Michael Filimowicz*

Empiricism within the limits of postmodernism alone: On the emergence of the logically real within the multi-perspectival field

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Abstract: This essay offers a semiotic account of the Logically Real as an emergent category of multi-perspectival experience. Such an approach is supported by phenomenological, developmental, and cognitive discourses, which conceptualize the emergence of object permanence through sensorimotor interactions. Within this frame, I argue that humanities needs a form of native empiricism – by which I mean a discourse of the real, articulated through monosemic practices that symbolize the literal – as a component of the revitalization being wrought by the digital humanities. I adopt Sartre's concept of the analagon complemented with a notion of codon to explicate what I call the sign dominance of the image, which is explored in relation to the experience of the sign as an act of imagination. Forms of practiced monosemy concatenated around the experienced permanence of objects is offered as a viable humanist discursive strategy toward revivifying empirical methodologies.

Keywords: semiotics, empiricism, digital humanities, object permanence, analogon, denotation

1 The one real cup as the model of a cubist painting of multiple cups

Imagine you are in a group of people – all above seven months in age – sitting at a table. The group consists of postmodernists, non-postmodernists, at least one art historian, and a juggler who is drinking coffee from a cup. The cup is a tall steel one designed to suit a car's cup holder. It is the brand and production of a neighboring coffee shop so that it is very local and particular rather than having pretensions toward universality.

***Corresponding author: Michael Filimowicz,** Simon Fraser University, Burnaby, BC, Canada, E-mail: mfa13@sfu.ca

It will be readily admitted that the cup is in fact only one cup. However, citing some Nietzsche and Saussure and attempting a postmodern approach to reality, the juggler argues that the cup is in fact an infinity of cups. To demonstrate this, he tilts it in various ways and insists: "See, now the cup looks different," while continuing to flip, turn, toss, spin, invert, roll, and upend the cup. He does this in order to prove that each change in perspective and its perceived differences has in fact created and exposed a different cup with each manipulation. The art historian concurs that indeed this is the basis of cubism and collage. But despite intense efforts on the part of the juggler, not a single person in the room is convinced that the cup is actually a multiplicity of cups. All agree though that specific practices of mediation and remediation of the cup do have the capacity to produce cool and creative cubist or collage cup-images or even music should the cup be employed to produce physical rhythms.

The reason why no one is fooled is that they are all over seven months in age – much past the sensorimotor stage of mere infants. This results in what Piaget calls *object permanence*, the belief in the permanence of the cup's existence despite perceptual variance. The literal *one-ness* of the cup in Husserlian language is an eidetic essence, an invariant that emerges from imaginative variation. While infants are not phenomenologists, the intense variations of percepts explored in a sensorimotor manner – such as continuous head-bumping on furniture, drooling, losing screechy toys, and poking a dog's face – result in the emergence of *detachable single thingness* as an ur-concept, cognitive schema, mental category, or body image among many possible conceptual terms. In Piaget's theorization, the seventh month marks the age where human beings begin an existence in a world populated in part by a variety of different single entities detachable all over the place.

The entirety of the techno-scientific empirical enterprise is built not on the hubristic presumptions of interpreting human beings within an imaginary "objective reality" in view, but on disciplined discursive attention to the same bare one-ness assigned to the teddy bear of a three-year-old when lost under the bed. From the one-thing aspect of an object, one can derive a sequence of other one-things: one length, one weight, one mass, one solubility point, one temperature of burning, and many other various one-thing properties. Through the assembly of one-thing properties that constitute the whole one-thing, one can develop various combinatorics. For example, one-thing's one-length multiplied by the one-thing's one-width provides the one-thing's one-area. Arraying several one-things to get two things, three things, four things exemplifies the infinite potential of various arrays of things. All abstractly formal discourses (logic, mathematics, computation, music, accounting) are ideally monosemic in character –inscriptions of various one-things, symbols of the literal with fixed

unresonating meanings such as "x" or "C#" or "fl. oz." What humanists might call "reduction" is actually the limiting of attention to the particular one-thing deemed relevant. For example, if I set an oscillator to 330 Hz to understand its frequency, such things as provoked emotions, working on the Sabbath, cool emoticons that can be formed with the numbers, or oscillator tattoo designs become irrelevant. The oscillator's number and its unit of measure are simple refinements and further instances of "one-thing" teddy bears and coffee cups, general one-things in a world that has been full of one-things since on average no later than the age of seven months. Moreover, it exemplifies the perception of the difference between one single coffee cup remaining a single coffee cup and all of its twists and turns. The one-ness of the cup is both logical and real, or logico-real or the Logically Real. Any crucifix hanging on a wall is a single detachable one-thing in the same way as a Coke bottle or a Volkswagen or a key chain. The crucifix may also embody affective references as a spiritual symbol, or equally possible – a decorative domestic sensibility along ethno-nationalist lines, but its *thing-among-things* aspect is as clearly distinguishable as a single coffee cup being tossed around. That aspect is object permanence, the belief in the continuous existence of objects irrespective of our current perception of them originally theorized by Piaget (1977), a feature of multi-perspectival sensorimotor encounters with the world, variations that can furnish a robust phenomenological core to a postmodern enterprise that so often tries to do without one, preferring to dephenomenalize words, reducing them to dictionary status (a word means other words in the dictionary, which mean other words also defined by other words in the dictionary ...). Object permanence emerges from our sensorimotor experience with the world, which is why any cultural object can be understood also as an object-thing like any other on the plane of all object-things. All that is culturally conditioned exists in a relationship to perceived sensorimotor-derived object permanence. In providing the archetype of the number one or the notion of a separate, detached, isolated entity, perceived sensorimotor-derived object permanence is all that is semiotically needed to get techno-science going, or the empirical in general, which is the practice of assigning monosemic symbols to literal unchanging one-things encountered in sensorimotor experience.

