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THE TRIPTYCH TETRAD: MARSHALL MCLUHAN'S NEO-MEDIEVAL
COMMUNICATION THEORY

A Dissertation

Submitted to the McAnulty College and Graduate School of Liberal Arts

Duquesne University

In partial fulfillment of the requirements for

The degree of Doctor of Philosophy

By

Anthony M. Wachs

May 2012

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Anthony M. Wachs

2012

THE TRIPTYCH TETRAD: MARSHALL MCLUHAN'S NEO-MEDIEVAL
COMMUNICATION THEORY

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ABSTRACT

THE TRIPTYCH TETRAD: MARSHALL MCLUHAN'S NEO-MEDIEVAL COMMUNICATION THEORY

By

Anthony M. Wachs

May 2012

Dissertation supervised by Dr. Ronald C. Arnett

The work of Marshall McLuhan has often been reduced to the form of catchphrases and “McLuhanism,” such as the “global village” and “the medium is the message” in the field of communication. Though these phrases capture an aspect of his thought, the scholarly understanding of McLuhan’s vision remains incomplete, even within the specialized area of Media Ecology, of which McLuhan is recognized as the intellectual father. Throughout his corpus, McLuhan makes reference to the classical and medieval trivium, which was the basis for education throughout Western history until the Renaissance. Indeed, he developed a history of the trivium up to the Renaissance in order to understand the works of Thomas Nashe. At the end of his life, he worked to synthesize his views on technology, media, and communication, and the arts of the trivium—grammar, logic, and rhetoric—which were essential to these works. Consequently, this

project details the connection between the classical and medieval trivium and McLuhan's tetrad, which was the heuristic tool that advanced as New Science for the twentieth and twenty first centuries. By detailing this connection, the tetrad is a tool that advances a neo-Medieval theory of communication. In its essence, the neo-Medieval communication theory is attentive to the linguistic essence of the cosmos, is attentive to the transformative nature of understanding, and unifies the human person within a perceptual and poetic understanding of the world.

DEDICATION

To Pope Benedict XVI who, like Marshall McLuhan, has sought to compliment the secular world and the Church through the promotion of tradition.

To my family: Melisa, my strength and example in faith. J. Michael R., J. Stephen D., and J. Benedict A., mei filii, always seek out Goodness, Truth and Beauty.

To my parents, David and Marilyn: Thank you for your generosity, for all the prayers, and Catholic faith in which you raised me.

To Father Justin M. Wachs: Thank you for all the Masses you have said and your example of true paideia. To the rest of my family: Thank you for tolerating me.

To His Excellency, Most Reverend Archbishop Robert J. Carlson: Your friendship is priceless; I do not know who I would be without your guidance. Thank you for everything you have done to help form me into the man that I now am.

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There are several people to which I would like to acknowledge for the completion of this project. This project would not exist without their help. To begin with I must acknowledge the Triune God. Without His grace only He knows where I would be at this time. In addition to Him, my patron Saint Anthony of Padua—orator, Hammer of Heretics, and patron of lost things—must be acknowledged. Throughout my life, there have been several moments in which I thought I had completely lost my mind and touch with reality, he helped me to find them. On an academic level, I would like to thank several people. In particular, I would like to thank Dr. Ronald Arnett, my advisor. He has shown me how to constructively perform scholarship and educate students. Dr. Janie Harden Fritz must be acknowledged for her example of generosity and grace to which she has shown me and all of her students. I would also like to thank Dr. Richard Thames for his enthusiasm for lifelong learning and his insight into the saving of appearances. I would like to thank the three of you for the truly Catholic environment that you have created at Duquesne University. On a personal level there are several people who also need to be acknowledged. I must also acknowledge my lifelong friend John Jasso who pushed me to move on to doctoral studies and pointed me toward this project.

Additionally, his beautiful family has continued to provide support and friendship to my family. My parents, David and Marilyn, should be thanked for their constant love and encouragement. My brother, Father Justin M. Wachs, whom I am honored to call my brother, must be acknowledged for his constant prayers and for his example as a person of true *paideia*. I would also like to thank and acknowledge my wife, Melisa. You are my strength, my companion, my source of inspiration, my muse and my love! Finally, I

would like to thank my children for allowing me to complete this project. J. Michael R., always protect your heart of gold. J. Stephen D., always remember to use your strength for justice and the promotion of the Good. J. Benedict A., harness your feisty and inquisitive temperament and seek out that which is Good and Beautiful in the world. Thank you all! Pax Domini Sit Semper Vobis Cum

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Chapter 1: An Introduction to Marshall McLuhan

With a knowledge of the trivium, for example, it is fairly easy to see why much of modern linguistic and semiotics, as presently constituted, will not succeed. Or to see the root problem of phenomenology, namely that it is an all-out attempt by dialectic to invent – or turn itself into – grammar, to force some sort of *ground* to surface. (McLuhan and McLuhan 10-11)

This project details the importance of the classical and medieval trivium for understanding Marshall McLuhan's laws of media.¹ The relationship between the trivium and the tetrad is imaged as a "triptych tetrad."² This project is important for the field of communication because McLuhan restores the classical and medieval communication theory of the trivium tradition as an alternative to communication theories grounded upon modern philosophy and Enlightenment rationality. Additionally, McLuhan's communication theory is different from postmodern projects because McLuhan unites his project with a tradition that held sway in the West from the time of the ancient Greeks to the Renaissance. Detailing the grounding of McLuhan's laws of media upon the classical and medieval trivium is important for the field of communication not only because it revitalizes this ancient tradition, but also because his adoption of the trivium tradition is uniquely useful in the contemporary postmodern historical moment. Essentially, McLuhan is different than other postmodern thinkers because he circumvents modern

¹ The laws of media, which McLuhan also conceptualized as the tetrad, generally refers to the tendency of all technologies, which includes all human artifice from physical creations to scientific theories, to 1) amplify a human sense, 2) obsolesce old technology, 3) retrieve an extension that had previously been obsolesced, and 4) to reverse into something else when pushed to its extreme.

² A triptych is a work of art, usually utilized in Catholic and Orthodox liturgical settings, that has three panels that contain icons. The two panels on the sides give meaning to the panel in the center, and the center, which is the focus of attention, gives meaning to the panels. Similarly, grammar and rhetoric stand on the sides of dialectic to give its practice and study meaning, while dialectic provides grammar and rhetoric with a method of analyzing understanding itself. As such, the triptych of the trivium is the ground of the tetrad.

notions of communication by utilizing a continuous, living tradition that is still pertinent in an epoch that has rejected modern understandings of causality.³

Introduction

During the late 1960s and early 1970s Marshall Herbert McLuhan (1911-1980) was a pop culture icon who revolutionized the way technology and communication media were understood. He raised awareness to the idea that communication media have subliminal effects upon those who use the medium.⁴ The thought of McLuhan has generated considerable interest and use by academic and popular audiences alike. On account of his popularity, many of McLuhan's most profound insights have been reduced to sound bites, or intellectual short cuts into his thought, such as "the medium is the message" or "the global village."⁵ Eventually McLuhan's fame began to wane, and his place in communication studies was relegated to that of a historical footnote. However, McLuhan's thought at its best is rhetorically complex, historically deep, philosophically profound, and far more extensive than the aphorisms that helped to make him famous. McLuhan was highly critical of Western, scientific models of communication, and his thought is still important for the field of communication because it gives life to the theory of communication of the classical and medieval trivium as an alternative to communication theories grounded in modern and postmodern thought.

³ The tradition of which McLuhan was a part was the Aristotelian/Thomistic worldview that utilized the trivium to balance the relationship between the arts. McLuhan is different than most other scholars during his time in that "in the present orthodoxy of intellectual discourse, it is not customary to find a thinker whose inquiry is both infused by a transcendent religious sensibility and whose intellectual scholarship is motivated, not only by a desperate sense of the eclipse of reason in modern society, but by the disappearance of 'civilization' itself" (Kroker 78).

⁴ McLuhan understands the effects of media and technology as subliminal in that they affect human beings' senses of perception and the understanding of reality automatically and without resistance (Carey 37).

⁵ The "medium is the message" is an aphorism for the idea that the side effects of a medium are the real content of any message. The "global village" refers to the idea that advances in the mass media break down the natural boundaries of space and time by which human communication was once restrained.

The relevance of McLuhan's thought in the contemporary historical moment in the following fashion. The justification for the continued study of McLuhan within communication studies is put forth in Continuing Import of McLuhan's Project. The trivium and its place within McLuhan's thought is introduced in McLuhan and the Trivium Tradition. A summary of McLuhan's early works that helped to make McLuhan a famous media theorist is contained within McLuhan's Preliminary Explorations into Media. Responses to McLuhan's Early Conceptualizations describes the reception of McLuhan's thought in the field of communication during the late 1960s and early 1970s, which was the height of his influence within the field. The Road to Systematizing the Laws of Media, details McLuhan's response to the criticisms of his theory of media. The product of his response to these criticisms was the systemization of his laws of media, which is the subject of McLuhan's Tetrad. The chapter ends with an outline of the rest of this project.

The task of this chapter is to provide an introduction to the thought of Marshall McLuhan. The main concepts, such as the trivium and the tetrad, are briefly introduced. Additionally, the chapter establishes a basis for understanding the place of McLuhan's thought in communication studies. By the end of this project, the case will have been made for an adjustment of his place within the field of communication to take account of his work on the trivium tradition that has not been utilized in the field. The chapter functions as a conceptual introduction into the concepts that will be detailed in the following chapters.

Continuing Import of McLuhan's Project

McLuhan's ideas were radical for his time, but they have become commonplace in contemporary society because of their influence upon his milieu. McLuhan was so influential during the 1960s and 1970s that his name is *the* name associated with "social and cultural understanding of the intersection of communication, computers, persuasion, and the emergence of techno-culture" (Theall 23). Indeed, McLuhan was the single most influential scholar to bring attention to communication as a field of study during the twentieth century (Fishaman 569). McLuhan's ideas were both extended and distorted by his pop culture iconic status. His "probes" into questions of culture, technology, and communication were met with both astonishment and contempt, which helped to polarize his reputation by some as a prophet and by others as a charlatan (Morrison 164; Theall 24). Needless to say, like most important figures, he was met in a polarized fashion.

In the field of communication, McLuhan's thought has been utilized in terms of understanding different mediums of communication. Here, McLuhan's work has been limited to teaching that messages are altered by their medium of communication, i.e., "the medium is the message," and that electronic communication technologies have created an environment in which people are connected across the entire the globe, i.e., we live in "a global village." For this reason, his communication theory has been reduced to these two small aspects of his thought. Indeed, many within the field have taken his aphorism "the medium is the message" to be a summary of his views (Chesebro 378). Broadly speaking, little is done in communication studies with his laws of media, which were formulated in his later works, because from the late 1970s until the late 1980s interest in McLuhan's work had been drastically reduced (Theall 38). Indeed,

communication scholar James W. Chesebro criticized McLuhan's laws of media as falling short of contemporary scientific standards of research, and argued that his lasting power in communication resides within his early works, i.e., *The Mechanical Bride*, *The Gutenberg Galaxy*, and *Understanding Media*.

Also, McLuhan is the intellectual father of Media Ecology, a sub-field of communication studies.⁶ Incidentally, interest in his work passed and he died just before the rise of the digital revolution, the effects of which he had predicted well before this technology was invented. Scholars of Media Ecology studied the effects of technological advances in the twentieth century and kept McLuhan's thought alive by extending his analysis of traditional media to digital and new media (Levinson; Logan). However, this project differs from these previous endeavors because it contextualizes McLuhan's theory of media within his understanding of the trivium. This project is written in the spirit of those scholars, typically in the sub-field of Media Ecology, who have studied and written on McLuhan in the last two decades and have helped to renew interest in McLuhan's thought.

Furthermore, this project serves to deepen our understanding of McLuhan's tetrad. His tetrad has been utilized within the field of Media Ecology, but it is my contention that the use of the tetrad has not been fully developed because it has ignored the tetrad's ground within the classical trivium. Although several scholars have recognized that the trivium tradition plays an important part in McLuhan's thought and

⁶ Media Ecology is an interdisciplinary study of media and technology as the human being's "natural" environment. It studies the effects of media upon the structures of societies and human feeling, thinking, and understanding (Lum 24). The term "media ecology" is generally credited to McLuhan (Lum 9). McLuhan is recognized as the founding father of Media Ecology, and his influence upon his friend, Neil Postman, who is recognized as leader of the movement institutionalizing Media Ecology as it is known today, was substantial (Gencarelli 201-203).

tetrad, no scholarship has been dedicated to explicit analysis of the relationship between the trivium and the tetrad (Coupland; Gordon, Editor's Introduction; Morrison; Peters; Theall). The connection between the trivium and the tetrad was most explicitly developed by Donald F. Theall, but even his analysis on the connections comes short of showing how the trivium and tetrad function together. In his book, *The Virtual Marshall McLuhan*, he begins to make the connection between McLuhan's thought on media and his dissertation in his chapter entitled, "From the Trivium to the Tetrad." Theall notes that the tetrad has its origin in several of McLuhan's research interests, including "McLuhan's fascination with the four-part structure[s]" found within "mystical, mythological, and esoteric traditions," literary tradition and theory, and "the logical square within the trivium tradition" (70). The problem with this treatment is twofold. First, it does not explain how these sources influence the tetrad, but he simply asserts that because McLuhan was interested in the patterns of four that exist in these traditions, they were influential on the tetrad. Second, the connection to the trivium is limited to a minor aspect of the trivium and not the trivium itself, and does not provide insight into the tetrad's connection with the arts of the trivium.

That the tetrad has been utilized in an underdeveloped manner, or in McLuhan's terms, as a figure without ground, can be seen in recent books that have furthered the thought of McLuhan. The preeminent book that utilizes McLuhan's tetrad to analyze digital technologies and new media is Robert K. Logan's *Understanding New Media: Extending Marshall McLuhan*, which was written as an update to McLuhan's *Understanding Media*. The book was written in a similar style to McLuhan's *Understanding Media*. Here, Logan updates several of the traditional media that

McLuhan had analyzed to the ground of the twenty first century, and he utilizes McLuhan's methodology to analyze new media. He begins each chapter with a tetradic analysis, which he calls a "LOM" (laws of media), of each medium. However, the trivium is not even mentioned in the book. Likewise, Paul Levinson's *Digital McLuhan: A Guide to the Information Millennium* utilizes McLuhan's thought to analyze the digital age and references the trivium only in passing. Indeed, he notes that although the trivium was important for McLuhan, it was inferior in McLuhan's eyes to the quadrivium because the quadrivium had four subjects rather than three (Levinson 193-194). Clearly, the relationship and connection between McLuhan's work on the trivium and his work on communication media has not been thoroughly examined.

Finally, McLuhan's triptych tetrad functions as a counterpart to contemporary hermeneutics and phenomenology. By utilizing the classical and medieval trivium as a form of interpretation, the perspective of the trivium can be resurrected from its relegation to the status of a dead historical object of study. McLuhan argues that electricity has had the effect of re-tribalizing society and making the human being an acoustic animal again. The trivium was the proper study of language within acoustic space, so it is important to understand the trivium in this historical context. Likewise, Father Walter Ong (1912-2003) has argued that print societies place epistemological emphasis on the visual and tactile, whereas oral societies are orally and aurally structured.⁷ Along these lines, he postulated that the trivium is properly oral-aural, whereas phenomenology is visual-tactile. He points out that electric technology is

⁷ Father Walter Ong was a student and friend of McLuhan's who became an international scholar of communication. His work was focused primarily on the difference between oral cultures and literate cultures and is useful in this context because his work shows that electric technology has extended orality in the West, where it was diminished because of the spread of literacy after the invention of the printing press.

reviving the oral-aural *and* the visual-tactile. If Ong is correct, then we must rediscover the trivium in conjunction with phenomenology to understand ourselves and culture in the twenty first century (Ong, Presence). In this light, we can begin to see why the importance of McLuhan's thought did not pass away with the fading interest of McLuhan and his work.

McLuhan and the Trivium Tradition

The classical trivium was the subject of McLuhan's doctoral dissertation, *The Classical Trivium: The Place of Thomas Nashe in the Learning of his Time*, and the tradition of which it is a part is the ground for the foundation of his laws of media. The trivium is the name given to the three verbal arts of the liberal arts, i.e., grammar, dialectic or logic, and rhetoric. These three arts were literally the "three roads" [*tri + via*] of education in classical and medieval times. Sister Miriam Joseph (1898-1982), whose text, *The Trivium*, remains the definitive text on the trivium, defines the trivium in the following manner: "The trivium is the organon, or instrument, of all education at all levels because the arts of logic, grammar, and rhetoric are the arts of communication itself in that they govern the means of communication—namely, reading, writing, speaking, and listening" (6). She defines dialectic as the "art of thinking," grammar as "the art of inventing symbols and combining them to express thought," and rhetoric as "the art of communicating thought from one mind to another, the adaptation of language to circumstance" (3). In line with McLuhan's analysis of the trivium, Sister Miriam Joseph argues that the trivium's function is the development of the mind and the study of reality itself (8). These arts were the basis for "communication" studies in ancient and medieval education.

Each art of the trivium has its own function within the trivium. McLuhan and McLuhan⁸ explain the roles of each of the “arts of the logos” in the trivium:

Rhetoric concerns speech: its ground-work is transforming audiences.

Grammar (Greek for ‘literature’) concerns the interpretation of written texts and the ground-patterns in words, etymology. Dialectic specializes in the systems of right thinking. Having no inherent ground, dialectic is

abstract and co-opts rhetoric and grammar as a sort of external ground. (9)

As shown here, each of the different verbal arts has its own unique focus of attention. Being fragmented, they become “figures,”⁹ or an abstract object of attention to which specific analysis can be applied. The most unique observation here is that dialectic has no ground, whereas grammar and rhetoric do. McLuhan and McLuhan continue by putting the three “figures” into relation within one another: “It [dialectic] comprises two activities, logic and philosophy, and it is the fountain of Method and Old Science. The natural affinity between rhetoric and grammar springs in part from each having both figure and ground elements, and in part from both concerning words as presented to the exterior sense in writing and speech” (9). Grammar and rhetoric have a natural relationship with one another through their grounds, but the dialectic is inherently abstract and groundless. Grammarians utilized a communal form of interpretation that structured interplay of grounds for the two sources of revelation, oral tradition and the written word (McLuhan and McLuhan 9). Additionally, grammarians utilized grammar

⁸ Marshall McLuhan worked closely with his protégé son Eric, who still today works on extending Marshall’s thought into the twenty first century.

⁹ This important concept in McLuhan’s thought is Chapter 3, and in short, is basically an object of attention in analysis, whereas ground is an object of inattention that includes all other figures.

and rhetoric to read the two great books: the Bible and the Book of Nature (McLuhan and McLuhan 9).

McLuhan offers an extremely condensed summary of the history and importance of the trivium and even makes extensions from the prior work in both *The Global Village* and *Laws of Media*. Utilizing the analysis of Eric Havelock, who was a classicist at the University of Toronto and had a large impact on McLuhan and Media Ecology, McLuhan and McLuhan argue that the development of writing and the discovery of the phonetic alphabet radically transformed the oral culture of the ancient Greeks and had the effect of creating the trivium. Prior to writing, the oral culture of the Greeks was characterized by a unified logos that structured thought, but with the advent of writing, that logos was fragmented.¹⁰ The fragments of the logos were recast by the Stoics within the trivium (grammar, dialectic, and rhetoric) and quadrivium (arithmetic, music, geometry, and astronomy). The trivium ruled the liberal arts because within it was contained the proper arts and sciences of the logos, and fragments of the *logos* were contained within the quadrivium (McLuhan and McLuhan 9). At the heart of his argument is the proposition that the three arts of the trivium have worked together and against each other to form the mind of the West and its understandings of the nature of reality. The varying relationships between the arts have cognitive implications for our understanding of the world, and these arts likewise have implications for our understanding of communication media and all technologies.

When McLuhan wrote about the trivium, he was arguing against a long tradition of interpretation of defining the art of rhetoric. A part of the problem in defining rhetoric,

¹⁰ The significance of the unification of the fragmented logos (speech and reason) is developed throughout this project.

according to McLuhan, was that many scholars have conceptualized the art through the works of Plato (429-347 BC) and Aristotle (384-322 BC),¹¹ who were not rhetoricians. Rather, they were dialecticians that sought to subsume the art of rhetoric underneath their art of dialectic. Plato's and Aristotle's accounts of rhetoric are made from the bias of dialectic, and through Aristotle's is the oldest treatise on rhetoric, it lacks awareness of the art from within itself (McLuhan and Powers 32). Top put this in contemporary terms, McLuhan and Powers whimsically state that a "modern parallel might be a handbook by Heidegger on advertising techniques" (32). The account of rhetoric that is given by dialecticians may contain a degree of truth, but it is ultimately an incomplete rendering of the topic because it is not understood from within the art itself. Indeed, the rendition of one of the arts from the ungrounded art of dialectic would be to merely render a metaphor for the art: "a dialectical rendering of either [grammar or rhetoric] (such as Plato's or Aristotle's), quite aside from partisanship, would be a metaphor for or a translation of the original" (McLuhan and Powers 33). The "ungrounded" critiques of rhetoric are natural to the art of dialectic because, as we will see, dialectic has the fault of abstracting all figures away outside of their ground.

The three arts (grammar, dialectic, and rhetoric) are not to be taken by themselves because within the trivium they are intimately connected with one another. Ideally, according to McLuhan, the arts of grammar and rhetoric provide meaning for the art of dialectic because it is a groundless discipline. When dialectic remains grounded within grammar and rhetoric, there is balance within the arts. Consequently, this relationship

¹¹ Similar to McLuhan's analysis, the idea that the sophists and rhetoric have been misrepresented in the Western tradition by strong influence of the philosophers, Plato and Aristotle, has been documented in communication studies first by Everett Lee Hunt and later by those who performed the "sophistic turn" in rhetorical studies.

among the three arts of the trivium as the ground of the tetrad is the basis for developing McLuhan's laws as, what I have termed, the "triptych tetrad."

The schools of grammar and rhetoric formed a different view of the world than did the dialectical. Grammarians and rhetoricians were considered to be Ancients on account of "their conservative attachment to tradition, grammarians and rhetoricians were styled 'Ancients,' while dialecticians, who in each age propose marvelous new systems and methods of organizing knowledge and thought and endeavour, were styled 'Moderns'" (McLuhan and McLuhan 10). Here we begin to see the relationship between the two different worldviews implied within the verbal arts of the liberal arts. These distinctions last even within the contemporary world, whether or not the two camps realize it. Indeed, the battle "between the two camps and their intellectual wars continue apace today, albeit largely unknown to the combatants" (McLuhan and McLuhan 10). With that being said, the ideas contained within *Laws of Media* are a "fresh campaign in the war, against the futility of deploying the science of the Moderns of recent decades and centuries to deal with matters of media, as distinct from messages" (10). A war in the liberal arts has been going on for over two millennia, and McLuhan is taking a side within this war. McLuhan associates his project with Francis Bacon (1561-1626) and Giambattista Vico (1668-1744), who are generally considered to be philosophers, but have a more generalist project, which actually makes them Ancients (McLuhan and McLuhan 10).

The defining feature of the Ancients and the Moderns is their orientation within the trivium, but this distinction is played out through the discussion of methodology. The tetrad and the thought connected to it are a method of inquiry as an interpretive enterprise

“of the foundation of this New Science consists of proper and systematic procedure” (McLuhan and McLuhan 7). The New Science—contained within the tetrad—is advanced not as a theory that needs to be attacked, but rather as a “heuristic device, a set of four questions, which we [McLuhan and McLuhan] call a tetrad” (7). The characteristics of the heuristic device itself are essential to defining the “Old Science” and “New Science.”¹²

The tetrad is a form of interpretation discovered within the trivium orientation that McLuhan offers as an alternative to hermeneutics and phenomenology because they are grounded within the same biases that have clouded “Western scientific models of communication.” McLuhan has argued that the grammatical and rhetorical function together to produce a mode of interpretation that is distinct from the mode of interpretation produced through the dominance of dialectic over grammar and rhetoric. The grammatical-rhetorical produces the orientation of the Ancients and the dialectical produces the orientation of the Moderns, regardless of the historical moment. Curiously, McLuhan notes in both *The Global Village* and *Laws of Media* that a history of the trivium is badly needed for understanding these distinctions, as well as the reason that the projects of modern linguistics and semiotics will not succeed (McLuhan and McLuhan 11; McLuhan and Powers 32). This is an interesting statement given that McLuhan’s doctoral dissertation was exactly that, or at least a partial history of the trivium. Along these lines, we can begin to understand what McLuhan means when he states that the problem with phenomenology is that it is simply dialectic attempting to transform into grammar (McLuhan and McLuhan 11). Phenomenology, though it is a reaction to modern science and the philosophy that the scientific method is based upon, emerges as a figure

¹² For McLuhan, the Ancient practices New Science, whereas the Modern practices Old Science.

from the ground of Old Science itself, which is based upon the abstraction of dialectic from grammar and rhetoric; as much as the founding phenomenologists would like to separate science from the dualism of Descartes, their science will always be an outgrowth of the Modern dissolution of the trivium. Phenomenology, as an outgrowth of dialectic, has attempted to rediscover ground, but, as will be shown in this project, ground is the concern of grammar and rhetoric.

As was stated above, McLuhan was positioning himself in the war over the liberal arts. He sided with the grammarians and the rhetoricians, and this position is apparent within his works. Additionally, in his dissertation he argues that he is doing grammar from a rhetorical point of view (43). In this way, the laws of media and the tetrad provide “both the etymology and exegesis of these words [media]: it may turn out that the language they comprise has no syntax. So the accustomed distinctions between arts and sciences and between things and ideas, between physics and metaphysics, are dissolved” (1). Given that etymology and exegesis are grammatical methods of research, the postulation of the laws of media is clearly a grammatical project. Clearly, they are establishing the text as a grammatical project. It is an investigation into the etymology, or linguistic origins, of the meaning of media and technology, i.e., words.

The tradition of the trivium and the relationship between each of its arts has been intimately connected to the growth of different technologies and communication media. In summary, grammar and rhetoric ruled over dialectic and provided balance within the trivium from the time of the ancient Greeks until the Renaissance and the Protestant Reformation. Before the fifteenth century, speaking was still the predominant medium of communication that influenced cognition. During this time even reading was a spoken

activity, and it was performed in a communal setting. Even writing during this time “was not only profoundly oral but inseparable from what is now called oratory and what was then called *pronuntiatio*, which was and remained the fifth major division of standard rhetorical study” (M. McLuhan, Gutenberg 94). However, the printing press, which was developed by Gutenberg and other inventors around 1450 AD, helped books and reading materials to proliferate during this period, which caused reading to become a private, internal, silent, and individualistic activity. This revolution created a cognitive environment that favored the abstract study of dialectic. The uprising of the dialecticians, a movement which was led by Peter Ramus (1515-1572), helped to cause the destruction of the balance between the arts.¹³ Though dialectic has held a position of power over the other two verbal arts for the last four hundred and fifty years, a new campaign in the war of the arts has begun because the battleground is being transformed by electric technology. Along these lines, McLuhan established the laws of media for understanding cognition and communication in the electric age as the battlefield for the arts and sciences moving into the twenty first century. Having overviewed the trivium and McLuhan’s work on it, we must examine McLuhan’s early works, for these works are the basis for his influence during the mid-twentieth century and because they contain important aspects of his theory, without which the tetrad and the trivium cannot be understood.

¹³ The history of the separation of the arts of the trivium by in the Renaissance as a reaction to the abuses of scholasticism is thoroughly detailed by Fr. Walter Ong in his book, *Ramus, Method, and the Decay of Dialogue: From the Art of Discourse to the Art of Reason*. Worth noting from this treatise is that Ong explains that though Ramus and those humanists that followed his method of logic and “eloquence” considered themselves to be rejecting scholasticism, Ramus’ method was actually a derivative strain of scholastic methodology. Ong argues that our present age erroneously associates St. Thomas Aquinas (1225-1274) and St. Bonaventure (1221-1274) with scholasticism, when in fact they were theologians that were relatively ignored within scholastic philosophy (57). Indeed, St. Thomas is better understood as a part of the scholastic tradition rather than the scholastic philosophy (Ong, Ramus 57). This distinction is crucial for understanding McLuhan as a neo-Thomist that advances the submission of dialectic to grammar and rhetoric. Given the presuppositions of the present age, the move would seem contradictory without making this distinction. Indeed, McLuhan himself states that St. Thomas represents the most perfect balancing of grammar and dialectic

McLuhan's Preliminary Explorations into Media

McLuhan worked from a holistic view of the world in which all things are connected to one another. Likewise, his laws of media are intimately related to the media theory that he had developed over the previous decades. McLuhan's popularity, the height of which culminated in his 1969 interview with Playboy magazine, was largely the product of his relationship with the mass media. The cult of McLuhan began with the publication of his books. His popularity was conceived in the 1950s with the publication of his book, *The Mechanical Bride*, but was actually born in 1965 after the spread of *The Gutenberg Galaxy* and *Understanding Media* (Theall 38). *The Mechanical Bride* was his first book to be published¹⁴ and in it can be found some of McLuhan's most clearly critical statements about the state of "modern man" and how advertising was poisoning Western civilization. In this book McLuhan analyzed various cultural artifacts, trends, and advertisements. The book is a "collection of analytical essays and often brilliant rants aimed at pieces of pop culture ephemera, and especially at how magazine advertisements sold the postwar dreams of everyday glamour and hygienic domesticity" (Coupland 82). After this book was published, McLuhan's criticisms were difficult to identify because he shifts from the content of what was said to a focus upon how things are said (Coupland 112). This approach was revolutionary in its thoroughly modernist moment because McLuhan is arguably one of the first persons to function as a metacritic (Coupland 111). However, its revolutionary character is often missed because within the context of the predominance of postmodernism and critical theory, McLuhan's initial work "feels alternately hokey, prescient, quippy, brilliant, sophomoric, and delirious" (Coupland 112). Indeed, the transitory nature of McLuhan's thought is the reason for Theall arguing

¹⁴ His doctoral dissertation was written before this book, but it was not published at this time.

that he was a “prepostmodernist” (125-136). Even in this early work of McLuhan, he is adapting the analogical methods of medieval learning in favor of the “logical and isolating techniques of modern science” (Gordon, *Escape* 155-156). What is seen here is that McLuhan’s Ancient approach, though not recognized as such, escapes the modern and postmodern approaches of his time.

