Laws of Media: Vico and McLuhan on The New Science

Lorraine Weir

In his Preface to Laws of Media — The New Science, Eric McLuhan notes that he considered reversing the present order of title and subtitle (LM xi), thereby foregrounding the book's relation to Giambattista Vico's La Scienza Nuova (1744). Instead McLuhan chose to stress his father's discovery of the laws of the media, a no less Vichian move given the operations of the laws and Marshall McLuhan's resolution of them into Vichian poetic forms. Both Vico and McLuhan were rhetoricians who in the course of their work became metaphysicians. Both were students of history who of necessity became poets. Both were semioticians more or less manqué. Both meet now in chiasmic relation to Joyce who, transforming one,⁰ becomes the foundation of the other. As McLuhan amplifies the genealogy in Laws of Media:

Vico pursued the same course Francis Bacon had charted in the Novum Organum, the same course Joyce proclaimed in Ulysses as proper to the poetic sensibility: 'Ineluctable modality of the visible: at least that if no more, thought through my eyes. Signature of all things I am here to read, seaspawn and seawrack, the nearing tide, that rusty boot....' Such men are not isolated eccentrics but links in a continuous tradition that extends from the present work back to the schools of manifold interpretation of the preliterate poets, including Homer and Hesiod. (LM 215)

Again near the end of the book McLuhan includes among the links in this "unbroken tradition" Bacon, Vico, T.S. Eliot's Four Quartets, Alain de Lille's De planctu naturae and Joyce's Finnegans Wake (LM 219).

Defining himself in a 1970 letter as "a metaphysician, interested in the life of the forms and their surprising modalities" (Letters 413), McLuhan like Vico sought "the
principle of complementarity inherent in all created forms" (Letters 370). Through metaphor and pun, "itself a metaphysical technique for 'swarming over' the diversity of perception that is in any part of language" (Letters 413), McLuhan sought, like both Vico and Joyce, to enter the sensus communis of the human race. But where Vico's new science seeks to reorient human knowledge systems, to rethink the ontological encyclopedia, McLuhan's new science seeks to build "A sensus communis for external senses" (Letters 281) by studying the media. Since for McLuhan the media are the "electronic externalization of our senses," through them "we encounter the sensus communis in collective form for the first time" (Letters 271). Using pun and metaphor as neural nets, McLuhan seeks to devise a rhetoric which operates as its target does, processing data — making sense — as "agent intellect" in Thomist epistemology does, motivating the "human transformation of all phenomena into sense via the sensus communis" (Letters 386) of neural net processing.

Thus Laws of Media is like one of the brain's centres for such processing, the corpus callosum which bridges the two hemispheres of the brain just as that band of dense connective fibres "facilitates interplay between the two types of cognition of left and right brain" (LM 125). Like Vico, McLuhan seeks to devise a pedagogy which is grounded in a set of models of the operations of human language and cognition, and of our relation to the natural world. And like Vico, McLuhan discovers in the lexicon and logical operations of classical rhetoric a way of rooting his pedagogy in a neo-Aristotelian poetics and in a processual model. Like Joyce and Kenneth Burke, he grafts his rhetorical model onto a Thomist ontology of action and, also like Burke on Language as Symbolic Action, McLuhan devises a series of what he calls tetrads and what Burke condenses into neo-Aristotelian ratios in order to epitomize a set of perceptual relations. However, although imagery drawn from the corpus callosum or from perceptual processing might seem to be binary and fixed, in McLuhan's new science as in Vico's, scienza is an active principle embedding a processual model of knowing. Thus it is precisely the linking function of the corpus callosum, its engagement in an ongoing process of translation where no element ever comes to rest, that McLuhan is interested in.
Similarly, McLuhan situates 'percept' as ground and 'concept' as figure in a paradigm drawn from the classic Gestalt figure/ground reversal operation. Again it is precisely the moment of interface at the point of reversal — or what McLuhan refers to as "resonance" — that he is primarily concerned with, understanding dialectic to be in the same relation to grammar as concept is to percept. "Both grammar and dialectic are," he writes, "concerned with 'the word' in things: dialectic with the word or ideal thought in the mind, pure, before speech; grammar with the word in (informing) or even as things about us, outside the mind and body. The difference between them is exactly rhetoric, utterance, which thus belongs to grammar" (LM 10, f.2). Grammar operates language in the world; dialectic operates language in the mind. Through the study of rhetoric, one can thus arrive at an understanding of the word in the world, a relation which — given the tradition McLuhan chose to work in — parallels that between nature and technology, and between the grammar of the world and the grammar of the word.

