sorites/2: from less than nothing to the shape of more than everything

Because palintropos and palintonos are intimately involved in the seemingly obscure logical puzzle of sorites, we are guaranteed that any extension of sorites will carry forward this critical division in time and, through the visual calculus of George Spencer-Brown, be able to demonstrate how, in any series of predications, chirality leads to singularity. In Lewis Carroll's puzzle-soriteses, elements that are paired appear only twice; the elements that form the "answer" are paired once each, then with each other. But, the calculus shows that any number of predicates can be involved; all that is required is that all but the "key" elements must be *even*, while the "keys" themselves must be *odd*.

This fact itself provides a new clue. In the ancient game of Morra, played all over the world in one form or another, two players use their hands to come up with a number simultaneously while one player guesses whether the sum will be even or odd. The number is produced by *adding numbers from two (twice-guessed) sources*; the addition is reduced to only two possible states; winning is a matter of out-smarting one's opponent. In commenting on this game, Edgar Allan Poe advised that the critical consideration was whether one's opponent was smart or stupid. A stupid player would follow a pattern faithfully, while a smart player would take into account not just the other player's possible behavior but the other player's "recursive" intelligence *in taking intelligence as a factor*. This "fractal mentality" is key to understanding what Lacan cited as the key identifier of human symbolic behavior: its ability to use truth as a fiction. Backstory: while animals often use "fakes" to feign appearances, tracks, etc. to confuse their predators, only humans do the reverse. Lacan cites a Jewish joke example. Two Jews meet at a train station and one says he is going to Cracow. The other replies, exasperated, "Why are you lying to me by saying that you are going to Cracow in order to make me believe that you are going to Lemberg, when in reality you are going to Cracow?" (Lacan, "Seminar on 'The Purloined Letter'," *Écrits*).
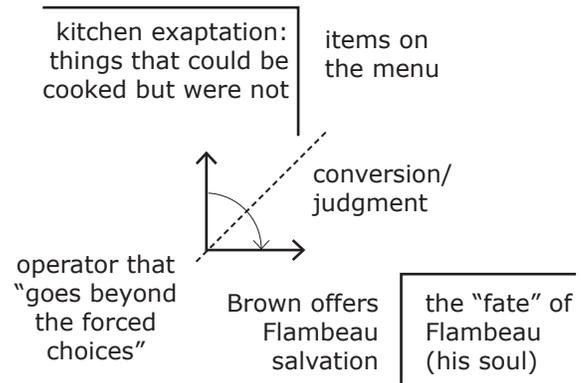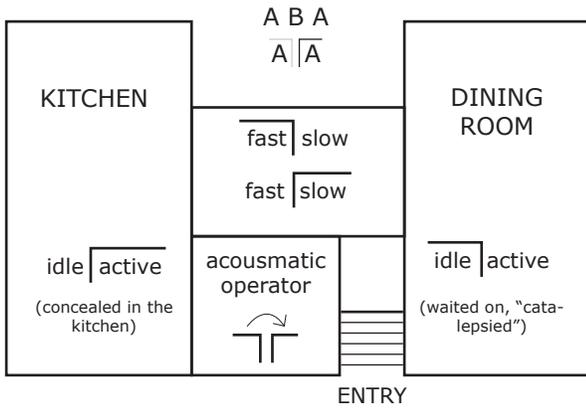
Sorites depends on, and reveals the nature of, this "backwards logic," by which truth takes on the shape of fiction. This is not just an accidental property of the smart person playing Morra. It goes directly to the distinction between palintropic time and palintonic time, the "infinite expendability" of the former and the "eternal present" or event-aspect of the latter. These produce the two main aspects of the phenomenon of the uncanny. Ernst Jentsch, in two famous essays, argued that the uncanny has two fundamental models: (1) the experience of the living person who, in fleeing from death, does everything required to make the meeting with death a certainty; and (2) the dead person who, in "forgetting how to die," is carried by life's momentum into a dream past literal death to seek a symbolic conclusion. We can abbreviate the conditions by the letters 'A' and 'D': A_D for the first model, D_A for the second. The abbreviation suggests that the uncanny is a binary signifier whose opposite poles are "inscribed into each other," but this is not precisely what happens. Palintropos leads both the living and dead persons forward in time, toward experiences that seem to branch out into multiple possibilities; each experience is the choice of one possibility out of many others. Palintonos, instead of expanding through choices that continue to open up, contracts. Every choice limits subjective freedom until the end of the trajectory is reached, a point determined, in retrospect, by fate (for the living person) or symbolic death (for the dead person). This point is not the result of some force acting outside subjectivity and its options but, rather, the very element of freedom itself that has produced the illusion of expanding possibilities!