McLuhan’s second major publication, *The Gutenberg Galaxy*, was awarded Canada’s Governor General’s award for Nonfiction in 1962. In this book, McLuhan again adopted his mosaic style of scholarship, and utilized “multiple points of view,” which “creates an intellectual energy that surges into a hundred different channels” (Gordon, *Escape* 186). Coupland notes that *The Gutenberg Galaxy* was written in only three months and “remains one of the most brilliant books on books and the effects of print and reading ever written” (134). Additionally, he describes the book as “possibly one of the most difficult to read yet ultimately rewarding books of the twentieth century” (141). In this text, McLuhan detailed the effects of the phonetic alphabet and the printing press upon the mind of “acoustic man.” The book was a “poetic exploration within the context of the history of literature, art, and theology of the history of language from its inception in speech and gesture through writing and print to the post-print era” (Theall 28). Essentially, in this book McLuhan argues that the printing press had the effect of fully visualizing the epistemology of the West and that electric technologies are quickly reversing the effects of the printing press. Though he was cast by many as the apostle of the electric era, McLuhan clearly states: “Far from wishing to belittle the Gutenberg mechanical culture, it seems to me that we must now work very hard to retain its achieved values” (Gutenberg 135). Though McLuhan speaks disdainfully of the print

environment for its artificiality, he sees the values that developed from the environment as worthy of being salvaged from the dying environment. The book ends with an allusion to the effects of all media and that the effects of media would be the subject of his soon-to-be-published *Understanding Media* (Gutenberg 278-279).

The book that further extended McLuhan's voice in society was his *Understanding Media*. The popularity of this book was the impetus for McLuhan's entrance into the popular culture through the mass media. *Understanding Media* "permitted McLuhan a more extensive audience than that of the scholar. A far more accessible, less specialized book than either *The Gutenberg Galaxy* or *The Mechanical Bride*, it provides an excellent introduction to McLuhan" (Stearn 1-2). McLuhan had several main points in this book, but the two that stand out the most are that a medium is any extension of the body, not just carrier of information, and that every medium has effects that are often subliminal.¹⁵ The first part of the book establishes his main theory of technology, and the rest is dedicated to analyzing the effects of various media, or extensions of the body, in society. These three books were received by audiences in various ways. Even in communication studies, scholars had diverse reactions to the ideas of McLuhan.

Responses to McLuhan's Early Conceptualizations

On account of his eccentric and aphoristic style of speaking and writing, many scholars have attempted to explain the content of McLuhan's message through several different lenses. This interest in McLuhan's thought was especially prevalent in the 1960s when the "cult of McLuhan" was born through the hype created by his interaction with

¹⁵ As Robert K. Logan explains, McLuhan uses idea of "the subliminal effects of the media" to refer to the fact that like fish in water, we are not aware of and take for granted the environment in which we exist until we are taken out of that environment (355).

and use of the mass media (Theall 38-39). One of the primary charges that scholars have leveled against McLuhan is that his theory of media and technology is far too deterministic.

In particular, John M. Aden is a good example of the vitriolic reactions that McLuhan received from many people during the height of his popularity. Aden's frustration with McLuhan is readily apparent in statements such as the following: "He is pitifully ill- and misinformed about human nature and human behavior" (359), and "as history, this is sufficiently unscientific-thesis-ridden, undocumented, inconsistent and contradictory, glib, flippant, and palpably erroneous—but that may not be the worst of its faults. More disturbing is the philosophic determinism that informs it, the notion that man is the product and pawn of his technologies" (360). Aden also doubts that we were ever anything but an optic animal. However, he never justifies this opinion or even offered a counter description of human nature and human behavior. Ironically, Aden recognizes that McLuhan offers "mere tropism," but analyzes his statements as if they did not (361). Additionally, as do his most severe critics, Aden incorrectly argues that McLuhan is against literacy and is an apologist of the postliteracy produced by electronic media (359). This frustration with McLuhan is avoidable if one remembers, as Theall notes, that McLuhan considered himself to be more of a satirist and artist than a theorist (67).

Additionally, Kenneth Burke utilized his pentad to analyze McLuhan's ideas. Burke, utilizing his dramatisic pentad, saw that McLuhan's analysis of tools as extensions of the body could easily be rendered in terms of agency. However, he insightfully saw the ecological nature of McLuhan's work and determined that human motivation in McLuhan's thought is best understood in terms of scene. Consequently,

Burke argued that McLuhan's theory tends toward the perspective that social developments throughout history lack real human participation and motivations. However, he tempers this analysis by showing that McLuhan walks a fine line between "motion" and "action," but ultimately "is at least inconsistent enough to keep straying beyond the realm of motion into the realm of action" (Burke 411). McLuhan's mosaic approach to scholarship hid his humanistic motives from Burke as well as others.

Likewise, but from a different approach, James J. Murphy argued that McLuhan's metarhetoric was thoroughly rhetorically deterministic. He argued that McLuhan's theory is based upon a technologically deterministic epistemology that, when taken to its logical fulfillment, makes rhetoric impossible: "Consequently, McLuhan's metarhetoric implies that a modern rhetoric is impossible. He nowhere makes this statement clearly, but beyond iconic manipulation he seems to see little hope for humane intelligence in the new technocratic universe This is rhetorical determinism, as chilling as the economic determinism of Hegelian Marxism" (Murphy, *Metarhetorics* 212). Murphy argues that McLuhan's understanding of the technological ecology that underpins cognition makes true rhetoric impossible in society because the effects of media are presented as uncontrollable. Essentially, many of McLuhan's scholarly contemporaries, exemplified by Aden, Burke, and Murphy, were criticized his thought as overly deterministic. These deterministic interpretations of McLuhan's thought during this early period are understandable and unsurprising when one considers that they were limited to the *Gutenberg Galaxy* and *Understanding Media* as the resources for interpretation. Additionally, many scholarly interpretations were most likely a response to much of the hype that McLuhan himself had garnered during this time period.

McLuhan's work incited many other reactions across a spectrum from love to hate. His works inspired the praise and criticism of the voices of many academics and professionals who compiled volumes such as *McLuhan: Hot and Cool* and *McLuhan: Pro & Con*. Additionally, McLuhan's work had a profound effect on those scholars who would eventually found the interdisciplinary field of Media Ecology. Indeed, McLuhan is the foremost intellectual father of the Media Ecology tradition. McLuhan was "perhaps the most influential and well-known, and certainly the most controversial, of media ecologists, whose work synthesized the field and helped attract the focus of public attention" and is credited with coining the term "media ecology" (Morrison 163). These scholars were not the only ones who did not read McLuhan as a technological determinist. One such reading of McLuhan, in fact, recognizes McLuhan's training in the humanities and utilizes classical rhetoric as an entrance into McLuhan's media theory.

This unconventional-for-its-time reading was performed by Patrick Mahony. Unlike many others, Mahony recognized the humanism of McLuhan's perspective and the importance of the place of rhetoric within McLuhan's thought. Indeed, Mahony is one of the few people during this early period who took note of the fact that McLuhan's dissertation was on the trivium and likely influenced his media theory. He argued that McLuhan can be understood through classical rhetoric by viewing his work as positing pronunciation as preeminent: "For McLuhan, the new communicative media, I believe, are new methods of delivery, new types of pronunciation with differing stresses on voice and/or gesture. The new media are new *per-sona* and *per-gestus*, new ways of sounding through, of gesticulating through" (Mahony 12). However, in contrast to Mahony, as is shown in the following chapters, McLuhan's understanding and use of the trivium is

much richer than an adaptation of one canon of rhetoric. Indeed, McLuhan considered himself to be more of a grammarian than a rhetorician. This fact has been made more apparent with the reinvigoration of McLuhan studies in the 1990s after the publication of *The Global Village* and *Laws of Media* in the late 1980s. One of the most prevalent criticisms of McLuhan was a reaction to his style of presenting his work as a “mosaic.” These criticisms had the result of leading McLuhan down a road toward the systemization of his communication project. Indeed, the criticisms of McLuhan’s ideas prompted him to move beyond apparent platitude and cliché to a more linear, scholarly style of argument.

The Road to Systematizing the Laws of Media

McLuhan would continue to publish books throughout the remainder of his life, even when his popularity had waned, but it was not until his final works on the laws of media were published posthumously that his influence would begin to spread again. McLuhan’s later work on the laws of media was an outgrowth of his early work and represented the systematic format that addressed the complaints about his “mosaic approach” to scholarship. Eric McLuhan notes in the preface to the book that it was being written in order to address several criticisms of *Understanding Media*. Criticisms of the book were twofold: factual problems and frustrations (Preface vii-viii). The primary frustration that was expressed concerning McLuhan’s work was that it was not scientific (E. McLuhan, Preface viii). McLuhan understood that many people did not see the “scientific” aspects of *Understanding Media* because of the style in which it was written. Eric McLuhan notes that Marshall had deliberately written in an abrasive style that was meant to provoke the reader and to “jar the sensibilities into a form of awareness that

better complemented the subject matter” (Preface viii). *Understanding Media* was written in a manner that was meant to awaken the reader from slumber, and in a way that would allow a person to make sense of the world systematically. The question became how to make this material scientific. The answer to the question would be the impetus for the laws of media, or the tetrad.

McLuhan was troubled by these critiques and began to theorize about the nature of scientific statements in general (E. McLuhan, Preface viii). McLuhan and McLuhan approached the construction of this text with a new set of questions: “The next day he [Marshall] began asking: ‘What statements can we make about media that anyone can test— prove or disprove—for himself? What do all media have in common? What do they do?’” (E. McLuhan, Preface viii). The pattern that developed would become the laws of media.

McLuhan discovered that the laws of media had existed in his previous works; they simply had not been formulated into a system. Within *Understanding Media* he saw the principle of technology extending and amplifying the senses and the body. He found that with every extension a “closure” of the senses or an extended body part takes place, which is called “obsolescence.” Then in the same text they found that each medium can be pushed to an extreme, and when that happens, its characteristics are “reversed.” Out of this last principle came the final “law,” which is “retrieval.” The idea of the retrieval is that with every extension another extension of a sense or bodily function that had been previously “closed” is retrieved or opened. For instance, the electric telegraph retrieved “corporate or group involvement” because it promotes communication between people and groups where it would have been prevented due to restrictions of space and time

(McLuhan and Powers 174). They found that a whole book, *Take Today*, was written around this principle. McLuhan and McLuhan noted that these laws were applicable to all media and technologies. In this sense, i.e., that these observations seemed to be universally applicable, the observations could be considered to be scientific laws. Consequently, they submitted the laws to be falsified by the greater scholarly community, just as any good theory should be for the sake of the advancement of scientific and technological progress. The challenge that was set for the scholarly community was either to falsify any of the laws or to discover a fifth (McLuhan and McLuhan 7-8).

His laws of media, or what he colloquially referred to as the tetrad, were especially not well received by scholars when they were originally published in two short articles, one in *Technology and Culture* and the other in *Et Cetera: A Review of General Semantics* (McLuhan's Laws; Laws of the Media). In 1975 McLuhan proposed his laws of media in *Technology and Culture* (McLuhan's Laws). In this article he proposed that the laws were related to the idea of scientific laws and expressed a desire for them to be falsified. In addition to his challenge to falsify his laws, he gave several examples of how the tetrad functioned. The examples were broad and ranged from cable TV to the Copernican Revolution. In each example he briefly stated what the technology amplified, obsolesced, retrieved, and reversed into. Just after publishing this article, he responded to a critique by Wm. Henry Venable, who attempted to interpret the logic of the laws. Venable argued that McLuhan had “fallen into what Derek de Solla Price calls ‘the error of historicism in which all that happens is seen by the historian as leading with a single arrow to the present’” (258). McLuhan briefly responded that his laws are not logical, but *analogical* (Misunderstanding). What we see here is that these articles were the first

instances of actually compiling each part of the tetrad into an actual interrelated system of interpretation. A part of the problem was that the laws of media were postulated without the greater context necessary to understand the laws. Eventually, in the years prior to his death, he began to systematize his laws of media in response to the criticism of his work—an odd response for McLuhan considering that he argued for the tearing down of logical systems in favor of a mosaic approach to scholarship.

Though the laws of media were integrated with one another in these articles, McLuhan makes it clear in the *Laws of Media* that the laws had been germinating over time and could be found throughout his works. Eric McLuhan notes that he and Marshall had found clear instances of extension and obsolescence in *Understanding Media* (Preface xviii). They also found that the principle of reversal was also in *Understanding Media*, and that his book, *Take Today*, was based on the principle of reversal. Finally, Eric notes that it took them longer to find, but the fourth part of the tetrad, retrieval, was found to be the subject of Marshall's book, *From Cliché to Archetype*. Additionally, McLuhan and McLuhan note that when they were beginning to compile instances of the laws in action, they found that the principles of the tetrad were apparent in his other works (8). His laws were contained within his mosaic scholarship, but they were there waiting to be systematized.

McLuhan worked to systematize his understanding of media during the final years of his life, and the product of that work can be found within two books that were compiled by his colleagues and published posthumously. The first of these two books was *Laws of Media: The New Science*, which he worked on with his son and protégé, Eric McLuhan. This book was responsible for the reinvigoration of the dying interest in

McLuhan's thought (Theall 38). Additionally, his work with his colleague from the University of Toronto would become the impetus for *The Global Village: Transformations in World Life and Media in the 21st Century*. These books overlap in certain places¹⁶ but function as complements to one another in establishing McLuhan's laws of media. The product of McLuhan's response to the critiques of his work is his laws of media, i.e., McLuhan's tetrad.

Throughout McLuhan's work, he uses the terms "laws of media" and "the tetrad" interchangeably. The four laws of media function together to form a configuration that is resonant and changing. The laws of media are holistically expressed in visual form as the tetrad. The visual form of the tetrad "helps us to see both figure and ground at a time when the latent effects of the mechanical age tend to obscure the ground subliminally" (McLuhan and Powers 9). Additionally, representing the laws of media in a visual form "not only reveals the configurational character of time, but also that the artifact [being analyzed] (or [its] founding idea) is always the product of the user's mentality" (McLuhan and Powers 10). As is readily apparent, McLuhan's tetrad is much more complicated than it initially appears. Consequently, the next section details the tetrad and how it is interconnected to the whole of McLuhan's project.

McLuhan's Tetrad

In some senses the laws are as simple as was presented in the previous section. In this section, the laws of media are analyzed in more detail. The laws of media follow a four-fold structure that McLuhan termed the tetrad. First, all things created by humans extend a bodily function or sense of perception. Second, as an extension takes place,

¹⁶ Thomas Cooper, who reviewed *The Global Village* for *The Quarterly Journal of Speech*, notes that this book is so similar to *Laws of Media* in certain sections that Eric McLuhan claims that Powers "lifted entire pages" from *Laws of Media* (239).

another sense or bodily function is concomitantly “obsolesced.” Then, the extended sense also retrieves a sense or function that had been previously obsolesced. Fourth, and finally, when an extension is pushed to its extreme, its characteristics are reversed into something else. The system is really as simple as that. However, at this point the laws may seem a little abstract and overly theoretical. Consequently, it needs to be shown how these laws operate in a concrete example. Fortunately, McLuhan and McLuhan provide many examples, ranging in various levels of complexity, of the laws of media actually being worked out, but at this point it is best to use a simple example of the tetrad in use.

McLuhan proposed his laws of media as a foundation for the study of communication and technology. The four-fold structure of the tetrad is formed in the pattern of the rhetorical concept of the chiasmus:¹⁷ “But in the interfaces created by these senses, figure and ground are in dynamic equilibrium, each exerting pressure on the other across the interval separating them. The interface therefore, is resonant and not static. That pressure creates a condition of continual, potential transformation called *chiasmus*” (McLuhan and Powers 6). McLuhan and Powers use the automobile as an example of how the tetrad functions:

For instance, the automobile amplified one’s ability to cover distance more quickly and, to a limited extent, carry cargo. Yet, almost from the beginning, this invention simultaneously affected man’s relationship to time and space, obsolescing the forms of social organization rooted in pedestrian and equestrian traditions. The township and the neighborhood collapsed. The inner city was left to nonhuman-scale development, while

¹⁷ Chiasmus is an X symbol and also a rhetorical term in which two or more clauses are related to one another in a reversal to make a larger point. A visual representation of the chiasmus can be found on page 47.

that space in the city that had been set aside as human-size living space was shifted to the suburbs.

The gasoline automobile brought back a sense of private identity and independence which had first manifested itself on the American frontier and, to a lesser extent—as Mark Twain tells us—in the social threads of the farm and village. Pushed to an extreme, in urban sprawl, congestion, and pollution, the automobile reverses into the electric mini-car and encourages renewed activity in jogging, bicycling, and urban nature preserves. (11)

The extraordinary aspect of McLuhan and Powers' analysis of the automobile is that they were able to predict social trends that are coming to fruition today. As has been noted by other scholars of McLuhan's work, his lasting relevance and current importance is found with the accuracy of his predictions. Here we see a simple example of the four laws of media functioning in a concrete way. However, as the examples grow in complexity, the laws can become more difficult to understand because the laws exist in a larger theoretical context that gives meaning to the laws themselves. This greater theoretical context is what places the laws of media in relationship to the classical and medieval trivium tradition.

One of the most important presuppositions of the trivium tradition and of McLuhan's tetrad is that the world of human artifice is viewed as language. All human-made media, technologies, inventions, and tools are considered to be metaphors, words, or a form of language. McLuhan and McLuhan state: "One fundamental discovery upon which this essay rests is that each of man's artefacts is in fact a kind of word, a metaphor

that translates experience from one form into another. This essay offers in testable and falsifiable form (the criteria of scientific laws) observations about the structure and nature of things man makes and does; hence *Laws* in its title” (1). This observation is so important that it is the opening passage of the book. McLuhan and Powers explain: “Each tetrad is the word or *logos* of its subject, and all these words are peculiarly human, with the utterer as the etymology” (7). All technologies are extended words from humans and as such their meaning can be traced back to the human body. Human artifacts are metaphors that translate forms of experience into other forms of experience, which is the essential function of metaphors in general. This observation makes sense given their argument that media and technology are continually enhancing, transforming and reverting into one another.

McLuhan is not simply arguing that human artifacts function like metaphors. Human artifacts are taken to be words themselves. Eric McLuhan explains this idea in the preface to *Laws of Media*: “Finding the link to metaphor led to one of the farthest-reaching realizations, which itself tied directly back to the subtitle of *UM* [*Understanding Media*], ‘the extensions of man.’ Utterings are outerings (extensions), so media are not *as* words, they actually *are* words, and we had stumbled upon the key to their verbal structure” (Preface ix). The idea here is fairly radical, but it is not a new one. Indeed, given that human artifacts are the products of mind, if the mind functions through language, then it makes sense that the product of language would be structured in a similar manner.

The idea that all human artifice are metaphors that follow the laws described above is not restricted to the physical outerings, i.e., the technologies, media, and all

human artifice for that matter. These laws also apply to the non-physical creations of the mind. The laws apply to both physical creations (“hardware”), and non-physical creations (“software”) such as theories, philosophies, and styles of music because they are all equally verbal (McLuhan and McLuhan 1). All things outered by humans are equally understood as words. Since all things are now the same structurally, the same laws apply to each instance equally. In comparison, when all things are abstractly quantified in terms of mass, they follow the exact same law of gravity, at least in the Newtonian system they did, and it is the context of each instance that ends up having a reaction on how the law is made applicable in each instance. So theoretically, a bowling ball and a feather fall at the exact same rate. We see this happen in reality only when the two objects are stripped of their context and put into a vacuum. When in a real context the two objects are equally affected by gravitational pull, but the context, including such things as aerodynamics and wind patterns, has an effect on which hits the ground first. Phenomenologically, the bowling ball will always hit the ground first. Likewise, McLuhan and McLuhan are arguing that all human artifice follows the same laws of language, but that the actual prediction and control of the system is made difficult by context. Their system is extremely adept for explanation, but the other two goals of scientific research, i.e., prediction and control, are not as easily achieved.

This discussion naturally moves us into the next two parts of this introduction into McLuhan’s thought. Since all human artifice follows the laws of media, and consequently, the rules of language, we will look at McLuhan’s use of the trivium as the science of language as the basis for understanding the laws of media themselves. But first, it is necessary to analyze McLuhan’s adaption of the concepts of figure and ground.

This discussion of figure and ground is the theoretical context and ground for understanding the relationship between the trivium and the tetrad.

Expanding upon what was described in the *Gutenberg Galaxy* and *Understanding Media*, McLuhan and McLuhan discuss the ramifications of the shift of consciousness that took place in the transition into literacy from non-literacy, from an oral, tribal culture to a visual, alphabetic civilization. The advancements of the West are primarily driven by the discovery of the alphabet and the discovery of movable type and its utilization in the printing press. In general, McLuhan argues that there are two forms of consciousness, one oral and the other visual. As the visual form of consciousness developed, it struggled to understand the oral. The difficulty in understanding came from the problem that important concepts such as logos, mimesis and formal causality had one oral form and another in visual terms (McLuhan and McLuhan 4). The visual orientation struggles to comprehend the oral because it understands the oral conceptualization as a primitive and confused attempt to understand the visual (McLuhan and McLuhan 4). The confusion between the two forms of consciousness endures, in part, because from Aristotle onwards, all research has been done in a more or less visually biased manner, and not an oral one (McLuhan and McLuhan 4).

These two forms of consciousness can be analyzed through two interrelated terms taken from Gestalt psychology that are also used in phenomenology. These two concepts are figure and ground, and they work together to compose perception and consciousness. These concepts are developed in detail in Chapter 3, but at this point it is worth summarizing that these two concepts were adapted by McLuhan “to embrace the whole structure of perception and of consciousness” (5). These concepts are utilized to describe

situations and the focus of attention involved in perception. Essentially, ground is the contextual aspect of reality that is not directly in the focus of attention, whereas figure is the object that is the direct central to the focus of attention. Every situation contains a figure, or object of attention, and a ground, or the area of inattention from which all potential figures emerge and into which they recede, and in the situation the figure and ground conform to one another along a shifting boundary that defines both the figure and the ground (McLuhan and McLuhan 5). Figure and ground interplay with one another, and this interplay constitutes our consciousness and perception of reality. Since consciousness functions in this manner, according to McLuhan, so do technology, media, and all human artifice because these are all products of consciousness.

The interplay between figure and ground has direct consequences on the development of all “outerings,” whether they are tangible or intangible. All objects of attention emerge from a ground that pre-exists its outerling, and the “ground of any technology or artifact is both the situation that gives rise to it and the whole environment (medium) of services and disservices that it brings into play” (McLuhan and McLuhan 5). This “whole environment of services and disservices” exists within the ground before the artifact is created. In other words, McLuhan is arguing that the effects precede their cause.¹⁸ In so doing, McLuhan is functioning from and offering a perspective that is outside the structures of Modern causality. McLuhan’s understanding of causality is the

¹⁸ The idea of effects preceding a cause is linked to the formal causality within Aristotelian/Thomistic philosophy, which is developed in Chapter 6. Essentially, the idea that effects precede the cause is the idea that the effects of a phenomena exist within the form of the phenomena itself. In other words, the use of an object (an effect) is largely determined by its form. For example, the effect of a shoe, i.e., the protection of the foot, is determined within its formal structure of the shoe, which by in large was conceived in the mind of the shoemaker far before it was actually made. Consequently, effect precedes the cause.

epistemological foundation for the communication theory contained within trivium tradition that McLuhan develops in his dissertation.

Consequently, to focus simply on the laws of media without this context would be to make the mistake of solely focusing one's attention upon a figure and ignoring the ground from which it emerged. Indeed, since the laws of media are an outing, just as any "theories or laws of science, [or] philosophical systems" are, the laws of media are subject to themselves (McLuhan and McLuhan 1). In this way McLuhan's laws of media could be considered self-reflexive. They apply to themselves and can be considered an extension of some sense or bodily function that retrieves some and obsolesces others. The workings of the tetrad and the difference between it and Old Science dialectical methods is lucidly formulated in the *Laws of Media* where McLuhan and McLuhan perform an act of self-reflexivity and do a tetrad of the tetrad in comparison with a tetrad of the methods of Old Science.

The ground of the tetrad is that of "figure and ground in interchange," whereas the explicit figure of analysis is that of "figure emerging from ground" (McLuhan and McLuhan 224). The tetrad enhances our "awareness of inclusive, structural process," and in doing so, the tetrad obsolesces the "dominance [of] logical method" (McLuhan and McLuhan 224). The extension of the awareness of inclusive, structural process is tied to the retrieval of the tetrad. The tetrad retrieves "metaphor" and "logos" from its exile from science during the Enlightenment by looking at everything as language (McLuhan and McLuhan 224). Through this connection to language, formal cause and poesis are retrieved because of their relationship to language and its subsequent retrieval (McLuhan and McLuhan 224). Finally, the tetrad itself can be pushed to an extreme, and when it

does, it is as “technology (hardware) becomes software” or “word” (McLuhan and McLuhan 224). Essentially, the tetrad is a tool of etymological analysis and exegesis, but when it is “reversed,” it is taken to be reality itself.¹⁹ Before it was simply a tool or method, but when pushed to an extreme it becomes the perspective itself; the software becomes hardware. All of these aspects of the tetrad exist simultaneously within the tetrad itself. In principle McLuhan has discovered a self-reflexive system that allows criticism of itself by its own rules. With these grounds established, we have the ability to understand the basis of the relationship of the laws of media and the rules of language found within the classical and medieval trivium, or the verbal arts of the liberal arts. The relationship among the verbal arts in the form of the trivium is the foundation for understanding transformational nature of communication and language use in the contemporary, technological, and mediated historical moment. Having broadly surveyed the connection between the trivium and McLuhan’s laws of media, a chapter by chapter overview of this project is provided in the following section.

Overview of the Project

This project is written in the methodological spirit of McLuhan. At the heart of McLuhan's thought is a theory of interpretation that embraces analogical reasoning as its form of understanding. Analogical reasoning is the basis of the art of grammar, and its methodologies of analysis are etymology and exegesis. In this vein, this treatise will provide an etymological analysis of McLuhan’s tetrad. The (ana)logic of this perspective is neither linear nor literal. Analogy applies the meaning of one subject to another. Worth

¹⁹ As is discussed in Chapter 2, the mistaking of theory for reality is a distinctly Modern mistake and is characteristic of “Old Science,” or Western science since the Enlightenment. This distinction is important because it privileges knowledge over understanding, which as described throughout this project, is problematic for McLuhan.

noting is the fact that the analogical reasoning of the grammatical perspective appreciates multiplicity of interpretations. Multiple meanings or bodies of knowledge can be applied to any other subject. Each analogy adds to our understanding of the topic. In the case of this project, knowledge of McLuhan's analysis of the trivium is applied to his media theory. Consequently, this project does not seek to deny the validity of other perspectives concerning McLuhan. Rather, it is meant to add to our understanding of McLuhan, even if this approach contradicts prior interpretations of McLuhan. McLuhan's vision of the tetrad as a heuristic tool that promotes an Ancient perspective is developed in the second chapter of this project, The Figure of the Tetrad. In addition to developing the tetrad, the few uses of it by contemporary scholars are discussed.

As has been shown, McLuhan's laws of media are extremely complex and are intricately connected to the rest of his communication theory. The overview that has been given in this proposal merely skims the surface of the relationship between McLuhan's tetrad and the rest of his media theory. These other aspects of his media theory must be developed further because, as Theall notes, all of McLuhan's "probings" were interrelated (9). Specifically, as McLuhan's theory of communication is deeply concerned with the relationship between perception and the understanding of reality. Therefore, the third chapter of the project, Perception and the Figure of the Tetrad, will intimately detail the main aspects of McLuhan's media theory. Specifically, the chapter analyzes McLuhan's adapting the Thomistic understanding of the *sensus communis* to the history of technology. This development will be derived from several of McLuhan's primary works. In particular, *The Gutenberg Galaxy*, *Understanding Media*, *Laws of Media*, and *The Global Village* will be utilized to the end of showing that the tetrad is a part of

perceptual science that McLuhan saw as being essential to the perspective of the Ancient. Without the context of his media theory, the tetrad does not make sense.

The fourth chapter, The Electronic Threat and the Exigence of the Tetrad, extends McLuhan's analysis of the relationship between technology and human beings and culture to the technology of electricity. In contrast to being the prophet of the electric age, McLuhan saw the effects of electricity as detrimental to human civilization. Specifically, McLuhan sees the danger of the twentieth as a result of the extreme positions created by the left and right hemispheres of the brain. However, McLuhan looks to the corpus callosum, the bundle of nerves between the two hemispheres, as the medium that can provide balance between the perspectives. In effect, it is my contention that the tetrad is the "extension" of the corpus callosum, and as such, is the agent of dialogue and balance between technological perspectives. The chapter ends by showing how the trivium and the tetrad as function as science otherwise than convention and how these function as cures for the problems of electricity.

Building upon the importance of understanding the trivium in the electronic age, the fifth chapter, The Rise and Dissolution of the Trivium, contains historical overview of the trivium tradition within ancient and medieval times, and the separation of the arts of the trivium in the Renaissance. This section is important for the project because it deepens the field's understanding of McLuhan's thought, and, more importantly, it establishes the classical trivium as a living study rather than a dead footnote in the history of communication studies. McLuhan connects the trivium and the tetrad explicitly in both *Laws of Media* and *The Global Village*, and oddly argues that what is needed for understanding the current historical moment, but has never been done, is a detailed

history of the trivium. This statement is odd, as was noted above, because McLuhan specifically provided a history of the trivium from the time of the ancient Greeks until the Renaissance, which is over half of the project which he claimed is needed. Consequently, this chapter will analyze the trivium worldview that McLuhan presents in his dissertation, *The Classical Trivium: The Place of Thomas Nashe in the Learning of His Time*. Indeed, to this day McLuhan's dissertation stands as the definitive work on the classical and medieval trivium. John Durham Peters recognized the importance of McLuhan's dissertation upon the rest of his work on media. Though Peters argues that it is simply a "handy device for reading his career," his analysis runs concomitant to this project (Peters 229). Indeed, he admits that the project deserves to be treated in the medium of a book, but that his analysis is an initial probing into the subject (Peters 228).

The final chapter, Beyond Reversal: Logos and the Triptych Tetrad, will end the project with the postulation of the main characteristics of what I am referring to as McLuhan's neo-Medieval theory of communication. The basis of this neo-Medieval communication theory is the connection of the tetrad and the trivium through the doctrine of the Logos. In addition to developing this connection, the Ancient notion of causality is developed because the tetrad is intimately concerned with formal causality. Through the development the triptych tetrad, it is shown how its assumptions about causality and reality itself are at odds with the general presuppositions of modern perspectives of understanding as postulated by McLuhan. In general, this chapter will analyze the Aristotelian and Thomistic understanding of causality that undergirds the triptych tetrad. The worldview that is assumed by this type of causality is largely what separates McLuhan's triptych tetrad from both modern and postmodern views of the world.

