

AN ESOTERIC GUIDE TO SPENCER-BROWN'S *LAWS OF FORM*

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Abstract

This essay is an exploration of the question "what reflections might result from shining an esoteric/spiritual light upon George Spencer-Brown's book, *Laws of Form*?" It is written as an informal guide, a commentary, and a playful esoteric romp with serious detours into epistemology, ontology, and second-order cybernetics. It follows the text of *Laws of Form* closely from beginning to end, but brings in a diverse number of perspectives, most specifically that of anthroposophy (Rudolf Steiner's spiritual science).



Recursion #1

George Spencer Brown (in his spirit, I would like to say: "Let George Spencer Brown = GSB"), a logician, engineer, and teacher, wrote a curious little book called *Laws of Form* that inspired countless interesting people of widely varying backgrounds. The book is not a book of mathematics, nor is it a book of logic, although if you were to read it this is likely what you'd say. It is, rather, an attempt to

enact something prior to both. Indeed, GSB (1972) feels that his work actually forms (meaning both “is” and “shapes”) “the basic forms [same double-meaning] underlying linguistic, mathematical, physical, and biological science” (p. v).

If you haven’t read *Laws of Form* (LoF), I quite recommend it, and it is actually quite short. Even if you don’t want to follow along with the meaty theorems and proofs, the prose and context is definitely worth chewing on. What is fascinating to me is that the work can also be read with an esoteric eye, which is to say, with a sensitivity to the form and nature of spiritual experiences. This is not at all a departure from what GSB intended: in his other works he quite openly discusses this connection; see particularly *Only Two Can Play This Game*, published under his pen name, James Keys (1972). Even in LoF he prefaces his preface with the last line of Blake’s *America: A Prophecy*:

“Tho’ obscur’d, this is the form of the Angelic land.”

What I would like to do in this commentary is show that within the LoF are a number of coherent relations to principles that are rightly considered esoteric: they are hidden, but very important when considering actual spiritual development. Of course as a whole LoF can be taken as a cosmological treatise, and in this sense could be read alongside works such as those by Ibn Arabi, Nagarjuna, Lao Tzu, or Eckhart, among many others.

Because I doubt most of the people reading this already have a copy of LoF, I’m going to keep things pretty informal: I’m going to cite passages from LoF (following the order of the text) and then add comments containing esoteric connections, including some relations to second-order cybernetics and cybernetic epistemology. Because this work is essentially a commentary on the text of LoF (rather than an essay), it is quoted very frequently, and I felt a need to set off such quotes visually. For this reason quotes from LoF are written in **the color green and use an alternate, sans-serif font**. Needless to say, the esoteric connections I will be pointing out rely heavily upon my own experience, which is

primarily informed by the spiritual science of Rudolf Steiner's anthroposophy. This work is an inspired offshoot of my PhD dissertation work, in which I am connecting anthroposophy to second-order cybernetics and related disciplines.

Excellent. Hopefully the context provided up to this point is sufficient for me to begin, but before I do, I want to add a warning that this journey is not for the faint of heart or the unstable in mind, and will be neither easy nor brief; but it WILL be worth it. Let us dive in to the beginning of the LoF:

Although all forms, and thus all universes, are possible, and any particular form is mutable, it becomes evident that the laws relating such forms are the same in any universe. It is this sameness, the idea that we can find a reality which is independent of how the universe actually appears, that lends such fascination to the study of mathematics. That mathematics, in common with other art forms, can lead us beyond ordinary existence, and can show us something of the structure in which all creation hangs together, is no new idea. (Spencer-Brown, 1972, p. v)

Indeed, this corresponds with Steiner's view that mathematics is a kind of thinking that forms a bridge between empirical knowledge and spiritual knowledge (Steiner, 1991). Mathematical thinking forms an integral part of the modern esoteric path of knowledge (different than, say, a path of devotion or action). What is important is not simply the content of mathematics, but rather the activity of *mathematical thinking*; this activity is rightly conceived to be part of spiritual training (a training of the spirit to see the spirit). Spencer-Brown (1972) notes that "A mathematical text is thus not an end in itself, but a key to a world beyond the compass of ordinary description" (p. 5).

This "world beyond the compass of ordinary description" can be taken to refer to the spiritual world. As we learn elsewhere from GSB (I suggest reading the transcript of his presentation at Esalen in 1973's American University of Masters Conference, available at

<http://www.lawsofform.org/aum/index.html>), the world he is trying to describe is not formally describable. This is a problem, obviously, and it is the same problem that pretty much every mystic of every tradition has run into in one form or another. Of course I could cite the Tao Te Ching's famous "The Tao that can be expressed is not the Tao of the Absolute. The name that can be named is not the name of the Absolute" (Wing, 1986), or reference the whole point of the koan in Zen philosophy, or perhaps note the Sufi's Wujud (the incomparable, incommensurable nature of God, which Ibn 'Arabi points out is "absolutely incomparable with every declaration of incomparability that delimits" (quoted in Chittick, 1989, p. 110)). Basically, say anything and you are already off the mark, as it were.

But here's the *important* esoteric bit, expressed well in this quote from author John Barth's (2001) novel *Chimera*: "The key to the treasure *is* the treasure" (p. 8, original italics).

Strictly speaking, the Laws of Form *cannot* be written, but in attempting to write them, they can be *indicated* by the marks: what is not in the mark is indicated by the mark, although it is *also in the mark*. If you think this is a paradox, then you are correct, but it is a *functional* paradox in that it can actually accomplish something by its existence, which is exactly why so many mystical or cosmological traditions utilize the paradox as a central form of learning and communication. This is true even of Jesus Christ, as Parker Palmer (2010) elucidates:

The promise of paradox is the promise that apparent opposites—like order and disorder—can cohere in our lives, the promise that if we replace either-or with both-and, our lives will become larger and more filled with light. It is a promise at the heart of every wisdom tradition I know, not the least the Christian faith. How else can I make sense of the statement 'If you seek your life, you will lose it, but if you lose your life, you will find it'? Or 'The first shall be last and the last shall be first'? Or the affirmation that Jesus Christ was fully human and fully divine? Or the notion that we know there is a God but we cannot claim to know the God that is? (p. xxix)

The point is that something *happens* when we engage with paradox. GSB, who recognized that Russell and Whitehead's Theory of Logical Types, which explicitly excluded paradox, was in error, and the "problem" of the paradox wasn't actually:

Put as simply as I can make it, the resolution is as follows. All we have to show is that the self-referential paradoxes, discarded with the Theory of Types, are no worse than similar self-referential paradoxes, which are considered quite acceptable, in the ordinary theory of equations. (1972, p. x)

He goes on to say that he found a way to deal with these paradoxes by *incorporating them formally*, which required the recognition of *imaginary* values,

which means that a valid argument may contain not just three classes of statement, but four: true, false, meaningless, and imaginary. The implications of this, in the fields of logic, philosophy, mathematics, and even physics, are profound. (1972, p. xi)

Indeed, as GSB will have it, the whole of Time and Space in a sense arise out of a paradox, but that's much later. He continues by indicating that:

we have a direct awareness of mathematical form as an archetypal structure. I try in the final chapter to illustrate the nature of this awareness. In any case, questions of pure probability alone would lead us to suppose that some degree of direct awareness is present throughout mathematics. (1972, p. 20)

Steiner would indicate that this direct awareness is spiritual in nature, and arises through a free activity of the spirit. In any case, such direct awareness must be considered both *real* and *essential* to epistemology. That is to say, a science of knowing cannot discard (as Russell and Whitehead tried in their failed *Principia Mathematica*) the role of *intuitive* knowing. This is a knowing that cannot be achieved through deductive or inductive processes; it is of a completely different *type*. GSB explicitly

recognizes this difference in his discussion of the distinction between a proof and a demonstration in mathematics (“American University of Masters conference: Transcript of session two,” 1973): a computer can do a demonstration, because it relies only upon manipulation of what is *already* known, while a proof can only arise on the basis of what is *not* already known, and which cannot be reduced to mere calculations.

It becomes apparent that if certain facts about our common experience of perception, or what we might call the inside world, can be revealed by an extended study of what we call, in contrast, the outside world, then an equally extended study of this inside world will reveal, in turn, the facts first met with in the world outside: for what we approach, in either case, from one side or the other, is the common boundary between them. (1972, p. xxi)

Put simply, this is simply a recapitulation of the central tenet of alchemy, “As Above, so Below; as Below, so Above”. Steiner clearly indicates that if you want to know yourself, you need to look into the world, and if you want to know the world, look into yourself. Know the world to know yourself; know yourself to know the world. What GSB usefully adds to this principle, which is often overlooked in esoteric circles, is that the *link* between this inner and outer takes the functional form of a *shared boundary*. It is not the case in a simple way that what is inner is outer; it’s just not very useful to say inner=outer. The point is that there *is* a boundary between inner and outer, but that this boundary is where all the fun happens. Or more seriously, is the place upon which, and through which, one must work if one is to transform, because this is what transformation *means*: to cross the boundary. For anyone that has read LoF, you know that this language of “crossing” is quite deliberate; the activity of crossing changes what is crossed. More on this later.

What is encompassed, in mathematics, is a transcendence from a given state of vision to a new, and hitherto unapparent, vision beyond it. When the present existence has ceased to make sense, it can still come to sense again through the realization of its form. (1972, p. xxiii)

Mathematics, as a spiritual activity, can *change the way we see*; it can help us transform *spiritually*. GSB is implicitly indicating something that is found in many esoteric traditions: that there are many ways of viewing the world (and ourselves in the world), but that not all views are equivalent, nor can they all be relativized at the same level (Ken Wilber's "Flatland"). Rather, there is *structure* to be found in the various views, and the structure is significant with respect to the content of the view itself. I'm just restating GSB's quote in different words. The important thing here is the distinction between the *content* (GSB's "sense") and the *form* of the content. The *reason* why things change from being senseless to sense-full has to do not with the change at the level of the content, but a change at the level of *form*. THIS is the key that is the treasure. It is not enough to "think different" — we must think *differently*, in a new *way*. Herein lies the power of mathematics as part of a spiritual discipline: its ability to transform our *capacity* to see, not simply *what* we see.