Object permanence is the phenomenological production and experience of the literal, and it is to this literality that symbolic monosemy can attach itself. Formal language as a practice of monosemy exists in relation to polysemic humans with fuzzy natural language. There is no need for "purity" or "absoluteness" in formal monosemic rhetorical units cognitively and semiotically founded on object permanence. Without object permanence the equation "x = y + 7" cannot exist because x can disappear each time

we blow our nose or go to the bathroom. Calculation need only be *adequate* and *approximate*. Adequacy is rooted in pragmatics; approximation is rooted in being finite mortals in an analog world. The 2 × 4 wooden planks at the hardware store do not measure two inches thick by four inches wide, as drying and planing decrease their size to about 1.5" × 3.5."[1] The circumference of the coast of Britain indeed gets longer the finer the unit of measurement, as Mandelbrot showed.[2] But all that is required of any unit of measurement is not some mythical absolute purity of objectivity, but a close-enoughness that makes the house stand up, the computer hum, and the rover reach Mars. Any technical material practice exhibits some degree of error tolerance. Even the most advanced precision instruments can still be off by an atom or two. All that is required for empiricism, techno-science, and objectivity in general is a practiced linguistic literality – typically, in interaction with tools that extend and record observations – a literality that depends on nothing metaphysical, or transcendental, or Formally Platonic, but on the objects of experience remaining one-things, capable of being re-encountered in this aspect of the same. Instruments of observation, units of measure, tables for logging data, or unique phenomena identified for study – all of these are semiotic constructs of monosemy founded upon the emergence of invariant object permanence out of differential engagements with any world. Since object permanence – as theorized in Piaget's sensorimotor stage of development – occurs prior to development of linguistic ability, it appears to be of a different phenomenal character isolated from cultural determination.

Nothing I have stated so far suggests that humans ever stop being humans: they may conduct empirical research in the mode of Nazi racists; they may deny global warming for corporate interests, or in the hopes of getting a profitable patent; or that science can be wrong, or that the nature of the institution of tenure tends to produce mostly scientific knowledge that has never been verified by others (because tenure committees look down on science that tests other published science, leading to the current situation that most experiments published in scientific literature have never been validated by other experiments, because it is not academically sexy to do so).[3] Indeed, the radical political potential of empirical endeavor – and its fundamental embedding in a shared and universal experience of the world – is frequently undercut by

1 http://mistupid.com/homeimpr/lumber.htm (accessed 20 May 2015).

2 http://en.wikipedia.org/wiki/How_Long_Is_the_Coast_of_Britain%3F_Statistical_Self-Similarity_and_Fractional_Dimension (accessed 20 May 2015).

3 http://www.economist.com/news/leaders/21588069-scientific-research-has-changed-world-now-it-needs-change-itself-how-science-goes-wrong?frsc=dg%7Cb (accessed 20 May 2015).

the capabilities of cultural codes to dominate monosemic units of meaning. To recall the opening example, this would equate to a rowdy table of nay-sayers who deny the singularity of the cup. These nay-sayers claim not only the existence of too many cups, but also that one particular angle of the cup is to be worshipped, while another tilt of the cup is to be exploited, another vectorization imprisoned, another swing of the wrist anointed, exalted, or given tax breaks.

The rigor of formal monosemy – discursive practices of literality – should ideally and ethically force us to acknowledge the single consensual invariants that emerge from shaking things up in the world. There is the potential for a kind of inverted critique of the Enlightenment in the mode of such a semiotic empiricism. In such a mode we can argue that it is the local, particular, contingent, tribal, selfish, partisan, sectarian, polysemic, territorialized humans who take up the universally real, logical, common, shared, neutral capacities of technology against their Others, and thus wreck its neutral and universal aspect grounded in common experience. Anyone insisting on the existence of 1,058 cups – or worse, on one of the 1,058 cups being the One True Cup that rules over all the other cups – is not to be trusted. In this scenario, the only voice of sanity is that of the seven-month-old. How is it that we often end up with a table of adults acting as though they were five-month-olds – as is usually the case in politics – affirming their particular ideological slant on the spinning coffee cup of our thought experiment?

2 Sign dominance of the image

We must reach outside semiotics to discover a premise in which the concept of *sign* proves in need of a displacement by a concept of *image*. Betty Edwards' *Drawing on the Right Side of the Brain* offers an empirical experiment well within the grasp of phenomenological-semiotic method. Following the neurological frame she employs, we can posit an initial difference between sign and image resembling that between writing and drawing. I approach such an initial difference through what I call *the sign dominance of the image*. Edwards offers an experiment in close seeing in the form of a drawing exercise: she asks the reader to copy Picasso's drawing of Stravinsky twice, once right-side up and once again upside down. Her claim (which is substantiated in a number of online posts of artists who have done this experiment, as well as in my own trial) is that the more accurate drawing will be that which takes the inverted image as its model. To support her

point, she relies on neurological studies that emphasize the dominance of the left side of the brain on perception. When we draw images in the usual perceptual position (in our case, the right-side up of Stravinsky's portrait), drawings skew toward depicting *the concepts* of what is seen (man, chair, jacket). In contrast, the upside down version is defamiliarized, where we are more clearly able to respond to what we are actually seeing, rather than relying on a conceptual overlay (Edwards 1989) (Figure 1).

