguishing mark, ⌐ , the other is outside. When all of the paired mirror-terms are 'cancelled

out,' only two orphans will be left; each orphan appears only once, one as predicat*ing* the other

as predicat*ed*. Combined, they constitute the answer to the puzzle. It's easy to see that the 'pivot'

of Lewis Carroll's sorites works as the 'inverter gate,' or orphan, of Poe's story and just as easy

to see that the concentric frames of paired elements create the nested marks of the calculus that

lead to the connection of the innermost 'purloined' element with the outermost, the POV

position, thanks to the 'blindness/invisibility' constructed in the middle. The invisible steals

invisibility (the letter) in a moment constructed so that the Other will be blind, $S(\bar{A})$.

      It would be interesting to pursue this idea of an 'optical sorites' in greater detail with

Lacan's essay at hand. I myself am interested in how the sorites models the process of gradual

capture of the pre-subjective human in traps pre-set by the Symbolic, in order to produce a

'hysterical subject' in relation to the blindness/lack of the Other.[29] Clearly, Diego Velázquez's

'meta-painting' *Las Meninas* (1656) and Hans Holbein's *The Ambassadors* (1533) just as clearly

develop optical traps within highly structured protocols that combine visibility and invisibility within tight 'autoerotic' circuits. Films, in particular those involving the device of the death dream (*Mulholland Drive*, *The Wizard of Oz*, *Vertigo*), engage autoeroticism at the level of identity and temporality. Equally, it would be interesting to reconsider Lacan's and Freud's camera analogies in light of the lens' theft of visibility (photographic capture) at the expense of 'freezing' the inhabitants of the view. The game of Blind Man's Bluff displays just such a logic.

With such pop- and high-culture 'laboratories' providing new data and new perspectives, it would be just as interesting to revisit Ellie Ragland's early work on the relation of Spencer-Brown's calculus to Lacan's topologies and deploy the coincidence of distinction and indication in relation to the death drive, autoeroticism, and hysteria—and then review their ethnographic functionalities afresh.

All of these connections, it seems to me, depend on understanding the coincidence of distinction and indication onto-topologically and critically; all depend on understanding how Spencer-Brown's Boolean algebra extends to *trans*-Boolean topologies that so closely coincide with Lacan's. Most of all, Lacan's and Spencer-Brown's (and Poe's) triplicities reveal three thinkers, all of them good at ciphers, who combine 'binary' investigations with an 'orthogonal' excursion into issues that link the unconscious with *automaton*. This in itself suggests that the Freud's idea of the unconscious as a perfectly preserved subject-less 'trash pile' was not so far off the mark. Perhaps with this minor but necessary correction, even object oriented ontologists will be persuaded to re-evaluate the calculus to consider just how much psychoanalysis has to contribute to the project of objects without subjects.

Notes

[5]. Louis Kauffman, *Laws of Form: An Exploration in Mathematics and Foundations*, Rough Draft. Online text accessed August 2016, http://homepages.math.uic.edu/~kauffman/Laws.pdf, hereinafter cited as *Exploration*.

[6]. Pierre Skriabine, 'Clinic and Topology: The Flaw in the Universe,' in Ragland and Milovanovic, *op. cit.*, 88.

[7]. Ellie Ragland, 'Lacan's topological Unit and the Structure of Mind,' in Ragland and Milovanovic, *op. cit.*, 54. Ragland quotes Lacan in *Seminar XX* (1972-1973), 118–119.

[8]. George Spencer-Brown, *Laws of Form*, limited edition (Portland, OR: Cognizer Co., 1994), vii.

[9]. Louis Armand comments on Lacan's need for non-Boolean logic in 'Symptom in the Machine: Lacan, Joyce, Sollers,' Online text accessed August 2016, http://www.lacan.com/sympmach.htm.

[10]. Spencer-Brown, *Law of Form*, 76.

[11]. Robert Samuels, 'Logical Time and Jouissance,' *Newsletter of the Freudian Field* 4, 1/2 (Spring/Fall 1990): 69–77. Jacques Lacan (1945), 'Logical Time and the Assertion of Anticipated Certainty,' *Écrits*, trans. Bruce Fink (New York: W. W. Norton & Co., 2002), 161–175.

[12]. Bruce Fink, *The Lacanian Subject: Between Language and Jouissance* (Princeton, NJ: Princeton University, 1995), 14ff. Analyzing Lacan's use of ciphering to describe the unconscious, Fink makes this astounding claim on page 22: '…[T]his way of conceptualizing the unconscious [as an *automaton*] apparently leaves *no room for a subject of any kind*. … [T]here is absolutely no need to postulate any kind of consciousness of this automatic movement … [which] contains "indelible knowledge" which at the same time is "absolutely not subjectivized" (Seminar XXI, February 12, 1974).' Any objective reader of the texts of speculative realists would have to wonder, isn't this precisely what they have been looking for?