In general, the more universal the law, the more it seems to resist expression in any particular mode. (1972, p. xxiv)

When speaking of universal law, we can recognize what is meant esoterically by the word "archetype". The principle that GSB relates here is in accord with the features of the archetype, conceived in general (we could say, the archetype of archetypes). The more we attempt to encompass it in particulars, the more it squeezes through the cracks and eludes our grasp. This is in obvious relation to the previously discussed limitations of language.

What is interesting, esoterically, is that this inverse relation is a general characteristic of the boundary between the physical and spiritual worlds. It is something like Heisenberg's Uncertainty Principle: you can't pin down *both* the nature of an archetype *and* its manifestation at the same time, and you can swing (depending upon how you draw your distinctions) more towards the side of exactitude or more to the side of generality. Alchemically, this is a manifestation of the Air principle (Miller, 2008, see especially the page on the metaphorical qualities of the elements: <http://www.spiritualalchemy.com/p6-metaphors.html>), and is a state that we will encounter again and again on our journey.

On a more mundane note, this polarity has long been with us in the form of the tension between induction and deduction. Historically these views were championed by Plato (induction) and his pupil, Aristotle (deduction). If you are a Platonist at heart you will have the feeling that the generalities are somehow *more real* than the particular, while if you are an Aristotelian at heart you will feel that the particulars are more real than the generalities, *obviously*.

The point is that both are correct, and neither are complete. I would suggest, in this vein, the introduction of the process of *abduction* (Peirce, n.d.), championed by Charles Sanders Peirce, which is another form of reasoning that is perpendicular to both induction and deduction, and which fleshes out a logical "space" that allows it to slip very well into the palm offered by esoteric methods.

In the preface to the 1994 edition of the Laws of Form, Spencer-Brown explains the ground of the work, which is "the point" so to speak:

All I teach is the consequences of there being nothing. The perennial mistake of western philosophers has been to suppose, with no justification whatever, that nothing cannot have any consequences. On the contrary: not only it can: it must. And one of the consequences of there being nothing is the inevitable appearance of "all this". (1994, p. ix)

And further:

The idea that the creation must be a consequence of ‘something’ is moronic. No thing can have any consequence whatever. If there were originally something, it would poison the whole creative process. Only nothing is unstable enough to give origin to endless concatenations of different appearances. (1994, p. ix, footnote 5)

Obviously GSB is getting into territory that has a long esoteric history, beginning at least as far back as the ancient Greek’s identification of Chaos as the mother of Gaia, and thus the source of the difference between the Heavens and the Earth, the Above and Below. Now, things can get really interesting and complicated here very quickly, because we are being taken into pretty deep territory with these claims about nothing and something. But we have to go there because GSB’s essential insight, that nothing cannot NOT have any consequences, is very important, as he is making a fundamental metaphysical, cosmological, epistemological and esoteric point all at the same time, and indeed (as he indicates) this is actually *the only thing* he is trying to communicate, so it bears some scrutiny.

The Greek’s Chaos is generally taken to be a sort of formless void, but for some reason nobody seems to recognize that our habit is generally to take this phrase “formless void” and take the “void” aspect as a *thing we are talking about*. That is to say, we take “void” as a noun and “formless” as a modifier. But *the whole point* is that we are trying to talk about the *source* of “all this”, and as GSB indicates, it can’t be a *thing*, even a “void”. It is more appropriate to speak only of “formlessness” rather than a formless void, and if you are now hearing echoes of century’s worth of one-handed Buddhists clapping, you are in good company. There is a lot of good stuff to read on this, not least of which is Shankara’s commentaries on the Mandukya Upanishad (and of course the Upanishad itself). In this Upanishad, the three syllables A U M are likened to the waking, dreaming, and sleeping states that

comprise all existence. But there is a fourth state, *silence*, which is the substratum for the other three.

The Upanishad (Nikhilananda, 1995) explains:

That which has no parts (soundless), incomprehensible (with the aid of the senses), the cessation of all phenomena, all bliss and non-dual *Aum*, is the fourth and verily the same as the *Ātman*. He who knows this merges his self in the Self. (p. 78)

Hopefully this fourth state reminds you of the Ibn ‘Arabi quote earlier. This is GSB’s “nothing”: it is cosmological, because it is the origin of the (all/any) universe, it is metaphysical because all physics (all manifest laws of any kind) rests upon it, it is epistemological because all knowing rests precisely on this particular unknown, and it is esoteric because it allows the simultaneous integration of all of these other aspects in such a way as to provide the ground upon which actual spiritual evolution can occur individually and as a universe.

This “formless” (drop the ‘ness’ because that too makes it seem to “it”-like) is also the state referred to in Genesis 1:2 by the phrase “tohu wa bohu”, which is usually translated as “without form and void” or “formless and empty”. This phrase is pointing, explicitly, to what was there before the universe was there (obviously a kind of paradox, but we are comfortable with paradox, yes?). We read Genesis *forwards* in time, but don’t recognize that the ontological background of the question really leads us to consider that it is *pointing* backwards, to a state before time, which GSB indicates, quoting Roth (who wrote about Dionysius the Areopagite) “went on in perfect harmony until the time came, for time to begin” (“American University of Masters conference: Transcript of session four,” 1973).

So this phrase, “tohu wa bohu”, has become an idiom for both “confusion” and “commotion” in French, German, Estonian, and Hungarian, and here is preserved something of the flavor of GSB’s “nothing”. This confusion of meanings happens even the case of the Buddhist “sunyata”, which is translated either as “emptiness” or “voidness”. The actual root of the word is “svi” meaning *swollen*:

this primal ground is not *empty* but is *ready to burst at every moment*. Thus the “nothing” is thus not best conceived of as a void, but more as a primal confusion or Chaos. Chaos is both empty and not empty, it is without form, but contains all form. It is thus very appropriate that in LoF, GSB indicates that the sign “=” may stand for the words “is confused with” (p. 69); at this level, identification and difference form a complex unity. This is the unity implicit in Jung’s enantiodromia, where a tendency or manifestation proceeds so far in one direction that it suddenly becomes its opposite (for example Love into Hate on an emotional spectrum). That this can happen is a direct consequence of the primal confusion: nothing gets confused about itself, thus becoming itself. GSB has a nice way of talking about this, when he says that existence is “what would appear if it could” (“American University of Masters conference: Transcript of session four,” 1973). This phraseology, rather than collapsing the distinction into one state or another (existence or non-existence), *maintains the complex unity*. That the phraseology is also a paradox is essential to its meaning.

I could even point out that we have an excellent geometric, and therefore completely thinkable, manifestation of this principle of the complex unity of multiplicity given in projective geometry. One need only think about the relation between a line, its single point at infinity, which can be reached in two directions (the directions along the line, of course), and how this line is nothing other than (can be deliberately confused with) a circle whose center is at infinity. The topological structure of the line, taken as a whole, is a circle, but to “take as a whole” requires the inclusion of *infinity*, which is not a place or a destination in any sense of the word. Yet it is precisely this infinity that makes the whole *whole*, and allows a point moving on the line to zoom out to infinity and then come back to its starting point again *from the other side of infinity*.

You see, all of this is connected. This is why we find God spoken of as an “infinite sphere whose center is everywhere and whose circumference is nowhere,” a saying often attributed to Pascal,

but stemming from a much earlier 12th century Neoplatonist work called *The Book of Twenty-Four Philosophers*, esoterically attributed to Hermes Trimegistus.¹

But before we reach infinity let us take a break. You have progressed now to the beginning of the actual Laws of Form themselves.

Recursion #2

Let us continue our beginning:

We take as given the idea of distinction and the idea of indication, and that we cannot make an indication without drawing a distinction. We take, therefore, the form of distinction for the form. (Spencer-Brown, 1972)

If this doesn't strike you as having a "mystical" flavor, then you are drinking the wrong concoction. I'm not going to try to *explain* this, but rather I'm going to try to re-frame it; you could say, in GSB-approved language, that I'm going to re-mark it. The important thing to note about this, the very first "official" sentence of the LoF, is that it is recursive. Let's be clear: the Laws of Form (not the book, *the LAWS*) are only possible because of a recursion, a throwing back on itself of itself. But a throwing back of *what* onto itself? Well, "nothing", of course; but nothing understood as *what everything would be if it were*.

But of course nothing doesn't remain nothing (well, it does, but it doesn't), because here we are. The question GSB is really attempting to get at is *the* question: how does this nothing become "all this"? THAT it does is directly evident (to the "all this" and likewise "all of us"), but GSB wants to know *how*; he wants to know the *form* by which happening *happens*.

There is only, really, one option: nothing becomes "all this" by virtue of *a distinction*.

¹ (Magee, 2008, p. 22)

Now, you'll have to stay close as we proceed on this journey, because what we are doing here is trying to illuminate not creation, but the *illumination that illuminates creation*. We are trying to describe not simply *what* can possibly be talked about (the “all this”), but are attempting, rather, to describe describing. At its heart, this is ultimately an esoteric task, *not* a philosophical one.

So to begin: the first distinction is THAT OF distinction. As we find out in the very last sentence of the last “official” chapter (before the lengthy notes), “We see now that the first distinction, the mark, and the observer are not only interchangeable, but, in the form, identical” (1972, p. 76).

This is to say, the distinction and the distinguisher are equivalent (they are confused, fused together). You may be wondering what “the mark” is. GSB just said it was identical with the first distinction, but while this is true, it is not yet illuminating. GSB *uses* the idea of a mark in its literal sense, as a mark on a page, for example. For this reason he can say, “Let a state distinguished by the distinction be marked with a mark [see below] of distinction” (1972, p. 4).

The actual mark can be anything, but the primary shape he uses is that of a capital T with the right hand limb missing, an upside-down and backwards “L” (or an “L” rotated 180 degrees). In other words, making a distinction leaves a mark, and we can indicate the mark in any way we choose (we can mark the mark), but we have to choose something.

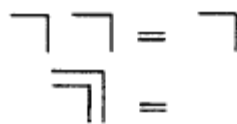


Figure 1. The Laws of Form. Spencer-Brown’s two laws: the law of calling and the law of crossing.

So back to the first distinction. What is it? The first possible distinction is that OF distinction, BY an observer which is the same as that distinction. Got that? It should be exquisitely clear that recursion is the nature of the form, and that this could not be otherwise.