A_D and D_A play out the contrast between palintropos and palintonos in two different "styles." The large letter stands for "the reality that seems to be the case" while the smaller subscript is the Real, which is realized retroactively to have been the case all along. This geometry of a double fold undermines the logic of the uncanny as "binary opposition," but it more generally shows that binary signifiers in general (good/evil, rich/poor, genius/idiot, etc.) are all equally undermined, all equally "uncanny" in that the "palintropic" play of opposite forces, played out in time that must be linear to accommodate the "reality show" alternation of dominance where no one every can be said to win, has as its Real the "palintonic" double presence: something that was occulted/suppressed from the very beginning — as a necessary primary condition for play to start — that returns to "end the play" or "answer the puzzle." The relation to sorites is now quite obvious. As soon as predications begin to form, a logic of odds and evens starts up. Inside the process is a silent mechanism that counts pairs, not "giving away the end" until the moment when, thanks to being "odd," two "single" conditions, one a predicate the other a predicator, form a singularity. *At this precise moment* — this is the definition of "an act" — the meaning of the process, as a *shape* independent of the content that has filled out the shape, becomes clear. The initial "secret" now returns to reveal that "the answer" does not exist *as a predication* (really — who cares about kangaroos' suitability as pets!) but, rather, as a shape — the shape of the play.

This review takes the notion of shape and shape's relation to magic, play, and joking into the territory of architecture, poetry, literature, art, mythology, and ritual — i.e. all of the places where "the uncanny" supplants rationality's attempts to "explain away" effects turned into causes. This is not a call to "believe in magic" but, rather, an attempt to show that the "truths" (facts/tricks) of magic, *precisely because they are designed to be fake*, are truths of a higher order. Like Carroll and, later, Spencer-Brown, we are required to look at this, not by a logic of "all and some," the basis of classic Boolean logic, but rather in terms of the part and the whole — which Lacan shows to be a part that has a life of its own and a whole that is always not-whole (Bruce Fink, *The Lacanian Subject*, 98). This part and whole, this review argues, can be seen only through the lens of shape.

1 / Back to the Vernon Hotel, in Chesterton's story "The Queer Feet." The palintropic walk of the thief dressed as the monster hybrid, the guest-waiter, alerts Father Brown who sits in the vestibule filling out paperwork for the deceased waiter he has been called to attend. His alertness to the alternation between fast and slow steps is not just a matter of crime detection; it goes generally to a logic by which guests are predicated by hosts (the staff) — we could say that hosting amounts to having the all the needs of the guests "covered" — $\overline{\text{guest}}\mid$ servant graphically represents this as a situation where one group dressed in tuxedoes is "idle," or rather "idl*ed*," by servants who are doing things *for them*. Action sublates or occults the guests, and in examining the etymological and ethnographic history of hosting we find that, like "hospitality" and "hostility," host and hostile come from the same Latin root, *hostes*; and that "host," "ghost," and *Geist* all share the idea that will and willed action have been occulted or sublated — the subject is "put to sleep," in a state of suspended death, a kind of catalepsy. Guests in other words are not simple idle rich gentlemen having a banquet at the Vernon Hotel. They are in a state of "between the two deaths," D_A, attended on by servants who, in symmetrical obedience, are A_D, doing things that embed, *in their very shape*, an outcome that will seem to be determined by fate.