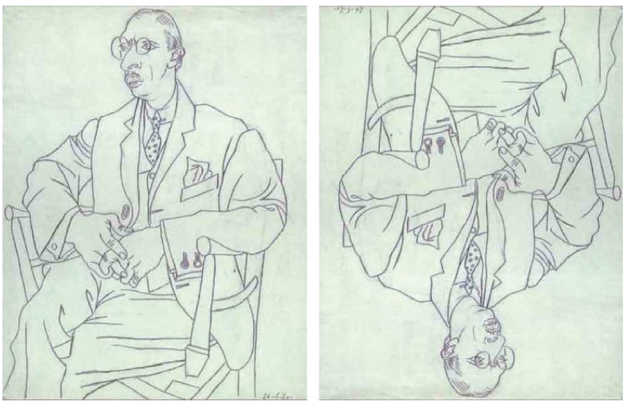

Figure 1: Picasso's drawing of Stravinsky and its inverted counterpart.[4]

Such neurological and conceptual interferences have significant implications for the semiotics of mediation. My claim is that such a sign dominance of the image (1) calls for both a displacement of sign as the organizing concept of semiotics, (2) that such a displacement creates actual opportunities for novel syntheses of divergent semiotic projects, and (3) brings the concept of sign itself more clearly into focus. In its widest formulations, a "sign" has come to mean anything that means anything, exhibiting a scope of use inhibitive of new developments and mediations under its purview. As semiotics teaches, differentiation is crucial for cognition and understanding. We have come to a point where the concept of sign itself can use some differentiation in order to better articulate the full range of its media- and context-applications.

With respect to an initial image/sign differentiation, we might provisionally sketch the following possibilities in a table form (Table 1):

4 http://printablecolouringpages.co.uk/?s=picasso++for+adults (accessed 20 May 2015).

Table 1: Variations of sign and image as conceptual overlay onto percepts.

Provisional Possibility	Definition	Example
Image [+Sign]	Full conceptual overlay and dominance of sign (concept) over image	The right-side up image
Image [–Sign]	Recessive conceptual interference of sign in the perception of image	The upside down image
Sign [–Image]	The attenuation of perception or the perceptual "shorthand" of any word or concept	A printed word
Sign [+Image] characteristics	Signs with revivified perceptual	A neon word

In the preceding reflections, the notion of "sign" was identified generally with concepts. This is justified by recalling that for Saussure the sign was the unity of signifier and signified, and in fact the only place where such a unity occurs is in the concept. Both the signified and signifier are externalities to a subject, e.g., a phrase and a referent. It is only in the concept of something, as in a recalled object triggered by a mark of some kind, that the dyadic unity "sign" can be said to occur. This dyadic juncture of the sign in the concept can be diagrammed as in Figure 2 without straying from Saussure's framework.

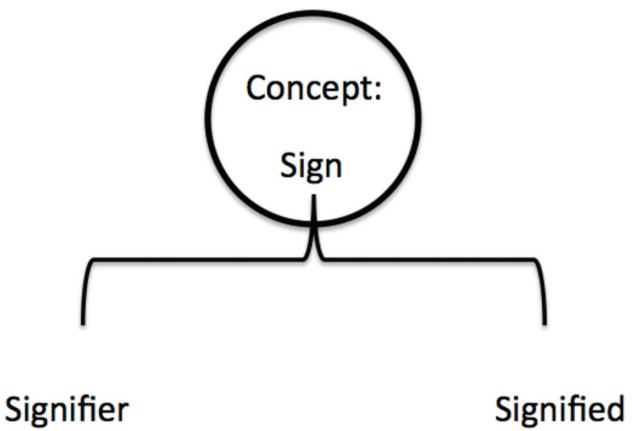

Figure 2: Sign as concept, the combined structure of signifier and signified.

Figure 2 illustrates the interiority of the concept relative to the exteriority of inscriptive systems and referents. Here, the signified may be present or absent (nearby or elsewhere). As our discussion of drawing above suggests, the Concept interferes with what we may want to call the "signifier" (e.g., the sketch), and so

we have proposed the notion of "Image" to describe the attenuation of conceptual overlay, which can be diagrammed as in Figure 3.

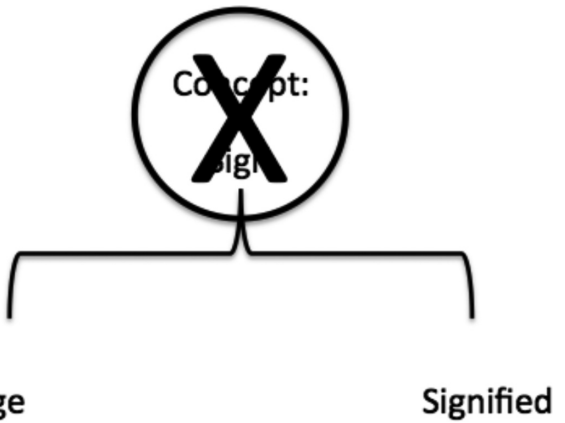

Figure 3: Analogous to drawing the upside-down sketch, the conceptual overlay has less power to dominate perception, resulting in an Image "truer" to the Signified.

There is of course another possibility for diagramming the situation of drawing, which we might render as in Figure 4.

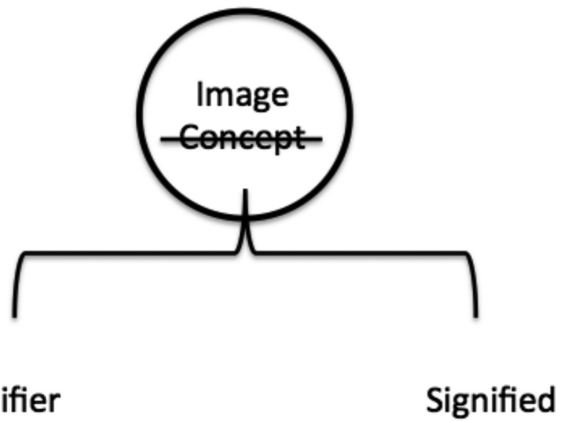

Figure 4: Image as just another sign, rather than in tension with the conceptual overlay.