What we have is a complex unity of the beginning of everything, consisting simultaneously of:

1. the *fact* of distinction as the *only possible form for the form*
2. the fact that the form of the form is *recursive* (what the form distinguishes is *itself*)
3. the fact that this “itself” is the same as the *observer* making the distinction.

The esoteric point is that these three aspects are all co-incident: they are the same incident, that of creation (all creation, not just the beginning of the beginning). What I would like to point out is that this recursion has a special character that becomes a key element in understanding all that flows from this beginning, and it has to do with the difference between the “levels of order” N and N+1.

But before I use this difference to make a difference, we need a reason to make the difference. In GSB’s words, “**There can be no distinction without motive, and there can be no motive unless contents are seen to differ in value**” (1972, p. 1).

That is, there can be no distinction without a motive to distinguish, but there can be no motive except by virtue of a distinction.

Thus (in a circle):

motive → distinction → (value) → motive → ...

The whole is recursive. But here, Ranulph Glanville (1995), President of the American Society for Cybernetics, points out that

If everything depends on drawing a distinction, how is the mark separated from the value? It must be distinguished. Then, if it is distinguished, it is distinguished by another mark (and value) drawn... ad infinitum. Unless the mark is the value, the value is the mark—ie, unless there is no space (that is to be cleaved), and the distinction drawn distinguishes only itself. (In geometric analogy, instead of the distinction taking the form of a circle, it takes the form of a Möbius strip—that, from above, looks like a circle—which contains no space, has no in and outside, and

which, having only one surface, can have its own value on itself: the mark is the value, the value is the mark.) (p.3-4)

Perhaps you can thus see the problem which GSB himself did not note. Drawing a distinction is not a singular act; it has at least a dual character, because there is the *act* of making the distinction (making the mark), and there is *the distinction* made (the value indicated by the mark). The problem is that GSB's formulation *the first distinction doesn't distinguish between the mark as an ACT and the mark as a VALUE*, but it must somehow if we are to get anywhere. The way to do this successfully is with the implementation the idea of N and N+1 levels of order. Soon.

As GSB indicates, “What is not allowed is forbidden” (1972, p. 3).

This is to say that we can only use distinctions that we make; therefore we must complexify our understanding of the first distinction: we must distinguish anew the first distinction. Glanville, with Francisco Varela, recognized this problem (1990). They saw that it led to an infinite regress (the bane of logic, which we are supposed to avoid), and their solution was to say that “distinction cannot cleave a space, and its value must not be distinct from its mark, that is, a distinction distinguishes (is) itself” (p. 1).

Yet Glanville notes that that the distinction, which only distinguishes itself, also implies a manifold. Actually, we see that distinction *must* imply a manifold (it cannot ONLY be itself distinguishing itself, *simply*) or existence would never have any content other than existence itself — that is, no distinction of difference beyond that of the fact that existence exists.

Thus the first distinction must be a *complex* distinction; it must, we could say, keep the Chaos alive, it must maintain *potential* in more than one way. This is to say that it must be a complex unity, a single diverse manifold.

Now we have noted that Glanville wants to say that in order to avoid an infinite regress of distinctions that never reach any value, the distinction must distinguish only itself. But we can point out that this does not actually solve the problem, it rather only is a viewing of the problem from a different perspective. He thus ends up saying (1995) that:

If, in drawing a distinction, we do not distinguish between the mark and the value but take the value as being the mark, we have no regress. The distinction is then a self-distinction, and the value (which is the mark) is the value to the self. It is not accessible to the outsider. It remains private. We have, instead, Objects that distinguish themselves and do not cleave a space: they do not even need a space within or without. Thus, the Object (its self itself) maintains itself, but is alone. The Object is the Object is the Object.” (p. 5)

This is a view which is in direct contradiction to esoteric experience... but such is not the basis upon which we need to address Glanville’s idea. We can rather point out that his attempt to avoid a regress actually fails, in the sense that the regress is successfully eliminated. It is, rather, simply transformed into a *recursion*, which still has a ‘regressive’ nature. However, that nature is, instead of played out extensively, is played out intensively, as in a point rather than a line.

And now we can bring back in the geometric imagination from earlier, and make use of it. Geometrically, the analogy for a normal regression is that of an infinite line. But every line is ALSO a circle whose center is at infinity. One can contract that circle (the line) from infinity (extensive space / no space) into finite (intermediate / actual) space, and then contract it further until the circle becomes a point (intensive space / no space). In other words, Glanville’s choice to avoid regress is, in some sense, unnecessary; the point-like logic is a *transformation* of the line-like logic, through the logic of the circle. Thus we are not restricted to our interpretation of the mark, of distinction, as that which EITHER does or does not “cleave a space”: it BOTH cleaves a space and DOES NOT cleave a space, depending upon

the *distinction of the distinctions*. That is to say, by distinguishing the original logic of the mark of GSB from the modified “möbius logic,” Glanville (1995) is led to a *lower order* content (the value of the distinction), whereby “the Object is the Object is the Object” (p. 5) is considered as a mark marking itself in a way that is inaccessible to any outsider. But this is only a part of the story that is given by the distinction between the logic of the line and the logic of the möbius, which is the logic of the intensive point. By exploring the logic of this intensive point, we can change the way we distinguish distinction.

We have seen that the infinite regress seemed to be required by the failure of the mark to distinguish itself from its value. But to try to solve this by saying that the mark ONLY marks itself, *and is thus its own value*, is an error. If a mark can only mark itself, it is equivalent to being valueless, even to itself, because in order for the mark to have the value OF itself FOR itself, the mark must again distinguish itself from its value, otherwise we can only say “mark” *or* “value”, but not both. And here is where we get, as promised, to the need to introduce the N and N+1 business referred to before, as it provides a way to think about this admittedly bizarre and obtuse problem in a way that may continue in our quest to illuminate illumination.

To recap: we are in a position where we recognize that the mark, the first distinction, cannot be simple. It cannot mark itself *only* as a mark, or *only* as a value. It must somehow be able to mark itself *and* its value simultaneously without requiring an infinite number of further marks to mark that distinction. It must be able to, in a single stroke, include the possibility for endless variation without itself requiring endlessness for it to begin. The universe is; it has come to be; the mark is made, and made again, and again...

Now, the key is to recognize that the key to the treasure is the treasure. The confusion (between the mark and its value) that has arisen needs to be de-fused, and re-fused, *in a new way*. What needs to be de-fused is actually manifest in things we have already run across: it showed up in the distinction

between the capacity to see and what is seen, between form and content, and yes, between the mark and its value. What connects these examples is itself a *form*, but it is also a *content*, and yes, the content of the form is the form, but it is a *particular* form; it is complex, and it is recursive, and it is the nature of the complex recursivity that distinguishes it from “mere” distinction.

Let me be clear by saying that there is no real problem with GSB’s Laws of Form; there *is*, however, a problem because of the way that the form is taken. This is something GSB is very sensitive to, and which he discusses in the Esalen conference (“American University of Masters conference: Transcript of session one,” 1973). We must interpret the form, but the form is not boundable by interpretation. We can interpret it *any way we wish*, but (as we have seen) this does not mean all interpretations have the same value, or are therefore valueless. The whole key is to recognize the difference between the form and its interpretation, *because this is exactly the form*, it is the key.

We can say: *the form is that form whose content is the form*.

This would be more exact, but it is likely not helpful, even at this point where it might be approaching some semblance of sensibility.

Let us rather say: the first distinction, which must be a distinction, must *distinguish* itself *as* the distinction between its form and its content. We can see that there are two *levels* at work in this form. There is the level at which the *activity* of the distinction is occurring, and there is the level at which the *content* is distinguished by that activity. We can call the level of the content level N, and the level of the activity N+1. We could also call it N-1, both are equally appropriate. The point is that the first distinction has this strange feature: it distinguishes a boundary between form and content, between the activity of distinguishing and what is distinguished, *and it crosses that boundary as a part of its activity*.

This is to say, the first distinction is that which distinguishes activity and content, but which does not *merely* distinguish them: it *bridges* them. The confusion pointed out by Glanville is completely

valid, but it is resolvable... that is to say, it is capable of dissolution and resolution. The way to do this involves distinguishing the level of form from the level of content, and recognizing that a *recursion* between these levels *is the form*. It is a complex unity. It is not simply distinction of distinction, at least considered in the way that such a phrase is most likely to be read. Rather, it *is* distinction of distinction, but in the way in which the first instance of distinction exemplifies the level of activity and the second instance of distinction exemplifies the level of content. This should now be quite clear: the first distinction must be of distinction, but this must be considered as a complex, recursive creation and simultaneous crossing of a boundary that is just precisely the boundary between that very activity of its creation and the fact of it as created.

Recursion #3

We ended the last section noting that the first distinction must be of distinction, but this must be considered as a complex, recursive creation and simultaneous crossing of a boundary that is just precisely the boundary between that very activity of its creation and the fact of it as created.

To get at this another way, we can point out that Glanville has actually hit on elements in this direction already, but (it seems) hasn't quite put it together in the same way. Remember that the whole time we have been talking about the first distinction we are *also* talking about "the observer," which we could call a "self." It may even be worth revisiting some of the above text with that implicit translation in mind. I remind you of this because, Glanville, in his 1990 essay "The Self and the Other: The Purpose of Distinction," is exploring solutions to the problem of infinite regression that arise when the mark doesn't distinguish itself from its value, and he uses "self" and "other" to hold the logic of "mark" and "value," which is perfectly fine.

Glanville (1990) notes that we have a set of relations that are implicit in each other: that between self and other: “the fundamental distinction between self and other [read: between the mark and its value] cannot be more fundamental than the distinction of the self, nor can it be less so: another circularity, another reduction of hierarchy” (p. 3).

Except that this *isn't* a reduction of hierarchy. It is actually the very foundation of all hierarchy. This is Glanville's mistake (if it could even be called such): the misidentification of circularity with the collapse of hierarchy. The restoration of this feature is precisely what is needed to move forward, and Glanville actually gets there, but doesn't quite (it seems) recognize the fact.