Of course, Father Brown, the other "man in black" whose profession after all is to intercede in such situations, puts fate on hold. Or, rather, he "commutes" the fate of the theft into a fate of friendship. When he calls out the thief Flambeau as he comes to collect his coat, he acts as a priest at confession rather than an informer for the police. Flambeau "converts" on the spot, he is reborn, from a skilled criminal into Father Brown's life-long companion. (In later stories, Brown and Flambeau will operate as the classic "detective pair," who through their complementarity and "super-symmetry," solve puzzles impenetrable to the police.) This takes place under the star of palintonos: a gift of redemption, an "impossible meeting," a Day of Judgment that forgives Flambeau of his sins and unites priest and sinner as one for eternity — at least the kind of eternity that can exist in serial crime fiction. Our take-away prize is even greater, however. It is the conversion of the binary signifiers good/evil and idle/active, which seem to be of the A versus B variety, into an "A versus A," where a single entity (symbolized by the fact that both waiters and guests wear black tuxedos) is shown to "live two lives" and is in effect a twin. This underscores the "key" to the fast/slow predicating footsteps. They "acousmatically" contain a Truth within the factual truths of squeaky shoes. This connects to palintonos's relation to music, which is both "in" sound and outside of it at the same time.

A B A
$\frac{A}{A}$

KITCHEN

$\frac{\text{fast}}{\text{fast}}$ | slow
| slow

idle | active

acousmatic operator

(concealed in the kitchen)

DINING ROOM

idle | active

(waited on, "cata-lepsied")

ENTRY

kitchen exaptation: things that could be cooked but were not

items on the menu

conversion/ judgment

operator that "goes beyond the forced choices"

Brown offers Flambeau salvation | the "fate" of Flambeau (his soul)

THE VERNON HOTEL's symmetry of guests and hosts is, more accurately, a "super-symmetry" where, in the palintropic alternation between the fast actions of the waiters and the slow, suspended motions of the guests, "signalize" the presence of a monster, a host-guest dressed in black able to steal the silver service with equanimity. The palintropic series "resonates" with Father Brown's keep ears that hear a weak signal amplified by background noise (stochastic resonance). The all-black costumes of both waiters and guests make A=A, but the sounds of their activities make them A≠A. To resolve this reverse predication, the middle "turn," a B, separates them (ABA); B is both an "=" and a "≠," a Nothing and an Everything. B is not just the two states, but *the gap in between*.

The event-based theology of this story is discovered by "overlaying" the shape of the crime detection logic with the weightier matter of spiritual salvation. Using the trivial example of the hotel kitchen, where there are stored foods and recipes in reserve to serve other possible banquets, the choice of this particular menu is like the singular events that happened in comparison to what might have happened but did not (Aristotle's *tuchē*). Brown "serves up" salvation in place of imprisonment, and the priest and the thief become "twins" — both "dressed in black — in future stories. The operator, B, as both = and ≠, define the rule of twins as identity and difference.

2 / Slavoj Žižek has claimed that sorites' temporality accurately depicts the logic of Hegel's dialect. How? Condensing his argument, sorites shows how, within the Symbolic, we think of knowledge as something that penetrates the objective world, as an explorer might penetrate an unknown jungle, adding more knowledge daily with maps and journals. What is happening however is that the unknown is, *from the first and continually*, being invested with subjectivity through a *hidden dimensional function* so that, at the point a "discovery" is made, the import of the discovery seems to magically appear, suddenly; but this value is always-already there, ready to appear. Our gain of knowledge as a penetration of an external world of facts "misses the constructive nature … of knowledge in regard to its object, the way in which knowledge itself *modifies the object*, giving it, through the act of knowing, the *form* that it takes as the object of knowledge (Žižek, *The Most Sublime Hysteric: Hegel with Lacan*, 22, emphasis mine). The form of this modification is key. Earlier, Žižek used the advertising slogan "Coke is IT!" to show how, literally, the soft drink's "occultation" of salt "inside" its sweetness creates more thirst as it pretends to slake it. What one drinks in a Coke is "thirst itself" — getting back what has already been put in, stored as a chirality — showing how, even in this global capitalist example, dialectic is at work!