Tracing the patristic roots of these correspondences, McLuhan cites Etienne Gilson's statement that "the fundamental agreement of natural and revealed knowledge was everywhere either stated or presupposed" in the writings of the Fathers of the Church, and in particular of St. Augustine (LM 217). This neo-Aristotelian tradition of fourfold exegesis was concerned with textual levels known as the literal, the allegorical or figurative, the tropological, and the anagogical. To these textual levels McLuhan parallels the Aristotelian sequence of formal, material, efficient and final causes, noting that fourfold simultaneity is the key to the operation of both of these analytic and interpretive modes (LM 218). As McLuhan rightly points out, Vico's insistence upon the simultaneity of his four ages of man reflects this tradition as does his emphasis upon etymology and exegesis or, in terms of their corresponding master-terms in the quadrivium, of grammar and rhetoric (LM 128). Thus, as McLuhan stresses in *The Gutenburg Galaxy*, "For Vico all history is contemporary or simultaneous, a fact given, Joyce would add, by virtue of language itself, the simultaneous storehouse of all experience" (LM 250).
However, in *Laws of Media*, more emphasis is placed on etymology and rhetoric than on exegesis and grammar. As McLuhan notes,

> Etymology is so crucial that it deserves a host of separate studies. Etymology reveals a process of transformation of culture and sensibility and is also a matter of retrieval and of structure: the ground pattern of forces at the levels of molecular and atomic structure. At and beyond this level lies the structure of experience of the utterer; so grammatical slips into rhetorical investigation. (LM 116)

Vico puts this and another of McLuhan's major points rather differently in one of the core axioms of his *New Science*:

> The human mind is naturally inclined by the senses to see itself externally in the body, and only with great difficulty does it come to understand itself by means of reflection. This axiom gives us the universal principle of etymology in all languages: words are carried over from bodies and from the properties of bodies to signify the institutions of the mind and spirit. (LXIII 236, 237, p. 36)

Or, as McLuhan writes, media are extensions of the body and language is their currency. So for Harold Innis as for McLuhan, "The structure of man's speech ... [is] an embodiment of the structure of the world" (LM 37). "Through the drama of the mouth," McLuhan wrote in 1967 to Wilfred and Sheila Watson, "we participate daily in the total re-creation of the world as a process" (*Letters* 347).

This semiotic understanding of the operations of language processually mirroring the operations of the world is the beginning of the articulation of the "principle of complementarity in all created forms" which, as we have seen, grounds all of McLuhan's work (*Letters* 370). Through the analysis of clichés or media puns, McLuhan hoped to extend his study of the laws of the media to reveal the laws of consciousness defined as the "sum of all clichés of media or technologies we probe with" (*From Cliché to Archetype* 150). And through the study of the city in its pre-electric form, McLuhan hoped to discover the "sensus communis for such specialized and externalized senses as
technology had developed" (*Letters 277*) to that point. The city is the book of nature transformed, onto which we map our human cognitive operations. Thus for McLuhan as for Vico, "all human artefacts are extensions of man, outerings or utterings of the human body or psyche, private or corporate" (*LM 116*). Approvingly McLuhan cites Vico's great founding axiom that "the world of civil society has certainly been made by men, and that its principles are therefore to be found within the modifications of our own human mind" (*331, pp. 52-3*). The study of human technologies is the study of the mind which operates as language does.