He points out that the distinction between self and other is not complete, but actually implies more: the self *as* self, and the self *as* other. This is to say, the mark *as* a mark, and the mark *as* the value it indicates. But this is a reciprocal relationship, where we also note an other *as* self. He has a useful shorthand formulation which is probably worth mentioning, because it helps make the point more clearly. He (1990) takes a capital letter to refer to the recursive nature of self, as it is self-defining (but, as we shall see, also *other*-defining), and a lower case letter to refer to the objectified, the not-self (but only, and always, *for* self): “(A, A) indicates the self of A ‘observing’ itself as a self. (A, b) indicates the self of A ‘observing’ b as other, that is, b as another to A's self :::: etc.” (p. 2)

Remember that “observing” here is (referring back to GSB) the same as the mark, the same as the distinction; it is the form. Now we get to the juicy bit. Glanville (1990) points out:

Thus, the distinction between self and other implies the distinction of the self, and the distinction of the self implies the distinction between self and other. And, because the roles of what are called the self and the other are, in effect, to each of them as a self, the same, and because each “validates the other”, it is necessary that that which the so-called self refers to as the other, is, to

its self, a self in its own right: i.e., it distinguishes itself, and is thus distinguishable to another (the original self): again the circularity. Thus, we acquire an (aesthetic) symmetry. (p.3)

Now, to insert an esoteric aside, before we continue unfolding this subtle issue, we can note that what this means is that, *all others are selfs, all selfs are others*. This is nothing other than the esoteric principle that BEING is all that is: if it is “out there” as an object, *it, also*, has an interiority, a “self”, which we are recognizing here from a very odd starting point.

In other words, the ontology of A being is always the ontology of ALL being; the act of self-distinction is always simultaneously an act of other-distinction, *and vice-versa*. This, esoterically, is the principle of the cosmological Christ, the I-in-Thou/Thou-in-I. We shall see how this flows naturally from Glanville’s own formulation. To fill out his (1990) method:

The self distinguishes the self (A, A)

In distinguishing the self (A), the self distinguishes another (A, b)

The other distinguishes itself as itself (B, B)

The other distinguishes the self as an other (B, a)

Whether or not an other can distinguish an (other) other as an other, it appears we may not know, for we can never be another. Thus, (a, b) and (b, a) seem, for the moment, to be meaningless statements. (pp. 3-4)

The key, however, is in his (1990) recognition that: “the distinction between the self and the other and vice versa is, itself, a distinction. Let us call this distinction C” (p. 4).

Now, he doesn’t recognize it explicitly, but here Glanville has implied exactly the principle that is required for the whole thing to come together: the *actual crossing*, simultaneous to its *actual distinction*, of the boundary that separates N and N+1 levels. This is a second-order distinction, the

distinction of a distinction. But the whole point is that the second-order distinction is recursive with respect to the first-order distinction: they are co-generative and co-incident.

In other words, all three, A, B, and C, can be not REDuced, but INDuced, (or some other new word) to a SINGLE, COMPLEX UNITY. This paradox is equivalent to that of the mystical “three-in-one/one-in-three” of Christianity, and although it is synchronistic, the choice of the letter “C” for this is fortuitous.

So Glanville (1990) can now say:

In order for the self (of the first instance) to distinguish the other (A, b), and the other (of the first instance) to distinguish the self (B, a), they do so by drawing a distinction, itself a self to itself (C, C). So, for instance, the distinction between the self and the other (A, b), is made by drawing the distinction that distinguishes them, C – that is (C, C) – which, although a distinction like any other distinction, has the role of distinguishing between the self A (A, A), and the other B (B, B) as other (b) to the self (A), which, thus allows the transfer across: the making of the self of the other available as an other to the other self: that is, C (C, C) transforms B (B, B), for A (A, A), into b so that (A (A, A), b), and, reciprocally, (B (B, B), a). The role of the distinction C is that it allows a self to say of an other that it is an other. It may be taken, thus, that the purpose of the distinction C, for A and B, is that it permits / creates this role change, this transfer. (p. 4)

Now here is the place where an esoteric background is helpful. Glanville (1990) notes, following his own reasoning, that

this distinction, C, is to both A and B, itself an other. Thus, to A, C is c (A, c), and, similarly, to B, (B, c). We once again need a role transforming distinction, another distinction, D (D, D), and so on: the regression is apparently clear, although, as Varela and I have indicated [R. Glanville and F. Varela "Your Inside is out and your Outside is in" in G. Lasker (ed.) "Proc. Intl. Congress

on Applied Systems and Cybernetics, Acapulco", Oxford, Pergamon, 1980], this formal regression leads to a logical re-entry, and so is not quite so daunting as it might normally be." (p. 4)

But this whole business with D (D, D) and so on is simply not necessary. Why? Because there is no hierarchical regression: at any stage the infinite regression is the same as the single instance. Again, this is an esoteric mystery: that of immanence AND transcendence. This is the dual face of the ultimate: the Sufi *wahdat al wujud*. The *single* existence of C is all that is required. This "transfer function" is a *necessary* part of the primal distinction; it is the missing link between the mark and its value, that would otherwise create only endless duality. In other words, *all distinction* has a threefold nature: Self, Other, and the Self-Other Relation.

Of course, this is just what has been recognized in esoteric circles throughout history. We can point out that alchemically we have: Self=Sulfur, Other=Salt, and Transfer=Mercury, or in Esoteric Christianity: Self=Father, Other=Holy Spirit, Transfer=Son. This goes on endlessly, which is precisely the point. Returning to the very *conditions* under which GSB relates the Laws of Form, he (1972) mentions that "There can be no distinction without motive, and there can be no motive unless contents are seen to differ in value" (p. 1).

We have seen this already, but now we can see it in a new light. As before we have:

motive → distinction → (value) → motive

Now we can recognize this as the very same threefoldness that is inherent in the primal form.

So:

motive → distinction → (value) is also:

self → other → transfer function

will → thinking → feeling

sulfur → salt → mercury

and also, more primally:

activity → content → (the needed crossing of the boundary, not completely integrated in GSB, found, but unrecognized as such, by Glanville), and lastly:

Father → Holy Ghost → Son²

Hopefully, despite the admittedly difficult nature of this whole commentary, things might be starting to come together, that is to say, they might be starting to be confused.

So how can we express the mark in terms of its manifold unity? Of course, we can use anything as the mark, but this doesn't mean that all marks are equal. GSB's original mark is the upside-down, reversed "L", which does not visually or metaphorically well-embody the characteristics we have discovered for the first distinction. We need something that, as a *mark*, suggests the complex nature of the primordial distinction of distinction. GSB, in LoF, also uses a circle as a mark, which is better in that it indicates recursivity, but it is still too simple. Now, would it be any surprise at all that the kind of mark we are looking for has been known for millennia? And that this mark would have as an explicit meaning "supreme ultimate" and "primordial universe"? I refer, of course, to the *taijitu*, the "yin-yang" symbol, which I have modified a bit to be more explicit about the relations it expresses:

² Alternate versions occur: see Manly P. Hall's *Secret Teachings of All Ages*, (2008), p. 477



Figure 2: A modified *taijitu*, a symbol for the infinitely self-recursive, multi-leveled nature of distinction.

We can also indicate the same set of relations with this second form, which is actually more “technically” accurate, but harder to read visually:

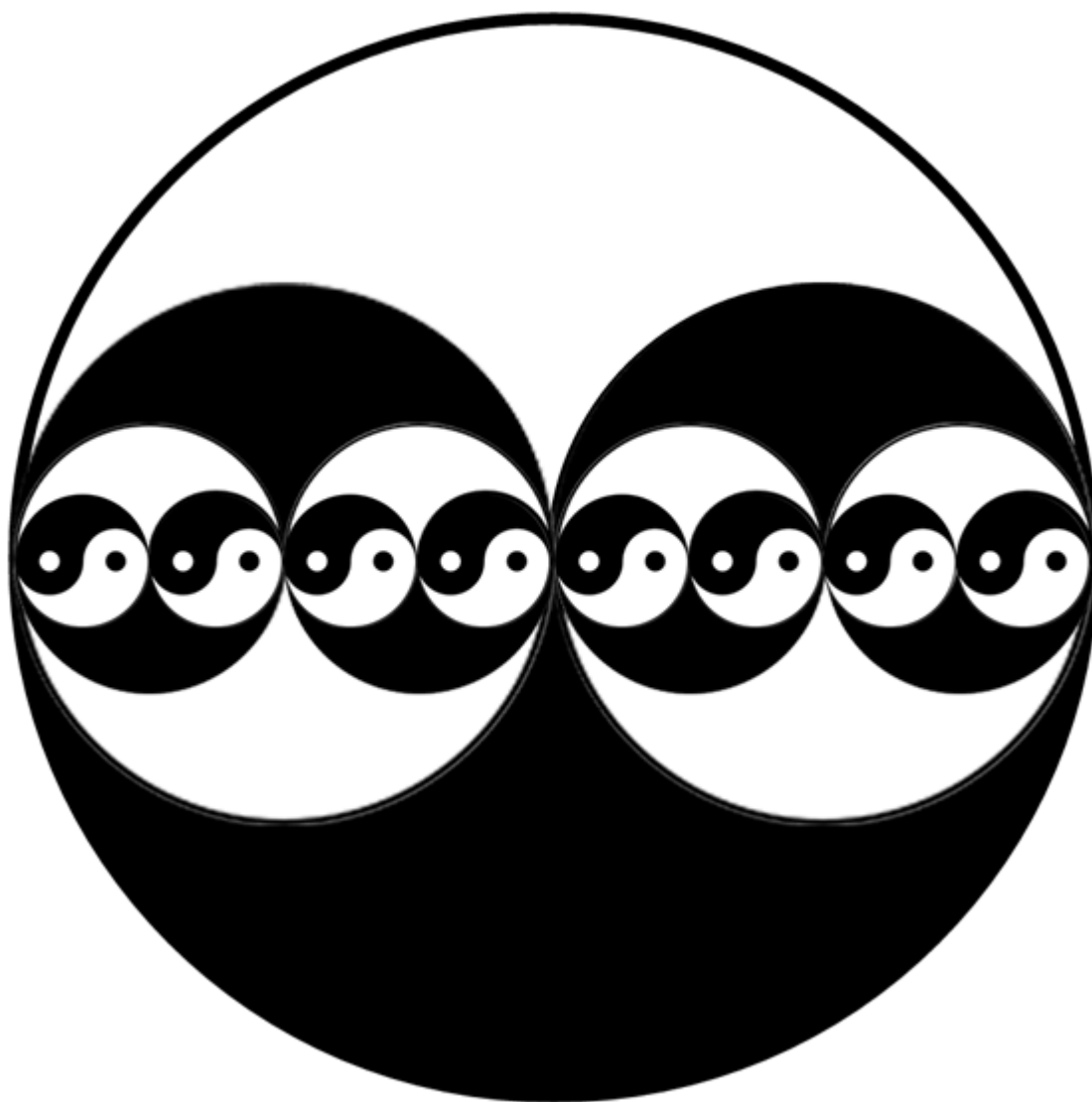


Figure 3: A variation of the modified *taijitu*. The ideal form is all self-embedded circles.