The sorites demonstrates that subjectivity is invested in "objective knowledge" in the same way the idea of a "pile of sand" is occulted/exapted within grains as they fall on top of each other. The realization of symbolic identity of the group is delayed by the idiotic predications as they accumulate, but it is precisely this idiocy that conceals the fact that each element is one of a pair that, when reunited, will reveal the "odd man out" … the conjunction of "impossible partners" whose identity constitutes an agalma factor — a symbolic identity that is "beyond the Symbolic" in a way that its exceptional status is the "tell" of the group's identity. Exception conjoined with symmetry makes "super-symmetry," a factor of membership that depends on exclusion.

As with the Coke example, we can immediately see the value of super-symmetry to corporatist ideology. It is the sell-factor that drives consumerist thinking, where the addition of wealth or possessions creates a hunger for more wealth and possessions. Behind this drive, the political economy relies on metaphors of the completed circle. Political ideals are described as an almost-there circle that returns to "basic values," whose final arc can be completed if certain conditions are achieved (re-assertion of the conservative family ideal, unlimited corporate freedom, etc.). The environment's circle, once whole, is broken by catastrophes that can be addressed through "green practices" designed to allow natural cycles to flow again.

Neither Hegel nor Lacan allow such thinking. Their logic is not Boolean. They replace either-or conditions defining "all" and "some" with "lapsed rules" of whole and part, where "trues" are made to appear through ideology but crack through symptoms. This is nowhere more evident than Lacan's mathemes of sexuation: "all those who call themselves men obey the phallic law as long as there is one exception; all those who call themselves women are not fully subject to this law, and there are no exception." Using Venn diagrams, Lacan defines the central roles of the not-all, a whole that is missing a key element, and the part that magically retains the power and life of the whole. Such ideas create problems for standard logic but are the key to Hegelian dialectic, where "absolute recoil" (*absoluter Gegenstoss*) describes how objects are created, as if out of thin air, by retreating/contracting subjects. This would seem to require us to explicate Hegel from the *Phenomenology* through the *Encyclopedia*, but there is, to use Žižek's terminology, a short-circuit. This is the critical axis made by folklore, myth, etc. on one side and the calculus of the sorites, as a theoretical starting-point, on the other. Both are dependent on the idea of form. Here, Spencer-Brown's non-Boolean visual calculus (*Laws of Form*) merges with Lewis Carroll's similarly visual *Symbolic Logic* (1897) to reveal the role of chirality and its mechanism of odds and evens — a mechanism that "automates" the storage facility ("exaptation") set up by the occultation of subjective investment in the object. To say "Coke is IT!" means that, in the everyday world of corporatist ideology, we enact Lacan's "discourse of the university" with a command to Enjoy! without supplying the means of understanding what to enjoy or how. Behind the Symbolic world, conceived as a jungle of facts to be discovered, lie both Masters and Master Signifiers who, like the "odd man out," pull strings from behind curtains. The barred subject — subjectivity in general — is the B of the triad ABA, both = and ≠, able to turn alternatively from predicate to predicator, existentially the "gap between predicate pairs," the true "odd man out" only, we recognize thanks to Lacan's