Consequently, this chapter will point toward the influence of neo-Thomist, and friend of McLuhan, Etienne Gilson upon the thought of McLuhan.

The influence of thinkers such as Wyndham Lewis, Harold Innis, Lewis Mumford, James Joyce, Edgar Allen Poe, Francis Bacon, and Giambattista Vico upon McLuhan's thought is widely recognized by McLuhan scholars. However, the influence of Gilson on McLuhan is not widely recognized and has not been thoroughly developed. Indeed, Theall, functioning from a Critical Marxist perspective, documents the importance of neo-Thomism in McLuhan's thought, but rationalizes it away as a side-effect of McLuhan's irrational "fideism" (Havers; Theall 32-33). Likewise, Havers denounces McLuhan because of his "right-wing postmodernism," which he presumes is a product of McLuhan's time spent in the American South and his pre-Vatican II Catholicism. He makes this judgment without any reference to the rationality contained within his Aristotelian and Thomistic understanding of causality. This chapter will show that McLuhan's tetrad and communication theory is the product of his commitment to the trivium tradition and the radical causality that shapes its perspective. That McLuhan's religious commitments were not the product of an irrational impulse is shown through the connection between McLuhan's triptych tetrad and McLuhan's neo-Thomism. Finally, the chapter will contain a discussion of McLuhan's triptych tetrad as a neo-Medieval communication theory. Here we will describe the effects of utilizing McLuhan's triptych tetrad in the twenty first century.

In the final analysis, this project develops the implications of extending McLuhan's analysis of the trivium and the tetrad into the twenty first century. The history of the trivium can give us perspective in the ongoing war in the liberal arts that is being

played out in our media and technology. Additionally, the trivium, especially the coupling of grammar and rhetoric, as a mode of interpretation needs to be developed such that it is understandable in relation to the projects of hermeneutics and phenomenology. In doing so, we will better understand communication in the continually transforming visual and auditory spaces that shape how we understand the world. In this vein, models of understanding that focus solely upon visual or auditory perspectives provide a limited perspective of any situation.

McLuhan's tetrad is important because it functions as an alternative to both "Western scientific models of communication" and other postmodern responses, such as Derrida, Foucault, Gadamer, and Lyotard, to Modernist understandings of reality. His criticism of these models can be seen through the tetrad itself, and concomitantly, the tetrad is the alternative to these perspectives. McLuhan directly relates his work to the study of communication in the first sentence of *The Global Village* when he opens the book by explaining the bias of the study of communication in the West: "All Western scientific models of communication are—like the Shannon-Weaver model—linear, sequential, and logical as a reflection of the late medieval emphasis on the Greek notion of efficient causality. Modern scientific theories abstract the figure from the ground" (McLuhan and Powers 3). By unpacking this description of the bias of communication, one can see that the value of McLuhan's theory of communication extends much further than his quippy "probes," such as "the medium is the message."

In *The Global Village*, McLuhan built upon his probes of the history of the West and was able to elucidate the biases in Western thinking. Through this analysis he prophesied the cognitive changes that were taking place upon the West and the East

through the proliferation of developing communication technologies in the twentieth century. In this vein, McLuhan postulates that the tetrad is a new positioning within the battle over the liberal arts. In the *Laws of Media* McLuhan and McLuhan establish the basis for a “new science,” which is founded upon the tetrad, or the laws of media. Though they use the term “new science” to describe their endeavor, they are clearly associating themselves and their project with the Ancients in the battle between the work begun by Sir Francis Bacon and carried forward a century later by Giambattista Vico” (E. McLuhan, Preface xi). McLuhan and McLuhan argue that though both Bacon and Vico are understood as Moderns, they both were thoroughly Ancient in their orientations (McLuhan and McLuhan 10). McLuhan and McLuhan situate the difference between the Ancients and the Moderns by differentiating their modes of interpreting and analyzing nature with reference to the arts of the trivium.

Chapter 2: The Figure of the Tetrad

Hence, the perceptual patterns of the tetrad form belong properly to grammar, not to philosophy in its present rhetorical guise. Our concern in this book is etymology and exegesis. The etymology of all human technologies is to be found in the body itself: they are, as it were, prosthetic devices, mutations, metaphors of the body or its parts. (McLuhan and Powers 34)

In the late 1970's Marshall McLuhan developed his laws of media, which are visualized as the tetrad, as a hermeneutic tool for understanding creations of the human mind. Use of the tetrad has generally been limited to use by those within the Media Ecology tradition. Along these lines, Harman notes that even though the tetrad is worthy of a treatise length work on ontology, it “has never been mentioned by any mainstream philosopher, let alone fully assimilated” (189). One reason for the lack of acceptance of the tetrad is that it was formulated long after the period of his greatest influence and his popularity had faded away (Grosswiler 76). Another reason for this lack of acceptance was that though he claimed to be using “science,” he was criticized for performing scholarship outside of the traditional, “Old Science” model of research. However, he would not be confined to Old Science’s normative structures, and, thus, he criticized communication scholarship that was done within this paradigm for being too rigid and limited in its vision because it was only concerned with the content of messages (McLuhan and McLuhan 3-4). A thorough analysis of the tetrad is important for the study of communication because it is a part of a tradition that has lived on the margins of understanding since the Renaissance and the Enlightenment, and still so within Postmodernity. Indeed, the tetrad is the center of his neo-medieval theory of communication. As a heuristic tool, the tetrad retrieves the perspective of the “Ancient,”

which is grounded upon the trivium, and functions to establish a secular metaphysics from which knowledge could be unified into a greater whole by those who utilize it.

Introduction

In the final years of Marshall McLuhan's life, he worked to synthesize his ideas about communication and media. His synthesis was largely a response to criticisms regarding his mosaic style of scholarship, and was an attempt to render his ideas in a more traditional, linear and sequential academic style of writing. The fruit of his labor was the laws of media, or the tetrad. Regretfully, the tetrad is an understudied, misunderstood, and underutilized aspect of McLuhan's thought. The tetrad itself is important because it is a useful tool for understanding the effects of new technology, events, and ideas in the continuously changing environment of the twenty first century. The laws of media, and the tetrad, primarily function to produce understanding, not knowledge, from which people can find stability in an environment filled with fragmented and, often times, contradictory information.

This chapter analyzes McLuhan's tetrad. The analysis is divided into two sections. First, in The Law of Media/The Tetrad, McLuhan's development of the tetrad as a tool of interpretation is analyzed. In this section the relationship between the laws of the media and the tetrad is described. Additionally, the importance of analogical reasoning, in contrast to traditional, sequential logic, is introduced. Second, in (Mis)uses of the Tetrad, the use of the tetrad within contemporary scholarship is described. The parenthetical reference to "misuses" emphasizes the concomitant nature of the use and misuse of McLuhan's tetrad by contemporary scholars. Specifically, in this section, it is shown how McLuhan's tetrad is utilized in a "Modern" form, which McLuhan, as an

Ancient, had never intended. Thus, this chapter ends by pointing toward the need to understand the tetrad in relationship to the other aspects of McLuhan's theory.

In the first chapter, McLuhan's concept of the tetrad was introduced. The four laws, i.e., extension, obsolescence, retrieval, and reversal, were demonstrated within the example of the automobile. This chapter functions to provide a more detailed analysis of McLuhan's tetrad. Though the tetrad and laws of media are described here, the development of the tetrad is ultimately incomplete without the context of other important ideas within McLuhan's theory of communication. The context of the tetrad within these other dimensions of McLuhan's thought will be described in the following chapters. In this chapter, it is examined as a "figure minus its ground," which in McLuhan's eyes is a marker of Modern thought. However, whereas other scholars stop at this point, the following chapters develop the "ground" of the tetrad to help contextualize it in the Ancient mode that McLuhan had envisioned it.

The Laws of Media/The Tetrad.

McLuhan's tetrad and the laws of media were postulated in three separate works. The first postulation was in a letter to the editor written for the journal, *Technology and Culture*. In this article, McLuhan briefly outlined the laws and gave examples of these laws as tetrads so that he could challenge the scholarly community of various disciplines to disprove his laws (McLuhan's Laws). This article received little attention from the scholarly community (Grosswiler 76). The primary response, as was discussed in the previous chapter, came from Wm. Henry Venable who wrote a letter to the editor that criticized McLuhan's notion of law through the very logic that McLuhan had critiqued during his career. McLuhan responded with an extremely short letter that explained that

the point of his work was that it was analogical, not logical (Misunderstanding 263). It was not until after his death in 1981 that his more detailed formulation of the laws of media and the tetrad would be published. As was discussed in Chapter 1, the tetrad and the laws of media were posthumously detailed in *Laws of Media* and *The Global Village*. These works helped to enliven scholarship on McLuhan, but even then, his work remained underdeveloped and underutilized.

The laws of media are not simply concerning media in terms of communication technologies. Rather, McLuhan uses the term “media” much more broadly. Media refers to all “information and perception which forms our thoughts, structures our experience, and determines our views of the world about us” (M. McLuhan, *McLuhan's Laws* 75). Since he is dealing broadly with information and perception, he is able to refer to media in both “software” and “hardware” forms (McLuhan and McLuhan 1). In other words, his laws of media can be applied to physical creations and non-physical theories, philosophies, and ideas. Elsewhere, McLuhan explains that media are the “ground-configurations of effects, the service environment of technologies” (McLuhan and McLuhan 98). Though media, in the traditional sense of communication technologies, fit under this broader definition, the true concern for McLuhan is all phenomena that structure the worldview and human understanding.

Likewise, he does not use the term “laws” through the scientific denotation of a rule that governs phenomena independent of human cognition. Rather, laws “represent, as do scientific ‘laws,’ an ordering of thought and experience” (M. McLuhan, *McLuhan's Laws* 75). McLuhan uses the term “laws” because he claims that like scientific laws he utilized induction to come up with his laws (McLuhan's *Laws* 74-75). These laws were

discovered through observing “the operation and effects of human artifacts on man and society” (McLuhan and McLuhan 95). In this regard, the tetrads “are not based on a theory or set of concepts, but rather rely on observation, and on experience, and on percepts” (McLuhan and McLuhan 116). This basing the tetrads on percepts and not concepts is important because it is based upon two interrelated assumptions.

The first assumption that McLuhan makes, which is an assumption that is grounded within Thomism,¹ is that because perception is true, a true science must be grounded upon perception itself (Reagles, Comet 16). Second, is the error of the Modern—the error of modern science—who rejects perception of reality as primary, and places concepts and theory as primary in the construction of truth. The point here for McLuhan is that modern science is flawed because of it is founded upon skepticism concerning the ability to have knowledge about the world. In contrast, McLuhan assumes that, in general, that which is perceived can be taken for granted as true. Thus, he argues that his laws are perceptual, not theoretical, because they can actually be perceived by anyone willing to look.

The tetrad, as was noted in Chapter 1, is used by McLuhan synonymously with the laws of media. McLuhan and McLuhan explain that they “propose no underlying theory to attack or defend, but rather a heuristic device, a set of four questions, which we call a tetrad” (McLuhan and McLuhan 7). The tetrad is a heuristic tool for understanding

¹ As was shown in Chapter 1, McLuhan clearly outlines that he and his project are Ancient in orientation, and not Modern. However, by stressing Gilson’s influence on McLuhan, this project points out many of the specifically Thomistic assumption of McLuhan. In this instance, Reagles specifically pointed out that the position that perception is true is Thomistic. That McLuhan considered himself a Thomist is widely recognized, but what that actually means and implies, especially with regards to his thought on media, is not widely discussed or agreed upon. The point here is that the thought of St. Thomas Aquinas is the Ancient thought par excellence. Indeed, McLuhan comes to this conclusion because “St. Thomas alone reconciled grammar in dialectics” (M. McLuhan, *Trivium* 174). Thus, Thomism and the Ancient perspective in contrast to the Modern should not be taken as separate from one another, but rather as related in terms of genus and species.

the effects of all phenomena that structure forms of thought, and it was developed by “asking, ‘What general, verifiable (that is, testable) statements can be made about all media?’” (McLuhan and McLuhan 7). The four questions that are to be asked concerning all phenomena are:

- What does it enhance or intensify?
- What does it render obsolete or displace?
- What does it retrieve that was previously obsolesced?
- What does it produce or become when pressed to an extreme?

(McLuhan and McLuhan 7)

These questions are “laws” because they can be asked and answered by “anyone, anywhere, at any time about any human artefact” (McLuhan and McLuhan 7). And as was stated just above, they are “laws” because they organize thought.

The set of questions that make up the laws of media can be utilized to gain perspective concerning the effects of all artifacts that are created by human beings, and the tetrad is simply a visual formatting of these laws. Furthermore, the tetrad is the laws of media clustered and represented visually and is “an instrument for revealing and predicting the dynamics of situations and innovations” (McLuhan and McLuhan 105). The visual for McLuhan is able to make dynamic phenomena seem as if they are static. Thus, the tetrad is able to make the dynamic interplay of simultaneous effects, i.e., the laws of media, appear to be static.

Visualizing the Laws of Media

The visual nature of the tetrad took on three primary forms. The first visualization of the laws of media was developed in McLuhan’s letter to the editor of *Technology and*

Culture. Here McLuhan provides nine textual visualizations of the tetrad. For instance, number nine is Xerox technology:

IX. Xerox

Speedup of printing process.

Obsolesces assembly-line book.

Retrieves the oral tradition, the committee (the happening).

Reversal is "everybody a publisher." (76)

This visualization of the laws of media is also the tetrad form that is utilized in McLuhan and Powers' *The Global Village*. The final section of their book is a "glossary of tetrads" that contains numerous examples of tetrads in the same visual form as McLuhan's original visualization. In addition to this tetrad, McLuhan and Powers provide another form of visualizing the laws of media, or tetrad. This form is a three dimensional ribbon with no beginning or end in the shape of an "X." This visualization is pictured in figure 1. This form of image stresses the reversal and chiasmus of the laws of media and the interrelationship between the different laws. The continuous process of transformation of all media is stressed within this image.



Figure 1: Image taken from venicewake.org

The third visualization comes from McLuhan and McLuhan's *Laws of Media*. This visualization represents an escape from the linear visualization of McLuhan's original tetrad and stresses the "appositional" nature of the effects of media. Like

McLuhan's original visualization, this form contains a brief textual analysis of each law applied to the artefact. However, instead of listing the laws from top to bottom, this visualization of the tetrad puts one law in each corner of the chiasmus. The top left portion of the tetrad is the law of extension. The top right portion is the law of retrieval. The bottom right portion is obsolescence, and finally, the bottom left portion represents the law of reversal. As is shown by the tetrad of the cigarette, this visualization puts the brief textual analysis of each law in an appositional, non-linear relationship with one another:

Cigarette

calm and poise	nervousness, addiction
ritual, group security	awkwardness, loneliness

(McLuhan and McLuhan 134)

Though McLuhan states that there is no correct way to read any tetrad because each part is simultaneous, when one reads it “either left-right or top-bottom, (Enhance is to Retrieve as Reverse is to Obsolescence, etc.), or the reverse, the proportions and metaphor- or word-structure should appear” (McLuhan and McLuhan 130). In this form, the tetrad is a compressed version of the detailed analysis that can take place by utilizing the laws of media. Consequently, the tetrad is an “icon of the verbal nature of the artefact,” and it “presents in Gestalt form the logos or formal structure of its subject” (McLuhan and McLuhan 229).² The revelation of the formal structure of an artifact through the visualization of the laws of media is extremely important because it allows us

² This point is important for understanding the tetrad as Ancient because, as is discussed below, the tetrad here can be seen as accessing the logos spermatikos, or verbal, and yet material, component common to all phenomena.

to escape the limitations of the notions of causality that have been passed down through time since the Enlightenment. Essentially, the use of the tetrad is a gateway to a form of perception, which McLuhan describes in terms of figure and ground.

By making the dynamic interplay of cause and effect static in the form of an icon, the tetrad also slows the interplay between figure and ground, a concept that is important for McLuhan and is developed further in Chapter 3. Figure and ground function together to form our perception of reality, but McLuhan argues that Modern science's adaption of dialectics has displaced figure from ground. In other words, modern science analyzes objects without reference to the object's natural, social, and historical context. However, the tetrad "helps us to see both figure and ground at a time when the latent effects of the mechanical age tend to obscure the ground subliminally" (McLuhan and Powers 9). Because of the static nature of the visual form that the tetrad is able to give the laws of media, the tetrad creates the possibility of studying effects simultaneously with their causes.

The laws of media were able to be postulated in the electronic era because electricity, through the breakdown of space and time, has made all information and causes and effect simultaneous. The tetrad was able to be postulated in the era of electricity because electricity had created an environment of instant information that had "the effect of pushing all other subliminal effects up into consciousness" (McLuhan and Powers 22).³ Likewise, the tetrad, through its visualization of the laws of media, reveals the effects of human artifacts that were once "subliminal and previously inaccessible" (McLuhan and McLuhan 109). McLuhan claims that his approach was developed through structuralism's concepts of diachrony and synchrony (McLuhan's Laws 74). He is most

³ A verbatim quotation can be found in McLuhan and McLuhan's *Laws of Media* on page 110.

interested in synchrony because it “works on the assumption that all aspects of any form are simultaneously present in any part of it” (McLuhan's Laws 74). One can utilize a diachronic approach for understanding the effects of media through historical analysis, but McLuhan became aware of the laws through the simultaneous approach (McLuhan's Laws 74). The tetrad is needed because through its abandonment of the old notions of causality it is able to reveal the subliminal effects of all human artifacts (McLuhan and Powers 71). Having abandoned the concept of causality as a linear relationship between causes, McLuhan adopts the four-fold causality of Aristotle and St. Thomas Aquinas.

Causality

The traditional form of science cannot explain media as the tetrad does because with traditional science's abandonment of all forms of causality⁴ except for a bastardized form of efficient causality, it does “not relate to the instant effects of simultaneity and discontinuity and resonance that typifies one's experience in an electronic culture” (McLuhan and Powers 80). The laws of media analyze the effects of human artifacts as simultaneous to their cause rather than as a sequential process (McLuhan and McLuhan 99). Thus, the tetrad is utilized to correct the imbalance that exists through Western science's favoring diachronic analysis over synchronic analysis (McLuhan and Powers 13). In other words, McLuhan's tetrad is attentive to the simultaneous nature of information and causality in the environment of electricity.

⁴ The four forms of Aristotelian and Thomistic causality are efficient cause, material cause, formal cause, and final cause. These forms of causality are utilized for the sake of understanding the nature of a phenomenon. The material cause of a phenomenon is the actual material out of which it is made. Efficient cause, in this system, is the agent that produces the phenomenon. Formal causality is the form or shape that the material takes on. Final causality is the purpose or end for which the phenomenon is utilized. These causes exist simultaneously with one another. During the Enlightenment and the scientific revolution, all these causes, but final causality were abandoned. However, the efficient causality that remained was a bastardized form because it was no longer understood as the agent involved in the creation of a phenomenon, but rather as a linear chain reaction between causes and effects.

Western science has privileged efficient causality, and consequently, is concerned with the diachronic development of phenomena more so than the synchronic, which cannot be understood in terms efficient causality. In contrast to this approach, the tetrad, however, favors synchronic analysis. The tetrad allows people “to see ‘and-both,’ the positive and negative results of the artifact” because it makes a person think about the effects of the artifact before they are even present (McLuhan and Powers 11). The effects become simultaneous with their cause when they are put into the tetradic form. McLuhan and Powers explain that “every human artifact is a medium of communication whose message may be said to be the totality of the satisfaction and dissatisfactions it engenders which, at the speed of light, reveal simultaneous process patterns” (8-9). In this way, reality is not considered to be a series of mechanically sequenced events, but rather, a dynamic cosmos that is consistently in a state of transformation.

McLuhan is able to look at the effects before the cause because the tetrad is concerned with Aristotle’s and St. Thomas’ four causes, specifically, formal causality, and not efficient causality. Efficient causality is obsolesced by electric technology because effects and cause are merged with one another through electricity’s breakdown of both time and space (McLuhan and Nevitt, Causality 28). Through electricity, “metamorphosis by *chiasmus*—the reversal-of-process caused by increasing its [process’s] speed, scope, or size—is visible everywhere for anyone to see” (McLuhan and Nevitt, Causality 28). Consequently, causality is understood as “*a process pattern*” rather than linear sequence of events (McLuhan and Nevitt, Causality 43). McLuhan is concerned, in particular of the four causes, with formal casualty because it is revealed by its effects, and consequently, its effects precede the cause (Chesterton 77). Unlike

efficient cause, formal causality is studied by analogical reasoning, which is patterned and not sequential.

When one utilizes analogical methods to understanding, they are able to make connections and develop interpretations that are not possible within traditional logical methods. For this reason, McLuhan is able to claim that the tetrad “compresses past, present, and future into one through the power of simultaneity” (McLuhan and Powers 9). Since McLuhan is studying causality outside of sequentially, McLuhan abandons the rules and restrictions of traditional logic. Indeed, one of Venable’s main criticisms of McLuhan’s thought was that his laws were illogical (Grosswiler 76). As has been noted above, McLuhan responded by making explicit that his laws were analogical and not logical. The whole point of tetradic analysis is that it is analogical and it is meant to show dynamic ratios rather than traditional sequential connections (M. McLuhan, *Misunderstanding* 263). The tetrad helps to make explicit the analogical ratios that constitute ourselves and our cultures (McLuhan and McLuhan 117). The method of analogical reasoning was the foundation for grammatical humanism, i.e., the trivium tradition.

As a grammarian in the tradition of St. Augustine, St. Thomas Aquinas, St. Bonaventure, Erasmus, and Bacon, McLuhan moved away from “logical discourse” in favor of an “*ana*-logical approach to thinking” (Reagles, *Roots* 217). Within this tradition, McLuhan adopted his tetrad as “the methodological tool of prophetic artists whose subject is media” (Reagles, *Roots* 218). In this way the tetrads are a way of retrieving “the ancient and medieval tradition of grammar-allied-to-rhetoric” in a way that is appropriate for electronic modes of thought (McLuhan and Powers 7; Reagles,

Roots 218). Indeed, the effect of the analogical, grammatical exegesis found within McLuhan's dissertation in "contemporary interpretation is to produce tetradic *Laws of Media*" (Reagles, Roots 219). Just as was stated above in terms of perception, one of the manifestations of the application of the tetrad is the perspective of the Ancients.

On account of his mosaic approach to scholarship, the grammatical perspective of the Ancients can be difficult to recognize within McLuhan's work. Though he goes no further with the explanation, Theall states that the multiple perspectives concerning media effects allows McLuhan to "play a double game—to be the scholastic metaphysician-dialectician which, on one side he claims not to be and, on the other, to be the humanistic grammarian-rhetorician he claims to support—the two opposing sides in McLuhan's history of the trivium in his Nashe thesis" (74). Though Theall is coming from an extremely different perspective than McLuhan, he recognizes that McLuhan's perspective is deeply grounded in the trivium and that his tetrad is metaphysical in nature. Ultimately, within the trivium tradition, metaphysics is essentially a project that has the goal of unifying knowledge and not fragmenting it. Theall misreads McLuhan's approach as a double game because he assumes a dialectical understanding of metaphysics in contrast to a grammatical one. For McLuhan grammar was an art concerned with providing connections, whereas dialectics is an art concerned with division (Gordon, *Escape* 111; M. McLuhan, *Trivium* 174). In other words, the grammatical-rhetorical orientation is holistic, whereas the dialectical is fragmentary.

The concern with analogical reasoning and formal causality does not make sense within the predominant, Modern perspective that solely recognizes analytical and sequential logic, which takes its form from efficient causality. The perspective that

McLuhan offers is especially difficult for some to accept because the effects that he was studying were often times not visible to the conscious mind. Media, as the configuration of effects, are “inaccessible to direct examination since their effects are mainly subliminal” (McLuhan and McLuhan 98). Indeed, through the tetradic study of “subliminal” effects, McLuhan’s work approaches upon the metaphysical, i.e., the formal study of Being. The tetrad is concerned with multidimensionality and effects, not cause, which are the qualities of Being itself: “Being is multidimensional and environmental and admits no point of view. As with any other ground, Being cannot be perceived directly; it has to be seen by its side effects” (McLuhan and McLuhan 59). Being and ground itself can only be directly perceived through their effects because Being and ground are multidimensional, environmental, and they do not reveal themselves in one point of view (McLuhan and McLuhan 59). Indeed, McLuhan was criticized heavily for the metaphysical nature of his study, and, consequently, because he advocated the study phenomena that cannot be directly perceived.⁵

In a real sense, McLuhan utilized the tetrad as a means for shifting the way that science is performed. The tetrad obsolesces the linear and sequential understanding of cause and effect because its form promotes a “simultaneous” understanding of causality in which effects precede causes. By focusing efficient causality, theorists and scholars were missing the many side effects of technologies, and thus, McLuhan saw the need to shift our attention from understanding causes to understanding effects. Without an understanding of effects before their cause, humans could not be trusted to use their own artefacts (McLuhan and McLuhan 95). The effect centered nature of the laws of media is

⁵ The connection between McLuhan’s theory of communication and metaphysics is developed throughout this project, but in particular, it is analyzed in Chapter 6.

represented in McLuhan's naming the laws a "tetrad of effects" (McLuhan and McLuhan 99). The tetrad is a science of effects, not cause as it has been conceptualized since the Renaissance.

Some critics raised objections to McLuhan's utilization of formal causality and analogical reasoning, which recognizes effect being simultaneous with cause. Reagles explains that some of the resistance to McLuhan's approach was a response to his grammatical, Aristotelian/Thomistic presuppositions. In particular, McLuhan was criticized for his abandonment of traditional notions of linear and rational logic (Reagles, *Roots* 217). McLuhan's attachment to Aristotelian and Thomistic causality, which was primarily held onto in the contemporary world by Catholicism, was the source for criticisms of McLuhan.⁶ Along these lines, Jonathan Miller, one of McLuhan's most ardent critics, critiques McLuhan arguing that Catholic piety is hidden within his perspective even though McLuhan claims to escape the tendency of many modern scholars to moralize their analysis about media (Miller 15; 31). Miller explains that Catholicism was a source for McLuhan's perspective, and speaks as though this is an automatic reason for critiquing and rejecting McLuhan's ideas.

Likewise, Theall was skeptical of the Catholic influence upon McLuhan's thought. Theall, like Miller, was one of McLuhan's "most visceral critics" (Havers 514). Though Theall notes that those who thought that McLuhan was "too professional to allow his religion to influence his work" misunderstand the neo-Thomism from which McLuhan functioned, Theall attempts to rationalize McLuhan's Catholicism and

⁶ As is developed in Chapter 6, the Catholic Church, through its promotion of Thomistic theology, was the holdout for Aristotelian metaphysics and causality during the Enlightenment and kept this tradition alive well into the contemporary historical moment. Indeed, just like the philosophers of the Enlightenment, these criticisms of McLuhan's Aristotelianism and Catholicism are often conflated with one another. (Meikle 181-182).

Thomism simply as the product of his humanistic commitments (32-33). Far from utilizing McLuhan's tetrad, Theall argues that the tetrads are simply a set of "mind games" (13). Through the compartmentalization of McLuhan's Catholicism and Thomism, Theall misses the point of McLuhan's tetrad and conceptualizes it in a greatly reduced form. For Theall, the tetrad at its best is simply a "poetic aid to memory (a mnemopoetic device) that schematizes a 'reading' of an artefact as if it were a text" (71). Though Theall is correct about the tetrad treating artefacts as if they were texts, his reduction of the tetrad to a memory aid is problematic because within the context of the rest of his thought, the tetrad is a tool for re-establishing a Thomistic understanding of the world.

The inability to take seriously McLuhan's Catholic commitment to a Thomistic view of the world also led Robert Lewis Shayon to misread McLuhan. Indeed, Shayon explains that McLuhan was superstitious, and that superstition "summons up visions of ignorance, irrationality and benighted mental activity, including such pursuits as astrology, alchemy, animism, and other intellectually suspicious foolishness" (106). However, McLuhan is deeply committed to explaining that the grammatical world, which was intimately tied to alchemy and animism, was anything but ignorant and irrational. Along these lines, Shayon argues that McLuhan's religious commitments were irrational and consequently, suppressed by McLuhan (107-110). Though he does not view these commitments in the light of understanding, Shayon explains that McLuhan's Catholic emotional commitments cannot be separated from our understanding of his theory. Shayon is correct in arguing that his Catholicism cannot be forgotten, but he is incorrect in his attempt to read these beliefs as irrational emotional commitments. Thus, this

project shows the deep intellectual commitments that make up the Catholic and Thomistic view and where those commitments can be seen throughout his thought.

The analysis of media through the perspective of traditional scientific notions of causality is problematic because it fragments relationships in terms of sequence instead of patterns. The tetrad is offered by McLuhan as a different perspective and is synonymous with pattern recognition (McLuhan and Powers 41). The tetrad is a pattern that highlights how all human artifacts change in nature when they are pushed to an extreme (McLuhan and Powers 41). The problem with traditional science is that it confuses its methods of analyzing “reality” as the reality itself. In other words, the constructs that it utilizes to understand “nature” are taken to be nature itself (McLuhan and Powers 45). In contrast to this problematic perspective, the tetrad teaches people to “abandon the tendency to view the environment in a hierarchical and totally connective way, to center ourselves instead in the arena of interplay between the two modes of perception and analysis, which is comprehensive awareness” (McLuhan and Powers 49). The tetrad provides comprehensive awareness of the dynamic and transforming world of becoming, whereas, traditional science’s view is dynamic and transforming concerning an environment or nature that is hierarchically connected. Consequently, Modern science never comes closer to understanding nature because it is concerned with concepts and not percepts.

A great deal of the difference between the Modern perspective, which cannot accept the “irrational” commitments of McLuhan, and the Ancient perspective can be formulated through difference between the one’s promotion of knowledge as the end of education and the other’s promotion of understanding as its end. The Modern perspective seeks knowledge that is fragmented and often times illusory, whereas the Ancient

perspective seeks understanding that is holistic, but lacks the certainty of knowledge.