Like those contemporary neural Darwinists who discover the pattern of human evolution in the patterning of the brain, Vico sees all of human history inscribed on and in the body, and the stages of language acquisition as a model for the development of human language itself. McLuhan's metaphor of *Laws of Media* as a kind of verbal *corpus callosum* is therefore to be taken most literally for, resolved into tetrads or fourfold models of their operations, the laws of media are, like the operations of neural processing, to be understood as "speech, ... translations of us, the users, from one form into another form: metaphors" (*LM 116*). McLuhan refers to metaphor in the Vichian sense as the first stage of allegory and the foundation of "poetic language" which is to say the language of the first peoples to possess articulate speech (as opposed to earlier stages of language which in Vico are stages of only partly articulate communication, represented by hieroglyphs, emblems, heraldic insignia which with their military associations indicate that these were also stages of warfare, that is, of noise in the system).

For McLuhan it is metaphor which encodes the workings of the world, prime among them the workings of the media. In order to control the proliferation of metaphors which media generate and thus to control our own fate, a dictionary is needed together with the skills to use it. McLuhan's tetrads comprise a preliminary version of such a dictionary and his new science the vehicle of competence in the manipulation or, as McLuhan puts it, 'flipping' of figure/ground interfaces which consitutes the fundamental perceptual operation in his system. However, McLuhan's etymological assumptions are not fully evident until we
consider his adaptation of the Vichian basis for the composition of the "Mental Dictionary." Vico writes that

There must in the nature of human institutions be a mental language common to all nations, which uniformly grasps the substance of things feasible in human social life and expresses it with as many diverse modifications as these same things may have diverse aspects. A proof of this is afforded by proverbs or maxims of vulgar wisdom, in which substantially the same meanings find as many diverse expressions as there are nations ancient and modern. This common mental language is proper to our Science, by whose light linguistic scholars will be enabled to construct a mental vocabulary common to all the various articulate languages living and dead.

(XXII 161-2, p. 25)

So Vico resolves to use this "vocabulary" throughout his teaching machine, his *New Science*.

Using the language of human institutions to trace their origins inscribed within that language, Vico moves, in McLuhan's words, "from cliché to archetype," thereby pursuing the course of human history insofar as its traces are still evident in language. Given that his study is an etymological one, Vico seeks also to trace the "rise, development, maturity, decline and fall" of every nation's history/language and thus to write an "ideal eternal history" (349, p. 62) which is, on one level, the "Mental Dictionary." Because "the etymologies of the native languages also agree," Vico argues that "the histories of the institutions [are] signified by the words, beginning with their original and proper meanings and pursuing the natural progress of their metaphors" (354, p. 64). Thus for Vico as for McLuhan, the dawn of metaphor denotes the arrival of the figurative stage in language coincident "with the further development of the human mind [when] words were invented which signified abstract forms or genera comprising their species or relating parts with their wholes" (V 409, p. 90). Because the relation of metaphor or figurative language to literal language is one of figure and ground, the study of the process and moment of interface or Gestalt transformation is also for McLuhan the study of institutional or, more
generally, cultural change within the larger paradigm of Vichian "ideal eternal history."

Precisely because of the fundamental importance of metaphor as a barometer of linguistic change, the study of the Mental Dictionary of one civilization or of a major paradigm shift will also produce, for McLuhan, a greater understanding not only of that time but also of its ripples across the larger grid of human history. As Vico states, "Within Greece itself ... lay the original East called Asia or India, the West called Europe or Hesperia, the North called Thrace or Scythia, and the South called Libya or Mauretania. And these names for the regions of the little world of Greece were [later] applied to those of the world [at large] in virtue of the correspondence which the Greeks observed between the two" (742, p. 234). This is a kernel principle of what Vico terms "poetic geography" and what McLuhan, by extension, terms the Gutenberg galaxy with its emphasis on the transformation of the poetic speech of the first nations to the prosaic visual discourse of "old science" and back to the poetic speech — the oral, auditory, electronic world — of the twentieth century and the continuing tradition of new science. One world is implicated in the other, one a transform of the other in what Gregory Ulmer calls a "moiré effect."^{4}

This element of Joycean epiphany or cognitive buzz is also crucial to the operation of McLuhan's tetrads themselves. They are "right-hemisphere in character, and each ... [comprising] two figures and two grounds in proportion to each other. This proportion of ratios is not made of imposed theoretical classifications [such as he believes semiotic modes of classification to be] ... but are structurally inherent in each of our artefacts and procedures. All four are processes" (LM 127) which are simultaneous, "inherent in each artefact from the start," and "require careful observation of the artefact in relation to its ground" (LM 99). Where Vico's four ages of human history were generated by "poetic wisdom" in its various guises including geography, metaphysics and logic, McLuhan's fourfold models are generated by what he calls "poetic science" (LM 224) and are presented and studied in the appositional form of poetry. "As utterances," McLuhan concludes, "our artefacts are submissible to rhetorical (poetic) investigation; as words,
they are susceptible to grammatical investigation. [They] ... are verbal structures and poetic science in one" (LM 224).