In Boolean logic, re-crossing a boundary back to an original state completely cancels out the value of the crossing. This is equivalent to making a clear distinction between all binaries — true/false, yes/no, etc. Spencer-Brown's notation shows a "cross and cross again" as nested brackets. An EVEN of crosses set will have a null result (.) while an ODD set will have one remaining braket.
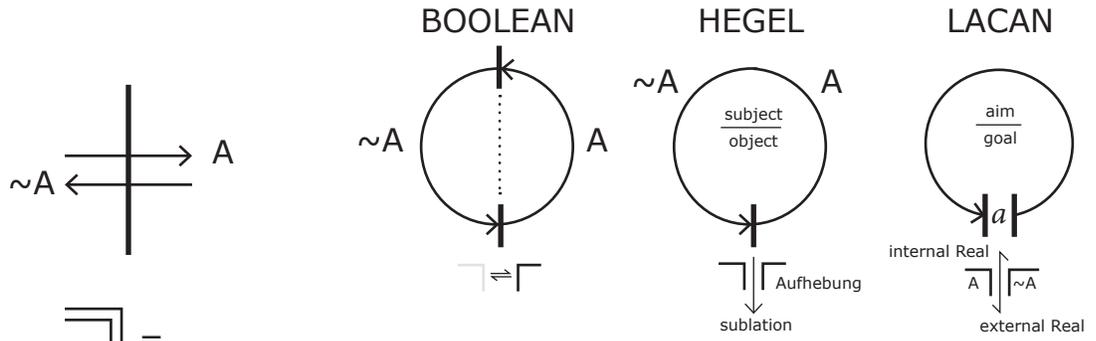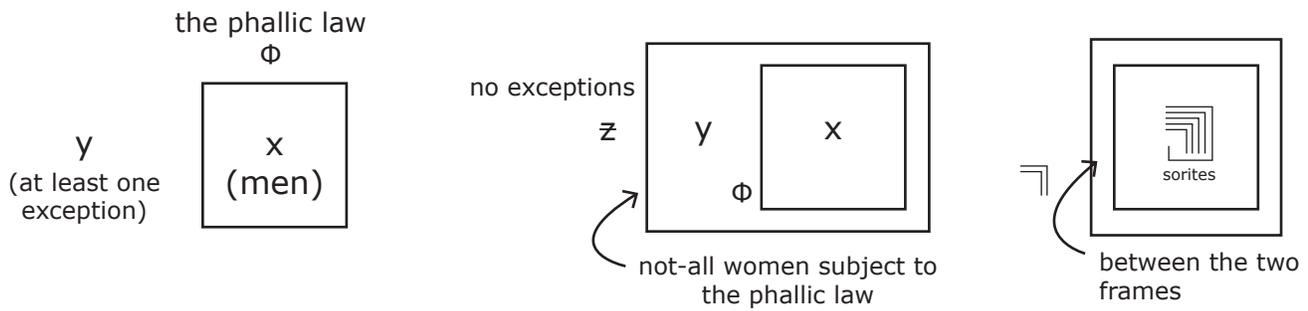

The difference between standard logic and Hegel and Lacan's can be abbreviated in the model of an electrical current with a switch ("Boolean") that has been converted from even (transitive) to odd (intransitive).
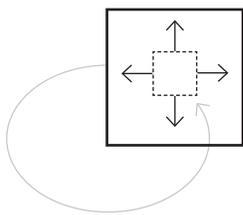
THE PERFECT CIRCLE. Ideology uses Boolean logic to generate irrational conditions: forced choices that leave the subject with no option but to go along. The rhetoric of the perfect circle, which requires only a "bit more effort" to complete, portrays 360º as a utopian ideal, achievable "if only" society could get rid of its pesky problems and unwanted members. Ethnic cleansing requires a scape-goat (pharmakon) who embodies contradictory qualities (dirty and poor combined with rich and powerful). This irrational operator blocks achievement of the the necessarily rational whole,

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THE GAPPED CIRCLE models the condition of the subject whose position with the Symbolic order is always a misrecognition and misfit, resulting in "symptoms." The irrational forced-choice demands of ideology require an inside frame (interpellation) that requires another frame. This attempt to keep an "even count" actually results in a double frame where the space itself works as a distinction, making the count odd nonetheless.

the phallic law
Φ

y
(at least one
exception)

x
(men)

no exceptions

z̄

y

x

Φ

not-all women subject to
the phallic law

sorites

between the two
frames

matheme of sexuation, that the *odd* man is really an odd woman. Where standard feminist theory might emphasize the alienated existential nature of this Woman, Lacan crosses out the existential status (~~Woman~~) to put sexuation in terms of (Hegelian) negation. Woman does not "exist," rather she ex-sists. The outside, as both a status and logical condition, is "extimate" — both inside and outside at the same time. Spencer-Brown/Carroll's "short-circuit" allows us to write this simply as a double frame. Where ideology's model of the Symbolic advertises to be a single frame committing all subjects to a standardized point of view (POV), psychoanalysis reveals the topology of a double frame. Between the two frames is not far from the Lacanian/folkloric space of "between the two deaths." Both are, in important ways, "trials" of and within the Symbolic. The form of these trials is given by ethnography: the fractal structure of the (Thesean) labyrinth: ABA expanded (internally) as Aaba Baba Aaba. Because B is the exclusionary operator that serves both to define membership, as in the case of "men who obey the phallic law," and a condition of negation, it can pivot (the labyrinth's critical *turns*); because this pivot is simultaneously the Janusian conjunction of = and ≠, we are able to see exception as critical.