Along these lines, McLuhan's tetrad has been utilized by a few scholars, but in general, these adaptations have been in a manner that was contrary to the project that McLuhan had developed. The scholars above critiqued McLuhan's ideas, but the next section shows how scholars have attempted to utilize this thought.

Application of the Tetrad

The laws of media and the tetrad have been utilized by few people in and outside of academia. My contention is that the use of McLuhan's laws and tetrad has been used in a manner that is parallel to, but not the same as what McLuhan had envisioned. The reason for this is because without reference to the trivium and literary tradition, the tetrad becomes a "Modern" tool and not an "Ancient" one. The distinction is an important one because as was shown in Chapter 1, McLuhan postulated his tetrad against the Moderns in the war over the liberal arts.

Ancient and Modern Tetrads

McLuhan saw his project in terms of grammar and not dialectics, and grammar is concerned with connections, whereas dialectics is concerned with divisions (Gordon, *Escape* 111). As a grammatical project, the parts of McLuhan's theory need to be connected into a coherent whole, and not fragmented into parts that exist outside the context of the other parts and the whole of his thought. Indeed, McLuhan saw the tetrad as a tool that could reunite the arts of the trivium because when a tetrad is performed for each part of the tetrad itself, each one being a dimension of formal cause, "the metaphysical results serve to indicate the proper bridge between grammatical humanism and dialectic" (McLuhan and McLuhan 227). Within this application of the tetrad to

itself, McLuhan shows that the tetrad reunites the grammar, rhetoric, and dialectic into the trivium, which was the heart of grammatical humanism. The connection to grammatical humanism has further implications upon the tetrad.

In addition to being a part of a greater whole, McLuhan's tetrad is different from Modern uses of the tetrad because, in line with grammatical humanism, McLuhan sees the literary tradition as essential for understanding, whereas the Moderns lack of reference to the literary tradition. Thus, the second significant distinction between the Modern use of the tetrad and the use in line with McLuhan's intention was grounds within and reference to literature. The Ancient perspective is grounded upon grammar and rhetoric, whereas the Modern displaces grammar and rhetoric from the trivium in favor of dialects. As Gordon notes, and is shown in the later chapters of this project, grammar is not to be confused with the narrow study of sentence structures, but is rather the study of interpretation of all phenomena and includes all of literature and the use of etymology and exegesis (Escape 104). Without reference to the literary tradition, the analogical reasoning that McLuhan advocates would be impossible because it essentially reads literature across nature.

The problem with the Modern's use of McLuhan's tetrad is twofold. First, it treats McLuhan's tetrad in a fragmented manner that does not put it within the context of the rest of his thought. The Ancient perspective, in contrast, finds a gestalt to unify the theory through analogical reasoning, which is a form of reasoning that is not recognized by Moderns and the scientific paradigm that is predominant within academia. Indeed, metaphysics—which was largely abandoned, along with the four causes, during the Renaissance (McLuhan and McLuhan 51)—is the science that attempts to unify

knowledge into a holistic perspective that produces understanding and wisdom (Ashley). The tetrad, by retrieving a logocentric understanding of reality, retrieves metaphysics because metaphor provides a “perceptual technique for seeing one whole situation *through* another whole situation” (McLuhan and McLuhan 224). This perspective is the perspective of the trivium, and was fully lost during the time of Peter Ramus (1515-1572) when dialectics was severed from grammar and rhetoric. For this reason, McLuhan is able to claim that his New Science gives “renewed salience to the accumulated knowledge of rhetoric and grammar” (McLuhan and McLuhan 229). Indeed, the connection between the trivium, metaphysics, and Aristotelian/Thomistic causality is described in Chapters 5 and 6. Here it is worth noting, though, that McLuhan’s desire for the renewal of metaphysics and formal causality is most apparent in his admittance that the tetrads ultimately reunite dialectics with grammar and rhetoric and point toward the need to develop a rhetoric of grammar and a grammar of rhetoric (McLuhan and McLuhan 229).

The second problem with the Modern adaptation of McLuhan’s tetrad is its rejection of the grammatical tradition. Again, it must be noted that the art of grammar is not specifically concerned with sentence structure. Grammar, in its traditional form, is concerned with the literary tradition. McLuhan consistently referenced Shakespeare, Joyce, Poe, Yeats and others in order to explain the effects that media have on humankind. Though many of the tetrads do not contain references to the literary tradition, some do, and more importantly, the tradition is utilized in tetradic analysis, which is thoroughly detailed in contrast to its visual representation as a tetrad. In contrast, as is shown below, the use of the laws of media by most scholars generally lack reference to

literary sources. By not grounding their explanations in actual literature, but rather simply scholarly sources about media, Moderns place themselves outside of the art of grammar, and consequently, they utilize the tetrad as a Modern tool and not an Ancient one. Thus, the Modern can validly use McLuhan's tetrad, but that does not mean that it is the same as using it in an Ancient form as McLuhan had originally intended. The problem is significant because the literary tradition connects us to the past, which, for McLuhan was essential for understanding the future (Ong, Introduction 204). (Mis)uses of the tetrad can be seen in several examples of the tetrad's adoption by contemporary scholars.

(Mis)uses of the Tetrad

In contrast to Miller and Theall, who critiqued McLuhan's ideas but did not attempt to utilize it, a few others have utilized the laws of media to analyze the digital revolution that took place during the final decades of the twentieth century. However, the use of McLuhan's tetrad has been negligible. When it has been utilized, the analysis on the surface has been useful for understand the subjects of analysis. But even then, the tetrad has been utilized in a Modern manner. It must be noted that the Modern's use of the tetrad is validly performed, and it runs parallel, and not in opposition, to McLuhan's vision. However, as is shown below, only Paul Levinson has utilized it in Ancient fashion. But before examining Levinson's use of the tetrad it is worth examining the most recent and prominent example of the Modern use of McLuhan's laws and tetrad, which was developed by Robert K. Logan, a former colleague of McLuhan's.

In his book, Logan attempts to extend McLuhan into the twenty first century by utilizing his thought to understand new media, hence the title, *Understanding New Media: Extending Marshall McLuhan*. Logan reexamines the traditional media that

McLuhan had analyzed in *Understanding Media*, and then examines the new media through the same methodological lens. Logan provides a brief explanation of McLuhan's thought and methodology in the beginning of his text and then dedicates many small appendices to explain the individual aspects of McLuhan's methodology. Like McLuhan, he understands a medium to be synonymous with technology and tools because the distinction between communication media, technological innovations and language is arbitrary (Logan 11; 351). Additionally, he recognizes the importance of the relationship between the figure of attention and the ground from which the figure arises (Logan 7-9; 372-373). In particular, he argues that the "old media" that McLuhan had analyzed had to be reexamined because the technological ground of these technologies has shifted so radically since McLuhan's time (Logan 7). Indeed, Logan remains extremely close to McLuhan and his perspective, but a fine distinction exists between their projects.

As was explained above, the difference between the two is the difference between the Moderns and the Ancients. The first way this is apparent is that in Logan's overview of the elements of McLuhan's media theory, the elements are generally treated as fragmented parts that minimally interact with one another, and there exists no reference point from which one could organize the importance of the various parts. Thus, the laws of media, or the tetrad, are seen as an equal part with the other elements of the theory. However, as is shown in the following chapters, the laws and the tetrad are the center of his whole perspective. In fact, as is shown in Chapter 4, the tetrad is the answer to the problems that were being created by electronic technology. However, for Logan, the laws of media are simply explained as a set of rules for "studying the effects of media, or technologies, which specifically illustrate their counterintuitive nature" (Logan 375). He

ends his brief explanation of the laws of media by noting that the laws are “more of an exploratory tool or probe that provides insights into the effects of a medium or technology and its possible evolution, but it does not make unique predictions” (Logan 376). Though it is true that the laws of media are a tool for studying the effects of technologies, they cannot be reduced to this type of tool because they are a part of a greater whole from which they gain and provide meaning.

McLuhan’s tetrad was also used in a brief article in the journal, *Explorations in Media Ecology*. In this setting, Graham Harman utilized the tetrad as a tool for understanding phenomenology itself. So close do the two methods function, that at one point, McLuhan was tempted to call his laws of the media the phenomenology of the media (McLuhan, Hutchon and McLuhan 94). Harman’s use of the tetrad for the analysis of phenomenology is similar to what McLuhan had intended. In tetradic analysis, the artifact of phenomenological writings is software. Harman even claims that McLuhan’s use of the notions of figure-ground made his work a “perfect counter-environment for clarifying the deepest tendencies of phenomenology” (189). Like McLuhan, Harman noted that there was a distinct difference between the tetrad and Heidegger’s approach to technology. Harman argues that the McLuhan’s tetradic analysis obsolesces “Heidegger’s monotonous reduction of all technologies to the same sad tale of presences,” and it gives way to a “joyful pluralism of plastic and electrified entities” (195). Though Harman draws conclusions similar to McLuhan’s, his use of the tetrad is actually only quasi-Ancient because of Harman’s reference to literary tradition, i.e., to the thought of founders of phenomenology, is also the artifact itself. And like Logan, the tetrad in Harman’s work is fragmented and isolated from the rest of McLuhan’s theory. Though it

may seem like a trivial distinction to be making, the significance of which is further developed in the following chapters, it is crucial for the Ancient perspective that McLuhan was advancing. Though these authors have ultimately used the tetrad in a Modern form, not everyone has utilized the tetrad in this fashion.

Unlike Harman and Logan's utilization of the tetrad, Paul Levinson's approach is unique in that it most closely adopts an Ancient perspective. Though the Ancient nature of the tetrad largely goes unnoticed by Levinson, he utilizes the tetrad in the most closely Ancient manner. Rather, Levinson simply explains that the tetrad was grounded in McLuhan's interest in four-part structures (193-194). He notes that the benefit of tetradic analysis is that it lends itself to the production of multiple interpretations instead of a single reading that can easily be confused for knowledge (195). In the final chapter of his book, *Digital McLuhan*, Levinson analyzes the digital age and provides an analysis of the reversal of the digital age. Though Levinson does not recognize the importance of Aristotelian and Thomistic causality, and the trivium tradition, his analysis of the reversal of digital age is the most "grammatical" of those that have utilized the tetrad.

Levinson's analysis is unique because it references "literary" references and because it shows how the effects of the digital age precede the cause. Levinson provides a tetradic reading of the digital age. In it he references the book and movie *Starship Troopers* to analyze the internet. In this analysis Levinson shows how the choice that is offered through the internet reverses into the illusion of choice, and that the web is currently structured by illusory predetermined options (198-199). This utilization of the tetrad is important because, his analysis is grounded upon formal causality and it makes

use of literature as a basis for its analysis. In other words, in this example Levinson reads the web as an Ancient, not a Modern.

In the final analysis, Levinson utilizes the tetrad in a way that most closely adheres to McLuhan's vision of the tetrad as an Ancient tool. The tetrad was also utilized by Logan and Harman, but in a fashion that was Modern in nature. Essentially, the Modern approach treats the tetrad as a fragmented part of McLuhan's theory, and it lacks reference to the literary tradition. The Modern use of the tetrad is not wrong per se, for it utilizes the tetrad in a valid form, but like the Modern perspective to the Ancient perspective, it runs parallel to the tetrad as McLuhan had intended. Nonetheless, that the tetrad has been underutilized has been shown as well. The tetrad and the laws of media are relatively unheard of within academia. However, as is shown in the following chapters, the tetrad has the potential for providing balance and stability within the tumultuous times of the contemporary historical moment.

Implications

McLuhan's project was ultimately aligned with the project of understanding and not one of producing knowledge. Indeed, the art of grammar, with which McLuhan aligns himself, is concerned with understanding (Strate 225). One could potentially say that McLuhan provides a perspective by producing his tetrad and the context of the rest of his media theory, but to do so is to view him in terms of a Modern, and a print-oriented perspective. Barrington Nevitt, who worked closely with McLuhan, explains that McLuhan's understanding of understanding is fundamentally different than both the "point of view," which, as will be shown in the next chapter, is the product of the printing press and "value judgment" (McLuhan and Nevitt, *Causality* 57). The difference stems

from the fact that “understanding means to grasp something from every side, both inside and outside, in its constantly changing relationships, not only with ourselves but with the totality of existence” (Nevitt 224). Thus, Nevitt explains that McLuhan’s tetrad was “neither a conceptual formula nor a new paradigm, but a perceptual probe for understanding the action of any human artifact ecologically” (225). Here we can begin to see that the tetrad works parallel to the project of phenomenology.

Like phenomenology, McLuhan’s Ancient perspective is grounded upon understanding the world through its relationship with the senses, in contrast to approaching the world through an abstract theory. Instead of conceptually thinking of the world, these two approaches are concerned with perceptual thought. However, as is developed in Chapter 4, McLuhan clearly saw phenomenology as Modern and his project as Ancient, and clearly develops distinctions between his work and the project of phenomenology.

Within this chapter, McLuhan’s tetrad was analyzed in detail. The tetrad is synonymous with the laws of media, and the term generally refers to the set of four questions that can be asked about any creation of the human mind, whether hardware or software. More specifically, the tetrad is the visualization of the laws of media. The tetrad makes the dynamic process of the laws of media static so that cause and effect could be examined simultaneously. The simultaneous approach to cause and effect is important within the twenty first century because electricity has broken down the concepts of time and space, and thus, has obsoleted traditional, linear causality. Some scholars have utilized the tetrad and the laws of media on this level to produce a degree of knowledge about developing technologies, especially digital technology. However, this adaptation of

the tetrad was shown to be Modern in nature, whereas McLuhan clearly associated his project with the Ancient perspective. The primary difference between these two positions is that the Ancient perspective utilizes literature as a window into the nature of technologies. In terms of the trivium, this Ancient approach is grammatical. Additionally, the tetrad is based upon and embodies Aristotelian and Thomistic causality, and as such, when one utilizes it in the manner that McLuhan had intended, he or she is performing metaphysics. The following chapters place the tetrad in context of the rest of the McLuhan's theory. His thought is extremely interconnected and holistic. As such, the tetrad is shown to be the linchpin of his neo-Medieval theory of communication.

Chapter 3: Perception and the Figure of the Tetrad

Hence, the perceptual patterns of the tetrad form belong properly to grammar, not to philosophy in its present rhetorical guise. Our concern in this book is etymology and exegesis. The etymology of all human technologies is to be found in the body itself: they are, as it were, prosthetic devices, mutations, metaphors of the body or its parts. (McLuhan and Powers 34)

The ideas of Marshall McLuhan have frequently been reduced to the conclusions of his rigorous and unconventional thought. These conclusions, immortalized in slogans such as “the global village” and “the medium is the message,” are parts of a much larger system of thought. Likewise, his tetrad has been fragmented from the rest of his theory. McLuhan’s thought can be difficult because he often wrote in an unconventional, nonlinear, “mosaic approach” to scholarship. Just like mosaic artwork, McLuhan utilizes many different, and seemingly unrelated, ideas to create one larger coherent picture or theory. However, many find his work inaccessible because of this mosaic approach. The challenge of understanding a mosaic is that one needs the ability to stand back and view the individual parts and their relationship to one another as a unified whole. His thought is holistic and is grounded within a theory of perception that is grounded within Aristotelian and Thomistic thought. This theory of perception is important for the field of communication because it provides a perceptual basis for understanding science and communication in the twenty first century.

Introduction

The various components of McLuhan’s thought should not be understood as fragmented ideas that can be utilized without the other parts reference to the other parts because each part of McLuhan’s thought is interrelated with the other parts (Theall 9). As

such, the various aspects of his theory need to be understood as a unified whole. In order to fully establish the role of trivium tradition as the ground of the tetrad, the tetrad itself must first be understood in the context of the rest of McLuhan's theory. More specifically, the tetrad, as a tool for interpreting both "hardware" and "software" creations of the mind, is a part of a larger theory of how human beings perceive, apprehend, and interpret reality. Ultimately, McLuhan's ideas about perception and reality are Thomistic in nature. This Thomistic understanding of the perception of reality is central to understanding the ground of McLuhan's laws of media and tetrad. However, his thought is uniquely neo-Thomistic because it is not simply a reiteration of St. Thomas' philosophy, but rather, it is a unique adaption that incorporates the developments of technology to the principles of Thomism.

The understanding of perception that informs McLuhan's tetrad is developed in the following manner. In The Senses, Ratio, and Extension, McLuhan's development of the relationship between the human body, the perception of reality, and technology is explained. In The Hemispheres of the Brain and Perception of Space, the relationship between technologies, as extensions of the body, and the brain itself is developed. The eyes and the ears as organs of perception function through different hemispheres of the brain, and the hemispheres both function differently, and each produces different forms of cognition that shape our understanding and awareness of the world. Finally, in Figure-Ground and the Resonant Interval the value of interplay is exemplified in perception itself. However, McLuhan re-conceptualizes how perception is understood through his adaption of Gestalt psychology's visual concepts of figure and ground. Between figure

and ground there is the resonating interval, which is the interplay between figure and ground that defines both and gives life to meaning.

This chapter synthesizes several important aspects of McLuhan's thought to show how they come together to form a picture of the need for an Ancient perspective to ensure stability in the turbulent twentieth century and future. Whereas the tetrad was described as a figure in the previous chapter, here it is described as a part of the Ancient perceptual science is described. Though some may argue that the Ancient perspective has been obsolesced by the Enlightenment's scientific revolution, this perspective has gained new relevance within the twenty first century. The inherence of the perceptual science of the Ancient perspective in the age of electricity is developed in this chapter.

The Senses, Ratio, and Extension

An effective place to begin constructing the overall picture of McLuhan's mosaic is his concern for the relationship between the body, the mind, and technology. At its core, this foundational idea is generally Ancient and, specifically, Thomistic in nature. Indeed, in a letter to his friend and student, Father Walter J. Ong, McLuhan explains that his theory is really only acceptable to Thomists because they understand consciousness as an "analogical proportion among the senses from moment to moment" (M. McLuhan, Letters 280-281).¹ Even the unabashed critic of McLuhan, Jonathan Miller explains the McLuhan's "psychological theory" owes more to St. Thomas Aquinas than any scientist he openly sites because, McLuhan places "at the center of the human mind a psychic organ within which the five senses collaborate to provide a common ground for conscious experience" (Miller 84). Along these lines, he was criticized for trying to establish a "neoclassical or neoscholastic daydream" (Gordon, Escape 189). However,

¹ The importance of the analogical interpretation is developed in Chapter 6.

this is only a “daydream” to the person that is not functioning from an Ancient perspective.² Indeed, the Ancient perspective that is criticized as a “daydream” is thoroughly rational perspective that is concerned with understanding how understanding itself is grounded within the perception of reality.

Sensus Communis

McLuhan’s theory rests largely upon Aristotelian and Thomistic notions of perception and its connection to the brain is directly related to this perspective as well (Reagles, Comet 14-16). McLuhan’s hemispheric probes, which are explained below, from “*ratio* of the senses, to sensory interplay, or synesthesia, resonance, acoustic/tactile space and to the loss of common sense,” are “components of thomistic sensory perspective of the senses” (Reagles, Comet 15). McLuhan’s realism, as opposed to his postmodernism,³ is seen in his “echoing of Aristotle’s and Aquinas’ epistemological claim, that ‘all sensations are true,’ and that the objects of imagination or phantasms are

² The Modern disdain for analogical reasoning and metaphysics was analyzed in Chapter 2 and is further developed throughout this project.

³ Several scholars have questioned whether or not McLuhan was a proto-postmodernist. Ferguson compared and contrasted McLuhan’s thought with postmodernism, in particular Baudrillard and Lyotard, and concludes that he would likely have “metamorphed” through postmodernism and then rejected its new orthodoxy (85). Watson notes that McLuhan’s dissertation, and his other works by extension, was postmodern because of “its destabilization of accepted meanings and viewpoints” (Watson 211). As was discussed in Chapter 1, Theall argued that McLuhan was a prepostmodernist on account of the transitory nature of his work. He notes that he “anticipated the major French theorists that dominated American intellectual thought in the past three decades—from Roland Barthes and Jacques Derrida to Jean Baudrillard and Paul Virilio” (29). And finally, Havers argues that McLuhan was ultimately right-wing postmodernist whose politics were informed by his time in the American South and his Roman Catholicism (Havers 515-516), whereas his philosophic presuppositions about reality and valuing of plurality were definitively postmodern (Havers 516-523). However, though the postmodernism and the rhetorical turn in the twentieth century functioned as a severe blow to the power of the scientific paradigm, McLuhan is not fully comfortable with it because it remained disconnected from the grammatical tradition, and hence was Modern in form. Though the circumventing of the dominance of the social sciences by the rhetorical turn and the development of postmodernism was largely a shift from dialectics to rhetoric, many people remained skeptical of the rhetorical turn because they had never abandoned rhetoric in the first place (Strate 223). In particular, the Aristotelian and Thomistic worldview from which McLuhan functioned was never abandoned by the Catholic Church during the Enlightenment and was subsequently handed down as a living tradition well into the twentieth century. Without an understanding this tradition, the mistaking of McLuhan for a postmodernist can easily be done.

deceptive are deceptive ‘when there is nothing real that corresponds to them’” (Reagles, Comet 16). In terms of McLuhan’s critique of media theory, Western scientific models of communication are problematic because they study figures without ground, or content without reference to medium (Reagles, Comet 18). Though he was “incorrect” about some of his predictions, McLuhan’s effort gave a new analogical “aura” to Aristotelian and Thomistic notions to “critic-poetic heuristic for exploring thought” (Reagles, Comet 20-21). In other words, his tetrad is a tool for explaining cognition through an Ancient perspective.

At its core, McLuhan is establishing an Ancient common sense for the twenty first century. In the tradition of the Ancients, *sensus communis* was “held to be the peculiar human power of translating one kind of experience of one sense into all the senses, and presenting the result continuously as a unified image to the mind” (Understanding 89).⁴ In other words, common sense “meant that all the senses, such as seeing, hearing, tasting, smelling, and touch, were translated equally into each other,” and the marker of health was when these distributed in a balanced way (McLuhan and Powers 37). The problem with the mind since the advent of the printing press, as is discussed below, is that the senses are out of balance and no longer translate into one another.

The translation of the senses into one another through the common sense is described as a ratio between the senses and “this image of a unified ratio among the senses was long held to be the mark of our *rationality*” (M. McLuhan, Understanding

⁴ The term *sensus communis* is utilized by St. Thomas Aquinas in his commentary on Aristotle’s *De Anima*. The history of this idea, which was influential on McLuhan’s understanding, can be found in Edmund Joseph Ryan’s book, *Role of the Sensus Communis in the Psychology of St. Thomas Aquinas*. For an analysis of St. Thomas Aquinas’ understanding the senses and common sense see Etienne Gilson’s *The Christian Philosophy of St. Thomas Aquinas*, specifically pages 187-206. Here Gilson discusses Aquinas’ development of aspects of the human soul and its relationship to the body.

89). For McLuhan, as well as the Ancients, each of the individual senses work together and influence one another to form a person's perspective of reality. The different senses of perception are the foundation of consciousness, which is formed through the endless translation of the senses into each other (M. McLuhan, Gutenberg 5). So, one's perspective of reality is shaped and altered through the translation of the senses into a common sense. However, McLuhan adapts this Ancient understanding of *sensus communis* to contemporary times by showing that technology has an influence upon *sensus communis*.

The Influence of Technology

Though the formation of consciousness through this endless translation of the senses into a ratio may seem fairly simple, the process is complicated by the use of technology because, according to McLuhan, all technologies function as extensions of the senses of perception and the organs of the body. Indeed, this idea is the foundation for the first two laws of McLuhan's tetrad: 1) all technologies extend a part of the human being, and 2) in doing so, another aspect of the body is obsolesced (McLuhan and Powers 3). In the prologue of *The Gutenberg Galaxy*, McLuhan argues that "man the tool-making animal, whether in speech or in writing or in radio, has long been engaged in extending one or another of his sense organs in such a manner as to disturb all of his other senses and faculties" (Gutenberg 4).⁵ Furthermore, the ratios of perception are responsible for shaping both thought and action. McLuhan and Fiore explain: "Media, by altering the environment, evoke in us unique ratios of sense perceptions. The extension of any one sense alters the way we think and act—the way we perceive the world. When these ratios change, men change" (41). The ratio that forms our sense of reality is altered by

⁵ An almost verbatim quotation can be found in *Laws of Media* on page 93.

technology because each technology extends a sense, which thereby alters the ratio. The particular ratio between the senses determines how reality is perceived in the mind of the perceiver.

Thus, when a technology, as an extension of a sense, alters the ratio, the perception of reality is altered. If a technology is introduced into a culture, and “if it gives new stress or ascendancy to one or another of our senses, the ratio among all our senses is altered” (M. McLuhan, Gutenberg 24). Furthermore, every invention, as an extension or self-amputation of our physical bodies, “demands new ratios or new equilibriums among the other organs and extensions of the bodies” (M. McLuhan, Understanding 67). In other words, when the senses are altered, “we no longer feel the same, nor do our eyes and ears and other senses remain the same” (Gutenberg 24). An example of a change in perceived reality through a shift of the ratio is commonly felt when one is surrounded by darkness and their sense of hearing is amplified over the sense of sight. To the visually dominant mass of people, this shift in the experience of reality is often described and represented as “creepy” and “scary.” These adjectives are indicative of the person’s perception of the situation more so than the situation itself. The situation is perceived as such on account of the shift within the ratio between the senses. Likewise, the shift from the dominance of vision to that of hearing on a cultural level produces a cultural state of panic and terror (M. McLuhan, Gutenberg 32).⁶

McLuhan provides an enlightening analogy to understand the relationship between the senses and one’s perspective of reality in *The Gutenberg Galaxy*. He utilizes the kaleidoscope to explain that each extension “can act as a sort of twist for the kaleidoscope of the entire sensorium,” and when a new ratio is produced through the

⁶ The state of panic and fear is further developed in Chapter 4.

extension, “a new mosaic of possible forms presents itself” (55). As one twists the kaleidoscope, the parts all shift and the whole mosaic is changed as well. He explains that people likely did not realize this process in the past because the invention and distribution of technologies was once on a much slower and smaller scale than it is now, and because we did not have the same means for studying other cultures as we do now (Gutenberg 5, 55). With an understanding of how technologies affect the human sensorium, we can protect the *sensus communis* from the extremities produced through the printing press and electricity.

Through the common sense, the senses are continually in interplay with one another “save in conditions of anesthesia” (M. McLuhan, Gutenberg 24). Anesthesia can occur in two ways. First, it can be created through the administration of an anesthetic. Second, and more importantly, any one of the senses when “stepped up to high intensity can act as an anesthetic for other senses” (M. McLuhan, Gutenberg 24). Anesthesia in this second sense is problematic because one sense of perception is pushed to an extreme to the detriment and negation of the qualities of the other forms of perception. In a real sense, when this happens, we lose “touch” with an aspect of reality. At its worst, modern psychologists have shown that the “overstimulation and understimulation” of particular senses causes a breakdown of the relationship between thought and feeling (McLuhan and Powers 37-38). Essentially, pushing one sense to its limit effectively alters our hold on reality. This extreme shift involves a transformation that McLuhan conceptualizes as the fourth law of the tetrad, which is that every sense when pushed to an extreme reverses into something else. An example of the reversal law in the in nature is that while a person is being frostbitten, they feel as if their skin is burning.

The ratios between the senses are not limited to the consciousness of the individual perceiver. With the advent of electricity, the extensions are beginning to establish ratios of the senses external to the sensorium between the extensions themselves (M. McLuhan, Gutenberg 5). McLuhan explicitly argues that the ratios between the senses are externalized through the extension of the senses within inventions: “What I am saying is that media as extensions of our senses institute new ratios, not only among our private senses, but among themselves, when they interact among themselves” (Understanding 78). In effect, the ratio between the senses is altered when one sense is extended outside of the body, and the extended sense is reified in material culture, which further influences the interplay between the senses. Since the senses are extended in material culture, the influence upon the perceptual sensorium goes beyond the individual person’s sensorium.

In addition to altering the individual’s sensorium, these extended senses affect the collective, cultural perspective. When each new sense is extended into the “social world,” a new set of “ratios among all of our senses will occur in that culture” (M. McLuhan, Gutenberg 41). In fact, McLuhan contends that culture itself is in part based within the bodily senses: “My suggestion is that cultural ecology has a reasonably stable base in the human sensorium, and that any extension of the sensorium by technological dilation has a quite appreciable effect in setting up new ratios or proportions among all the senses” (Gutenberg 35). The appearance of the new sense ratios within the culture “is comparable to what happens when a new note is added to a melody. And when the sense ratios alter in any culture then what had appeared lucid before may suddenly be opaque, and what had been vague or opaque will become translucent” (Gutenberg 41). The alteration of the

ratios of the senses, both individually and culturally, alters the way that the world itself is perceived.

*The Great Ratio Shifts*⁷

Few extensions have radically altered the ratios of perception and our view of reality, and the greatest of these is language according to McLuhan. The spoken word was the first technology “by which man was able to let go of his environment in order to grasp it in a new way” (M. McLuhan, *Understanding* 85). Language is essentially the “outering (utterance) of all our senses at once” (M. McLuhan, *Gutenberg* 43). This “outering or uttering of sense” allows humans to collect experience and knowledge in a way that is easily transmitted and used (M. McLuhan, *Gutenberg* 5). Words are used as the containers of our individual experiences, and through words our experiences can be both remembered after the event of experience and accessed by other people when outered through speech. Through the use of language, experiences could be stored and translated “from one mode to another” (M. McLuhan, *Gutenberg* 5). The spoken word in oral society was “the principal technology both of communication and of fashioning and transmitting cult” (McLuhan and McLuhan 36). In fact, words function as a “kind of information retrieval that can range over the total environment and experience at high speed” (M. McLuhan, *Understanding* 85). Thus, language, as an extension of consciousness, amplified the intelligence of individual humans by diminishing “collective consciousness or intuitive awareness” (M. McLuhan, *Understanding* 113). On account of the vocalization of experience, humans became predominately an animal of sound.

⁷ The idea of “ratio shifts” is comes from McLuhan’s understanding of the shifts in the ratio of the human sensorium and is an adaptation Logan’s explanation of McLuhan’s development of the three “communication ages,” i.e., the oral period, the age of literacy, and the age of electricity (Logan 20, 359-360).

Humans were predominantly oral/aural beings until the advent of the phonetic alphabet, which is the second extension that has radically altered the ratio within the human sensorium.