13. Louis Kauffman details the ways the calculus connects to the primary algebra of x2 + ax + b = 0, a recursive condition that leads to 'Hegelian' paradox, J = ~J. 'Knot Logic and Topological Quantum Computing with Majorana Fermions,' *Quantum Physics* (Ithaca: Cornell University Library: January 2013). Online text accessed February 2017, https://arxiv.org/abs/1301.6214

14. Louis Kauffman's interest in the form's inherent capability of re-entering itself is summarized in the idea of the eigenform: 'What is an eigenform? An eigenform is a solution to an equation, a solution that occurs at the level of form, not at the level of number. You live in a world of eigenforms. You thought that those forms you see are actually "out there"? Out where? It has to be asked. The very space, the context that you regard as your external world is an eigenform. It is your organism's solution to the problem of distinguishing itself in a world of actions.' Kauffman seems to provide Lacan with the mathematical basis for his rejection, on the behalf of triplicity, of the need for 'pictorial' ideas of settings, contexts, and temporalities. Kauffman, *ibid.*

15. Ellie Ragland, in Ragland and Milovanovic, *op. cit.*, 53. I would invoke Heraclitus on this matter. Beyond *palintropos harmoniē* of contradictory elements, Spencer-Brown's/Kauffman's idea of *Eigenform* suggests the Heraclitan alternative, *palintonos harmoniē,* a 'musical' and 'architectural' joint to replace the alternating current of contradiction. See this in Plato's revised terms: Kelsey Wood, *Troubling Play: Meaning and Entity in Plato's* Parmenides (Albany: SUNY Press, 2005).

16. Jacques Lacan, 'Seminar on "The Purloined Letter,"' *Écrits: The First Complete Edition in English*, trans. Bruce Fink (New York: W. W. Norton and Co., 2002), 17.

17. Edgar Allan Poe, 'The Purloined Letter,' in *The Complete Tales and Poems of Edgar Allan Poe* (New York: Vintage, 1975), 217.

18. Lacan, *Écrits*, 20.

[19]. The double channel idea is the basis of the phenomenon of 'cross-inscription,' a fundamental counterpart to relations of extimity (*extimité*). For example, in Ernst Jentsch's binary of the uncanny, 'the living person haunted by the specter of death' and 'the dead person carried by momentum past the instant of literal dying,' we say that death is inscribed into life just as life is inscribed into death, in effect that life/death are cross-inscribed binaries that, in 'ethnographic conditions' are experienced in one of two ways. Ernst Jentsch, 'Zur Psychologie des Unheimlichen,' *Psychiatrisch-Neurologische Wochenschrift* 8, 22 (26 August, 1906): 195–8 and 8, 23 (1 September, 1906): 203–5.

[20]. Kauffman, *Exploration*. Lacanians will easily see how the converter gate represents the function of *jouissance* in its ability to 'create value' out of either a negative or positive circuit flow. The single-gate circuit is thus Spencer-Brown's counterpart to the gapped circle of the death drive, where repetition compulsion creates a closed system that mimics the energetics of megalomania in its delusional relations to objects attributed with demonic capabilities (Eros).

[21]. Lacan, *Écrits*, 10.

[22]. To understand the clever relation between the constructed *poché* of pickpockets and $S(\cancel{A})$, see Adam Greene, 'Profiles: Apollo Robbins,' *The New Yorker Magazine* (7 January, 2013). Accessed November 2016, http://www.newyorker.com/magazine/2013/01/07/a-pickpockets-tale.

[23]. Poe's description of the poet as being 'at one *remove* from a fool' [emphasis mine] sets up the idea of a poetry *with* mathematics in a very Spencer-Brownian fashion, especially in light of the fact that Dupin in stealing the letter is also fooling the *mathematical-poetical* Minister by 're-entering the form.'

24. For the tradition of Hermes' secrets, see Norman O. Brown, *Hermes the Thief: The Evolution of a Myth* (Madison, WI: University of Wisconsin, 1947), and Leonard Barkan, 'Diana and Actæon: the Myth as Synthesis,' *English Literary Renaissance* 10, 3 (September 1980): 317–59. Hermes' thievery equates with his ability to cross boundaries with impunity, including the arch-boundary separating death from life. Theft-by-stealth indicates that the binary involved with the concealment of the letter is not one of Bryant's 'flat binaries,' such as light/dark, but rather an 'orthogonal' binary connecting the intimate with the point of view.

25. Richard Kopley, *Edgar Allan Poe and the Dupin Mysteries* (New York: Palgrave Macmillan, 2008), 18–24.

26. One should note that the gaze and the acousmatic voice both involve 'predication reversal,' an extimacy that locates a subjective function at the kernel of the object. This back-flow of causality and signification invites us to look further into the way the calculus's inverter gate adjusts the 'check valve' uniflow of the Symbolic's causal and signifying chains.

27. Spencer-Brown, *Laws of Form*, 123–35. Also see Lewis Carroll and William Warren Bartley, *Lewis Carroll's Symbolic Logic…* (New York: C. N. Potter, 1977).

28. Slavoj Žižek, *The Most Sublime Hysteric: Hegel with Lacan*, trans. Thomas Scott-Railton (Cambridge, UK, and Malden, MA: Polity Press, 2014), 21–34.

29. I would follow and expand on Mladen Dolar's advice about the uncanny, that is it is not produced by the Enlightenment's banishment of religion (the standard view) but already present in the ethnographic evidence of rituals, folktales, superstitions, and prophylactic magic from shamanistic times onward. '"I Shall Be with You on Your Wedding-Night": Lacan and the Uncanny,' *October*, 58, Rendering the Real (Autumn 1991): 5–23.