Lacan's labyrinth is the Möbius band, whose odd number of twists converts two dimensions to one.[1] The conversion is reversible — one-way travel can go forward or backward — with the qualification that this *minimal* turn is the effect of the labyrinth's function of occultation. The fold/twist "cannot be found to exist" along the length of the Möbius band; similarly, the turn of the labyrinth constitutes a confusion or conflation of inside (the way in) and outside (the way out). Fractals do the same thing by breaking down the continuum separating small from large, repeating the same pattern "at every level," demolishing the idea of level itself.
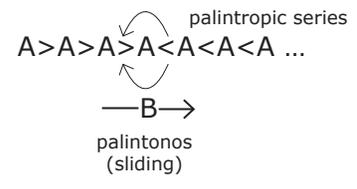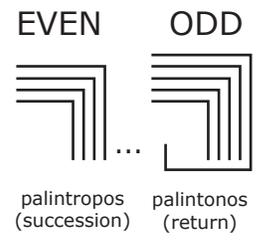
Scale dysfunction works for social-historical continua as well as spatial-temporal ("architectural") ones. In Hegel's parable of the master and servant, the social hierarchy devised to satisfy the master's desire for recognition in the face of the impasse of getting it from other masters occults power within the servant. The servant's power is hidden, chiralistically, in the evolving historical (palintropic) processes where power seems to shift from masters to servants and back to masters/mastery (in new disguises). The palintonic moment comes with the Event or Act that is both an intellectual Real and the essence of historical/contingent exception. Just as physiologists have shown that human movement precedes conceptual-conscious will — the hand moves before the brain "claims" authorship of the movement — consciousness in general "arrives late" to the predications of acts and establishes its domain retroactively. The Act is the oddity that resists the Symbolic, the twinned-but-opposite elements that reveal how, in the domesticated Kansas farm, Dorothy's uncanny Oz "had been there all along."

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1   While the standard Möbius band has only one twist, any number of twists may be used to prove that an odd number preserves the band's topology while an even number makes it "just an ordinary loop." The twist is = and ≠ in the sense that it seems to exist but cannot be located at any point along the band. Spencer-Brown used the image example of the Möbius band to describe his calculus's ability to demonstrate recursion — forms in forms — as the essence of his "logic of form."

The three rings of the Borromeo knot are not each interlinked; rather each lies on top of its predecessor, with the trick being that the last ring is set to lie beneath the first. The knot is broken by removing any single ring, The combination (upper middle) can be interpreted as a series of "sliding links" defining the relationship between each pair of adjacent rings through a "crisis of exception, akin to the Mirror Stage connecting the Symbolic to the Real, the imagined/forced choice between speaking and being. The Symbolic and Imaginary have a similar "crisis" in the form of fantasy, $\$\Diamond a$ in Lacan's notation, and the Real continues haunting the Symbolic in the form of metaleptical elements of self-reference, a use of spaces that are "between the two frames." Jouissance can be represented as a "repair" of the rings' faulty connections, but in my view this is J2, a second form of jouissance that is relevant to the artistic dimension of "matters of form."
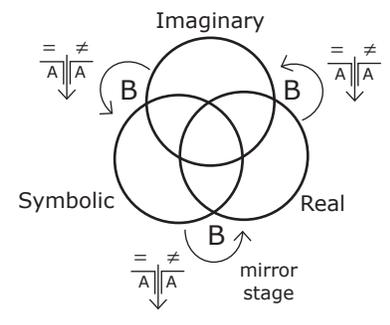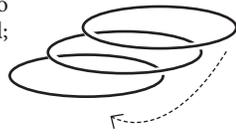
The rings "slide past each other in a "palintropic" sequence, but the conditions of crises are managed by "palintonos." This is the literal presence of the "twist" of the Möbius band, a twist that cannot be located but which depends on the odd count of three to preserve its topology. Consider that the Borromeo knot has other versions, e.g. James Joyce's vesica pisces, used in Finnegans Wake to tell the universal story of the rivalry of two twins. The single overlap is doubly inscribed with inverted triangles, a means of "flattening" the repair job J2 must accomplish to re-père the defects of the Symbolic, i.e. redefine the "Name of the Father" that Lacan regarded as the essence of the Symbolic.