The invention of the phonetic alphabet in approximately 650 B.C. radically shifted the human sensorium by creating a technology that utilized the eye as an ear. In effect, the phonetic alphabet conceptualizes meaningless sounds, i.e., phonemes, into meaningless and arbitrary visual symbols. It is the only form of writing that makes a division “between semantic meaning and visual code,” giving it the power “to translate man from the tribal to the civilized sphere, to give him an eye for an ear” (M. McLuhan, Gutenberg 27). McLuhan explains that only the phonetic alphabet had the power to free human beings from the restrictions of the predominance of hearing: “Only the phonetic alphabet makes such a sharp division in experience, giving to its user an eye for an ear, and freeing him from the tribal trance of resonating word magic and the web of kinship” (Understanding 120). Additionally, writing itself does not have the detribalizing power of the phonetic alphabet: “Given the phonetic alphabet with its abstraction of meaning from sound and the translation of sound into a visual code, and men were at grips with an experience that transformed them [sic]. No pictographic or ideogrammic or hieroglyphic mode of writing has the detribalizing power of the phonetic alphabet” (M. McLuhan, Gutenberg 22). Though the phonetic alphabet had an important role in creating the individual, detribalized self or psyche, it did not have enough power to totally separate vision from the rest of the sensorium.

The effects of the phonetic alphabet were actualized in Western civilization over a long period of time. The phonetic alphabet was restrained by the medium of the

manuscript. Manuscript culture stood between the fully oral orientation of pre-literal people and the visual print culture. The effects of the phonetic alphabet were actualized slowly because from “the fifth century B.C. to the fifteenth century A.D. the book was a scribal product,” (M. McLuhan, Gutenberg 74) which means that the distribution of this technology and the process of change was slow and not on a massive scale. In the manuscript culture of the Middle Ages, “there was no space to Medieval man that was uniform or connected or continuous,” and “he did not think of the space between him and the next man, or between him and the cathedral as a continuum” (M. McLuhan, Instructional 447). Representative of this slow evolution of the effects of technologies, and more specifically the phonetic alphabet, is the fact that all reading “in the ancient and medieval worlds was reading aloud” (M. McLuhan, Gutenberg 43). Similar to a child learning to read, the words needed to be sounded out so that they could be heard and processed by the ear. Reading slowly evolved from the utterance of a script to the silent recitation inside one’s own mind (M. McLuhan, Gutenberg 82-95). The primary mode of communicating ideas gradually shifts from the auditory to the visual, the importance of which is addressed below (M. McLuhan, Gutenberg 87-88). It was not until the dawn of the printing press that people began to read silently, and this was in part due to the fact that “with print the eye speeded up and the voice quieted down” (M. McLuhan, Gutenberg 43). The printing press shifted the ratio of the senses by greatly amplifying the effects of the phonetic alphabet.

The third extension to fundamentally alter the ratio between the senses was Gutenberg’s printing press, which was invented in approximately 1450 A.D. The printing press gave its first generation “unprecedented access of power and vehemence,” for it

taught “how to organize all other activities on a systematic lineal basis” (M. McLuhan, Gutenberg 138). Nationalism was extremely enhanced because people could now see their vernacular language (M. McLuhan, Gutenberg 138-139). The distribution of a uniform national vernacular helped drive the creation of nationalism and national uniformity (M. McLuhan, Gutenberg 218, 235). This national uniformity was bolstered by the printing press’ creation of “a new environment called the public” (M. McLuhan, Instructional 448). Indeed, nationalism is dependent upon the fixed point of view that developed from the print press because nationalism is the fixed point of view of the people (M. McLuhan, Gutenberg 220-222). Concomitant with the rise of nationalism, the printing press helped to drive the development of individualism.

The printing press had the power to completely sever the individual from the community and created individualism. In manuscript culture, readers were relatively indifferent to the identity and personality of the author, and authors did not expect readers to have interest in him or herself (M. McLuhan, Gutenberg 134). However, in the era of the printing press, identity and authorship began to matter. The mechanical writing and uniform typography of the printing press fostered an “extreme phase of alphabet culture that detribalizes or decollectivizes man in the first instance” (M. McLuhan, Gutenberg 158). The portability of the book helped to destroy the “library monopoly” and helped to drive the “cult of individualism” (M. McLuhan, Gutenberg 206-208). People were no longer tied the communal mode of reading and would read alone and in silence (M. McLuhan, Gutenberg 82-84). This development of private reading functioned to foster the “habits of self-expression and self-investigation” (M. McLuhan, Print 76). The printing press carried “the individuating power of the phonetic alphabet much further

than manuscript culture could ever do,” and, consequently, the printing press was “the technology of individualism” (M. McLuhan, Gutenberg 158). In this regard, the accessibility and portability of books allowed people to consume more books, which had the effect of creating publics and markets that were not possible in manuscript culture (M. McLuhan, Gutenberg 207). The mass production of books had the effect of producing groups of people that would read and discuss the same content, and thus, would become a public.

The printing press was the technology that would allow the full potential of the alphabet to be actualized. The printing press was the driver of modernization and the amplification of individuality into individualism. In other words, the development of individualism has less to do with political developments than it does with the development of the fixed perspective within visual space. All the way through the manuscript culture of the medieval epoch, there were no developments of the alphabetic technology to completely sever the relationship between the visual and the tactile, but “the experience of mass production of exactly uniform and repeatable type, that the fission of the senses occurred, and the visual dimension broke away from the other senses” (M. McLuhan, Gutenberg 54). The phonetic alphabet created a major change in the ratio between the senses, and this shift was radically amplified by the printing press because the phonetic alphabet was distributed to the masses in a standardized form through the mechanized reproduction of cheap, transportable texts. Though the printing press had effects that benefited human beings and society, it also had effects that were not beneficial.

The problem here is that the printing press, through its amplification of the phonetic alphabet, pushed vision to an extreme limit, and as was discussed above, created a form of anesthetic. Through print's separation of vision from the other senses, most of our experiences are rejected from consciousness and the unconscious is suffering from hypertrophy (M. McLuhan, Gutenberg 256). Extending McLuhan's earlier analysis in *The Gutenberg Galaxy*, McLuhan and Powers explain that North Americans have done violence to themselves by "neglecting ear culture, which is too diffuse for the categorical hierarchies of the left side of the brain, he has locked himself into a position where only linear conceptualization is acceptable" (38). By allowing the printing press to so severely dominate the ratio of the sensorium, we have done ourselves harm because we find ourselves unable to peacefully transition into the ear culture of electricity.

The fourth extension to radically alter the human sensorium was electricity, but to fully understand the effects of this technology, the other aspects of McLuhan's theory must be explained because the effects of electricity are directly related to the other aspects of McLuhan's thought. Thus, the effects of electricity are the primary subject the next chapter. Though the effects of electricity are explained in the next chapter, the perceptual science of McLuhan can be further developed. Specifically, McLuhan was interested in connecting the effects of extending the human sensorium to the brain itself. McLuhan was not content to discuss the idea of common sense and the ratio between the senses as the foundation for perceiving reality. Rather, he connects his theory to the functions of the two hemispheres of the brain itself.

The Hemispheres of the Brain and Perception of Space

Many of the main themes that McLuhan utilized in his theory existed throughout his works, but it was not until later in life that he connected his theory to the physiology of the brain. The two hemispheres of the brain are important for understanding the cultural epistemologies and communication styles of the Modern and Ancient perspectives. Before the advent of the phonetic alphabet and the printing press the human sensorium was controlled by the right hemisphere, but these technologies changed this orientation because they are related to the left hemisphere of the brain. As is shown below, the printing press allowed left hemisphere cognition to be pushed to an extreme, and, consequently, its relationship with the right hemisphere was severed. McLuhan argues that Western Civilization is founded upon developments of the left hemisphere of the brain, and electricity, which radically promotes right hemisphere cognition, threatens to dissolve Western Civilization. Consequently, the two hemispheres of the brain are extremely important aspects of McLuhan's theory. In particular, McLuhan developed a way to understand the differences between left hemisphere communication models and right hemisphere models of communication. Essentially, both hemispheres are biased in their forms of understanding and communication through their respective processes of cognition.

The Hemispheres

McLuhan argued that the two hemispheres of the brain function epistemologically to frame different understandings of reality.⁸ They create different "realities" because

⁸ At the 2011 Media Ecology Association Conference in Toronto, discussed was the fact that some neurologists have disputed the science upon which McLuhan was basing his claims about the brain, but that others still function from this neurological standpoint. Even if the neurological perspective that McLuhan utilized were discredited, McLuhan's perspective would not necessarily be discredited because the

they process the information gathered by the senses in “two different thinking and analytic processes” (McLuhan and Powers 53). The cognitive patterns of human beings and human cultures are directly related to the ratios between the senses of perceptions within common sense and how they are extended outside of the body. The senses of vision and hearing are of particular importance because they are the dominant senses of perception.

These dominant senses of perception are directly related to the functions of the two hemispheres of the brain. Being connected with the different parts of the brain, vision and hearing both create different perceptions of space. The character of space that is created through perception and its collection within common sense is, for McLuhan, one of the most important factors in the human being’s understanding of phenomenal reality, which in turn, has significant effects upon the worldview of the person and culture. These types of space are especially important because their forms constitute the way that reality is experienced. The spaces created by them have the qualities of their respective hemispheres. The right hemisphere is holistic and orients our perspective in acoustic space. It allows for the dominance of the ear over other body parts, whereas the left hemisphere allows the eye to dominate the other senses and orients us within visual space.

In its most simplified terms, the left hemisphere is the part of the brain that is linear and quantitative, whereas the right hemisphere is holistic and qualitative. The left hemisphere of the brain fragments reality through its “specialists role” and it is “largely concerned with linguistic matters, the ability to order, to quantify, to label” (McLuhan

physiological points that are being made are offered as analogical evidence that the perceptual differences are physiologically grounded. In other words, McLuhan’s thought is not derived from this science.

and Powers 50-51).⁹ In contrast to the left hemisphere, “the right side of the neo-cortex is best in spatial tasks, the sense of the multi-dimensional. The field of vision in each eye is divided between the left and right brain” (McLuhan and Powers 50-51). Furthermore, “the right hemisphere of the brain, which is principally concerned with pattern recognition of an artistic and holistic quality, grasps the relationship between diverse parts readily and is not bound up with a rigid sequence of deductions” (McLuhan and Powers 38). This right hemisphere capability for pattern recognition is fundamental for understanding the tetrad as the hermeneutic tool for the twenty first century because the tetrad is a device specifically designed for recognizing all outerings of the human sensorium.

The difference between the perspectives produced by the senses comes down to a difference between how the hemispheres of the brain function. The left hemisphere is characterized by “linearity and sequentiality,” and can be considered the “‘visual’ (quantitative) side of the brain,” whereas the right hemisphere is “simultaneous, holistic, and synthetic” and can be considered the “‘acoustic’ (qualitative) side of the brain” (McLuhan and McLuhan 69). McLuhan and McLuhan further explain that visual space itself is a creation of the left-hemisphere cognition and the development of the phonetic alphabet: “Visual space is the result of left-hemisphere dominance in culture, and its use is restricted to those cultures that have immersed themselves in the phonetic alphabet and thereby suppressed the activity of the right hemisphere” (69). Here we see that McLuhan’s theory of communication is radically concerned with embodiment. Interaction with our extensions does not simply change our perspective or extend a bodily

⁹ These qualities are also stressed by McLuhan and McLuhan in *Laws of Media* on pages 67-74.

sense abstractly. Rather, this interaction actually affects the physical brain itself and how it functions. Indeed, the hemispheres create different perceptions of space itself.

Spatial Understanding

The two forms of spatial understanding that are created through the ratios of the senses are acoustic space and visual/Euclidean space. Acoustic space is the most basic and natural environment of human beings because it is not the side-effect of a technology (McLuhan and McLuhan 31). Acoustic space is “the natural space of nature-in-the-raw inhabited by non-literate people,” and “it is both discontinuous and nonhomogenous. Its resonant and interpenetrating processes are simultaneously related with centers everywhere and boundaries nowhere acoustic space requires neither proof nor explanation but is made manifest through its cultural content” (McLuhan and Powers 45). Though the ear is the dominant organ constructing acoustic space, acoustic space is more natural than visual because it is “penetrated by tactility and other senses,” whereas visual space is created through the “intensifying and separating” of sight (McLuhan and McLuhan 33). Although, it must be remembered that McLuhan is seeking balance. Both types of space are beneficial, but as is amplified in the next chapter, both are harmful when taken to an extreme, which is why McLuhan favors the balance of the phonetic and manuscript technologies.¹⁰

Prior to the advent of the phonetic alphabet, culture was oral and primarily influenced by the right brain for the ear was “the dominant organ of sensory and social orientation” (McLuhan and Fiore 44). Right brain cultures understand the world as

¹⁰ To say that he favors these technologies is not to say that he would want to regress civilization to the Middle Ages, but rather that these technologies and their ratios between the senses must be retrieved within the new electronic environment to provide a degree of stability and permanence within this time of change.

having a special connection to nature, a connection that left brain cultures do not understand. Acoustic space, unlike the space created through vision, is essentially non-linear and holistic because all sounds exist at once, they give depth to the space, and they are common to all in that space. Acoustic space is unnerving to visually dominant people because it is “like a pun, a resonant sphere whose center is everywhere and whose boundaries are nowhere” (McLuhan and Nevitt, *Take Today* 76). Sound creates space that is “spherical, discontinuous, non-homogeneous, resonant, and dynamic,” which is “a complete contrast to visual space in all of its properties” (McLuhan and McLuhan 33). Specifically, the cosmos was conceived as a boundless, spherical and living creature, which is in stark contrast to the infinite and mechanical universe conceptualized by Euclidean geometry after the invention of the alphabet: “To the pre-Euclidean, sixth-century BC oral imagination, there was instead ‘a spherical universe called ‘the Heaven,’ a living creature, whose breath is drawn in from the boundless air enveloping it outside” (McLuhan and McLuhan 34). This image of a living cosmos is far different from the concept of an infinite, mechanical universe that is created after the invention of the printing press, and is also similar to the image that is used to describe the world electromagnetic physics.

The boundless is often confused with the idea of infinity, or “absence of fences or boundaries,” but in actuality, the boundless was conceived as a “circular, or spherical shape, because on the circumference of the circle or the sphere there is no beginning or end, no boundary separating one part from another” (McLuhan and McLuhan 34). This made for a space where everything was connected and all events seemed to be simultaneous. The individual did not have the ability to detach and think critically

(Havelock 145-161). Acoustic space places the individual “in the dark of the mind, in the world of emotion” and is characterized “by primordial intuition, by terror” (McLuhan and Fiore 48). The “natural state” of right brain acoustic space is a state of fear.

Consequently, acoustic space is not more desirable than visual space simply on account of its naturalness. The limitations of acoustic space were overcome through the phonetic alphabet.

The natural environment of acoustic space was fragmented and altered when the phonetic alphabet was introduced into archaic Greek culture and the same happens when the phonetic alphabet is introduced in any other nonliterate culture. Indeed, the acoustic epistemology is found wherever the alphabet and literacy are not prevalent: “Acoustic space is a dwelling place for anyone who has not been conquered by the one-at-a-time, uniform ethos of the alphabet” (McLuhan and Powers 37). Again, this is because without the technology of the phonetic alphabet, the sensorium is dominated by the ear and not the eye. The phonetic alphabet, as described above, is able to do this because as an extension it uses the eye as an ear.

Left hemisphere cultures are characterized by an abstracted, artificial disconnection from nature: visual space. The left brain construction of visual and three dimensional space is not a natural perspective for the human being. The visual space of the phonetic alphabet was further strengthened by “a lineal and visual ‘outer world’ environment of services and experiences (everything from architecture and highways to representational art), which contributed to the ascendancy or dominance of the left, or lineal, hemisphere” (McLuhan and McLuhan 73; McLuhan and Powers 58). In terms of the ratio between the senses, the phonetic alphabet “acts to intensify the operation of

vision and to suppress the operation of the other senses” (McLuhan and McLuhan 4). However, this dominance was created gradually, not instantaneously.

The change from acoustic space to visual space was not instantaneous. A great deal of confusion has arisen from the fact scholars have failed to observe that the changes of space took time to develop. The confusion was made all the worse because our sources for understanding ancient conceptions of space stood in between the epistemologies: “Aristotle and others were working with one foot in each world, as it were, using the new forms of awareness but trying to retain or update the ideas of the old oral culture” (McLuhan and McLuhan 33).¹¹ Essentially, without understanding that Aristotle stood between both forms of awareness, we cannot fully understand Aristotle’s argument because the content of the argument was established upon and interpreted by different understandings of reality itself.

In contrast to acoustic space, Euclidean¹² space is an important part of McLuhan’s theory of communication because it is the epistemological foundation for the paradigm of contemporary theories of communication. Euclidean/visual space is an artificial construction that is the result of the suppression of the right hemisphere of the brain by the phonetic alphabet (McLuhan and McLuhan 22, 69). More specifically, “visual space is the only form of space that is purely mental: it has no basis in experience because it is

¹¹ As is developed in Chapter 6, much of the Modern misunderstanding of the Ancient world stems from this misunderstanding of Aristotle.

¹² Visual space is named after Euclid because Euclidean conceptualized the straight line or “continuum” which does not exist in the actual world (McLuhan and McLuhan 23). McLuhan relies heavily on F.M. Cornford’s analysis of “The Invention of Space” in order to describe the visual space that developed through the discovery of the phonetic alphabet. McLuhan and McLuhan utilize Cornford to show that the visual Euclidean space was developed as an “inner’ conceptual reality” rather than an “outer or empirical one: “Cornford presents the abstract, infinite place of the geometers as having ‘no centre and no circumference. In its full abstraction, as conceived by the mathematician, it was an immeasurable blank field, on which the mind could describe all the perfect figures of geometry, but which has no inherent shape of its own. For the physicist it was the frame of material universe, partly occupied by visible or tangible bodies, whose number and extent were again without definite limit’” (18).

formed of abstract figures minus any ground, and because it is entirely the side-effect of a technology” (McLuhan and McLuhan 40). This “purely mental” visual space was created through vision’s detachment from the other senses through the invention of the meaningless abstraction of the consonant (McLuhan and McLuhan 13). In fact, three-dimensional visual space is a social construction: “Far from being a normal mode of human vision, three dimensional perspective is a conventionally acquired mode of seeing, as much acquired as is the means of recognizing the letters of the alphabet, or of following chronological narrative” (McLuhan and McLuhan 16). The amplification of the phonetic alphabet pushes the sense of vision to an extreme, and it is this “deliberate isolation from the other senses that confers on man the illusion of the third dimension” (M. McLuhan, Gutenberg 16). Consequently, Euclidean, visual space is not naturally occurring.

The best way to show that this visual form of space is not naturally occurring is through art drawn by literate and non-literate peoples. Essentially, before the development of the printing press, painting is two-dimensional and afterward the fixed perspective in art gives the illusion of the third dimension (M. McLuhan, Gutenberg 43). In addition to the difference between the creation of images, the perception of them is also different. The literate person is able to “focus a little way in front of the image so that we take in the whole image or picture at a glance” (M. McLuhan, Gutenberg 37). Whereas, the non-literate person lacks this “acquired habit,” and, in contrast, scans “objects and images as we do the printed page, segment by segment” (M. McLuhan, Gutenberg 37). McLuhan explains the difference in that the non-literate person lacks a detached point of view, is “wholly *with* the object,” and goes “empathetically into it” (M.

McLuhan, Gutenberg 37). The problem with the third dimension is that Western peoples have confused it with reality itself.

Visual space is created through the phonetic alphabet's interaction with the human sensorium, and people mistakenly take the socially construed three dimensions of space to be naturally occurring reality. McLuhan and Powers state that, "visual space is a side effect of the uniform, continuous, and fragmented character of the phonetic alphabet, originated by the Phoenicians and enlarged by the Greeks" (35). The literate Greeks called the newly formed visual space "'Nature' (*physis*)," and this newly ordered abstraction was contrasted to the "preliterate oral chaos" that preceded them (McLuhan and Nevitt, *Take Today* 7). Visual space has the quality of being "separated or abstracted from all other senses" and "as a construct of the mind, it is continuous, which is to say that it is infinite, divisible, extensible, and featureless—what the early Greek geometers referred to as *physis*" (McLuhan and Powers 45). In contrast to the acoustic, visual space is "connected (abstract figures with fixed boundaries, linked logically and sequentially but having no visible grounds), homogeneous (uniform everywhere), and static (qualitatively unchangeable)" (McLuhan and Powers 45). Essentially, the linear, abstract, logical form of thinking in the West is the creation of visual space and the phonetic alphabet. Visual space is modeled in the form of the phonetic alphabet itself.

In contrast to the "boundless" acoustic space, the visual space of Euclidean geometry is an infinite void in which "perfect" shapes can be placed for examination. This space itself is an abstraction that does not exist in the natural world, nor do the "perfect" shapes that are examined through the science based on this abstraction. Representative of the abstraction of pure shapes is the fact that the Greeks would curve

their buildings to give the appearance of being a straight line. Visual space manifested itself early on through the art of dialectic. McLuhan and McLuhan explain this development as emerging from the ground of the phonetic alphabet: “That is, the alphabetic ground of new sensibility was mimed and explored in several ways, one of the products of which was dialectic (as begun by the pre-Socratic philosophers) and another the imposition of 'geometrical' visual space by the atomists Leucippus and Democritus” (19). Visual space became a figure that emerged from and was given meaning by the ground of the phonetic alphabet. The development of visual space influenced the way that being itself was perceived and directly affected the creation of the study of metaphysics:

The new metaphysical concerns with 'being' adopted the form of abstract figures detached from the ground of immediate awareness. Previously, with mimesis, 'being' had been immersed in the metamorphic and Protean flux of everyone's daily experience. With the new ground of alphabetic awareness, objectivity and detachment became the rule. Mimesis was turned from a making process into representational matching, and the old experience of being was retrieved on the new terms of visual space, that is, as an abstract absolute. (McLuhan and McLuhan 19)

The shift in perception effected the cultural understanding of mimesis, which in turn shaped perception of space.¹³

¹³ In a footnote in his dissertation, McLuhan notes that interpretation, or mimesis, is essential to understanding Aristotle's poetics, and contrary to the Modern understanding, this term is “meaningless outside the context of the *Metaphysics*, which treatise is presupposed in the reader of the *Poetics*” (M. McLuhan, *Trivium* 177). Though the Aristotle of the schoolmen is claimed to not be the real Aristotle, McLuhan notes that the contemporary classical scholar “is incompetent either to translate or to judge the translation of Aristotle, since it is not a question of translating words but of bringing to bear his total philosophy to the interpretation of a single term,” and the thirteenth century Latin “was a better language for translating Aristotle than any we have today, because men had been philosophizing in Latin for many centuries” (M. McLuhan, *Trivium* 177).

The linear characteristic of visual space is the product of the phonetic alphabet because “literacy is a uniform processing of a culture by a visual sense extended in space and time by the alphabet” (M. McLuhan, *Understanding* 122). McLuhan and Fiore explain that the phonetic alphabet “is a construct of fragmented bits and parts which have no semantic meaning themselves, and which must be strung together in a line, bead-like, and in a prescribed order” (44). Just like the ordering of letters into a word and words into sentences, visual space is collection of segments artificially construed in a line: “Its [the alphabet] use fostered and encouraged the habit of perceiving all environment in visual and spatial terms—particularly in terms of space and of a time that are uniform, c,o,n,t,i,n,u,o,u,s and c-o-n-n-e-c-t-e-d. The line, the continuum—this sentence is a prime example—became the organizing principle of life” (McLuhan and Fiore 44-45). In other words, “what we are saying is that the human eye appears to be the father of linear logic. Its very nature encourages reasoning by exclusion: something is either in that space or it isn’t” (McLuhan and Powers 39). The eye births the either-or.

The best way to understand the linear and either-or quality of visual space is to reflect upon one’s own use of vision. When a person concentrates on their actual use of vision they find that there is only one focus of attention. A person cannot look at what is to the left and to the right at the same time. The object of the focus of attention changes whenever the one’s gaze shifts. All that fully exists in focus is that which is the momentary object of the focus of attention. Furthermore, that which is not directly in a person’s field of vision, those things outside a person’s peripheral vision, does not exist within visual space. Visual space is something that exists in a fragmented individual point of view. The focus of attention shifts from point to point and existence within visual

space is determined upon one's field of vision. Thus, visual space has the characteristics of linearity and an either-or logic.

Here it is important to remember that these effects of the extensions of our bodies take time to develop within society. Before the time of electric technology, technologies took much longer to affect the psyche and sensorium of human beings. Here the alphabet helped transform our understanding of space. However, it was not until the time of the Romans that spaces were beginning to be played with: "The Romans were the first to play with enclosed architectural spaces - they put the arch inside the rectangle. In the second century, AD, in his *Geographica*, Ptolemy imposed a rectilinear grid system - abstract, uniform, linear, homogeneous, geometrical space - over his maps, thereby pushing aside the traditional heterogeneity of the earth's surface" (McLuhan and McLuhan 23). This form of space was necessary for Euclidean geometry to be theorized, but visual space as a cultural mode of perception, inherent within the culture's epistemology, developed over a period of time.

After the invention of the phonetic alphabet, humans began to create more technologies in the form of the left hemisphere, i.e., lineal and sequential. McLuhan and McLuhan explain: "The lineality of the left hemisphere is supported by an alphabet-based service environment of roads and transportation, and by logical or rational activities in social and legal administration" (72). Essentially, these extensions further created an environment that reinforced left hemisphere cognition. McLuhan provides the Romans as an example of people who extended the left-hemisphere and visual culture throughout their culture through the lineality of the Empire and the homogenization of mass-processed "citizens, statuary, and books" (Gutenberg 60). Interaction within this

increasingly left-hemisphere environment overtime helped to further the left hemisphere dominance over the right hemisphere. Essentially, the alphabet was the product of the left hemisphere that allowed for the creation of an environment filled by a left hemisphere structure, which had the effect of bolstering left hemisphere cognition over time. These changes to the brain, and, by extension, to our perspective, was an evolutionary process that developed as a side effect to the invention of the phonetic alphabet, and this byproduct was taken to an extreme by the invention of print.

As already stated, Gutenberg's printing press was the third extension to radically alter the human sensorium. The printing press greatly enhanced the visual aspect of the sensorium (McLuhan and McLuhan 23). In fact, McLuhan explains in *The Gutenberg Galaxy* that the printing press had the effect of severing the relationship between the vision and the other senses: "it was not until the experience of mass production of exactly uniform and repeatable type, that the fission of the senses occurred, and the visual dimension broke away from the other senses" (54). The change was responsible for the shift in the way that time and space were both conceptualized and understood.

The static, abstract, visual space of the phonetic alphabet developed into the Modernists extreme concept of "pure space." Pure space was created through the printing press' intensification of the effects of the phonetic alphabet, and this "intensification of visual space in the experience of the readers of the printed word appears closely in the work of Descartes and Galileo and Hobbes and Locke" (McLuhan and McLuhan 24). This Modern development of space reaches its culmination in Locke's conceptualization pure space. McLuhan and McLuhan explain that his pure space is directly related to visual space: "That is, the universe is a figure without a ground. This happens to be one

of the primary characteristics of visual space, since it too, as an imaginary continuum, is a figure without a ground. He [Locke] goes on to locate the universe in terms of container and contained, which is another feature of visual space alone” (24). Time and space from this point on would be conceptualized in terms of the infinite. In terms of space, John Locke (1632-1704) extended Euclid’s conception of space and conceptualized it as a “pure space” that was an infinite and static container of phenomena (McLuhan and McLuhan 24).¹⁴ Likewise, he theorized that time was linear, continuous, and infinite (McLuhan and McLuhan 25-26). Both time and space were conceptualized as “abstract, homogeneous, uniform” containers (McLuhan and McLuhan 26). Time and space were considered to have reality independent of human understanding, whereas in the acoustic, space was dependent upon the perception.

Whereas acoustic space had been living and resonant, visual space was linear, connected, and consequently abstract. The linear continuum “is infinite and featureless,” and this form of abstraction does not exist in reality because nature is a “dynamic environmental mosaic that is discontinuous and diverse” (McLuhan and McLuhan 23). The featurelessness and groundlessness is in stark opposition to the qualities characteristic of the obsolesced dynamic, living, and boundless acoustic space. Rather, visual space is conceptually a container that is meant to be filled with objects. The container of visual space was characterized as static, whereas acoustic space was considered to be resonant: “Connected, rational space presents to the scientist the possibility of linking figures logically inside a connected framework, and in abstraction

¹⁴ The Ancient notion of space is that space is experienced as a relationship between phenomena. Essentially, for the Ancient, space exists in things, whereas, for the Modern, things exist in space. Likewise, as Dr. Thames has explained in his lectures at Duquesne University, time, for the Ancient, exists in events, whereas events, according to the Modern, exist in time.

from any natural ground. Rational space results from enclosing one space inside another as a means of creating stasis” (McLuhan and McLuhan 23). The advancements of the scientific revolution were largely due to this shift in perspective that allowed the cosmos, which was living and becoming, to be perceived as a static entity that followed mechanically functioning laws.¹⁵

Furthermore, the printing press’ amplification of the effects of the phonetic alphabet is responsible for the rise of the idea of “objectivity” and the separation of the individual from the tribal mind because it created the illusion of the individual point of view that separates the perceiver from what is perceived. In fact, the phonetic alphabet and the printing press create the individual point of view: “The phonetic alphabet gives us a point of view since it promotes the illusion of removing oneself from the object” (McLuhan and Powers 38). Phonetic literacy separated the mind from its object of attention, but it was the amplification of this detachment by the printing press that created the fixed point of view. The isolation of sight from the rest of the senses, which is produced by the printing press, “confers on man the illusion of the third dimension” (M. McLuhan, Gutenberg 16). The detached nature of this individual point of view is what gives rise to the illusion of objectivity.