What is unsatisfactory about Figure 4 is that it presents no phenomenal difference between conceptual rendering and drawing, and in fact suggests nothing other than a relabeling of terms rather than describing what is in fact a very different process from speaking or writing, for example. A more phenomenologically accurate diagram of the drawing would perhaps look as in Figure 5.

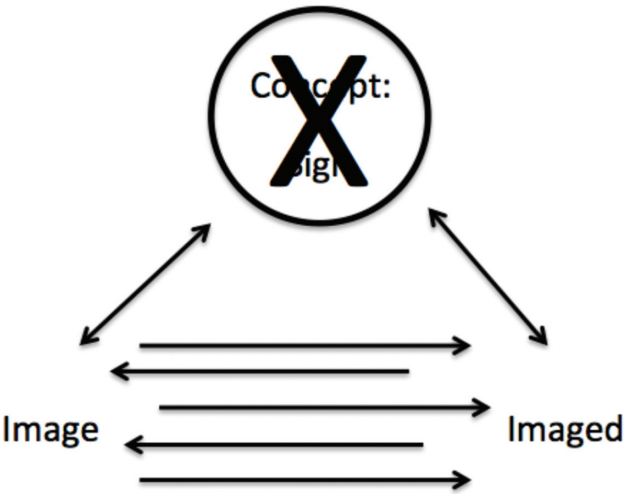

Figure 5: Attenuation of conceptual overlay, oscillation between sketched image and reference image in the production of the drawing.

Figure 5 captures: (1) the suppression of conceptual overlay and interference, (2) the back and forth cycling between drawing and object depicted, (3) the address to the subject as an address to perception, (4) the co-presence of drawer, drawing, and drawn object, and (5) the sense of a different order of occurring processes.

Let's consider the Peircean notion of iconicity. For Peirce, a sign was *not* the dyadic unity of signifier and signified in an overall concept as it was for Saussure, but rather the web of relations that enmeshed any particular signifier. All of Peirce's categories of "signs"– sinsign, legisign, rheme, index, dicisign – named the relations of a signifier to various aspects of its context or environment, namely, the signifier's relation to its objects, itself, or its interpretant. These three relations were further distinguished by dimensions of elaboration: firstness (a kind of bare punctum of possible existence), secondness (a contrast of two things, e.g., figure/ground), and thirdness (a synthetic relation involving a third term). Thus "signs" in Peirce's scheme are the modalities of signifier relations, as shown in Figure 6.

In these diagrammatic renderings of the Saussurean and Peircean frameworks, we see the trace of the Idealism versus Empiricism distinction at work. With Saussure, we get a strong sense of the subjective positioning in which symbol and referent find their unity in the concept, an almost dialectically figured unity in binariness. With Peirce, we feel positioned as observers of external phenomena,

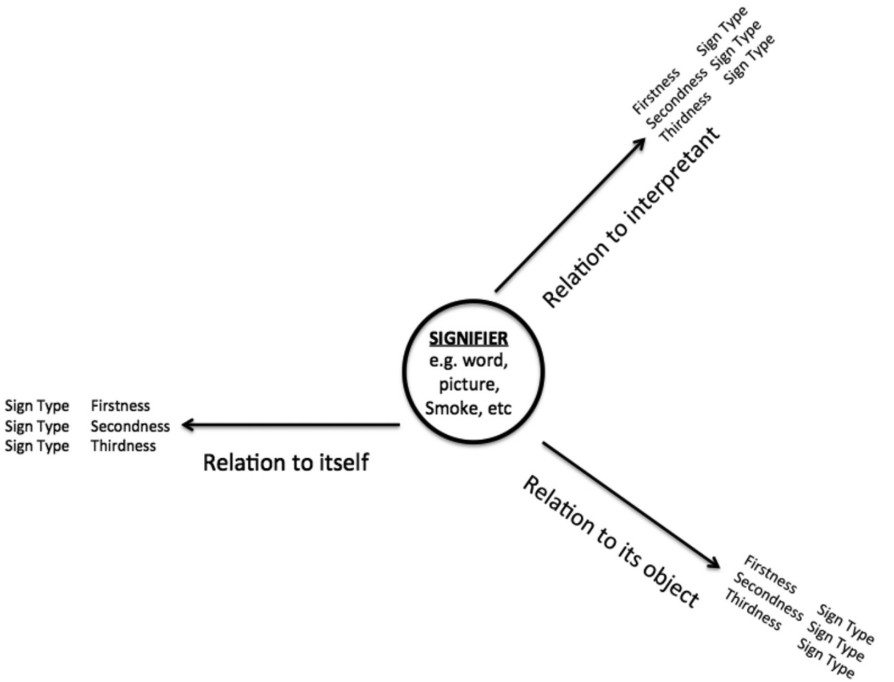

Figure 6: Relations of signifiers to self, object and interpretants, in the modes of firstness, secondness, and thirdness.

with signs "out there" systematically delineated in all their network of relations, analyzed through concrete instances of identifiable signifiers. We can even assert rather uncontroversially that for Saussure signs are concepts, whereas for Peirce they are perceived relations.

In the case of our drawing, a "cleaner" Peircean diagram may look like Figure 7.