Here we have a mark that displays the qualities we know the mark must have: it is recursive, it is a complex whole, it defines itself, and most importantly it expresses, as well as any visual symbol can, the necessity of the mark to make a boundary that it then crosses. This last is what implements the most important feature of the primordial mark: it has to distinguish levels N and $N+1$, and it has to do so in a recursive way. Of course the symbol itself is static, but note: one cannot literally “see” the whole image

all at once. Your eyes bounce back and forth, and as they do so, they continually cross the boundary that is the whole of the form (the self-defining boundary, which is all this form is). But then you realize, in looking at the smallest “dot” in the form, that it doesn’t appear to be subdivided again. This, of course, is a limitation of the medium, not the symbol, and suddenly the symbol has initiated *an activity* of continued crossing *in your thinking*. The actual drawn mark cannot directly be the activity of its own drawing, but it can indicate this activity as it occurs in you—actually. And then you are led to the realization that the whole symbol itself sits in a white space... which of course means that there is, ultimately, no reason to have the form so overtly indicated over many levels, because all that is needed is the original form:



Figure 4: The “standard” *taijitu*. This version is the most symbolically efficient possible for these concepts.

This is *exactly* the feature we would expect, actually *require*, of a form that fulfills its promise of being defined only by itself. That is to say, looking at the first, more explicit form, we see that every stage is implied by, and implies further, every other, so we really *can* “reduce” the form to the simpler version, because that is all that is needed to generate the entirety of the form and its activity.

So we can, in a very direct and precise sense, call this form, the *taijitu*, the form of the form. Implicit in this saying is again the creation and crossing of the boundary N and $N+1$. It would actually be helpful to distinguish our English: “Form” with a capital “F” can be taken to refer the $N+1$ level, the level of the coming-into-being of the “form”, with a lower case “f”, which denotes the form as expression, or rather, as expressed (pressed out from itself). In this sense, then, the *taijitu* is the Form of the form³, and we can then use, as a form (lower case “f”) something like GSB’s “cross”, the upside-down, reversed “L”, which sacrifices symbolic completeness for functional simplicity.

Of course it bears pointing out that the *taijitu* is a fractal, and that this is precisely what allows it to embody the characteristics we are after for the primordial form. Or rather, it would be more accurate, perhaps, to say that what it means to *be* fractal goes back to the nature of the first distinction as we have discussed it. In other words, that so much of the universe shows up as the expression of fractal patterning should not take us by surprise, but should be *expected*. It is no wonder that the Mandelbrot set is referred to as—and now we can see something of the *literal* meaning of this phrase—the “thumbprint of God”.

³ Strictly speaking, the Form of the form cannot be a form, i.e. cannot be anything ex-pressable. However, the more subtle point on the table is the *relative nature* of Form and form. Every form is an expression of Form, but every Form is a form to another Form. I hope that this observation is delightfully confusing.

Recursion #4

We ended the last section having come to realize something of the esoteric significance of the *taijitu*, or yin-yang, form, in something of an extended tangent. We return now to the text.

GSB himself seemed to understand the importance of the Laws of Form, even if there were some of these more subtle specifics which were not apparent to him (or at least which he did not write about explicitly). Having reached this point (literally we are still on page 1 of LoF), the vast majority of the rest of the work in LoF is seen to be secondary. Yet there are many valuable indications which deserve connection to esoteric principles, and the point of this exploration is to show that such connections are not arbitrary. So, to return to the actual content of LoF now, after this long but foundational detour, we can note that he says (1972): “Let any token [of the mark] be intended as an instruction to cross the boundary of the first distinction” (p. 5).

That is, every mark is an invitation to cross it; every distinction is a call to make that distinction, not to simply point it out, but *also* to DO it, to MAKE the distinction. In other words, the whole thing is active, not passive; it is not descriptive but *prescriptive*. Of course, the esoteric significance of this should be obvious, because precisely what distinguishes esoteric work from, say, philosophy or other disciplines, is that it is, *at its roots*, injunctive. That mathematics is the discipline *most closely allied* to esoteric work in this respect only serves to strengthen the indication that mathematics is the most directly spiritual of the academic disciplines.

Now, if you don’t know, GSB uses LoF to show how, starting from *one* single form, he can build an entire logical calculus, including (but not limited to) the Boolean Algebra. In fact, the way he came upon the LoF was precisely through asking himself the question “what is the basic arithmetic upon which the Boolean Algebra is based?” (“American University of Masters conference: Transcript of session two,” 1973).

He uses the token of the form, the upside-down and backwards “L” as an operator to do this work. The whole of the logical calculus in LoF is built out of the way that this form works with itself, and he notes that the two “primitive equations” upon which everything else is based take the form:

$$\begin{array}{l} \neg \neg = \neg \\ \neg \neg = \neg \end{array}$$

Figure 5. The Laws of Form. Spencer-Brown’s two laws: the law of calling and the law of crossing.

He calls the first primitive equation *number*, and the second (where a form is inside itself, which equals the unmarked state) *order*. Why is this important? Because we can note that these two principles, upon which everything that is to follow in LoF is based, is nothing other than the embodiment, *in form*, of the principle of the N and N+1 orders discussed as the key to the whole thing in the first place.

To state it another way, these two primitive equations *work* because they embody exactly what would be required of them if they were to work (to take a GSB type of phrasing). More directly, they embody the principle of the creation of the cross and the crossing of the cross. Together, these two equations express the principles required to yield all the complexity necessary for any ontology: this means they have, together, a horizontal and vertical direction, or a breadth and depth, a distinguishing and a unifying nature. The first equation is horizontal: it serves to open up all the later logical space in LoF. The second equation is vertical: it serves to unify across levels, or to create more levels. You can see that this is just what is implied in the levels N and N+1: the level N is what it is by virtue of its containing everything else that is at level N, while the level N+1 is precisely the activity of the unification of everything in level N. N is the (differentiable) content, N+1 is the activity (un-

differentiable) by which anything in N gets to be in N in the first place, vs. at any other level (say, N-1). The reason for calling these levels N and N+1, vs. actually counting them from some starting point should be obvious: they are recursive with each other; there *can never be* some absolute destination “N” that could serve to begin the counting. We can only ever count from where *we actually begin*.

It is worth pointing out that GSB, thankfully, is very clear that, even though his two primitive equations express equalities, *the direction matters*. To state it another way, this is another example of the importance of the distinction between N and N+1. At the level N we simply have the two equations, and one side simply is *identical with* the other. But whether you start from the left and move across the equal sign to the right or vice versa is *significant*. GSB even gave names to these differences; he calls them:

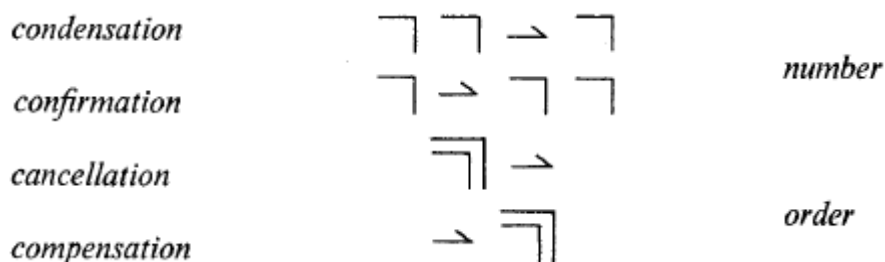


Figure 6. The dual expansion of the Laws of Form. (Spencer-Brown, 1972, p. 10)

Keeping with the esoteric theme, we would note, based on our previous discussion, that these also all embody the “fifth essence”, the “C” of Glanville, the transfer function, the Cosmic Christ. So we have here two polarities, one of *distinction* (between number and order, which can be taken as GSB’s way of speaking about N and N+1), and one of *direction* (between condensation and confirmation, and between cancellation and compensation). The first polarity is, as we have seen, a vertical polarity; it is

responsible for all hierarchy, and it is what was not explicit in Glanville's works. The second polarity is a lateral polarity: it is responsible for the creation and dissolution of content for each hierarchical level.

Why is this worth pointing out? Because herein lies a formalization of a very deep esoteric principle, which is that *everything that is, because it is, can transform*. Remember, we are trying to speak here about the very source of all possible logic, so what we find in this realm should have serious implications for every *actual* logic, and therefore for every implementation of every actual logic. This is to say, the work here is looking towards the fundamentals of all epistemology. At the same time we are trying to speak about the very source of all possible form, for the existence of existence as such, regardless of its form. This is to say, the work is also looking towards the fundamentals of ontology. What is important, esoterically, is that we find out that at their roots, both epistemology and ontology *meet and unify* in a complex, recursive way. Knowing and Being form a complex, recursive unity.

It is actually very clear to GSB that his work is meant explicitly to unite epistemology and ontology. He states (1972) that:

Throughout the essay, we find no need of the concept of truth, apart from two avoidable appearances (true = open to proof) in the descriptive context. At no point, to say the least, is it a necessary inhabitant of the calculating forms. These forms are thus not only precursors of existence, they are also precursors of truth. (p. 101)

This provides an interesting (and *transformative*) perspective on the question of why it is that we can know anything, and also on what it is that is possible to know. The scope of these questions in their details is beyond the current exploration, but suffice it to say, embedded in these formal equations lies a secret to esoteric transformation: indicating both *that* it is possible, and also something about *how* it is possible. You may even, if you are keen, note that it tells you something specific about *what it looks like* to transform, and thus *how to do it*.