EVEN   ODD

palintropos (succession)   palintonos (return)

palintropic series

A>A>A>A<A<A<A ...

—B→

palintonos (sliding)

The conversion of EFFECTS into NEW CAUSES OF NEW EFFECTS can be represented as a series of nested brackets (above). However, an odd number of conversions
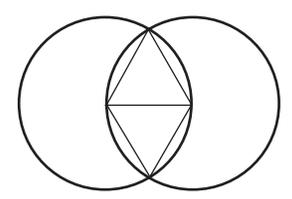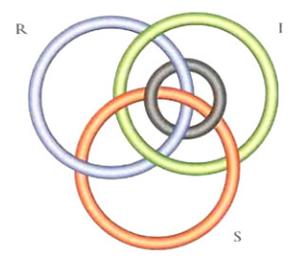
3 / We read the fractal form ABA as, simultaneously, (1) the Hegelian A=/≠A (undermining the principle of identity on behalf of the subject "misrecognized" beneath the phallic function); (2) George Spencer-Brown's only graphic symbol, the "cross/call," ⌐, able to indicate both inclusion/exclusion and negation; and (3) the "trope" or turn able to twist, fold, and transcend dimensions of time and space. There are some ways of expanding this already significant list. First, the idea of turning/troping is related to the ethnographically significant practices of magical encirclement. The curse comes from *cursus ad solem*, to "run against the sun," but blessings instead of curses can be effected by the same circles running in reverse. The combination of cursing and blessing is, as we know from sources as independent as Jacques Derrida, the essence of the *pharmakeus*, the substance able to raise the dead or kill the living in an instant. Asklepius, the mythic discoverer of the *pharmakeus*, derived it from the blood of Medusa. Blood taken from the left side was poisonous; blood from the right could restore the dead to life — again, the theme of chirality.

Any ethnographical cases where circles are found can and must be examined further. Sorites suggests that the allegedly perfect circle is really gapped. The "Lacanian account" for this goes back to the difference between aim and goal; and this account in turn goes back to the paradoxes of Zeno, which Žižek has noted to be a "language condition" general to thought, where, for any binary signifier, the each element is "supplemented secretly" by its polar opposite. Arrows cannot reach their targets nor runners their finish line, because in covering distance distance is continually added, just as thirst is added to the drinking of Coke. This shows how the Symbolic in general, the sum total of our networks and languages of symbolic relationships, is radically defective; how negation permanently haunts knowledge, S2 in Lacan's terms (S1 is the master signifier), through the metonymical offices of metalepsis. Binary signification depends on maintaining the principle of self-identity, A=A. Metalepsis, the agency of B, ⌐, uses reverse predication to convert A=A into A≠A while retaining identity as fantasy.

The radical fundamentalism of negation's penetration/saturation of the Symbolic means that we should consider Lacan's most basic schema, the Symbolic, Imaginary, and Real represented as the three interlocking circles of the Borromeo knot, as the site of "rolling" ABA relationships, each of which reflects the Hegelian "dialectical identity" of A=/≠A. Each ring in turn serves as the "trope/turn" of B. The "knot," which is only secure if all three rings are present, resembles the Möbious band in this regard: the knot aspect "does not exist" in that it must be imagined but cannot be found. Its absence is its presence, so to speak. It is the essence of Hegelian negation. The Borromeo knot, independently considered, already represents a case of "Möbius-band logic," it seems highly likely if not necessary that it fully and completely exposes the Lacanian system as "fractalized" by the B's ability to "create a space of instruction."