If we attempt to render the facticity of drawing, it is clear that the Saussurean dyadic model is not particularly helpful. Here I will take Figure 5 as representing a phenomenological rendering of drawing, and Figure 7 as the standard Peircean model. They are similar, and even further modifications suggest themselves. Since, in Peircean theory, the sign is a mode of signifier relation, these could be named "signifier relations." As in Saussure's logic where we can substitute the notion of "concept" with that of a "sign," similarly we can substitute the term "signifier relation" for "sign" in Peirce's mode of reasoning. Such substitutions yield a satisfactory diagram as they relieve us from the murky practice of drawing a

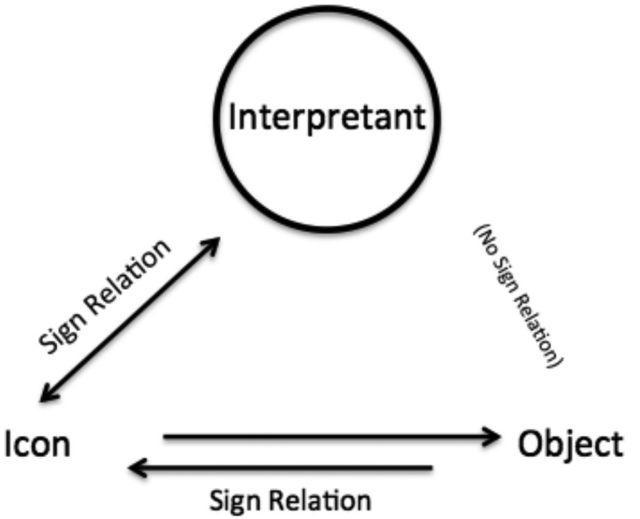

Figure 7: Depicting sketching in classical Peircean terms.

line or "X" through a term that is not supposed to be there (similarly to what we did with "concept" and "sign" above) (Figure 8).

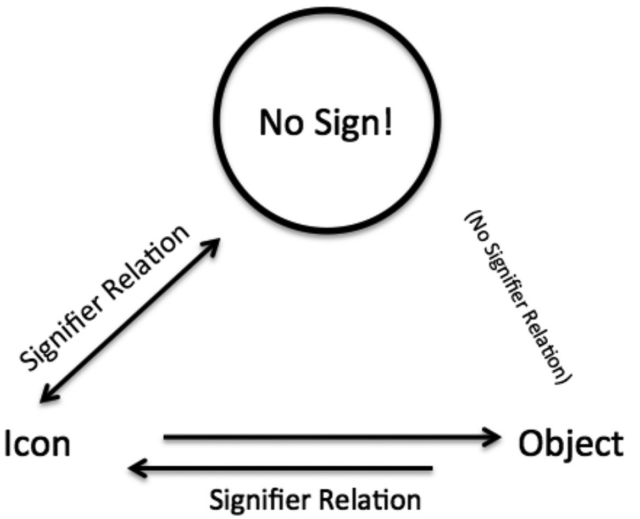

Figure 8: Drawing without the interference of conceptual overlay, depicting relations of signifiers rather than relying on the notion of "sign," which is redolent of "concepts" in Saussure.

Following such a frame of reasoning, we come full circle from the original positing of a needed distinction between image and sign – a distinction that emerges from the conceptual overlay and interference in the coordination of drawing and perceiving. Such a distinction is also reconfirmed here through a careful diagrammatic analysis of Peircean, Saussurean, and phenomenological considerations in connection to drawing from a reference or source object.

To further support and expand my positioning, I consider other phenomena that lead to the same conclusion. For clarity I use visual examples to illustrate the notion of "image." I should emphasize that the notion of "image" is not based on a presumption that iconicity operates only in a visual mode. For example, in sound mixing we speak of "the stereo image" or "the surround field" to articulate the spatial image created in audio media.

There are two sets of conceptual binaries that are profitably connected to the next examples: the *denotative-connotative* and the *indicative-expressive* distinctions. These two sets of distinctions – the first one from Roland Barthes' well-known discourse and the other from Edmund Husserl's phenomenology, are essentially same in character. The main difference in context is that Husserl's focus is on logic where Barthes considers photographic media. In the *First Logical Investigation,* Husserl writes," signs in the sense of indications (notes, marks etc.) do not express anything, unless they happen to fulfill a significant as well as an indicative function" (1970: 269).

Thus indications may or may not express, and are distinguishable from elaborated significations. Barthes describes a similar distinction, but imputes less possibility for autonomy in the denoted image:

> We have seen that in the image properly speaking, the distinction between the literal message and the symbolic message is operational; we never encounter (at least in advertising) a literal image in a pure state. Even if a totally "naïve" image were achieved, it would immediately join the sign of naivety and be completed by a third – symbolic – message. Thus the characteristics of the literal message cannot be substantial but only relational. (Barthes 1977: 42)

It is empirically possible to achieve a more Husserlian sense of autonomy for the denotative iconic image by removing it from the original cultural context of its production (and thus depriving it of expressive significance) and revealing the material basis that is other than the cultural coding. Such an exercise reveals the material dependence of the connotation on the denotation – or respectively of expression on indication – a notion of dependency that is not foreign to the technical understanding of the digital dependence upon the analog (as occurs, for example with the discrete hatch marks representing seconds or minutes in the midst of continuous analog rotations of a watch hand).

The image I consider next in Figure 9 is of an approximately 40,000-year-old handprint of possible Neanderthal origin found in an ancient cave painting in Spain.