Objectivity and a detached perspective are “the rule” in alphabetic awareness (McLuhan and McLuhan 19). The “objectivity” created through the alphabet is a “mimesis of the dissociation of perceptual sensibilities (of vision from the other senses)” (McLuhan and McLuhan 16). McLuhan and McLuhan explain that the mimesis, or the

¹⁵ As is developed below, the problem with the perspective that is created by the printing press is that it mistakes the static theory for reality. In contrast to this position is the Ancient position, developed in Chapters 5 and 6, which viewed reality as both being and becoming and understood that any explanation of reality was not Truth itself, but rather, an interpretation of the Truth.

practice of representation and imitation, of preliterate cultures was not simply a process of learning, but was rather a form of “knowing, via merger of knower and known” (16). The preliterate mimesis is antithetical to the detached objectivity produced through the alphabet: “Using mimesis the ‘thing known’ ceases to be an object of attention and becomes instead a ground for the knower to put on. It violates all the properties of the visual order, allowing neither objectivity, nor detachment, nor any rational uniformity of experience” (McLuhan and McLuhan 16).¹⁶ This form of mimesis is far more than a form of representation. Rather, it is a transformation of one's “mode of being” that completely excludes “all possibility of objectivity and detachment of figure from ground” (McLuhan and McLuhan 16). The alphabet specifically transformed mimesis from a “making process into a representational matching” (McLuhan and McLuhan 19). This discussion of mimesis and objectivity is important because mimesis of this form is the specific “mode of cognition” of acoustic space (McLuhan and McLuhan 35). The mimesis of the Homeric poets was a sinking of his own personality in the performance such that “his audience in turn would remember only as they entered effectively and sympathetically into what he was saying and this in turn meant that they become his servants and submitted to his spell” (Havelock 160). As is discussed in Chapters 5 and 6, the shift in mimesis from the acoustic form to the visual form is important for understanding McLuhan's neo-medieval communication theory because the acoustic form is performative rather than representative.

This constructed point of view can be seen through the differences between the way literate people read images and the way non-literate people read them: “Literacy

¹⁶ McLuhan frequently cites the work of Eric Havelock concerning this shift. In his *Preface to Plato*, Havelock details the development of objectivity and the individual psyche as the product of the phonetic alphabet and the shift away from poetic *mimesis* as cultural pedagogy.

gives people the power to focus a little way in front of an image so that we take in the whole image or picture at a glance. Non-literate people have no such acquired habit and do not look at objects in our way. Rather they scan objects as we do the printed page, segment by segment” (M. McLuhan, Gutenberg 37). The relationship that non-literate peoples have with the image is different from the literate person’s on account of their different conceptions of space. McLuhan explains the different uses of the eye: “They [non-literate peoples] are wholly *with* the object. They go emphatically into it. The eye is used, not in perspective but tactually, as it were. Euclidean spaces depending on much separation of sight from touch and sound are not known to them” (Gutenberg 37). Everything on the page or screen is seen at once with no point of reference to distinguish the information that makes up the image. This simultaneity is not present after the printing press because the fixed perspective that it creates. The “arbitrary selection” of a fixed point to center a perspective in a picture results in the vanishing point, which is present only after the invention of the printing press (M. McLuhan, Gutenberg 16). The fixed perspective that is characteristic of the idea of objectivity is the product of visual space’s detachment from the other senses of perception, and its ability to synthesize the information into a perspective.

McLuhan and McLuhan utilize the Inuit as an example of how oral right-brain cultures view the world and language. They explain their general view of truth in the following manner: “To the Inuit, truth is given, not by ‘seeing is believing,’ but through oral tradition, mysticism, intuition, all cognition - in other words, not simply by observation and measurement of physical phenomena” (McLuhan and McLuhan 67). They explain that primitive societies believe that words help the universe come into

being: “The primitive is a phenomenologist who equates reading aloud the Book of Nature with the making process. As a man speaks, his language is in a state of birth, as is also the thing about which he is talking. Such parentage confers responsibilities. In this sense, every man is an artist” (McLuhan and McLuhan 68). The primitive society corresponds the name and the thing itself. With the advent of writing, cultures began to separate the power of the word and existence. McLuhan and McLuhan state: “Prior to writing and to print, words and utterances were still endowed with the magical power to form and transform existence” (69). Words were able to transform existence in this perspective because existence was largely considered to be linguistic in nature.¹⁷

The invention of the printing press, which was the third technology that has significantly altered the sensorium, amplified the effects of the phonetic alphabet and created modern individualism. As was quoted above, the printing press is *the* technology of individualism (M. McLuhan, Gutenberg 158). McLuhan explains in *The Gutenberg Galaxy* that the private stance of the fixed perspective was not important before the spread of the phonetic alphabet on a massive scale through the printing press: “In the Renaissance it became recognized technique that perspective called for a *fixed* point of view. Such a stress on private stance, while common to a print culture, simply did not concern a manuscript culture. The dynamics of individualism and nationalism were merely latent in the scribal mode” (56). The individual fixed perspective is the byproduct of visual space because visual space demands a point of view to centralize the information that is taken in by the eyes. These developments of Western civilization are being lost with the advent of another invention: electricity. Electricity is decentralized and is causing an outering of our central nervous system.

¹⁷ The linguistic nature of the cosmos is developed as the doctrine of Logos in Chapter 6.

As noted above, the acoustic space of the ear is opposed to the modes of thought created through the eye and visual space. Acoustic space is not linear, as visual space is, because “there are no boundaries to sound. We hear from all directions at once” (McLuhan and Powers 37). Whereas the eye perceives reality through a linear perspective that creates the either-or logic of the West, the ear produces a both-and perspective because of the simultaneity that exists within acoustic space. In other words, when a person uses their vision to perceive the world, things appear to us as we shift our perspective, or when we change our focus of attention. Whereas when a person is perceiving the world through hearing, everything that can be heard exists at once and all around us. In normal circumstances, the senses work in ratio with one another, but when the ratio between the senses is altered, cognitive shifts in the perception of the world take place. These shifts in the ratio can be altered through various means, but McLuhan is primarily concerned with the shifts that take place through contact with new technologies.

Where the phonetic alphabet, which allows the eye to function as an ear and is left hemispherecentric, has not gained dominance, people function within an auditory, right hemisphere perspective. The significance here is that the acoustic right hemisphere produces a different form of logic than the visual, left hemisphere. Whereas those who have been influenced by phonetic alphabet think through an either-or logic, those that have not been “civilized” by the alphabet “can easily entertain two diametric possibilities at once” (McLuhan and Powers 39). The “everything happening at once” quality of auditory space does not preclude linear logic. Acoustic space produces “the mentality of the multitude, or as Yeats put it: everything happening at once, in a state of constant flux.

For the genuinely tribal man there is no causality, nothing occurring in a straight line. He turns aside from the habit of construing things chronologically—not because he can't, but as Edmund Carpenter says, because he doesn't want to" (McLuhan and Powers 41). The phonetic alphabet produces a linear mode of thought not only because of the linear nature of reading, but more importantly because the eye is connected to left-hemisphere of the brain. The point here is that for McLuhan the linear, logical, "objectivity" of the "Western man" is primarily the product of the phonetic alphabet heightening the perception of the eye to the detriment of the other senses (M. McLuhan, Gutenberg 54). Though there were many benefits that were the effect of the left hemisphere, it was pushed to an extreme that altered our ability to properly read the Book of Nature.

The dominance of the left hemisphere and the creation of Euclidean space were fundamental for the development of Western civilization. However, the invention of the printing press has severed the relationship between the senses and has allowed for an unhealthy perspective that is created exclusively through left hemisphere and the eye. Acoustic space and visual space are both perspectives that are connected to the body parts that provide the brain with the senses to be unified as a perspective. These body parts register the senses and the nervous system sends the sensations to the brain to be made sense of. The process is not as simple as it seems because the different body parts are related to different hemispheres of the brain, which function correspondingly to the characteristics of acoustic and visual space.

Figure-Ground and the Resonant Interval

The development of the perception of reality through the hemispheres of the brain is directly related to McLuhan's use of the concepts of figure and ground. The history of

perception and its alteration by the extensions of the body is characterized by the two extremes of the acoustic space of oral tribalism and the pure space created through vision and the printing press. Standing between these two cultures is 1500 years of interplay within phonetic culture. However, we are leaving the extremity of the printing press through electricity, and McLuhan warns against society simply replacing one extreme with another. Rather, by developing perception in terms of figure and ground an interplay between the two, McLuhan believes that we can avoid the problems created through the radical shifts of the sensorium. Indeed, his tetrad, which is offered as a heuristic tool for the electric age, is defined in terms of figure and ground: “At full maturity the tetrad reveals the metaphoric structure of the artifact as having two figures and two grounds in dynamic and analogical relationship to each other” (McLuhan and Powers 3). Consequently, these concepts are crucial for understanding McLuhan’s tetrad.

Figure and Ground

Though the figure and ground were originally utilized to describe visual perception, the terms are broadened by McLuhan to “take in the whole of perception and consciousness,” for “all cultural situations are composed of an area of attention (figure) and a very much larger area of inattention (ground)” (McLuhan and Powers 5).¹⁸ McLuhan and Powers define a figure as “an area of special psychic attention,” whereas ground is “the total culture itself” (McLuhan and Powers 21). The ground is always first, and is followed by the figure that emerges from the ground (McLuhan and Powers 6). The figure is object to which a person is paying attention. The figure cannot exist apart from the ground, but the ground is not always recognized because it is much broader and is not what is directly focused upon. Furthermore, ground structures our understanding of

¹⁸ This quotation can also be found almost verbatim in *Laws of Media* on page 5.

the individual figure by providing “the structure of awareness, the way of seeing or the terms on which a figure is perceived” (McLuhan and Powers 5). Essentially, the ground, which generally goes unperceived in print-based understanding, structures the way that a figure is understood.¹⁹

The figure and ground are “in a continual state of abrasive interplay, with an outline or boundary or interval between them that serves to define both simultaneously” (McLuhan and Powers 5). This area of play is called the “resonant interval.” McLuhan and Powers admit that tetradic analysis is founded on the idea that figure and ground “form an iconic or tactile relationship, defined by the resonant interval between them” (22-23). Essentially, the interplay between the figure and ground, especially in the outline that defines the two in relationship with one another, is the culmination or end of perception and the beginning of consciousness.

Worth noting is that all potential figures make up the ground itself. Each figure emerges from the ground only when one’s focus of attention shifts to that particular figure. As one’s focus of attention shifts to a particular object, the object becomes the figure. However, the figure is, in part, defined by the ground out of which it arose. In normal circumstances the observer recognizes that the figure of one’s attention has an outline that becomes the area of interplay between the figure and the ground. In a sense, this outline is the grey area or the area in which the distinction between the figure and the ground begins to blur. McLuhan’s criticism of Western science is that because of its basis within the extreme dominance of the left hemisphere over the right hemisphere, the

¹⁹ An example of how ground shapes how a figure is perceived and utilized is the medium of twitter. In America, which has developed a ground based upon entertainment (Postman), twitter has been utilized for trivial discourse, whereas in the Middle East, which has a ground of political strife, twitter became the driving force behind the Arab spring (Huang).

“objective” observer does not recognize the object’s connection to its ground. When one’s focus of attention shifts to another object, the new object of attention emerges out of the ground and the previous figure recedes back into the ground. When the old figure recedes back into the ground, it then influences the new figure.

Figure/Ground and Space

As was shown above, McLuhan was extremely interested in the physiological difference between the two hemispheres of the brain. The dominance of the left hemisphere of the brain is being exchanged for right hemisphere dominance through the development of electricity. McLuhan was a prophet for neither hemisphere, but rather, was seeking to discover a way for humans to understand the world in a more balanced fashion. As is developed in the next chapter, McLuhan utilized the tetrad as an extension of the corpus callosum as the agent of dialogue between the left and right hemisphere. Likewise, the tetrad functions as a middle ground, medium, place of interplay, or resonant interval between the perspectives based upon acoustic and visual space. This medium between acoustic and visual space helps them to function together in the production and interpretation of reality in a balanced fashion.

The intermediary between visual space and acoustic space is called the “resonant interval.”²⁰ The resonant interval is conceptualized as an “invisible borderline between visual and acoustic space” (McLuhan and Powers 4). This intermediary between sound and vision is touch: “Touch, as the resonant interval or frontier of change and process, is indispensable to the study of structures” (McLuhan and McLuhan 102). Western civilization no longer saw the resonance within nature because the printing press stilled

²⁰ This term is taken from Heisenberg, and it is related to the sense of touch (McLuhan and McLuhan 76).

the resonance through the creation of visual space (McLuhan and McLuhan 51).

However, the abandonment of absolutes in the electric era caused the “whole mode of perception” to shift “from the abstract visual order instituted by our phonetic alphabet back to the fluid and dynamic audile-tactile Gestalt; from isolated, rigidly fixed figures to a mosaic of figure-ground interplay” (McLuhan and McLuhan 42). Electricity has shifted perception and understanding of space from being static back to a dynamic interplay of between ground and figure.

Though it was not recognized in visual space, this borderline between the two types of space is experienced through interfaces that are created through the senses, and within the interfaces, “figure and ground” are interacting with one another. As was explained above, the right hemisphere and the ear allow for interplay between all of the senses, and this is because the “audile and tactile are inseparable” (McLuhan and McLuhan 6).²¹ In each form of space that is produced through the configuration of the senses, “figure and ground are in dynamic equilibrium” (McLuhan and McLuhan 6; McLuhan and Powers 6).²² Both figure and ground exert pressure “across the interval separating them,” which by definition makes them resonating intervals and not static ones (McLuhan and McLuhan 6; McLuhan and Powers 6). The sense of touch is the space of the resonant interval, and “interval defines the relation of figure to ground and provides the structure, the con-figuration of ground” (McLuhan and McLuhan 70). Resonance is a quality of acoustic space, which means that the figure-ground relationship within the

²¹ This quotation can be found almost verbatim in McLuhan and Powers’ *The Global Village*: “Audile (acoustic) space and tactile (visual) space are in fact inseparable” (6). Powers associates the tactile with the visual, which is a legitimate move since the tactile stands between hearing and vision, but throughout the discussion on the resonant interval, which is one of the many pieces of text that Eric McLuhan claims Bruce Powers stole from *Laws of Media* (Cooper 239), tactility is clearly used throughout in terms of touch, not vision.

²² This space is called an interface in McLuhan and Powers.

resonating interval is an acoustic form of awareness that McLuhan is advancing for understanding in the electronic age (McLuhan and McLuhan 6; McLuhan and Powers 6). The resonant interval's "continual, potential transformation," which is created by the pressure between figure and ground, is called "chiasmus."²³ Here we see the key to McLuhan's theory of communication in that the idea of play, which is at the heart of the resonant interval, is the "basis of human communication" (McLuhan and McLuhan 102). The idea of the play as a characteristic of neo-Medieval communication is developed in Chapter 6.

At this point, understanding the resonant interval is important because there is no continuity in either pre or post Euclidean space because they are formed as "a discontinuous and resonant mosaic of dynamic figure/ground relationships" (McLuhan and McLuhan 40). The mediator between the visual, and the true realm of interface, is found within the sense of touch. McLuhan and Powers explain: "The idea of interface, of the resonant interval as 'where the action is' in all structures, whether chemical, psychic, or social, involves the factor of touch. Touch, as the resonant interval or frontier of change and process, is indispensable to the study of structures" (McLuhan and Powers 13). Worth noting is that McLuhan and Powers use the metaphor of play, which is an important metaphor within the phenomenology tradition, as essential to all human communication. The sense of touch involves "the idea of play as in the action of the interval between the wheel and the axle. Play literally constitutes the basis of human communication since human beings do not match ideas so much as reinterpret them" (McLuhan and Powers 12). This idea of play is important for the neo-Medieval theory of

²³ Chiasmus is an X symbol and also a rhetorical term in which two or more clauses are related to one another in a reversal to make a larger point. Chiasmus is also the reversal aspect of the tetrad that takes place when anything is taken to an extreme (McLuhan and Powers 9, 67).

communication that McLuhan establishes and is an essential characteristic of the tetrad as an extension of the corpus callosum.²⁴ Indeed, McLuhan believes that Western education, which emphasizes the left hemisphere over the right, is a disjointed confusion between visual and acoustic space, and the tetrad can correct the imbalance that exists within this perspective (McLuhan and Powers 13). Again, this is because the tetrad is based within right hemisphere cognition and helps to provide balance within the electronic age.

Implications

The transformation of society to acoustic space requires us to change the way that we interact and communicate. McLuhan and Fiore explain that, “at the high speeds of electric communication, purely visual means of apprehending the world are no longer possible; they are just too slow to be relevant or effective” (63). For this reason, McLuhan and Fiore explain that we can no longer be satisfied with gaining and interpreting information: “Electric circuitry profoundly involves men with one another. Information pours upon us, instantaneously and continuously. As soon as information is acquired, it is very rapidly replaced by still newer information. Our electrically-configured world has forced us to move from the habit of data classification to the mode of pattern recognition” (63). McLuhan’s tetrad is just what he is asking for: a tool used for pattern recognition. The tetrad is a pattern that McLuhan argues is inherent in all things. The pattern of the tetrad is perspective itself.

McLuhan does not abashedly argue simply in favor of the right hemisphere over the left, or acoustic space over visual space, but rather, he seeks a balanced position. The cognitive changes that took place in the phonetic alphabet were beneficial to mankind

²⁴ The corpus callosum is the bundle of nerves between the two hemispheres of the brain and it functions as the physiological place of translation and balance between the two hemispheres of the brain. The role of the corpus callosum is developed in the next chapter.

and civilization. These were extended even further and pushed to an extreme through the invention of the printing press. When pushed to an extreme, the benefits quickly reverse into harms. Likewise, in the electronic age, we are extending our ears and becoming much more tribal. Taken to an extreme, this has serious harms on mankind and also civilization. Because McLuhan stands with the Ancients in arguing that virtue is found within moderation, he was trying to provide balance and moderation between the two extremes. Through the Ancient valuation of seeking the means, McLuhan sought to inform people about the effects of extension so that they would not continually be swept away by the tides of new technology and media.

Indeed, the characteristics of the resonant interval and the corpus callosum are contained within the tetrad. Whereas all other technologies were extensions of the left and right hemispheres of the brain, the tetrad is the extension of the corpus callosum. The extension of the resonant interval and the corpus callosum is exactly what is needed in the contemporary historical moment, i.e., the electric epoch, because the extensions of the left and right hemisphere need to be balanced with one another. Just as the corpus callosum, as the place of interplay and translation in the brain, provide balance between the hemispheres, the tetrad extends the interplay and translation that are inherent in the corpus callosum. Specifically, the purpose of the tetrad, i.e., the visual representation of the laws of media, is “to provide ready means of identifying the properties of and actions exerted upon ourselves by our technologies and media and artefacts” (McLuhan and McLuhan 98). In other words, the tetrad helps us to know our species as much as it does our technology.

McLuhan was essentially trying to wake civilization from the sleep of media determinism that ignored the effects of technology upon the cognitive faculties of people within a given mediated context. McLuhan saw a basic problem in people not reflecting upon the effects of technology upon civilization, for it is only when people are “well-adjusted” and “sound asleep” to the effects of technology that media determinism is able to control our species (McLuhan and Powers 11-12). The unconsciousness of any of the effects of any force is a disaster (M. McLuhan, Gutenberg 248). Where people are willing to pay attention, there is no inevitability (McLuhan and Powers 11-12). When people are reflective about technologies and their effects upon culture, they can make wise decisions about technology, in that they can be understood and combatted. Knowledge restricts determinism because knowledge allows for choice (M. McLuhan, Gutenberg 247). For McLuhan, the solution to the problems that faced civilization was to be found within the embodiment of Logos not simply in the human body, but throughout existence.

Chapter 4: The Electronic Threat and the Exigence of the Tetrad

What may emerge as the most important insight of the twenty-first century is that man was not designed to live at the speed of light. Without the countervailing balance of natural and physical laws, the new video-related media will make man implode on himself. (McLuhan and Powers 97)

During the final years of Marshall McLuhan's life, he worked to synthesize his thoughts on the media and communication. Within the final synthesis of his thoughts, McLuhan postulated his laws of media and the tetrad. As was shown in the previous chapter, the laws of media and the tetrad are a part of a greater perceptual science that is critical of the conceptual and theoretical science that has developed since the Enlightenment. On this level, McLuhan's theory is merely an addition to the existing postmodern academic milieu. However, this chapter advances that McLuhan saw his work as anything but academic, and that there was a true significance and exigence for the tetrad in the electronic era. McLuhan argued that the invention of electricity was significantly altering the sensorium of the human being in the contemporary era. Given the ground and strength of the mechanical, industrial revolution and the radical nature of electricity, humans have two paths that they could follow, both of which are equally destructive to human society. However, McLuhan sought to balance our perception and understanding of technology so that we could manage the effects of technology. McLuhan's perspective is important in communication studies because it helps to establish a communication theory that provides balance and understanding in the dynamic information era of electricity.

Introduction

Since the dawn of the printing press, Western society has been shaped by an understanding of the universe in linear and sequential terms. Modern scientific methods of understanding the world have followed from this sequential perspective. As developed in the previous chapter, the technology of the printing press sent the left hemisphere into overdrive and created the unnatural situation of visual space being the predominant way of understanding reality. Through advances in science, which were the product of visual space, electricity was tamed and permeated throughout society through the distribution of electronic technologies. However, the taming of electricity has altered the human sensorium such that acoustic space has begun to obsolesce visual space. The prevalence of the perception of space as acoustic rather than visual has serious ramifications for human society in the twenty first century. McLuhan offers his tetrad as a corrective for the imbalance that has been created between acoustic and visual space.

This chapter outlines the threatening effects of electric technology upon the Western literate society. Though the printing press had a tremendous effect upon human beings, its 500 year hold on the human sensorium would not last indefinitely. In The Electric and the Return of Acoustic Space, McLuhan's understanding of the changes in the human sensorium by the invention of electricity is detailed. His development of the effects of electricity is at the heart of his thought because his whole theory of communication and the tetrad are offered as a cure for the ailments that have been produced by electricity. Most importantly, he argues that we are entering a new form of acoustic space that has the potential to dissolve the fundamental characteristics of Western Civilization. In Discarnation as Robotism/Angelism and the Corpus Callosum

electricity's creation of the "discarnate" man is explained. McLuhan points to the fact that we are increasingly being driven to modes of being that take their form from the extreme forms of left hemisphere cognition, i.e., angelism, and right hemisphere cognition, i.e., robotism. McLuhan seeks balance between the hemispheres and attempts to re-incarnate balance in the corpus callosum as the agent of dialogue between the two hemispheres of the brain. The balance found within the corpus callosum is the result of the interplay between the two hemispheres that is found within the corpus callosum. Finally, in Science Otherwise than Convention, the difference between these two perspectives is developed. Here McLuhan's critique of phenomenology and hermeneutics as Modern sciences are provided, and it shows how McLuhan viewed the Modern as inadequately equipped to combat the problems of discarnation. This section will serve as a lynchpin between McLuhan's theory of communication and the development of the classical and medieval trivium tradition found within the next chapter.

At this point, the Ancient perspective, the tetrad, and its context within McLuhan's perceptual science have been developed in this project. However, the significance and relevance of this perceptual science and hermeneutic tool has yet to be established. This chapter provides McLuhan's explanation of the significance of the Ancient nature of the tetrad for the electronic age. Just as the phonetic alphabet and the printing press had important ramifications upon society, so does the invention of electricity. This chapter ends by establishing the importance of understanding the trivium in the contemporary historical moment. The next chapter develops the rise and fall of the trivium tradition within Western Civilization.

The Electric and the Return of Acoustic Space

Up to this point, the focus of this project has been upon McLuhan's scholarship that was dedicated to documenting the evolution of the human sensorium and the brain in relationship to its extensions. Essentially, the inventions of the phonetic alphabet and the printing press allowed the left hemisphere of the brain to dominate the right hemisphere. This shift produced abstract, visual space as the perceived form of reality, which consequently, further shaped the modes of human cognition. However, the purpose of documenting this evolution was not simply to develop our understanding of the role of technology within society. McLuhan documented the relationship between the human sensorium and its extensions because the invention of electricity was causing a categorical shift, reminiscent of the shifts in the sensorium that were caused by the inventions of language, the phonetic alphabet, and the printing press. The invention of electricity threatens 2500 years of left hemisphere developments and cognition (McLuhan and McLuhan 76). The whole discussion of the hemispheres of the brain, acoustic and visual forms of space, and the modes of cognition related to these is important for McLuhan because electricity affects these just as previous technologies had done. As was developed in the previous chapter, the acoustic space of oral society was altered by the development of the phonetic alphabet, but was fully obsolesced by the printing press's creation of visual space. Just as the printing press had obsolesced acoustic space, electricity is obsolescing visual space in favor of a new form of acoustic space, which McLuhan calls neo-acoustic space and post-Euclidean space.

The Rise of Post-Euclidean Space

The cultural turbulence of the twentieth century was explained by McLuhan as the result of the rapid transition “between two cultures and between two technologies” (Gutenberg 141). In this period of transition “between five centuries of mechanism and the new electronics, between the homogeneous and the simultaneous,” every moment of “consciousness is an act of translation of each of these cultures into the other” (Gutenberg 141). Just as the printing press had created visual space, electricity’s form has an effect on the human sensorium’s ratio and construction of space. Indeed, McLuhan argues that through the invention of electricity, we are entering into a period characterized by acoustic space once again. In other words, visual space and the linearity of the left hemisphere of the brain are being lost as an effect of the simultaneous nature of electric information (McLuhan and McLuhan 72). In fact, the electronic age is characterized by the displacement of visual space for “electronic technology displaces visual space and retrieves acoustic space in a new form, as the ground now includes the detritus of alphabetic civilization” (McLuhan and Powers 19). In other words, the effects of the alphabet and printing press are the grounds for the acoustic perspective that is in the process of taking shape.

Though the effect of electric technology is the retrieval of acoustic space, most people in the twentieth century still experienced the world through visual space. The consciousness of most people is still formed through the visual space, for just as the alphabet took a long period of time to create full domination of the left hemisphere of the brain over the right hemisphere of the brain, the effects of electricity take time to fully transform the relationship between the hemispheres. Similar to the early resistance made

against the developing visual epistemology, “our conventional Euclidean common sense has yet to catch up with the reality or implications of relativity” (McLuhan and McLuhan 32). Resistance against the transformation to “Einsteinian four-dimensional space-time,” i.e., post-Euclidean acoustic space, is created because relativity has become the ground of visual space (McLuhan and McLuhan 23). Essentially, though people still talk about absolute values, cultural discourse has become increasingly incoherent on account of the simultaneity of perspectives and the relativism underlying the ground upon which reality is viewed and understood. In fact, the new relativity forces the abandonment of the “absolute space and absolute time,” which developed through the printing press during the Enlightenment (McLuhan and McLuhan 43). In other words, the status quo mode of thought promoted by the printing press is being called into question, and thus, resistance is being created by those attached to the institutions made in the form of the printing press.

However, while “‘normal’ or ‘common-sense space’ remains visual,” those in the forefront of society experience Einsteinian space, which is “acoustic or simultaneous once again” (McLuhan and McLuhan 22). McLuhan and McLuhan provide several examples of scholars and artists that are representative of this shift. In the study of logic, Lukasiewicz attacked visual space’s quality of continuity by conceptualizing a “three-valued logic in which things could be true, false, or indeterminate,” and in doing so, he “undermined the autonomy of efficient causality as well as that of history” (McLuhan and McLuhan 45). In the realm of physics, this rejection of continuity is taken up by Heisenberg, who argued that experimental verification was not possible in physics because of the principle of indeterminacy (McLuhan and McLuhan 45). In art, the fixed

perspective of visual space was abandoned for the multi-perspectivism of acoustic space by the cubists. Cubism abandons the static container inherent to visual space, presents its subjects “as *known*, from many sides simultaneously” instead of being merely seen (McLuhan and McLuhan 55). Likewise, in music atonality abandons the central key, which was the “single perspective or organizing frame to which all elements of a composition are related” (McLuhan and McLuhan 52). Those on the forefront of the electric revolution were all rejecting the linear and visual structures of thought in favor of the simultaneous and acoustic. Though pre- and post-Euclidean spaces are similar in that they are both acoustic, they are not without their differences.

Pre-Euclidean and Post-Euclidean Spaces

As the hold of the printing press upon the literate society is lessened, society is slipping back into an acoustic form of space that has similarities to the acoustic space of pre-phonetic culture. Similar to the oral cultures described in the previous chapter, electric space is characterized as acoustic and spherical in form because “the sense of hearing apprehends details from all directions at once, within a 360-degree sphere, as it were, in a manner similar to a magnetic or electrical field; so knowing itself is being recast and retrieved in acoustic form” (McLuhan and Powers 13-14). Essentially, today our form of “knowing” relates to the dynamism of electricity rather than linearity of print. Instead of finding himself in the environment of vision in which space and reason are “uniform, connected, and stable,” electronic man finds himself in an acoustic environment in which information is “simultaneous, discontinuous, and dynamic” (McLuhan and Powers 13-14). However, whereas the old acoustic space was founded upon speech, the new acoustic space is founded upon electromagnetic physics.

In addition to the spherical form of electricity, the world is characterized in the electric era as a “global village” because electricity is retrieving the tribalism of acoustic space. The global village, which was created by the breakdown of space and time through electronic technology, is an acoustic space characterized by “simultaneous happening.” Through the experience of simultaneous happening, “we have begun again to structure the primordial feeling, the tribal emotions from which a few centuries of literacy divorced us” (McLuhan and Fiore 63). On account of the breakdown of time and space through electricity, we can no longer be satisfied with gaining and interpreting information, for information is being poured upon us “instantaneously and continuously” (McLuhan and McLuhan 63). Since information is replaced almost immediately by newer information, “our electrically-configured world has forced us to move from the habit of data classification to the mode of pattern recognition” (McLuhan and Fiore 63). The problem here, as is developed below, is that through the dominance of dialectic in the form of Modern science, people no longer have a frame of reference for understanding patterns. Whereas the Modern, who utilizes dialectic without grammar and rhetoric, analyzes figures without ground, the acoustic mode is all ground and no figures, which is equally problematic (McLuhan and Powers 57).¹ Though the acoustic spaces of oral culture and electricity are similar in their spherical form and tribal characteristics, they are essentially not the same.

However, the new acoustic space, or post-Euclidean space, is different from pre-Euclidean acoustic space because the values and perspective created through print’s ratio

¹ McLuhan’s tetrad is exactly the remedy needed for problem of data classification in the era of constantly changing information, for it is a tool used of pattern recognition. The tetrad, by definition, as was developed in the previous chapter, is a balance between figure and ground. In fact, as was developed in Chapter 2, the tetrad is a visual pattern of effects that McLuhan argues is inherent in all things, and as such, it can be utilized as a perspective to understand the changes taking place in the world.

of the sensorium serve as the ground for post-Euclidean space. The ground of the retrieved acoustic space includes the “detritus of alphabetic civilization” (McLuhan and McLuhan 106). Though we have moved into an acoustic world of simultaneous events, the “habits of literacy persist in our speech, sensibilities, and in our arrangement of the spaces and times of our daily lives” (M. McLuhan, Gutenberg 29). In particular, contemporary people suffer from the illusion that they are still individuals with their own fixed perspective. As was related above, because of the instantaneous and continuous barrage of information in the electric era, people have lost their ability to make sense of the information and individual perspective have been lost. In this environment, the idea of individuality is an illusion because without the development of a perspective, individual identity based upon the arbitrary conformity to various cultural archetypes (M. McLuhan, Gutenberg 1). This illusion and ignorance of the effects of technology upon the human sensorium will only lead to the same troubles and violence of the past because “fragmented, literate, and visual individualism is not possible in an electrically patterned and imploded society” (McLuhan and McLuhan 75-76). The one hope that society has to prevent its implosion is the application of “consciousness and awareness” to the “hidden conflicts” between humans and their technologies both in public and private (M. McLuhan, Understanding 75-76). However, the application of consciousness and awareness to our situation has been problematized because of electric technology itself.