The tetrads are symbolic models generated by McLuhan's four laws of media, each of which is framed as a question. They are as follows:

ENH (Enhances) 1. "What does the artefact enhance or intensify or make possible or accelerate?"

REV (Reverses into) 2. "What is pushed aside or obsolesced by the new 'organ'?"

RET (Retrieves) 3. "What recurrence or retrieval or earlier actions and services is brought into play simultaneously by the new form? What older, previously obsolesced ground is brought back and inheres in the new form?"

OBS (Obsolesces) 4. "What is the reversal potential of the new form?" (LM 98-99)

Because metaphor is of paramount importance to both McLuhan and Vico, the tetrad for metaphor will provide a useful example of McLuhan's model. It is important to reiterate that metaphor, one of the three founding figures and tropes of classical eloquence (LM 231), is for McLuhan a "perceptual technique for seeing one whole situation through another whole situation" (LM 225). For Vico it is the most important of the figures and determines the operation of all of the others. According to the tetrad for metaphor (Figure 1), metaphor enhances "ratio, interval between two situations" and reverses "connection concept" while retrieving "transformation/transfiguration" and obsolescing "rational experience" or left-brain logic (LM 235). Or, the obsolescing of "rational experience" enhances "ratio" and reverses "connection concept" while retrieving "transformation/transfiguration." Or, the retrieval of "transformation/transfiguration" is an obsolescing of "rational experience" which results in the reversing of "connection concept" and thus enhances "ratio, interval between two situations." And so on through the various permutations of the model. McLuhan's glosses indicate the ground/figure coordinates which we have been 'flipping' or interfacing while performing the tetrad and also indicate
some of the offshoots or resonances available under these four coordinates in his new science.

The tetrad for "Semiotics" (Figure 2) operates in the same way, indicating that semiotics enhances direction, reverses anarchy, retrieves the cryptic and obsolesces the "total field." (LM 136) Unlike some contemporary commentators, McLuhan is less concerned about the totalizing drive of semiotics than about its isolationist impulse toward the segmentation of systemic elements, thereby inhibiting the sweeping analytic of McLuhan's "poetic science." The self-correcting force of the tetrads may be evident in this example as well, for there is an apparent inconsistency between the obsolescing of "total field" and the reversal of anarchy, presumably into forms of order which might include "total field." Because of the association of field with mosaic and of McLuhan's rejection in Laws of Media of this governing metaphor of The Gutenberg Galaxy, "total field" is opposed to figure/ground and concept to percept. Semiotics as a discipline is therefore itself a point of interface between McLuhan's two major texts and subject to a flicker or moiré effect which this tetrad reveals. Like the emblematic figures of Vico's frontispiece to the Scienza Nuova, McLuhan's tetrads thus resolve the laws — of media for McLuhan, of the cosmos for Vico — as processual events, emblematic performatives mirroring in their punning relationality the operations of media as world, world as media.
(figure 1)
METAPHOR

epic
epyllion
outline
ratio, interval between the two situations
ground
transformation/transfiguration
fresh awareness via mental mimesis:
logos
'Vercors lector...'

(dramatic)

epic
mythic
allegory
connection concept
figure
rational experience
literal, connected, descriptive
simile

lyric

multi-directional

direction anarchy
cryptic total field

medievalism
runic; mysterious

The Name of the Rose

ENH | REV
RET | OBS
NOTES

This is a revised version of a paper given at the Canadian Semiotic Association conference at Laval University in June 1989. I am grateful to Fernande Saint-Martin for the invitation to participate.


WORKS CITED


University of British Columbia