Figure 9: Cave art in Spain, of possible Neanderthal origin.[5]

Such instances of ancient "cave art" exemplify how full meaning and significance are entirely conjectural. In Husserlian-Barthesian semiotic terms, they are pure indications and denotations. The expressive and connotative envelopes are completely absent. Not knowing the why or the wherefore does not prevent us from perceiving and understanding these as handprints. Thus, the indicative is the substratum or kernel of the expressive, just as the denotative is for the connotative. It is as though time has washed away all expressions and contexts, leaving only a denoting indicative as the ineffaceable material base of a vanished superstructure, or a medium stripped of its message. In contrast to the handprints of Figure 9 which are simple outlines drawn with ochre, Figure 10 includes a color and figure/ground inversion, showing both hand tracings and "proper" handprints (stained hands coloring the cave walls):

Long before Photoshop's pre-packed digital "Image Invert" function, our ancestors were inverting their digits, if for no other reason than to provide a material proof by which we can counter Derrida's deconstruction of Husserl's indicative-expressive distinction (in *Speech and Phenomena*) in which this distinction is treated merely as an empty binary (just words opposed to each other) and lacking in phenomenal valence.

5 http://www.voanews.com/content/ancient-cave-art-could-be-from-neanderthals/1211488.html (accessed 20 May 2015).

Figure 10: Imaginative variation in hand prints in cave art.[6]

What is important for the purposes at hand is the further substantiation of the sign-image differentiation. This is important precisely because what is absent in these cave images are the concepts (Saussurean signs) that help us fill out any expressive connotations. We have only the index-icons as (probably) the first analog medium. This is exactly the manner of production of the "cave art" handprints where the hands are not sketched from hands or "hand models," but by the hand itself as the physical cause of the icon. Prior to such mediations, the only analog medium was the world itself. For example, in an instance of paw prints in the dirt, neither the paws nor the dirt are technologies – these are simply world; and as such, we should consider them not analog media but rather an evidence of the natural world's analog character.

There are two dynamics worth noting here: (1) that the indicating denotation is the substratum, kernel, core or material basis of the expressive and connotative, and (2) that such facticity in turn supports the distinguishing of image from sign, or likeness from concept.

The image in Figure 11, by way of contrast, is fully accessible in its expressive connotations. Our Neanderthal ancestors may wonder why she is not stabbing a mammoth in this photo, as is their right. For us, the indicative aspect is almost fully buried or subsumed under the onslaught of coded expressions. In fact, none of these connotations is visible as they exist in the mental realm of our brains in the form of Saussurean sign-concepts that tell us what the meaning

6 http://www.pendleton.kyschools.us/userfiles/252/Classes/268/Cave%20Paintings%20of%20Handprints.jpg (accessed 20 May 2015).

Figure 11: Advertisement for Louis Vuitton purse.[7]

of this image is, or what can or should its meaning be. These signs are invisible, because concepts are invisible. Visibility belongs to the indicative and denotative. We cannot see "beauty" or "wealth" or "affluence" or "dieting" in the image above, because these are invisible virtuals that radiate from the actual visuals. Such signs that cannot be seen dominate what is visible in the general manner of what I have named above the sign dominance of the image. The only difference between the Louis Vuitton model and the cave paintings is that in the former we know what the invisible signs are as they usurp control of what we in fact do see. But in both examples, what is actually seen is an icon, a likeness whose full meaning and significance either escapes us in the case of the cave paintings, or dominates our perception in the case of the advertisement. We know from the Picasso example that we can turn this image upside-down and see it attenuated sign interference as in Figure 12.

The image in Figure 12 is in fact so highly coded that this exercise only attenuates to a slight degree (perhaps 25% or less) the sign dominance of the image. The outlines, shapes, contrasts, and colors are more prominent, the purple cloth moves forward somewhat and becomes less of a background and more of a foreground, and the model appears to be assaulting her own head. The practice of turning images upside down can be understood as a form of imaginative variation in phenomenological method. In comparing the two versions of the contemporary advertising image, we are in a somewhat better

7 http://english.rednet.cn/c/2007/12/20/1400422_1.htm (accessed 20 May 2015).

Figure 12: Inverted ad.

position to list the invisible signs that cling to and dominate the image in a network of coded expressions:

Leisure: lying down

Negentropy (sublating chaos): matching dress, nail polish and lipstick (RED)

Blue bow: bright warm colors need cool contrasting accessories

Photoshop: no freckles, bruises, blotches, rashes, hair follicles, wrinkles, stretch marks.

Green shoes: primary color scheme completed – RGB (red green blue) – the pixel array of video screens

Allure: a general look of sleepiness, which comes from lying on either a purple cloth or purple car hood (can't tell)

Money Pit: jewelry and purses – the kind of femme fatale one should be throwing money at

Money Sponge: the kind of woman who does not work to earn her expensive accessories; no signs of hard labor

Actual model: working for money, ditto photographer, laborers for wealth fashion companies

Physique: a type of a genera or instance of a femme class

Height – thinness / Thinness – height

Purse: there is simultaneously nothing in it, and a lot in it

Commodity Fetishism: Freud, Marx, Adorno, and their highly exploited theories

Hair: requires the labor of others to shape

Light: requires the labor of others to set up in a photo studio

Buying: (is) owning

Owning: controlling

Owning: submission

Receiving: submission, being owned

Exhibitionistic Availability: spending in general

Wall-Floor Reversibility (or, horizontal = vertical)

Louis Vuitton: prelude to sex

Making a W shape with the body

The good life: not having to work, laying on purple backgrounds in RGB attire with full empty purse

The list can be continued ...