Now, later, GSB gets into some of these details. For example he shows that:

$$\begin{aligned}
 & \overline{\overline{\dots c} \mid b \mid a} \mid g \\
 = & \overline{\overline{\dots c} \mid b} \mid ag \mid g \\
 = & \overline{\overline{\dots c} \mid bg} \mid ag \mid g \\
 = & \overline{\overline{\dots c} \mid bg} \mid a \mid g
 \end{aligned}$$

Figure 7. GSB's Theorem #13. This theorem indicates that higher-level distinctions (g) commute to all lower levels of distinction. (Spencer-Brown, 1972, p. 40)

This is his Theorem 13. Taken esoterically, this principle is seen in how ontology+epistemology (as a unity) flows from higher levels to lower; i.e. all existence and knowledge is derivative (generative based on higher order principles). I.e. “As Above, So Below” (which is only half of the story).

Then we have his (1972) Theorem 14: “From any given expression, an equivalent expression not more than two crosses deep can be derived” (p. 40).

Esoterically, ACTUAL knowledge can be traced back to higher order realms. That is, the indication of Theorem 13 can be actually carried out starting with ANY knowledge. In other words, because all knowing is derivative, it can lead back to its origins. But to discover this *actually*, for any particular knowing, we must, in the language of GSB, *cross*. Esoterically, of course, this is recognition of the principle that transformation is an *activity*, and one that can be cultivated. All of esoteric work is simply an elaboration of the injunction: *cross*. This adds the second half of the story missing above: “As Below, So Above”.

This has further consequences. As GSB (1972) notes, “From any given expression, an equivalent expression can be derived so as to contain not more than two appearances of any given variable” (p. 41).

This is GSB’s Theorem 15. Esoterically, this is the principle of the archetype: knowledge instantiates the activity of archetypes, and these archetypes are always a unity, that unity being given by their form of distinction. Multiple instantiations of a given archetype in different areas of knowledge are not separated, but can always be seen as participating directly in that single archetype. This is to say that an archetype can never be distinct from itself. You can perhaps see how, from an esoteric point of view, this is implicated in the above discussion about hierarchy and transformation, and the relation between universal law and its expressions from the near the beginning of this exploration.

Moving on, GSB (1972) indicates that: “The initials of the primary algebra are in dependent” (p. 53).

Remember the initials are the two equations we discussed above. The point is that these are not derivable from each other (or they would reduce to a single equation and thus not be “initial”). This means that all possible logics *require a distinction of distinctions*. This is to say that the form of any logic (its second order nature, $N+1$) requires its first act to be the realization of this form, which is its content (its first order nature N).

In other words, the foundation and generation of all logics is recursive, taking the form in which the second and first orders are mutually generative (i.e. the distinction of distinction). You may think that somehow this obviates the very principle of independence, because they are mutually generative. Not so, and this is the heart of the matter. It is precisely this type of recursion, between N and $N+1$, that *maintains the distinction*. They are *mutually* generative, not simply generative; this means that they

require each other *distinctly*, in order for their own separation. They cannot be *reduced* to each other, and both are required. We have a complex unity, not a simple one.

Now, GSB gets into some fascinating territory with respect to “re-entry into the form”. He (1972) describes re-entry in this way: “The key is to see that the crossed part of the expression at every even depth is identical with the whole expression, which can thus be regarded as re-entering its own inner space at any even depth” (p. 56).

We can see that he has just described the *taijitu*. What is important about GSB’s work is that it provides a way to *stop* the recursion at any given point, and to then look around to see what’s going on. This is to say, it can be used to calculate, to situate with directness towards one state (knowing that the states are infinitely transformable).

Even more importantly, the necessity of re-entry (recursion), which we have seen lies even at the root of the root of GSB’s work (even though he didn’t point this out himself), leads him directly to something that was implicit in the form but which can be itself brought out in a calculable way. I am referring here to the generation of the imaginary realm (the home of imaginary numbers, which are found as necessary roots to the regular algebraic equation

$$x^2 = -1).$$

What is important, esoterically, has to do with what GSB points out as the *key* feature of the imaginary numbers: they are *oscillatory*.

Recursion #5

We ended the last installment with a recognition that the Laws of Form naturally led GSB to an understanding of both the necessity and importance of the realm of imaginary numbers. We will continue this elaboration.

You are likely familiar with the paradoxical sentence: “This sentence is false.” Is it false or true? The answer is yes, and it depends on *when* you ask. It was this kind of paradox that drove Russell and Whitehead into creating their Theory of Logical Types, which was designed specifically to prevent this kind of thing from simply ever coming up in the first place. GSB is not so limited, and understands the importance of *formally* including paradox in his calculus. So how does he deal with this?

He points out that we are driven to a higher order of logic, one that includes re-entry. In the first Esalen lecture, GSB states that

This has been totally overlooked in mathematics, that i is in an oscillatory state.

Because in order to get over this paradox of $x^2 = -1$, we see that we can't use any ordinary form of unity so we invent in mathematics another form of unity and we call it i , which is the root that satisfies that equation. (“American University of Masters conference: Transcript of session one,” 1973)

Let me indulge in a lengthy quote continuing from the same source, because GSB's own dialogical presentation is quite apt:

It is really an oscillation defining time; but it is the first time, and, therefore, being the first time, the oscillations are without duration, so the wave has no shape at all. Just as the space of the first distinction has no size, no shape, no quality other than being states. This is one of the things that tend to upset people. It is part of the mathematical discipline that what is not allowed is forbidden. That is to say, what you don't introduce, you can't use. And until you have introduced shape, size, duration, whatever, distance, you can't use it.

In the beginning of *Laws of Form*, we defined states without any concept of distance, size, shape—only of difference. Therefore the states in *Laws of Form* have no

size, shape, anything else. They are neither close together nor far apart, like the heavenly states. There is just no quality of that kind that has been introduced. It's not needed.

The same with the first time. The first time is measured by an oscillation between states. The first state, or space, is measured by a distinction between states. There is no state for a distinction to be made in. If a distinction could be made, then it would create a space. That is why it appears in a distinct world that there is space.

Space is only an appearance. It is what would be if there could be a distinction.

Similarly, when we get eventually to the creation of time, time is what there would be if there could be an oscillation between states. Even in the latest physics, a thing is no more than its measure. A space is how it is measured; similarly, time is how it is measured. The measure of time is change. The only change we can produce—when we have only two states—the only change we can produce is the crossing from one to another. If we produce an expression, like the ordinary expressions in the algebra, we have to make the crossing. We have to *do* something about it. We have to operate from the outside. If we produce that cross that feeds into itself, now we don't have to do any thing. It is a clock, just as an ordinary distinction is a rule. A rule makes or defines space, and a clock defines time. In making our first distinction all that we have done is introduce the idea of distinction. We have introduced nothing else. No idea of size, shape, distance, and so on. They do not exist, not here. They can be constructed, and they will be, but not yet. They are what happens when you feed the concept back into itself enough times.

Again, when you first construct time, all that you are defining is a state that, if it is one state, it is another. Just like a clock, if it is tick, therefore it is tock. But this time is the most primitive of all times, because the intervals are neither short nor long; they have no duration, Just as these states have no size. (“American University of Masters conference: Transcript of session one,” 1973)

All we need to add is that when he says “In making our first distinction all that we have done is introduce the idea of distinction. We have introduced nothing else” we can recognize something of the complexity of *what* this idea of distinction *is*, and how it *acts*.

I’m going to let GSB’s own remarks on space and time stand without further exploration, although I don’t imagine it needs to be pointed out how central the concept of vibration (and rhythm) is to esoteric work. Rather, I’m going to get back to LoF and continue with commentaries on chapter 12, where he (1972) summarizes the whole work: “The conception of the form lies in the desire to distinguish” (p. 69).

Esoterically, all knowing, all epistemology, always includes the WILL; i.e. activity; it is never passive. He (1972) continues: “Granted this desire, we cannot escape the form, although we can see it any way we please” (p. 69).

The form can be anything in terms of its manifestation, but to get from the second order level to the first *requires* that a form be chosen. In other words, the first distinction is always dual: it is both the distinction of a particular FORM of distinction (from all the other possible forms of distinction), and it is also the distinction of distinction itself. This is to say, the first distinction is recursive, having both a first and second-order nature. The recursion is particular: it is between the first and second orders of the distinction. This means that the process of making the first distinction is the content of the first distinction. Thus, the first distinction is simultaneously ontological and epistemological: what is

distinguished IS (ontologically) DISTINGUISHED (epistemologically). The form is recursive: what is distinguished is distinguished by what is distinguished by what is ... and so on. This should all make sense now.

GSB (1972) then relates that “The calculus of indications is a way of regarding the form” (p. 69). But there are many/infinite ways of regarding the form. This is a necessary correlate to the 1st/2nd order recursion of the first distinction. That is to say, *freedom* is both an epistemological and ontological reality: the content of the form and the coming into being of the form are not arbitrarily bound, except to that very fact (their recursion with each other as we have already seen). GSB (1972) then relates three statements:

We may also note that the sides of each distinction experimentally drawn have two kinds of reference.

The first, or explicit, reference is to the value of a side, according to how it is marked.

The second, or implicit, reference is to an outside observer. That is to say, the outside is the side from which a distinction is supposed to be seen. (p. 69)

In other words, every distinction implies more than the distinction, but also that which distinguishes. Alternately, we can say that behind every distinguished space lies another space, as yet undistinguished, but potentially distinguishable. Esoterically, this is recognition of a hierarchy of epistemological and ontological levels. Included is the implication that to distinguish the space from which a distinction is made requires a transformation, whereby the new distinction occurs from outside the original space. I.e. the distinction must come from further “outside” the space. In esoteric traditions this can be expressed in different ways, but the most directly cognate is Sri Ramana Maharshi’s (1988) most poignant and diligently asked question: ‘Who is asking the question?’ (cf. p. 5). The recognition

here is that one can directly address (and thus work on, train, implement) the potential to distinguish a higher space from which a distinction is made, and so on.