The Need for Awareness

One of the major problems with electronic technology is that it is an extension or outerring of the central nervous system itself. Since most people would view the externalized central nervous system as deathly abhorrent, when the central nervous

system is extended outside of human beings it must be numbed “or we will die” (M. McLuhan, *Understanding* 69). The result of the numbing of the central nervous system is that the electric age is “the age of anxiety” and is at the same time “the age of the unconscious and of apathy” (M. McLuhan, *Understanding* 69). The simultaneous nature of information concomitantly produces a tribal state of fear and apathy within the masses because of an inability to make sense of barrage of information. However, this situation is not insurmountable because today we have the benefit of knowing how our extensions affect us, whereas in the past, we did not. This knowledge gives us the power to choose whether or not an extension ought to be utilized in and distributed through society. However, the development of consciousness and awareness of the effects of technology is not compatible with the fear and apathy that characterize the neo-acoustic environment that electricity has created.

The purpose of McLuhan’s writing was to awaken people from their apathy and mediated slumber. Humans, when unreflective about the effects of technology, act as the sex organs of the machine world (M. McLuhan, *Understanding* 68). Since media are the extensions of people, they “depend upon us for their interplay and their evolution,” and if we so choose, we can “think things out before we put them out” (M. McLuhan, *Understanding* 73). The way we allow technology to be produced will affect the way that we are as human beings. Thus, the need to awaken people from this mediated slumber was especially important because unlike any technology of the past, electricity is totalitarian in nature: “Man must serve his electric technology with the same servo-mechanistic fidelity with which he served his coracle, his canoe, his typography, and all other extensions of his physical organs. But there is this difference: previous technologies

were partial and fragmentary, and the electric is total and inclusive” (M. McLuhan, Understanding 86). The danger of electricity is that its reach and potential is far more extensive than any previous medium. Just as other extensions had done, electricity is changing the formation of society and modifying the individual. To complain about the effects of technology would be “like cussing a buzz-saw for lopping off fingers” (M. McLuhan, Gutenberg 158). Here we see that McLuhan is focusing our attention not on making complaints about technology, but rather on understanding technology so that we learn to control our extensions.

Throughout history, people did not have awareness of the side-effects of the technologies as extensions of the human sensorium. The speed up of the relationship between cause and effect through electricity provides contemporary people with the ability to recognize the effects of technology. However, when left unaware of the relationship between technology and the body, electricity is allowed to recreate our “mental processes” in the pattern of “the most primitive men” (M. McLuhan, Gutenberg 30). Indeed, it is the “unexamined assumptions derived from technology” that unnecessarily maximize determinism in human life, but the trap of determinism can be reduced and avoided through education and knowledge about the effects of technology (M. McLuhan, Gutenberg 247).

In this section, the effects upon space and society were shown. In particular, space is increasingly being understood in an acoustic form. Consequently, McLuhan argues that society is increasingly tribal in nature, and that this tribalism is global in scope on account of electricity’s ability to unite people across global spaces. In addition to the special and social effects of electricity, electric technology was reshaping the individual

human being. The effect of electricity on this level is that it is transforming “discarnate man” from the printing press’ “angelism” to the even more detrimental form of “angelism.”

Discarnation as Robotism/Angelism and the Corpus Callosum

Electricity is the extension of the central nervous system itself. Through interaction with electric technologies people are able to become disincarnate beings, which McLuhan names “discarnate man.” A person can be “present” with others thousands of miles away through the telephone or video conferencing over the internet. When people use these technologies, their physical bodies “are translated into abstract images” and are “entirely irrelevant to the new situations” (McLuhan and McLuhan 72). The user of electronic media, discarnate man, “bypasses all former spatial restrictions and is present in many places simultaneously as a disembodied intelligence,” which “puts him one step above angels, who can only be in one place at a time” (McLuhan and McLuhan 72). Like an angel, the user of electric technology becomes pure intellect with no need of a body. Thus, as was stated above, the product of electricity is discarnate man, and discarnate man has two potential modes of being, both which are structured as left and right hemispheres pushed to their extremities. Both positions are equally problematic because they are both extremes, and balance between the two perspectives is sought by McLuhan as the virtue that can provide a relative degree of health and stability to society.

Angelism and Robotism

The two discarnate forms of cognition created through the hemispheres of the brain are given names. Left hemisphere thinking is called angelism and right hemisphere cognition is called robotism. By definition, angelism is the product of the printing press

because it is the characteristic of “being chained to a fixed point of view, without ground” (McLuhan and Powers 57).² Characteristic of the movement toward angelism after the invention of the printing press is Descartes’ separation of the mind from the body, and the sway that this philosophy has held over society since it was postulated. Angelism “allows technology to move as a dumb force” because it floats in the clouds of abstraction “without any relation to ground, or environment” (McLuhan and Powers 12). This development “ensures a rigidity of point of view which is largely a consequence of linear and visual logic” and is “best characterized as promoting confrontation and fragmentation, some of the chief elements in the illusion of objectivity” (McLuhan and Powers 69). By holding onto this perspective that was created by the printing press, learned and literate people are unable to understand the transformation of the human sensorium that is the result of electric technology. Indeed, electronic technology has extended discarnation further than Descartes could have ever imagined.

In fact, electric technology has pushed the left hemisphere discarnation of angelism to an extreme, and reversed discarnation into a right hemisphere form called robotism. Robotism is a “plane of expertness,” which allows the individual to pass “beyond the necessity of taking thought about the proper course of action” (McLuhan and Powers 67). This plane of expertness requires the “extension of the left-hemisphere detached and objective self” (McLuhan and McLuhan 79). Though robotism is similar to the detachment of visual space, it is different because it is the result of “pushing the right hemisphere to a state of total enlargement or enhancement, to the point of reversal (chiasmus) of apparent characteristics” (McLuhan and Powers 67). Instead of having a

² Theall notes that the term Angelism was “a relatively rare word among Catholics in the 1950s when the French Catholic philosopher Jacques Maritain introduced it in a critique of Descartes and the Cartesian aftermath in his discussions about poetic and creative intuition” (77).

perspective from which one can interpret situations, robotism functions from a multi-sensory equilibrium that allows for instant readjustment (McLuhan and Powers 69). Robotism is the “ability to be equally empathetic in many areas at once” (McLuhan and Powers 57), and it refers to the “suppression of the conscious ‘observer-self,’ or conscience, so as to remove all fear and circumspection, all encumbrances to ideal performance,” and is not to be confused with “rigid mechanical behavior” (McLuhan and McLuhan 79; McLuhan and Powers 67). Essentially, in the face of instantaneous and continuous stream of information, the individual copes through the abandonment of a point of reference.

Representative of the development of robotism for McLuhan in philosophical thought is the phenomenology and research on technology of Heidegger. Heidegger, in *The Question Concerning Technology*, argues that enframing, the mode of revealing being or the standing-reserve, is the essence of modern technology, and as such, freedom is found within the mimesis of technology (McLuhan and McLuhan 63-64). However, this approach to interpretation, technology, and being is problematic because the result of this “submissive interiorizing of modern technology” is robotism, and it “necessitates a total shelving of private identity or merely human humanistic values” (McLuhan and McLuhan 64). Whereas McLuhan is seeking a balanced middle ground between the extremities of orality and the printing press, Heidegger is embracing completely the retrieval of acoustic space. McLuhan summarizes this in the following manner: “Plato realized that civilization did not have a chance until the mimetic spell of the bards was broken. To re-enter that world is to cast off the civilized—which seems to have escaped Heidegger, for he identifies the merge with electric technology with the path to salvation”

(McLuhan and McLuhan 64). Along these lines, McLuhan notes that enthusiasm for Heidegger's "non-literate bias in language and philosophy" is largely a product of the "naive immersion in the metaphysical organicism of our electronic milieu" (Gutenberg 248). True to the form that made him so popular, McLuhan quippingly furthers this point by stating that, "Heidegger surf-boards along on the electronic wave as triumphantly as Descartes rode the mechanical wave" (Gutenberg 248). The result of Heidegger's robotism is that the individual self and fixed point of view are lost in favor of the voice of the tribe distributed through the electronic mass media (McLuhan and Powers 65). The extension of our central nervous system has had the effect of re-tribalizing Western civilization.

Here we see that the retrieval of acoustic space through electricity, and, consequently, the tribalism that accompanies acoustic space threatens the stability of civilization and the global village itself. The danger of tribalism is that its natural state is a state of terror because "everything affects everything all the time" (M. McLuhan, Gutenberg 32). If society does not become aware of what is happening society will move into a "phase of panic terrors, exactly befitting a small world of tribal drums, total interdependence, and super imposed co-existence" (M. McLuhan, Gutenberg 32). Since the discarnate man of post-Euclidean acoustic space "has no relation to natural law (or to Western lineality), his impulse is towards anarchy and lawlessness" (McLuhan and McLuhan 72). And as developed above, minus the body, the discarnate human loses their private identity (McLuhan and McLuhan 72). The private identity that was created through the printing press is being pushed to an extreme, which on an individual level results in solipsism, and on a corporate level, results in tribalism (McLuhan and

McLuhan 59). Whereas the old form of tribalism consisted of a bound between the tribe, the newly developing tribalism damages the individual stripping whole populations of “personal or communal values to a degree that far exceeds the effects of food- and fuel- and energy-shortages” (McLuhan and McLuhan 97). The problem with discarnation is that we no longer understand ourselves, others, or the world itself. We become separated from them whether it is from angelism or robotism.³

The Corpus Callosum as Corrective for Hemispheric Imbalance

The goal of McLuhan’s project is to prevent the problems of angelism and robotism and to raise awareness to the need to “teach ourselves to abandon the tendency to view the environment in a hierarchical and totally connective way, to center ourselves instead in the arena of interplay between the two modes of perception and analysis, which is comprehensive awareness” (McLuhan and Powers 49). When the two sides of the brain are in harmony, which is rare, comprehensive awareness is the result (McLuhan and Powers 48). The Ancient perspective encompasses both hemispheres, and does not seek to lose the greatness of the left hemisphere and its scientific advances.⁴ Indeed, as was discussed in the previous chapter, it is the Ancient and Thomistic *senus communis* that McLuhan advances as the faculty that produces the relationship between the senses to produce awareness. For this very reason McLuhan tells Fr. Ong that he is attempting to build a “sensus communis for [the] external senses” (M. McLuhan, Letters 281). Just as was established in the previous chapters, McLuhan is attempting to retrieve the

³ In contrast to my claim here, Theall argues that angelism is a cyborgian person and represents the position of the grammatical-rhetorician (Theall 76). He argues that McLuhan’s claim because the tetrads in *Laws of Media* are robotic, i.e., hermeneutic, rhetorical, and poetic, because they are contrary not logical or dialectic, which would be angelistic (Theall 78).

⁴ Most discussions of McLuhan and the hemisphere understand McLuhan as advancing solely right hemisphere thought, but as is shown below, and throughout this project, McLuhan was indeed seeking balance.

perspective of the Ancient, specifically in the guise of Thomism, as the appropriate mode of being in the electric world.

Though most of this chapter and the previous one have spoken of the two hemispheres of the brain and the modes of space and cognition that they produce separately, they are not completely unrelated. The relationship can be seen within the faculty of *sensus communis*. Except for the changes in the brain caused by the extensions of language, the phonetic alphabet, the printing press, and electricity, the changes upon brain functioning have been incremental, and not categorical. Analyzing hemispheres appositionally in the context of study is important because it helps to show the qualities of the perspective when one side of the brain dominates the other side. In fact, the challenge of the twenty first century is to understand the nature of both hemispheres and the perspectives that they produce because with the advent of electricity, our brains are once again changing. In fact, the outering of the *sensus communis* and the corpus callosum is especially important today because in the current historical moment we have a “formula for complete chaos” in that our technology is increasingly shaped through the right hemisphere, whereas our political and legal institutions are shaped through the left hemisphere (McLuhan and McLuhan 80). Again, McLuhan is seeking for balance and interplay between the left and right hemispheres, between the acoustic and visual, which is the resonant interval and is the function of the corpus callosum. Though “acoustic and visual space structures may be seen as incommensurable, like history and eternity, yet, at the same time, as complementary, like art and science or biculturalism” (McLuhan and Powers 45). Indeed, even though the hemispheres of the brain are different, they function together in order to produce the “‘unified field’ of the mind” (McLuhan and Powers 48).

In other words, when there is balance between the perspectives, understanding is produced.

Though the two hemispheres of the brain are different, they work with one another through the medium of the corpus callosum: “But no matter how extreme the dominance of either hemisphere in culture, there is always some degree of interplay, thanks to the *corpus callosum*, that part of the nervous system which bridges the hemispheres” (McLuhan and McLuhan 76).⁵ The corpus callosum is the agency of dialogue between the two hemispheres (McLuhan and McLuhan 69). As the agency of dialogue between the hemispheres, the corpus callosum is the physiological place of translation and interplay between the two hemispheres of the brain, which means, *sensus communis*, i.e., the balancing of the perceptions between the left and right hemisphere cognition, is grounded within the physiology of the brain.

The corpus callosum and its function as the place of interplay between the two hemispheres of the brain are used analogically to explain how cognition must develop for a better future. Under normal circumstances the hemispheres of the brain are in constant dialogue with one another through the corpus callosum, but McLuhan argues that each hemisphere uses the other as a “ground” except when the left is allowed complete dominance, as was the case after the printing press (McLuhan and McLuhan 70). The importance of the corpus callosum in balancing the activities of the left and right hemispheres is shown in example of jogging. When a person jogs, “the left hemisphere, through the corpus callosum, sends a signal to the right hemisphere to move both hips synchronously” (McLuhan and Powers 50). The corpus callosum is made of neural

⁵ An almost verbatim quotation can be found in McLuhan and Powers’ *The Global Village* on page 62.

interfaces that “keep us coordinated” (McLuhan and Powers 50). Essentially, most activities consist of aspects that are performed by either the left- or right-hemispheres and the corpus callosum is the coordinator of action and mediator between the hemispheres.

Understanding the dialogue between the left and right hemispheres of the brain through the medium of the corpus callosum is the “key to our future development as a species” (McLuhan and Powers 49). The corpus callosum as the center point of the two hemispheres ultimately functions as a metaphor for understanding reality beyond an either-or between linear, chronological, objective left-hemisphere and holistic, simultaneity of right-hemisphere thinking. Rather, we need to stand between the two hemispheres and promote understanding through the interplay of the two modes of thought: “The corpus callosum as a thick band of nerve fibers joins the left and right brain and coordinates audile/spatial construction and nonverbal ideation (right hemisphere) with calculation, speech, writing, and general linguistic abilities (left hemisphere)” (McLuhan and Powers 51). The corpus callosum is the medium between the two hemispheres of the brain, and as the place of translation between the two, it functions to balance the perspectives.

In this time of transition, the culture needs an understanding of the biases of our instruments so that we can correct these biases (M. McLuhan, Gutenberg 31). The first step in being able to read ourselves and the world properly consists of reconfiguring how we understand perception and the formation of a perspective of reality. In particular, as was developed in the previous chapter, this first step was taken by McLuhan in his conceptualization of the importance of perception and the concepts of figure and ground in shaping a perspective. McLuhan’s tool for reshaping understanding is the tetrad, and

the tetrad is intimately tied to his conceptualization of “figure-ground” and the resonant interval within the formation of a perspective. The tetrad can function to produce stability because it promotes the Ancient perspective that stands between tribal orality and the printing press’ linear individual.

As has been developed throughout this project, the tetrad is a part of a much larger perspective about reality and the nature of science. The tetrad is McLuhan’s adaptation of the Ancient perspective for the purpose of providing balance in the electronic age. The Ancient perspective was largely abandoned during the Renaissance. The Ancient perspective was replaced in favor of the Modern, which reduced reality in a form that privileged a bastardized form of efficient causality. Though the Modern rejects the perspective of the Ancient, the Ancient does not reject modern science, but rather its reduction of known reality. Consequently, the rest of this chapter is dedicated to developing the Ancient perspective’s understanding of reality as science otherwise than convention.

Science Otherwise than Convention

Various aspects of the perspective of the Ancient have been contrasted to the perspective of the Modern. Here the two perspectives’ different modes of science are developed. The modes of science are important for this chapter’s discussion of the threat of neo-acoustic space because the different sciences, as ways of approaching reality, are differently equipped for adapting to the developing electronic situation. Since McLuhan makes it explicit that he understands all human artifacts to be words, it is only natural that he utilizes the verbal arts of the liberal arts, i.e., the trivium, to ground his analysis of the laws of media. The association of reality and language is definitively Ancient in

orientation, and not Modern. The connection between language and the trivium began with the advent of the phonetic alphabet. The logos of the oral culture was “smashed” by the alphabet, and the fragments of the system were retrieved and organized in the form of the liberal arts with the trivium ruling them all (McLuhan and McLuhan 9).⁶ McLuhan and McLuhan explicitly state that the trivium is their concern because “all three elements are arts and sciences of language” (9). And as is shown below, the arts and sciences of language are extremely important within the perspective of the Ancient because logos is a divine principal that permeates all of Being, existence, and reality.

Empirical Science and the Logos

In his works McLuhan made it clear that he is functioning from a grammatical perspective. One of the most significant presuppositions of this stance is that the cosmos, or Being, is penetrated by and speaks to us through logos. This presupposition is the essence of the doctrine of the Logos. As is developed further in Chapter 6, important for McLuhan is the Stoics’ unification of the phonetic, fragmented logos within the trivium, which was intimately tied to the doctrine of the Logos and would become the basis the Ancient perspective that provided continuity between two millennia of Western Civilization.⁷ Since the cosmos is penetrated by logos, it was seen as containing a message that needed to be read. Thus, the study of the material world was done through the grammatical method of analogically connecting a thing and its name. In other words, empirical science was done through etymology. This perspective that understood the essence of all things as having its basis within language was the predominant “source of

⁶ “Logos” is an important and semantically rich Greek term with a meaning ranging from the individual spoken word to argument, from language to reason itself, and from the individual mind to a divine, universal Mind. The concept of logos is introduced in the following section, and it is further developed in Chapter 6.

⁷ See also McLuhan’s dissertation, *The Classical Trivium*, page 22.

scientific and moral enlightenment” from the time of the ancient Greeks to the Renaissance (M. McLuhan, Gutenberg 27-28; M. McLuhan, Trivium 15-18). During these two millennia, “language was viewed as simultaneously linking and harmonizing all the intellectual and physical functions of man and of the physical world as well” (M. McLuhan, Trivium 16). Indeed, grammar and science were “quite naturally united by the concept of language as the expression and analogy of the Logos” (M. McLuhan, Trivium 27). Though the Christian Church took over the power of the state from the Roman Empire, the essential structure of understanding the world and this tradition of learning remained relatively unchanged. The Christian developments of the trivium were a continuation of the tradition that held sway from the time of ancient Greek civilization, to Roman civilization, and would continue throughout medieval Christian civilization.

The Christian grammarians easily adapted the pagan grammatical art of grammatical exegesis for their own ends. Christianity easily adopted the Logos centered view of the world because within this tradition, they “found a congenial figure/ground interplay between scripture and nature (Latin for ‘about to be born’) in Genesis where the creation is presented as a divine Speech” (McLuhan and McLuhan 9). The tradition of understanding both texts and nature as acts of speech that needed to be interpreted was essential for grounding the connection between grammar and rhetoric. Consequently, those within the grammatical-rhetorical perspective “bent their efforts to developing parallel techniques for interpreting the ‘two Books,’ which they regarded as fully complementary” and “equally interwoven in picking out the details were the twin sciences of writing and speech, grammar and rhetoric” (McLuhan and McLuhan 9). Given the linguistic character of nature, these arts were also considered to be the sciences

for understanding and interpreting the existence. Thus, the next section describes the connection between the arts of the trivium and the science.

The Science of the Trivium

Each of the three arts of the trivium is distinguished by the three types of logos to which they are related. Rhetoric is related to the spoken word, and “its ground-work is transforming audiences” (McLuhan and McLuhan 9). Grammar is related to the written word, and it is concerned with “the interpretation of written texts and the ground-patterns in words, etymology” (McLuhan and McLuhan 9). Finally, dialectic is related to the inner word as thought, and it is concerned with “systems of right thinking” (9). One of the main differences between the arts is that both grammar and rhetoric are related to ground, whereas dialectic is not.

Grammar and rhetoric are intimately related to one another because they are both concerned with figure and ground, whereas dialectic is concerned only with figures. Rhetoric and grammar have a “natural affinity” that “springs in part from each having both figure and ground elements, and in part from both concerning words as presented to the exterior senses, in writing and speech” (McLuhan and McLuhan 9). Here we see that grammar and rhetoric naturally function with one another because they utilize figure and ground, and they both are perception based studies of words. These two arts need dialectic as a means to test their modes of thinking, but dialectic does not naturally depend upon grammar and rhetoric because function abstractly through the use of concepts. As such, dialectic is the “fountainhead of Method and Old Science” because it is compromises logic and philosophy, and it “co-opts rhetoric and grammar as a sort of external ground” (McLuhan and McLuhan 9). In addition to their differences with

reference to figure and ground, grammar and rhetoric differ from dialectic because grammar and rhetoric are concerned with exteriorized words, whereas dialectic is focused upon the interior word. This distinction between the interior and exterior is important in McLuhan's understanding of the epistemological transformations that have taken place with the advent of the phonetic alphabet and the printing press. Specifically, grammar, rhetoric and dialectic are further distinguished as sciences by their orientation to the logos and reality.

Since dialectic is concerned with the inner word and ignores ground, it is a theoretical science, whereas grammar and rhetoric utilize the senses to understand logos as a figure within the context of a ground, which makes them perceptual and empirical sciences. Again, grammar and rhetoric stand in distinction to dialectic. Dialectic is theoretical, whereas grammar and rhetoric are empirical (McLuhan and McLuhan 10). Theoretical science begins with "knowledge and theory," whereas empirical science begins with "ignorance and bias" (McLuhan and McLuhan 11). Along these lines, theoretical science utilizes concepts, whereas empirical science begins with percepts (McLuhan and McLuhan 11). In other words, empirical science begins by looking at the world itself to understand it, whereas theoretical science applies human thought to it. Theoretical science "cannot succeed unless it has an apparatus for locating and remedying flaws in reasoning," and likewise empirical science will fail without "a similar apparatus to detect and compensate for sensory bias" (McLuhan and McLuhan 11). The difference between the two is that theoretical science "proceeds by figure alone, the other by ground and figure (11). Grammar and rhetoric need dialectic to properly function, but

dialectic only needs itself to function. Consequently, dialectic is theoretical and grammar and rhetoric are empirical.

Dialectic by itself, or when allowed to rule over the trivium, is Old Science, and is concerned with abstract concepts, whereas grammar and rhetoric function together to understand the uttered inner word of the thing analyzed as precepts. Both concept and precept are lacking by themselves, so they need to be synthesized to understand the world. In fact, McLuhan's tetrad synthesizes these: "Our science accounts for these [personal and cultural forms of blindness or insensitivity], and in some measure compensates for them, by the tools of figure and ground, and the opening discussion of the sensory bias imposed on us by our extensions" (McLuhan and McLuhan 11). Old Science, on the other hand, is unable to compensate for its bias because it is largely blind to it, and in fact, often confuses its theories for reality. However, to see how radically different these approaches to the world are, one must reference the Ancient understanding of Logos.

This tradition of Ancient science, i.e., grammatical commentary and interpretation, which is developed in further detail in the next chapter, was always "regarded as a cumulative and collaborative enterprise" (McLuhan and McLuhan 9). Grammatical-rhetorical learning was a communal activity and tied to this tradition until the printing press separated the individual from both community and tradition. The alliance between grammar and rhetoric lasted for two millennia, or from approximately 500 B.C. to 1500 A.D., which is the point at which the printing press is introduced into Western civilization. For these two thousand years grammar and rhetoric reigned supreme over dialectic, and this orientation was ultimately guided by the Logos that

animated all existence.⁸ However, dialectic would eventually be held as superior to grammar and rhetoric, and when this happened, learning was separated from the Ancient tradition of the doctrine of the Logos. McLuhan criticizes Modern scholarship on the Greeks and Romans for its basic ignorance of this tradition.

Otherwise than Modern Scholarship

Modern scholarship is unable to help human society adjust to the effects of electricity, i.e., discarnation, because it is based upon the historical rejection of grammar and rhetoric by dialectics and the science based upon this transformation. Old Science, which is dialectical in nature, is concerned only with concepts and has no ground, whereas McLuhan's New Science, which is grammatical and rhetorical, begins with precepts and recognizes both figure and ground. Old Science seeks knowledge, which is illusory because of its lack of ground and context, but New Science seeks understanding which is practical for adjusting to ground, context, and, in effect, reality. Just as grammar

⁸ During this period we see the fissure of vision from the other senses, the separation of dialectic from the trivium, and the loss of the doctrine of the Logos. A worthy project for exploration would be to examine how McLuhan's ideas relate to Charles Taylor's explanation of the rise of Secularism in this exact time period, which can be found in his text, *The Secular Age*. Taylor set out to describe the process of how the West has secularized in the manner that it did. His project can significantly benefit from the Media Ecology tradition as understood by the Rhetoric and Philosophy of Communication. One of the important concepts that he discusses in his description of the West's secularization is the movement from a porous self that exists in an enchanted world to one of a buffered self that exists in a disenchanted world. The difference between these two concepts is essential to Taylor's theory of secularization. To begin with the enchanted world is a world in which meanings exist in things and not in the mind. Additionally, in an enchanted world was the lived experience of the porous selves before modernization took place. The porous self lacked the radical individuality of modern peoples. People of this time had meaning because of their existence and role within a community. Taylor argues that disenchantment took place around the period of the Protestant Reformation, which happened in the early sixteenth century, which is not even a full century past the introduction of the printing press in Europe. Essentially, when disenchantment took place, people became skeptical of the handed down traditions that were given to them by society and the church, and the people of the time began to be more critical. Disenchantment took place because people no longer understood meaning as existing in the world, but rather existing in the mind. As such, the individual began to be separated from the community and the buffered self was created. The buffered self is conceptualized as the modern individualist self that is impervious to and unafraid of the dead universe, as opposed to the enchanted living cosmos. Now, this is not the full story of secularization but it is the key to its origins, according to Taylor. However, what Taylor is unable to explain is why the world became disenchanted. Here it seems that McLuhan may have an answer to Taylor's question. Indeed, he even states that the theme of *The Gutenberg Galaxy* is to "show by exactly what historical process" the world was desecralized and assumed to be profane (69).

was at odds with dialectics as the art of interpreting phenomena in the transitional time of Plato (McLuhan, Trivium 42), McLuhan is putting them at odds today by juxtaposing his grammatical, and Ancient, art of interpreting phenomena against the dialectical and Modern sciences of phenomenology and hermeneutics.

For McLuhan, phenomenology is a Modern attempt to adjust to the changing environment of electricity. The aim of phenomenology from the time of Hegel to Heidegger has been an “attempt to get at the hidden properties, or concealed effects, of language and technology alike,” but phenomenologists have attempted to solve “a right-hemisphere problem using left-hemisphere techniques and modes of cognition—which is comparable to tap-dancing in chains!” (McLuhan and Powers 6). The problem of this perspective, for McLuhan, can easily be seen in the example above of Heidegger’s phenomenology as a form of robotism. Though he disagrees with the approach, the tetrad runs parallel to this Modern study. Similar to phenomenology, McLuhan claims that the tetrad is used as a “means of focusing awareness of hidden or unobserved qualities in our culture and its technologies” (McLuhan and Powers 6). In contrast to phenomenology, the tetrad functions to solve its dilemma, and loosen our feet from these chains, because it functions as a tactile resonant interval, a corpus callosum, or *sensus communis* between the left and right hemispheres, between visual and acoustic space. The tetrad is a balanced perspective that is grounded within the trivium tradition.

Likewise, the trivium tradition is utilized by McLuhan in direct opposition to the hermeneutics, linguistics, and rhetorical studies of his historical moment. Representative of this opposition is his critique of Paul Ricoeur’s work on metaphor. Indeed, McLuhan associates the problems of Ricoeur with the problems of contemporary rhetorical

scholarship in that scholars refuse to treat their subject “on its own terms” (McLuhan and McLuhan 123; McLuhan and Powers 31-32). Ricoeur’s analysis of metaphor is Modern and not Ancient because he understands “metaphor in terms of matching rather than the making process, in terms of logic and dialectic instead of poesis, in terms of (descriptive) concepts instead of percepts” (McLuhan and McLuhan 122). As was developed above, a key difference between the Ancient and Modern is whether they approach and understand the world conceptually or perceptually. McLuhan argues that for the problems of Ricoeur’s thought and of contemporary scholarship to be truly accounted for, a full history of the trivium would need to be done. Though he does not reference his own dissertation, he explains that parts of this history can be found within the works of “Jaeger, Howells, Ong, Lubac, and Marron, to mention a few,” but again, each these works “suffer from not accounting for the interdependence and interaction of the ‘three roads’” (McLuhan and McLuhan 123; McLuhan and Powers 32). Essentially, Ricoeur, and most modern rhetorical theorists, are called to task for understanding rhetoric and metaphor from the bias of dialectic (McLuhan and Powers 32). The Modern’s approach to linguistics, philosophy, and semiotics all stop short of being “true science” because, unlike scholarship grounded within the tradition of grammar and rhetoric, they lack ground and remain conceptual and not perceptual (McLuhan and McLuhan 118). As was noted in Chapter 2 about the Moderns who utilize McLuhan’s tetrad, here we see that McLuhan’s science runs parallel and not in absolute contradiction of the Modern perspective.