I propose the term *codons* to define this list of invisible virtuals radiating from, circling about, penetrating through, and dominating the reception of what I term the analogon – the imaginative trace of the real intended object that will remain a thousand years for our cyborg descendants to puzzle over. I have appropriated "analagon" from Sartre's phenomenology of imagination: "I will say in consequence that the image is an act that aims in its corporeality at an absent or nonexistent object, through a physical or psychic content that is given not as itself but in the capacity of 'analogical *representative*' of the object aimed at" (Sartre 2004: 20).

There may seem to be an apparent contradiction in this appropriation – namely, that the codons are precisely imaginary and in opposition to what is visible – analogon. However, there is no contradiction, simply because the codons are not very imaginative. They are in complete enmity with imagination, which they force and control. Codons are clichéd and generic, hypostatized, pre-interpreted, and pre-figured, as ordered by the client, in support of the bottom line, a dime a dozen. In fact, the real act of imagination with such an image is the labor involved to dismantle the codons and reveal the figure that may be available to others a millennia away. Similarly, when regarding cave paintings, our imagination is much freer to construct the image in a manner of a very open text, perhaps even too open, excessively open to interpretation. Such excessively free interpretations may appear within various authoritative discourses of the academy (e.g., religious studies, anthropology, sociology), which can tame, identify, control, and impose strictures the imagination by claiming that these images are of "ritual practices" for

example. Much of what we expect from aesthetic experience is the loosening up of codonic rigor, or even an outright scattering of such hard schemes that dominate analog experiences. Since each individual codon can be understood as a potential analogon in itself, we may expect to find arrays of reversals and reconfigurations at least in the fields of artistic practices. In such reconfigurations, backgrounded and schematizing codons are foregrounded and dispersed from their functions of framing, and put into play that they would otherwise restrict. Thus, both an aesthetics and empiricism can simultaneously diverge from the same set of initial conditions within the field dominance of signs – signs that motivate and subsume the material autonomy of analogons.

3 Towards humanist science

None of the reflections above require discursive moves that are transcendental, noumenal in a Kantian sense, or even polemically anti-Lacanian in its understanding of the Logically Real. The logical component of the reflections above is simply the condensation of one-ness: that any thing has as one of its aspects that it is a stable thing among other stable things, where its reality is the perceived sameness that emerges through sensorimotor interaction with variation. This concept of the real is in accord with classic empiricist claims – the invariant in all perceptions. In the field of psychology, James Gibson (1986) notes the homology between human perception and environmental medium: air is transparent to light (seeing), propagates wavefronts of compression and rarefaction (sound), and allows the rapid dispersion of chemical elements (smell). Gibson also notes that the environment – in relation to an organism – offers nutritive, nonnutritive, and toxic substances that correlate to taste in the living body. These existential homologies between body and environment give our senses adequate and approximate linkage to the real, and are sites of resistance against cultural encodings that can significantly delude us.

From a pragmatic point of view, we do not need anything more logical or real than this, as the analagon is the archetype for all data – a single hatch point on a graph, a single measurement, a single duration, a single object under study, or a single relation that is produced by the interaction of two properties. The analagon is accessible in perception as the denotative kernel of the connotative, or the indicative core of the expressive. Contra the postmodern anti-phenomenal position, which arrays all oppositions as merely conceptual binaries, the analogons and codons are semiotically and empirically distinguishable from each other in the same manner

that the single cup was distinguishable from its tossed and spun variations. Rather than destabilizing a simple binary, the examples of contemporary advertising and 40,000 year old cave drawings show that indications and denotations can be freed from their usual relation of connotational and expressive domination – domination that at most provides the socio-cultural motivation for their production and realization. The indicative core is the materiality of the sign, which is susceptible to cultural control, but of an order prior to and other than cultural knowledge acquisition.

The approach to semiotics I develop has implications for the field of humanist inquiry. All that is semiotically needed to get empirical projects up and running is a framework situated within the limits of the multi-perspectival position – the phenomenological emergence of invariant actuality in the modality of single-thingness – from where all other literal material practices can be extrapolated and expressed as formal language. What remains for digital humanist inquiry is to overcome the anti-phenomenal animus of the linguistic turn and to more completely acclimate computational and quantitative methodologies to traditional humanist inquiry. To achieve this, one can demonstrate the coffee cup experiment to any doubting colleagues and prove they have known the Logically Real for most of their lives.

A thoroughly postmodern and digital humanist empiricism exhibits, performs, implements, and embodies the following features:

1. A reflexive vigilance toward and attenuation of sign dominance of the image (for example, in over-reading claims based on data, or in the construction of poorly conceptualized variables).
2. An openness towards forms of imaging, indication and denotation that may not lead directly to a hermeneutic, rhetorical, practical or politicized claim.
3. An adventurous curiosity to taking risks through making and design, remembering that "[t]he problem with the humanities is that people tend to worry too much about what can't be done, about mistakes, problems, as opposed to just going and doing something" (quoted in Williford 2011);
4. Rejects the notion that empiricism belongs to other fields of academic inquiry. Humanities' current rejection of empirical perspectives has resulted in a decline of its general social and institutional prestige.
5. Poses limits on the kneejerk discursive treatment of all binaries as simply or merely words in logical binary textual formations; takes a phenomenal stance toward such binaries (as in not trying to deconstruct the Hot and Cold binary of a bathroom shower, or the up-down vertical axis and cognitive schema produced by being terrestrial creatures in a gravitational environment).
6. Positions humanities as approachable and usable by researchers in other fields by opening hermeneutics toward design implementations.