GSB (1972) notes that “In this conception a distinction drawn in any space is a mark distinguishing the space. Equally and conversely, any mark in a space draws a distinction” (p. 76). Esoterically, *one cannot not act*. In other words the fact that “one” is “one” implies already the distinction of “one”. It is not possible to remove “one” from “one cannot not act”; conversely, all action thus implies “one”, i.e. the actor, which is exactly why GSB (1972) says immediately following this that “We see now that the first distinction, the mark, and the observer are not only interchangeable, but, in the form, identical” (p. 76).

This should be quite clear now, and is one of the keys to the esoteric meaning of LoF. GSB essentially shows us, in his own way, that at their roots, epistemology and ontology form a unity. The operation of the mark is simultaneously the mark of the observer and is the observer. The mark as an epistemological act is also the bringing forth of an ontology. Conversely, and following from the last remark, there is no observer that does not make a mark, a mark which is coincident with — nay, even, as GSB indicates, identical with — the ontology of the observer.

Said more plainly:

- What you distinguish constitutes what you know.
- What you distinguish constitutes what you are.

Or, more cryptically poetic:

- You are what you know when you know what you are.

This has profound consequences. Because ontology and epistemology are recursively linked at their very base, it means that knowing is always linked to being, and that we can know being, because we are being knowing.

This relation, which is esoteric at heart, banishes the specter of Kant's noumenal world: there is no being, no ontology, which is without its epistemology. This is to say that there is no "thing in itself" (every mark has a definite value for its space, which is always beyond the mark, and implicated by it, i.e. the fact of the mark implies the fact of the unmarked mark), and likewise there is no "*think* in itself" (every mark is a mark in a space that is marked, i.e. the content of the mark is what is marked).

Here ends the formal chapters of LoF, but GSB continues for almost another sixty pages with notes designed to help lead the reader through the main text, or to elaborate on what is found there. It contains some fascinating esoteric nuggets. To wit:

It may be helpful at this stage to realize that the primary form of mathematical communication is not description, but injunction. In this respect it is comparable with practical art forms like cookery, in which the taste of a cake, although literally indescribable, can be conveyed to a reader in the form of a set of injunctions called a recipe. Music is a similar art form, the composer does not even attempt to describe the set of sounds he has in mind, much less the set of feelings occasioned through them, but writes down a set of commands which, if they are obeyed by the reader, can result in a reproduction, to the reader, of the composer's original experience. (1972, p. 77)

This exactly describes the nature of esoteric communication; its data cannot be conveyed directly, but the process leading to the data can be, which means that the data proper to esoteric communication is that of the process which leads to its data. Indeed *the whole of LoF* can be taken this way, and is meant to be, as made implicit by GSB in the above quote.

Continuing in this vein GSB (1972) relates that:

In his introduction to the *Tractatus*, Russell expresses what thus seems to be a justifiable doubt in respect of the rightness of Wittgenstein's last proposition when he

says “what causes hesitation is the fact that, after all, Mr. Wittgenstein manages to say a good deal about what cannot be said, thus suggesting to the sceptical reader that possibly there may be some loophole through a hierarchy of languages or by some other exit.” The exit, as we have seen it here, is evident in the injunctive faculty of language. (p. 78)

That is, to indicate that which cannot be indicated, one can indicate a process which, when followed, generates the indication. This is simply to indicate *the esoteric process*, i.e. transformation, the building of capacity. It is necessarily recursive; following the procedure generates itself (and more). Furthermore (1972) “in each case the description is dependent upon, and secondary to, the set of injunctions having been obeyed first” (p. 78).

This is the KEY insight into understanding esoteric communication. Process BEFORE product. It can thus be indicated that the key to esoteric work is the activity of the WILL, primarily in *attention*. By changing how we direct our attention, we can progress esoterically.

Naming may thus be considered to be without direction, or, alternatively, pan-directional. By contrast, instruction is directional, in that it demands a crossing from a state or condition, with its own name, to a different state or condition, with another name, such that the name of the former may not be called as a name of the latter. (Spencer-Brown, 1972, p. 80)

This procedure of naming, because of its pan-directional nature, can be seen to have resonances with the importance of naming esoterically, i.e. naming is evocation, a literal calling forth, the bringing forth of a reality through the making of a distinction in the calling of a name.

The second piece here is indicative of the context for naming, i.e. the importance of following a PARTICULAR sequence in order to arrive at a particular name. Esoterically, this is the integration of

timing into injunctions, which has its outermost expression in the sense of ritual. In other words, esoteric ritual, such as meditative practice, prescribes a definite sequence which yields *transformation*, i.e. the generation of a capacity to name (distinguish) new states.

Immediately following the last quote, GSB (1972) notes that

The more important structures of command are sometimes called canons. They are the ways in which the guiding injunctions appear to group themselves in constellations, and are thus by no means independent of each other. A canon bears the distinction of being outside (i.e. describing) the system under construction, but a command to construct (e.g. 'draw a distinction'), even though it may be of central importance, is not a canon. A canon is an order, or set of orders, to permit or allow, but not to construct or create. (p. 80)

In this strange passage is indicated, from an esoteric standpoint, that in esoteric development, the path can only be *indicated*, not *forced*. In other words, freedom is an essential component of the path of spiritual development, in the sense that esoteric injunctions (and their groupings into various 'systems' or 'rituals', i.e. the 'canon') take the form: "if you do X, then Y is a consequence", NOT the more aggressive "DO X ...".

Again, immediately following the previous quote, GSB(1972) states:

The instructions which are to take effect, within the creation and its permission, must be distinguished as those in the actual text of calculation, designated by the constants or *operators* of the calculus, and those in the context, which may themselves be instructions to name something with a particular name so that it can be referred to again without redescription. (p. 80)

That is, we must recognize that in addition to the injunctions constituted by constants and operators specified in the actual calculation, one must also include as injunctions the *context* through which the constants and operators are approached. This is essentially the introduction of the second-order relation, where for any content there is a higher-order context which is essential for the unfolding of the lower order content. In other words, ignoring the context changes the first order distinctions, even to the point of inverting them. We could actually say that it is this principle which is behind the very creation, dissemination, and protection of esoteric knowledge. Esoteric knowledge is just that higher order knowledge which provides the context for the lower order content. Lacking the esoteric knowledge leads to all sorts of perversions at the first order level.

GSB (1972), in discussing the nature of injunctions, points out:

Thus, in the structure of a proof, we shall find injunctions of the form “consider such-and-such”, “suppose so-and-so,” which are not commands, but *invitations or directions to a way in which the implication can be clearly and wholly followed.* (pp. 80-81)

From an esoteric standpoint it is important that when providing esoteric direction, one must uphold the principle of freedom. This actually corresponds with the principle of another famous cybernetician, who was present at the Esalen conference, Heinz von Foerster, whose “ethical imperative” is: act so as to increase the number of available choices. Of course, we would call this imperative an *injunction* in the previously discussed sense.

Recursion #6

We ended the last installment by discussing the esoteric nature of the *injunction*. We continue this exploration, and bring this series to a close. GSB (1972) notes that

In the command “let the crossing be to the state indicated by the token” we at once make the token doubly meaningful, first as an instruction to cross, secondly as an indicator (and thus a name) of where the crossing has taken us. It was an open question, before obeying this command, whether the token would carry an indication at all. But the command determines without ambiguity the state to which the crossing is made and thus, without ambiguity, the indication which the token will henceforth carry. (p. 81)

This re-affirms that the mark has both a first and second-order character: it names the state of its content (its indication), and it is an instruction (its injunction) to mark that name, to make that distinction which yields that state. Thus every mark is both an indication and an injunction. It is an indication of a content and an injunction on how to get there.

He further recalls (1972) that

We may consider how far, in ordinary life, we must observe the spirit rather than the letter of an injunction, and must develop the habitual capacity to interpret any injunction we receive by screening it against other indications of what we ought to do. In mathematics we have to unlearn this habit in favour of accepting an injunction literally and at once. This is why an author of mathematics must take such great pains to make his injunctions mutually permissive. Otherwise these pains, which rightly rest with the author, will fall with sickening import upon the reader, who, by virtue of his relationship with respect to the author, may be in no position to accept them.) (p. 82)

All this actually relates to the task of the esoteric teacher, who recognizes that the way in which injunctions are presented (their context) has a quite prominent role to play in affecting the ability of the

pupil to take them up. Thus a key aspect of esoteric teaching necessarily involves extensive caveats, personalizations, modifiers, generalizers, and specifiers. It is relational through and through.

In discussing the nature of the primal injunction, “draw a distinction”, GSB (1972) notes that

We have here reached a place so primitive that active and passive, as well as a number of other more peripheral opposites, have long since condensed together, and almost any form of words will suggest more categories than there really are. (p. 84)

All this indicates the primal nature of the WILL, its irreducible ontology. All that “is” flows from WILL. But we have seen also that this will is not alone: it is accompanied, in a complex unity, with both a *thinking* and a *feeling*, taken in their most primordial sense.

GSB (1972) then indicates that

We may ask why we do not justify such a convention at once when it is given. The answer, in most cases, is that the justification (although valid) would be meaningless until we had first become acquainted with the *use* of the principle which requires justifying. In other words, before we can reasonably justify a deep lying principle, we first need to be familiar with how it works. (pp. 84-85)

Again, we have a parallel in esoteric communication. It is not necessary to know why an injunction is made; the point is to follow it. Once followed, it becomes possible to see why it was made, but that explanation is literally occult before the injunction is followed. This is precisely what makes so many esoteric texts seemingly obtuse or even outright nonsensical. It is also a built-in safeguard: if you don’t think the injunction makes sense, you won’t follow it through, and you won’t gain entry into what is made available by following the injunction. This is to say, you won’t build the transformative capacity required to recognize the need for the injunction in the first place. This is a fascinating element of the spiritual world: it is constantly making itself available to us, but *we have to do the work to come to*

know it. In other words, those people who work esoterically are *always* self-selected: they elect to pass the initial boundary of unknowing, knowing that the seeking itself will yield everything that is needed: one does not have to *start* with the answers.

Now, GSB (1972) finally makes an explicit revelation:

In all mathematics it becomes apparent, at some stage, that we have for some time been following a rule without being consciously aware of the fact. This might be described as the use of a *covert* convention. A recognizable aspect of the advancement of mathematics consists in the advancement of the consciousness of what we are doing, whereby the covert becomes overt. Mathematics is in this respect psychedelic.