7. Restores an ethical dimension that limits the casual positing of various political essentialisms in postmodern discourses as pragmatic maneuvers in contested fields. Such discourses are worn out and logically contradictory. In contrast, the Logically Real founded upon object permanence points to shared reality across cultural codes (e.g., we all breathe the same atmosphere that is gradually warming ...).
8. Does not require an alter-discourse to describe a humanist *version* of science. This point is exemplified by Johanna Drucker's data versus capta paradigm which applies hermeneutics of suspicion to empirical representations:

> As digital visualization tools have become more ubiquitous, humanists have adopted many applications such as GIS mapping, graphs, and charts for statistical display that were developed in other disciplines. But, I will argue, such graphical tools are a kind of intellectual Trojan horse, a vehicle through which assumptions about what constitutes information swarm with potent force. These assumptions are cloaked in a rhetoric taken wholesale from the techniques of the empirical sciences that conceals their epistemological biases under a guise of familiarity. So naturalized are the Google maps and other bar charts generated from spreadsheets that they pass as unquestioned representation of "what is." This is the hallmark of realist models of knowledge and needs to be subjected to a radical critique to return the humanist tenets of constructed-ness and interpretation to the fore. Realist approaches depend above all upon an idea that phenomena are observer-independent and can be characterized as data. (Drucker 2011)

Drucker's notion of capta as data "rethought through a humanistic lens" tribalizes the common phenomenal ground that everyone sitting at the table, looking at the juggler's twirling cup, shares. There is not "our" single cup whose singleness humanists take as capta, and "their" single cup produced by scientists and their statistical know-how. The tribalization or sectarian appropriation of the common ground is no different from asserting a privileged favored perspective out of the play of perspectives. The empiricism that emerges from fundamental semiotic considerations – while having a different philosophical and historical trajectory – is not posited as fundamentally Other than or Different from other empiricisms. It is absurd for humanists to claim that their "lens" offers a discursive take on what seven month olds can accomplish, and is in a need of a distinction from what data scientists perform. All empiricisms – while emerging from different discursive formations and directed toward a vast variety of phenomena – semiotically depend upon the indicative and denotative material basis of what is identifiable in direct perception and expressible as a single entity worked upon in symbolic, monosemic units. No empirical discourse is comprised of only monosemic formal languages. At all places, natural language and regular interpretive human cognition surrounds and motivates the empirical enterprise. But these two structures of

empirical discourse are as distinguishable and recognizable as 40,000-year-old hand prints whose rationale for being there we can only guess.

One would never know from Drucker's essay that empiricists have developed a sophisticated set of protocols that test and challenge the validity of each and every construct employed in empirical research. There is much reflexive criticism already built into the empirical enterprise, and it is presumptuous of humanists to claim that they alone can provide such a reflexive critique of methods and techniques most have not even bothered to try to understand in depth. Empiricism does not need the "observer dependent" as such, but only the distinction between (1) the permanent object that is denoted or indicated, and (2) the symbolic codifications that dominate its reception. Such a distinction is readily available in natural direct perception and can be attuned to what is stable in variation.

There is a constructive role for arbitrary symbols to play in empirical observations. The purpose of empirical projects has never been set on pretending that there are no humans involved in observing. Rather, empirical projects try to attenuate subjectivity by methodically removing its relevance from indications. For example, it is entirely arbitrary and even irrelevant whether one weighs something in pounds, kilograms, stones, or mackerels. If I weigh a book and it has the equivalent weight on a scale of ten mackerels, the mackerels tell me the weight of the book, not my personal opinion or culturally coded perspective on it. It is important to understand that in referencing permanent single object thingness in relation to similar others, one's personal, subjective, and cultural influence or dominance over the image is radically attenuated. From this attenuation of polysemy to monosemy expressible in formal languages, one can design even quantum computers that methodically conflate 0s and 1s and still perform calculations with them.

Multi-perspectivalism reveals these phenomenal invariants, which form the denotative material core of possibilities for empirical discourse securely within the limitations and horizons of polysemy, cultural codes, and social contestation. At every point of its methodological innovations, digital humanities have confronted the institutionally entrenched establishment of postmodern humanities with an empirical discourse that challenges encrusted habits of understanding Saussure's century-old structuralist semiotic theory. In this essay I have discussed new ways to read familiar theories that offer a common ground between digital humanities and postmodernism, and indeed, between humanities and the disciplines of empirical rigor. There is no zero-sum, either-or choice to be made between interpretation and the empirical as there is no epistemic divide in the distinctions between sign and image, or between analagon and codon. The question posed today is: what intellectual adjustments should be made to reduce the confrontation between a single methodology – hermeneutic critique expressed in qualitative natural

language – and many other methodologies that claim stakes in the general field of human inquiry?

I will conclude in a more explicitly postmodern style with a film still and transcript from *Brüno* (Sacha Baron Cohen 2009) in which the title character produces a confusion between "Hamas" and "hummus" – a confusion that reveals *the shared common reality* of Israelis and Palestinians. It is an experiment similar to the one with the coffee cup, only more amusing:

> Why are you so anti-hummus?
> I mean, isn't pita bread the real enemy?
> You're confusing Hamas with hummus, I believe.
> Hummus has nothing to do with Hamas.
> Do you think there is a relation between Hamas and hummus?
> So was the founder of Hamas a chef?
> He had created the food and then got lots of followers.
> Hummus has nothing to do with Hamas. It's a food. Okay? We eat it. They eat it.
> It's vegetarian. It's healthy. It's beans.
> Well, do you both agree on that?
> We both agree that hummus is very healthy.
> So we're making progress (Figure 13).

Figure 13: YouTube screenshot from Brüno.[8]

8 http://www.metacafe.com/watch/an-ylrAbt7tnh74Y/bruno_2009_peace_mediation/ (accessed 20 May 2015).

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