(p. 85)

This is, obviously, an explicit reference to the essence of spiritual/esoteric development, the expansion/extension/transformation of consciousness. It is an elaboration of the principle we came across earlier, by which we can start *anywhere* and proceed “upwards” or “backwards” to higher or more previous levels. But what makes it “psychedelic” in GSB’s phrasing, is that this very progression is one through which consciousness becomes more capable, more resilient, more able to, as it were, traverse up and down the rungs of Jacob’s Ladder.

Furthermore (1972),

In general there is an order of precedence amongst theorems, so that theorems which can be proved more easily with the help of other theorems are placed so as to be proved after such other theorems. This order is not rigid. For example, having proved theorem 3, we use what we found in the proof to prove theorem 4. But theorems 3 and 4 are symmetrical, their order depending only on whether we wish to proceed from simplicity to complexity or from complexity to simplicity. (p. 86)

This reveals an important esoteric point: there is no single path of development. Paths of development share injunctions — but the order in which they are carried out CAN be *somewhat* arbitrary. Generally there are definite limits to the level of arbitrariness in order, beyond which the higher-order rule of timing changes the outcome drastically. In *Laws of Form*, note that GSB indicates a switch of theorems 3 and 4, but not, say of 3 and 16. This is WHY there are such things as “canons”, or definite repeated types of groups of injunctions, because within those groups elements are somewhat interchangeable, but are not interchangeable between groups without potentially serious consequence (one could even have justification—far beyond the scope of this commentary—in calling some of these potential consequences “evil”).

One of the most beautiful facts emerging from mathematical studies is this very potent relationship between the mathematical process and ordinary language. There seems to be no mathematical idea of any importance or profundity that is not mirrored, with an almost uncanny accuracy, in the common use of words, and this appears especially true when we consider words in their original, and sometimes long forgotten, senses.

(Spencer-Brown, 1972, pp. 90–91)

This relation, of course, is no surprise to an esotericist. The profound, even *magical* link between speech and reality is well known in every esoteric tradition that I am aware of, even going back to the most primal spirituality of all that is still active today, the shamans of the Bushmen. Many, many books have been written about this connection. A recent advance in this realm has been taken by Rudolf Steiner and the artistic and therapeutic speech work that has been developed out of his indications.

Much that is unnecessary and obstructive in mathematics today appears to be vestigial of this limitation of the spoken word. For example, in ordinary speech, to avoid direct reference to a plurality of dimensions, we have to fix the scope of constants such as

‘and’ and ‘or’, and this we can most conveniently do at the level of the first plural number. But to carry the fixation over into the written form is to fail to realize the freedom offered by an added dimension. This in turn can lead us to suppose that the binary scope of operators assumed for the convenience of representing them in one dimension is something of relevance to the actual form of their operation, which, in the case of simple operators even at the verbal level, it is not. (Spencer-Brown, 1972, p. 92)

I include this quote because it points to the need to get beyond the induction/deduction polarity in the construction of knowledge. We need to include abduction (or something very much like it), which is implicitly multidimensional, as a valid third form of reasoning. This form of reasoning, mentioned earlier, is precisely what Steiner elucidated in a much more in-depth and direct fashion in his distinction of the Imaginative, Inspirative, and Intuitive faculties. These all build upon the esoteric seed that C.S. Peirce was waking up to in his recognition of abduction.

GSB (1972) states that

The validity of a proof thus rests not in our common motivation by a set of instructions, but in our common experience of a state of affairs. This experience usually includes the ability to reason which has been formalized in logic, but is not confined to it. (p. 93)

This is where the question of the logic of logic is raised, and to which the idea of an aesthetic epistemology (my PhD dissertation work) is addressed. The “common experience of a state of affairs” can be taken to refer to what Steiner called the “given” and what Eugene Gendlin calls a “preconceptual multiplicity” or “precognitive unity” of experience itself. GSB (1972) continues:

It seems open to question why we regard the proof of a theorem as amounting to the same degree of certainty as the demonstration of a consequence. It is not a question

which, at first sight, admits of an easy answer. If an answer is possible, it would seem to lie in the concept of experience. (p. 93)

GSB is leading himself here to the edge of what Steiner began with in his epistemological work *The Philosophy of Freedom*. It also points to the modern work of Gendlin on the nature of experience. The point is that what GSB is driving at leads to one of these moments where we have to go “up” or “back” to a higher order: we have to *cross*. This crossing comes about by paying attention to the difference between the content of our thoughts and the way that those thoughts arise. This means that GSB is right: we need to pay more attention to experience, because it is here that we will find the place from which logic itself arises, and which becomes the recursive beginning of epistemology (and proof). We have already noted important features of this very process. GSB (1972) notes, using language that is *not* meant to be esoteric, but, which, if we have read Steiner, is quite apt from an esoteric standpoint:

But since the procedures of the proof are not, themselves, yet codified in a calculus (although they may eventually become so), our certainty at this stage must be deemed to be intuitive. (p. 94)

Quite so, but intuitive in a way not likely meant by GSB. In the Esalen conference, GSB is very specific about the nature of proof and how it differs from demonstration, as we saw back near the beginning. Now we can recognize something more about *why* there is such a difference: it has to do with the human being’s ability to *transform consciousness*, to move up and down the cosmic ladder to higher and lower orders. Computers only work *laterally*.

As GSB indicates,

In discovering a proof, we must do something more subtle than search. We must come to see the *relevance*, in respect of whatever statement it is we wish to justify, of some fact in full view, and of which, therefore, we are already constantly aware. Whereas we

may know how to undertake a search for something we can *not* see, the subtlety of the technique of trying to ‘find’ something which we already *can* see may more easily escape our efforts. (p. 95)

The esoteric path relies upon that which is there for us already; what it does is to make what we already see transform through the revelation of a higher context IN it. We then see more than we see, and this is the esoteric analogy for mathematical “proof”. GSB (1972) continues:

This might be a helpful moment to introduce a distinction between following a course of argument and understanding it. I take understanding to be the experience of what is understood in a wider context. In this sense, we do not fully understand a theorem until we are able to contain it in a more general theorem. We can nevertheless follow its proof, in the sense of coming to see its evidence, without understanding it in the wider sense in which it may rest. (p. 95)

In other words, the esoteric path of development *occurs* from the ‘bottom up’ (or the inside out) but is *led* from the top down (or the outside in). Wider and wider contexts are revealed for what was previously already known, changing what is known in the transformation of the knower to the state in which that higher context becomes revealed.

GSB (1972) states that

Following may thus be associated particularly with doctrine, and doctrine demands an adherence to a particular way of saying or doing something. Understanding has to do with the fact that whatever is said or done can always be said or done a different way, and yet all ways remain the same. (p. 96)

This is a very important esoteric point, and is the key to the dissolution of fundamentalism of any type. Steiner uses the metaphor that while there is but one mountain, there are many paths to the top. Or more explicitly helpfully, he (1947) says:

One must postulate the following: no single matter is to be comprehended only by means of what is said about the matter itself, but by means of much else that is disclosed concerning totally different matters. This will develop the conception that what is vital is to be found not in any single truth but in the harmony of all truths. *This must seriously be considered by anyone intending to carry out the exercises.*” (p. ix, my italics).

The exercises are simply those designed to awaken the esoteric capacities latent in human beings. This is coupled with the very clear recognition that “There is, in truth, no difference between esoteric knowledge and all the rest of man’s knowledge and proficiency. This esoteric knowledge is no more of a secret for the average human being than writing is a secret for those who have never learned it” (Steiner, 1947, p. 3).

Of course, this is exactly the point that I am trying to make in exploring GSB’s Laws of Form. I am simply taking LoF as the starting point, which could have been anywhere, for esoteric continuation. This whole commentary is an attempt to bring a vertical movement of knowing to the text LoF as a “thing” at level N; an attempt to move towards N+1. My hope is that by doing this here (for now this text is likely all just back at N for you, the reader) in a very explicit way, you can take up this same type of transformation.

GSB (1972), in his own words, indicates that

To any person prepared to enter with respect into the realm of his great and universal ignorance, the secrets of being will eventually unfold, and they will do so in a measure

according to his freedom from natural and indoctrinated shame in his respect of their revelation. (p. 110)

This whole statement doesn't need to be connected to any esoteric principle because it is one overtly. He continues (1972), still in an esoteric vein:

To arrive at the simplest truth, as Newton knew and practised, requires *years of contemplation*. Not activity. Not reasoning. Not calculating. Not busy behaviour of any kind. Not reading. Not talking. Not making an effort. Not thinking. Simply *bearing in mind* what it is one needs to know. And yet those with the courage to tread this path to real discovery are not only offered practically no guidance on how to do so, they are actively discouraged and have to set about it in secret, pretending meanwhile to be diligently engaged in the frantic diversions and to conform with the deadening personal opinions which are being continually thrust upon them. (p. 110)

If this isn't a description of what the esoteric pupil encounters, I don't know what is.

Furthermore (1972):

In these circumstances, the discoveries that any person is able to undertake represent the places where, in the face of induced psychosis, he has, by his own faltering and unaided efforts, returned to sanity. Painfully, and even dangerously, maybe. But nonetheless returned, however furtively. (p. 110)

This may seem like something of a pessimistic view, and is likely informed by GSB's personal biography, but I had to include it because of his inversion of the concept of sanity is very apropos. He concludes (1972) that

The very act of dwelling for a while with even a simple form can evidently tax the whole of one's powers, so that to leave the simple forms before one is properly familiar with

them can result in many unrewarding, or largely unrewarding, mathematical excursions.

(p. 134)

GSB leaves us with a very profound point. Esoterically, progress is not made by advancing quickly, or by taking any kind of “shortcut”, but is rather constantly built up on the basis of continually refined, basic characterological traits, such as those described by Steiner in the six basic exercises. The point is not to “have” any particular knowledge, capacity, or power, but simply to *do the work*. Steiner points out that, no matter what we do, the extent to which we progress is never solely determined by our work in the moment, but is contingent upon a whole range of factors that span many aspects of the spiritual world, such as karmic considerations, but that even more so, there is always an element of grace involved. Thus, the work itself, stated another way, is merely all in *preparation* for the appearance of grace.

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