In addition to relating the arts of the trivium to the concepts of figure and ground, McLuhan also relates this discussion to his analysis of the left and right hemispheres of

the brain. McLuhan and Powers state that, “From the beginning, the trivium was beset by rivalry between the brain hemispheres, later known in Swift’s time as the wars of the Ancients and the Moderns, with grammar and rhetoric usually holding control of the trivium against the rival claims of the dialecticians” (33). This war between the Ancients and the Moderns continues today and is a fight between the left and right hemispheres. Grammar and rhetoric are “principally right-brain activities” (McLuhan and Powers 33). Though these arts are essentially right hemisphere activities, when they work in conjunction with dialectic, they provide balance to the hemispheres because they cannot function without dialectic (McLuhan and Powers 32). In contrast, dialectic is able to function without grammar and rhetoric, and the separation of it from them allows the left brain to wield unproportionate power over human cognition. Once again, McLuhan is seeking balance between the two forms of cognition, and here, it is found within the tripartite configuration of the trivium with grammar and logic at its head. This topic is extremely important to McLuhan and his studies because with the advent of electricity the tides have changed in the war between the arts of the trivium, between the Ancients and the Moderns.

Implications

In the final analysis, McLuhan saw electric technology as a threat to the livelihood of Western Civilization. He was neither a Luddite who desired the destruction of technology, nor the unabashed apologist for the electric age. Rather, he advocated that we understand our technologies, so that we would not be swept away by the effects of our technological advancements. Through the study of technology, McLuhan argued that the printing press had made us discarnate beings, akin to angels. However, with the

advancement of electricity, this discarnation was pushed to an extreme that threatens our civilization. Electricity's speedup of the transformation of information created the situation in which the fixed perspective of the literate individual was threatened. However, he advanced the perspective of the Ancients because it was better fit than the Modern's science for adjusting to the situation.

A large aspect of the Ancient science that McLuhan advocates is grounded upon the trivium tradition. Indeed, McLuhan even advocated that to make up for the shortcomings of the Moderns, a full history of the trivium would need to be developed. Here is precisely the lynchpin that connects McLuhan's greater theory of communication to the trivium tradition. Consequently, in the next chapter, the nature of the trivium and its position as the key to uniting the tradition of the ancient and medieval worlds is detailed. In addition to introducing the trivium as the education system of the Ancient perspective and its ideal of the *doctus orator*, the chapter explains how the art of dialectics was separated from the other two arts of the trivium.

Chapter 5: The Rise and Dissolution of the Trivium

But it was after the fifth-century Stoics who formulated the essential tripartite relationship [of the arts or sciences of the *logos*]. The Stoics developed a three-fold *logos* that served as a pattern for the later trivium, although the trivium itself was not formally recognized as the basis of education and science for some time. The pre-alphabetic *logos* was retrieved in two ways: it informed the patristic doctrine of the Logos, and it was recapitulated in the overlapping structures of the three-fold Stoic *logos*. (McLuhan and Powers 32)

In the middle of the twentieth century, Marshall McLuhan correctly prophesized about the nature of many of the technological advancements and sociological changes that would be made in the late twentieth century and are still being made in the twenty first century. Central to the “tetradic method” that he utilized in making these predictions were the ideas that electricity had made information transmission immediate and that awareness of all issues had become simultaneous. Likewise, he argued that cause and effect had become simultaneous to one another. As such, McLuhan looked to the Aristotelian and Thomist tradition of causality—as was discussed in previous chapters, this tradition understands cause and effect not in a linear fashion, but rather, as simultaneous to one another—to understand the world of electronic technology. In making this move, he aligned his tetradic project with the Ancient tradition of the trivium, which was the basis for interpreting both the nature and texts until the Renaissance. The trivium, which was made up of the arts of grammar, dialectic, and rhetoric, is a holistic tradition that is greater than the sum of its parts. However, since the Renaissance, the metaphoric glue that held the tradition together has been all but dissolved. Since then, the trivium has been fragmented into three seemingly unrelated subjects. McLuhan advanced a theory that was neo-Medieval in nature because he

attempted to recover this holistic perspective as the basis for pattern recognition in communication and education within the emerging acoustic space of the electronic age. In the electronic age, all information has become instantaneous and the average person lacks a coherent point of view to put information within a perspective. McLuhan offered his tetrad as a tool for providing balance and perspective within this context. Indeed, his tetrad is neo-Medieval because it reestablishes the trivium and the tradition of the Ancients. This chapter retrieves the history of the trivium as a basis understanding the neo-Medieval grounds of the tetrad, which as has been developed, can help to provide stability in the electronic era.

Introduction

In a world that suffers from the increased specialization of most aspects of education, and equates education with the “mere accumulation of facts” (Gwynn 88), it is reasonable to look at the varying subjects that compose education as rather unrelated to one another. This specialization is the result of the culture being accustomed to splitting and dividing things for the sake of control (M. McLuhan, *Understanding* 19). Given the tendency towards specialization, it is easy to assume that grammar, dialectics, and rhetoric are relatively unrelated and dissimilar studies. However, taken holistically these three studies make up the classical trivium, or verbal arts of the liberal arts education. McLuhan, as an Ancient, has attempted to show how the three arts are unified as the trivium instead of focusing upon their differences, which most scholars have done because of the “specialist’s bias” of modern academe. Viewed from this tendency toward specialization, many people, and most students, do not value and understand the importance of a liberal arts education, nor do they see the relevance of the liberal arts for

the “training” that they perceive as necessary for their future careers. Contrariwise, the trivium provided the student with “general principles as would later help him to a proper use of the knowledge he had acquired” (Gwynn 89-90). In this vein, the different aspects of the trivium were “concerned with the ordering of experience and the means of giving expression to this knowledge,” while at the same time, it “sharpened the mind and provided mechanisms for communicating understanding” (Huntsman 60). The trivium is more than a simple training in language; the trivium, when organized such that dialectics is subordinated to rhetoric and grammar, produces a specific type of moral and civil product: *paideia*, *humanitas*, or the *doctus orator*. This chapter describes the trivium as the foundation of “the unbroken tradition of sophistic culture” (Jaeger, I: 316) and its dissolution through the rise of the Modern.

The development of the arts of the trivium is divided into two sections. The first section, The Trivium and its Arts, describes the roles of grammar, dialectic, and rhetoric as the basis for education up to the Modern’s takeover of education during the Renaissance. Though the arts were interrelated as the trivium, grammar was the study of literature, dialectic organized and tested one’s knowledge of literature, and rhetoric was the art transforming one’s audience through eloquence. After the position of the arts is discussed, the valuation of sophistic education during ancient and medieval times is analyzed in, The Fall of the Value of the Arts of the Trivium. Here the product of the trivium education is analyzed. In addition to the development of the value of Ancient education, the separation of the arts and favoring of dialectic by the Moderns is described.

Up to this point of this project, there has been little discussion of the trivium itself. Indeed, it is at this point is where most scholarship on McLuhan ends. At best, there have been several scholars that mention and recognize the importance of the trivium within McLuhan's thought and even on his tetrad, but no scholar has of yet attempted to explain the relationship between the trivium and the tetrad. In doing this, the scholarly community lacks a comprehensive understanding on the greater context of McLuhan's theory and the purpose of his writing. This chapter develops the nature of trivium tradition and the product of this Ancient form of learning. Indeed, the previous chapter has already pointed toward the importance of the trivium within McLuhan's vision of the electric age. As such it is the basis for the next chapter's description of the philosophical assumptions that guide the trivium as a mode of interpreting the world and texts. As such, these two chapters provide the foundation for understanding the nature of tetrad as Ancient in nature and intimately tied to the trivium.

The Trivium and its Arts

The arts of the trivium have a long history that goes back to the time of the ancient Greeks. The arts were handed down as the predominant form of education throughout the reigning cultures of Western civilization as power was passed from one culture and generation to the next. Though changes would be made to the specific character of the arts themselves, the trivium as a whole would remain the basis of the liberal arts education until the scholastic revolution that began in the twelfth century and end at the Renaissance. In essence, the arts of the trivium were created by the Sophists, organized by the Stoics, put under the roof of the liberal arts by the Romans, and formally named the trivium during Carolingian Renaissance.

Before looking at the trivium and its arts, one must look to the roots of the verbal arts because the roots are so important that “they [the arts] cannot be understood without reference to their origin in it” (Jaeger, III: 47). Each of the verbal arts was derived from the poetic and musical education of Archaic Greece. The poetry of this period was not poetry as it is understood today, but rather, “an indoctrination which today would be comprised in a shelf of text books and works of reference” (Havelock 27).¹ The poets provided a cultural encyclopedia of “essential information” and “essential moral training” (Havelock 29, 31). Until the Sophists came to Athens and revolutionized both its educational and thought systems, music and poetry were at the heart of education.

Before the phonetic alphabet was introduced into Western civilization, there was no individual person per se. The mind of the individual human being was largely the product of the oral tradition that was handed down from generation to generation through the recitation of poetry. However, the art of dialectic would develop with the introduction of the phonetic alphabet in approximately 650 B.C., and it allowed the individual psyche to be born through formal promotion of the ability to question the content of the handed down tradition contained in Homeric poetry (Havelock 197-233). The oral tradition of the Homeric *paideia*² was a communal discourse that was preserved and disseminated by the tribal singers and reciters of Homer (Robb 33). In Archaic Greece the individual was educated in the values of the community through listening to the singers of poetry. So influential was this education program that “an aged Plato in his *Laws* admits, when

¹ The modern bias concerning poetry is that is thought of as “a discourse that expresses, dramatizes, represents, or ‘models’ states of subjectivity, or that adumbrates a complex ‘meaning,’ *rather than* offering argument/persuasion” (Walker viii).

² This Greek term generally refers to both the process and product of education, and it is developed in further detail below. By definition, the process of *paideia* produces the product of an orator who has prudent judgment concerning situational reality for the purpose of leading society.

remembering the Athens of his youth, to be a Greek man was always to be *anēr mousikos*, a ‘musical man’” (Robb 190). The educated person was grounded within the “songs” of the Homeric tradition. However, the musical nature of Greek education would change along with the transformation of Greek civilization with the rise of the phonetic alphabet.

The Place of Grammar

The musical character of the Greek education changed in the fifth century with the advent of literacy and its restructuring of *paideia*. The rise of the verbal arts of the trivium was reflective of “fundamental changes in the cultural traditions of the polis” (Wagner 6). The primary movers of *paideia* (both the education system and the cultural product) were the Sophists. The Sophists had transformed education itself in response to the phonetic culture that was developing in ancient Greece. Education was transformed from the memorization of Homer to learning “to speak well, act effectively in public life became a major component of this education movement” (Davies 178). In fact, through the new system created by the Sophists “pupils could emerge as educated men, in a sense wholly new not just in Greece but in human history” (Davies 178). The education of the Sophists was all together new and their transformation of the Greek education system would become the basis for education within the Western world.

Before the Sophists, there is no mention of grammar, dialectics, or rhetoric, so it is legitimate to assume that they invented them (Jaeger, I: 314).³ Though the Sophists are generally considered rhetoricians, in his dissertation, McLuhan clearly argues that all of these arts were practiced and taught by the Sophists. The Sophists helped to advance the

³ Kimball points to the connection between the arts of the trivium and the musical education, but he is tentative about attributing grammar to the Sophists because it was not formally systematized at this time (Kimball 24).

study of language and literature in such a manner that the philosophers were de-emphasized and helped to lay the roots of grammar in the “‘musical education’ in ancient Greek poetry” (Kimball 25). However, it must be remembered that by this point in time, the phonetic alphabet had permeated Greek civilization and the poetry of Homer could be studied as literature. Indeed, the allegorical and analogical exegesis of Homer is essential for understanding the grammar as a science for studying nature because its origins lie here (M. McLuhan, Trivium 18). The grammatical modes of allegorical and analogical exegesis are important for communication in the contemporary electronic moment because they allow for transformation and multiplicity of perspective within a greater whole.

Of the different grammatical modes of allegorical and analogical exegesis of Homer, McLuhan takes most interest in the Stoics. With all of the new found rationalism and the rejection of tradition, the Stoics “salvaged for science and ethics, not only Homer, but the symbols of popular religion and traditional mythology” (M. McLuhan, Trivium 19). In other words, the Stoics helped to save the sources of cultural tradition within the study of ethics and science. Worth noting is that whereas others stressed ethics and morals explicitly in their exegesis, the Stoics focused their exegesis on physics (M. McLuhan, Trivium 19). Through this interpretive stress upon the physics, or movement of the natural world, within the poetry of Homer, the Stoics were able to found the analogical connection between literature and nature, which is the essence of the grammatical science as the foundation of the trivium tradition.

In general, the grammarian, or *grammatikos*, was not merely a “man of letters,” but was rather a “literary scholar” (Bonner 49). Teachers of the grammatical art,

grammatistēs, first taught children their “letters,” and then, the students were made to memorize the works of great poets (Robb 184). In fact, the grammatical education was nearly synonymous with the study of literature, i.e., poetry (Bonner 48). As was stated above, poetry was far different than it is conceptualized in the contemporary world. Students began by memorizing, reciting, and singing epic poetry and lyric as a form of moral instruction (Robb 184). Likewise, comedies were taught for the sake of “direct moral instruction related to foolish and vicious types of everyday life” (M. McLuhan, *Trivium* 96). The moral instruction of the pupil was not accomplished simply through the act of memorization and recitation, but rather, through the internalization of the content of the literature, and poetry (Havelock 160). Grammar, then, was not simply an education in the structure of language, but was also an education in the values through the study of literature. Indeed, in ancient Greece epideictic rhetoric, or *epideiktikon*, included “everything that modernity has tended to describe as ‘literature,’” which “shapes and cultivates the basic codes of value and belief by which, individual members of a community identify themselves; and, perhaps most significantly, it shapes the fundamental grounds, the ‘deep’ commitments and presuppositions, that will underlie and ultimately determine decision and debate in particular pragmatic forums” (Walker 7, 9). Thus, the study of grammar was extremely important on account of the role it played in imparting the values of the culture (Havelock 29). Through the influence of Sophistic education “the teacher of grammar thus inherited a concern for ethics and history,” and this concern for teaching ethics and history through grammar “was subsequently transmitted to the Roman *scholae*” (Kimball 25). As would take place with the other arts, the Greek art of grammar would be transmitted to the Roman world.

The same perspective and methodologies were used in Rome on the works of Virgil. Essentially, the studies of language and poetry were “completely wedded” to physics and ethics (M. McLuhan, Trivium 20). The methods of grammatical science were etymology and allegory, and through these approaches to literature, “all that is incredible or offensive in the old legends of the gods is metamorphosed into a rationalistic explanation of the phenomena of the universe” (M. McLuhan, Trivium 25). Since the study of grammar was the grounding of the student within literature, grammar was the *foundation*, not the high point, of the trivium education system. In Roman times, it was assumed that the “*politior humanitas*” had grounding within “the encyclopedia of the arts which was provided by any competent *grammaticus*” (M. McLuhan, Trivium 66). An encyclopedic knowledge was required to be an orator, properly speaking. Likewise, during the Middle Ages, as in the ages before, grammar was not simply the technical study of language, but also, “all that we should include in the studies known as classical or philological—the systematic study of interpretation of the classical writers of ancient Rome” (Rashdall 36). The higher sciences were considered to be inaccessible without grammar, and throughout its history grammar “never lost its most fundamental position as the basis of all liberal learning” (Huntsman 61). The basis for learning in the trivium was encyclopedic knowledge of the literary tradition and its values, which was accomplished through the art of grammar.

Though it would be adapted and made to fit Christianity, the Roman education in grammar, dialectic, and rhetoric, which was handed down from the Greeks, would also be handed down to and throughout Christendom (M. McLuhan, Trivium; Murphy, Middle Ages). In particular, the art of grammar was utilized for studying nature, the Ancients,

and Scripture. The art of grammar would be developed to study the events of history as a message from God in that “the very events of history are a gigantic and complex statement to which the methods of grammatical exegesis are applicable” (M. McLuhan, Trivium 29). Indeed, though the Christian fathers were leery of the values contained within classical grammatical teaching, it was recognized that “they must be read in order to provide the disciplines and knowledge necessary for theology” (M. McLuhan, Trivium 71). Representative of the grammatical learning of this time, St. Boniface (c. 680-754), who brought Christianity and the classics to “German and Frankish soil” was said to have “known Virgil by heart” (M. McLuhan, Trivium 84-85). During the Carolingian Renaissance (appx. 775-900),⁴ grammar “begins by inviting the student to the love of wisdom,” and Wisdom “has built her house on seven pillars, the seven liberal arts, the necessary disciplines whereby philosophers, statesmen, and kings of old have achieved their ends, and doctors of the church have defeated their enemies” (M. McLuhan, Trivium 88). Contrary to the Modern perspective concerning the “Dark Ages,” classic culture was far from forgotten or despised by the learned peoples of the Middle Ages (M. McLuhan, Trivium 90).⁵

The arts were understood to be completely in line with the Christian faith because they could easily be analogically read as being contained within Scripture (M. McLuhan,

⁴ The idea of a renaissance during the Carolingian empire is debated among scholars. Thorndike argues that there is little evidence for a “Carolingian Renaissance” because there is a lack of political unity and a lack of evidence that Charlemagne promoted classical learning during this period (210-211). Likewise, Roberts argues that though there was the “copying and diffusion” of classical texts took place during this period, it was not a renaissance per se, because the era was particularly informed by Christianity and there was a lack of paganism within the perspective (399). Contrariwise, Eisenstein problematizes the idea of “renaissance” and a distinctive cultural movement of classical learning had taken place during this era (174-186).

⁵ Also, it should be noted that this really was learned peoples and not just men during this period of time. Through the rise monasteries as centers for learning, “learned women ceased to be exceptional cases” (M. McLuhan, Trivium 95).

Trivium 139-140). The people of the Middle Ages considered themselves to be the preservers of classical culture (M. McLuhan, Trivium 90), but it was ultimately the Moderns who separated themselves from “the main body of classical culture” when they separated dialectic from the trivium. However, before this separation was made, dialectic was utilized for the purpose of the other arts. Within the trivium, one needed a method for properly organizing their knowledge and testing the strength of their arguments. This skill was found within the art of dialectic.

The Place of Dialectic

The second art of the trivium was dialectics,⁶ and it stood between grammar and rhetoric. Dialectic, when maintained in relation to the other arts, was seen as “possessing the way to the principles of all curriculum subjects,” and it “alone disputes with probability concerning the principles of all other arts” (M. McLuhan, Gutenberg 59; Ong, Ramus 60). Dialectic stood between these arts as the method of right thinking because the arts needed a method to organize and test its knowledge and the dialectic needed these arts as the content and material for the practice of it as an art.⁷ It can be inferred from the ancient sources that the art of dialectic had its origin in the sophistic practice of *dissoi logoi*, arguing both sides of contrary theses. A prime example of dialectics, though formally called *dissoi logoi*, is outlined in the treatise by the unnamed Sophist in the treatise entitled *Dissoi Logoi*. In this treatise, the author puts forward several “double arguments” (*dissoi logoi*) as examples of the method (*Dissoi Logoi* 296-308). *Dissoi*

⁶ The second art is called by various names, including: dialectic, dialectics and logic. For the sake of continuity, I will refer to the second art as dialectic throughout the rest of the chapter though it is most commonly referred to as dialectics form utilized by McLuhan.

⁷ Here is the source for considering the trivium as a triptych. In the triptych, the middle panel is gives meaning to the other panels while at the same time being given meaning by the two outer panels. As is shown below, the triptych nature of the trivium is split by the Modern when dialectic is severed from the other two arts and taken to be an end in itself.

loggoi, in the form of dialectic, can also be seen in the dialogues of Plato, in which interlocutors argue different sides of an issue while Socrates cross-examines them for consistency in their arguments. Indeed, the form of dialectic can be best understood by studying the Socratic Method itself (Strump 126). Thus, in his *Rhetoric* Aristotle, student of Plato, argues that the rhetorician ought to be able argue both sides of an argument and that of all the arts only dialectic and rhetoric “are equally concerned with opposites” (1355a). The Sophists, Socrates, Plato, and Aristotle are all using the same methodology for organizing information and testing evidence. The difference between these Greeks would primarily have been motive, i.e., the Sophists sought political expediency, whereas Plato and Aristotle sought knowledge of the Truth.

In the trivium tradition dialectic was subordinated to the other two arts. Dialectic maintained the boundaries of proper thinking, in that the art was used from antiquity to the Middle Ages not to find truth but rather to order that which is already known (Huntsman 60; M. McLuhan, *Trivium* 44). Indeed, as is discussed below, this tradition is grounded within a “dogmatist epistemology” that did not see the need to philosophically question the cultural assumptions concerning reality (Kimball 38). Dialectic was used to help organize one’s encyclopedic knowledge into “common places” which in turn improved one’s memory of the information (M. McLuhan, *Trivium* 41). The common places and mnemonics “of early Sophistic development continued to contribute basically to the character of dialectics and rhetoric throughout medieval and Renaissance times” (M. McLuhan, *Trivium* 41). What is important here is that for those other than Plato and Aristotle, dialectics comes before rhetoric because it is used for organizing knowledge and testing evidence (M. McLuhan, *Trivium* 56).

Indeed, dialectics “taught the student to define his terms, to distinguish the genus from the species, and to relate the parts to the whole and to one another; thus it was useful for any kind of systematization” (Bonner 86). In addition to organizing one’s evidence, dialectic was “a way of testing evidence or the study of kinds of proofs for an argument, a method of dialogue, or simply logic” (Gordon, Editor’s Introduction xi). However, this art did not exist by itself, but rather, in the Stoic formulation, dialectic was “cosmological rather than terminological and propositional in reference,” and was likely inseparable from grammar (M. McLuhan, *Trivium* 51). In this period of time, though dialectic could be separated from the arts because it was a method for testing evidence, it was still connected to grammar and rhetoric through the literary tradition upon which the content of one’s arguments was dependent.

Moving through time, dialectic was particularly useful for the orator of the law-courts of Rome, just as they would have been in Greece. Within this context, dialectic was still “ancillary to rhetoric, since its function is always to organize empirical knowledge, whether grammatical or medical or legal, into some form of art” (M. McLuhan, *Trivium* 56). In Rome, as in Athens, the orator was practiced in the both the art of questioning and of “arguing *pro* and *contra*” (Bonner 83). As was noted above, the grammatical education provided the content of the questions and the values upon which the *pro* and *contra* would be decided. Through knowing how to properly question and argue both sides of an issue the orator could learn the stasis points, or commonplaces, of an argument and better understand the issue at hand. In doing so, the orator practices dialectic to test and strengthen evidence by understanding its appropriateness and

applicability for an argument. For this reason, Aristotle could validly claim that rhetoric is the counterpart of dialectics; the two, when functioning properly, work together.

The medieval period would likewise use dialectic within their education system. At one point during this time, dialectic was viewed as a “snare set to trap the believer” (Murphy, Middle Ages 46). This is worth noting because after the Modern’s separation of dialectic from the other arts, dialectic was seen as the art for the discovery of knowledge and truth, and rhetoric was viewed as the deceptive art. The upholding of dialectic and the distrust of rhetoric “dates from the sixteenth century success of Ramus in handing over to dialectics the first two branches of rhetoric (discovery and arrangement), leaving to rhetoric only embellishment (elocution), memory, and pronunciation or delivery” (M. McLuhan, Trivium 49). Though the arts were split in the Renaissance, they were united throughout the periods before this time. After one had organized their knowledge and tested their arguments, one needed to learn to be eloquent and persuasive, which was the subject of the art of rhetoric.

The Place of Rhetoric

The third verbal art, which was the high point and culmination of the trivium, was rhetoric. It was the oldest of the three arts and was necessary for participation in the *polis* (Kimball 24). As was stated above, rhetoric ultimately was derived from the musical *paideia* of Homeric Greece. Indeed, Walker argues that rhetoric originated as an extension of the “archaic poetic/epideictic domain from sung to spoken verse, then to the 'prose poetry' of *logos*, and thence to the domain of *logos* generally” (Walker 41).⁸ The formal study of rhetoric would eventually be organized into the study of the five canons

⁸ Walker provides a detailed account of this process in the second chapter of his book, *Rhetoric and Poetics in Antiquity*.

or topics: arrangement, delivery, invention, style, and memory, and was generally considered to be “the concern for correct expression” (Camargo 96). Rhetoric was thoroughly connected to the arts because correct expression was based upon dialectics organization of grammatical tradition.

Rhetoric was higher than dialectic because, as was discussed above, dialectics was concerned with testing evidence and organizing knowledge, which were prerequisites for the practice of rhetoric. Building upon this perspective rhetoric “involves the more difficult task, either in life or education, of elaborating a compelling argument based on an outline derived through the art of logic” (Kimball 26-27). By excelling in rhetoric a person could show that they were truly educated. Indeed, in this tradition, wisdom and eloquence were synonymous with one another. In other words, wisdom was shown through one’s ability to eloquently utilize the grammatical tradition. Along these lines, it is one’s eloquence that distinguishes the learned person “from the brutes, and he becomes less brutish as he becomes more eloquent” (M. McLuhan, *Trivium* 63). Contrary to the modern skepticism of eloquence, for the Sophists and the Stoics “there was no conflict between wisdom, eloquence, and political success. . . . For ‘the Stoics generally held that wisdom must justify itself by practical results’” (M. McLuhan, *Trivium* 63). In other words, the qualification for being a good orator was such that they demanded that the orator stand between wisdom and its incarnation in action.

Representative of this position, Isocrates believed that his form of education was ultimately a matter of cultivating the soul, just as gymnastics cultivates a healthy body (*Antidosis* 180-182). Philosophy, for the orator in contrast to the philosopher, had to be useful in the world (Kimball 35). Indeed, within the orator’s understanding of

philosophy, wisdom was the application of knowledge (M. McLuhan, Gutenberg; M. McLuhan, Trivium; Walker 27-29). Along these lines, Isocrates was “never a philosopher in the Platonic sense of the word nor a mere teacher of formal rhetoric, his aim was to train citizens for success in their private life and public affairs” (Gwynn 47). Isocrates differs from Plato in that he does not believe that in itself the acquisition of knowledge is a virtue. In fact he argues that people who follow their opinions lead better lives than those people who claim to have knowledge and the actual pursuit of knowledge is a waste of time and does not cultivate the soul (Against the Sophists 7-8). Isocrates viewed the search for knowledge through the life of dialectic as impractical and in the way of action (Kimball 18). This does not mean that the Ancient does not believe in truth, but rather, in contrast to Modern, he feels no need to be radically skeptical about the values and opinions of the civilization (Kimball). Here Isocrates, father of the Sophistic education system, is representative of the trivium tradition in that the basis for action is grounded within the literary tradition of his culture (Murphy, Middle Ages 3-10). This practical understanding of education would be handed down to the Romans and subsequently to the learned of Christendom.

Though grammar, rhetoric, and dialectics were intimately connected as the basis for learning throughout two millennia of Western culture, the connection of these arts would not last indefinitely. Indeed, in line with McLuhan’s claim that both Ancients and Moderns exist in throughout all periods of time, the nature of education was debated throughout history, but the Moderns would ultimately win a decisive battle in the war over education after the invention of the printing press.

The Fall of the Value of the Trivium

Though the trivium education system held sway throughout Western history, its position was not held without contention. The content of education in the West was debated primarily between philosophers (dialecticians) and orators (rhetoricians with a grammatical foundation). The origins of this debate reach back to Ancient Greece. As the Homeric age was coming to an end, the Sophists, or teachers of wisdom, began to teach persuasive techniques as a means to the end of political virtue (Kimball 16-17). Plato responded to the Sophists by claiming that they were unethical for persuading without knowledge of the truth. His education system was grounded in a constant dialectic in which the philosopher strove to discover or gain knowledge of the truth. Upon the position that knowledge directly leads to virtue, Plato “translated Homeric *aretē* into the pursuit of highest knowledge through dialectic, an endeavor that liberates the mind from the chains of its shadowy cave of ignorance” (Kimball 17). Contrariwise, as was discussed above, the Sophists held dialectics to be a method for organizing information and knowledge of literature (M. McLuhan, Trivium 45). In between these two positions was a third, that of Isocrates.

As is developed below, Isocrates disdained the moral laxity of the Sophists just as much as Plato, but, he saw Plato’s search for knowledge of truth as impractical. Isocrates sought a middle ground between the “moral indifference” of the Sophists and the Platonic view that “was certain to lead away from all politics” (Jaeger, III: 53). Isocrates’ form of education would end up being the primary form of education until the twelfth century, and it is this tradition to which McLuhan is aligning his thought (Kimball 15, 97). The value and product of this system was called *paideia* by the Greeks, *humanitas* and the

doctus orator by the Romans, and subsequently the Christos Rhetor by Christianity. However, just as the name for the phenomenon that English speakers call a “tree” may vary from culture to culture, the names for the product of the trivium education are different, they are all in essence the extremely similar. The product of the trivium education system, referred from this point on with the Greek nomenclature, i.e., *paideia*, was essentially a human being that was committed to the service of the common good.

The Ancient Value of Paideia

The trivium was the legacy that Greece gave to Rome and became the bond that held together Greco-Roman-Christian culture. Though Greek political influence would wane in the world, their education system, or *paideia*, was just beginning to wax. The Greek ideal of *paideia* was the ideal to which the men of the Roman republic sought to emulate (Crawford 80). The ideal of the orator statesman, in contrast to the Platonic philosopher-king, was produced through education during the Hellenistic Age, and subsequently in ancient Rome and medieval Christianity (Kimball 18). The production the value of *paideia*, and its Roman and Christian variations, through the trivium are important for understanding McLuhan’s tetrad because it is this same value that is advance through the tetrad.

As was stated above, education in the trivium distinguished the civilized from the brutish (M. McLuhan, Trivium 63). In this vein, a Latin equivalent of *paideia* is “*erudition*: a man is freed from roughness [ex + rudis] and is trained in true manliness” (Ratzinger 44). Education was sought for the purpose of creating “a higher type of man,” and it was “believed that education embodied the purpose of all human effort” (Jaeger, I: xvii). The discovery of the trivium was revolutionary because “it was not until it explored

these three of its activities that the mind apprehended the hidden law of its own structure” (Jaeger, I: 315). Through the discovery of the arts of the trivium, the Greeks were able to understand the human being in a way that was previous not possible. Consequently, this type of education concerning the understanding of the human being was the “the ultimate justification for the existence of both the individual and community” (Jaeger, I: xvii). Essentially, the community and the individual have a symbiotic relationship: the community educates the individual, and the educated individual lives to serve and lead the community.

In Ancient Greece *paideia* referred to the process, the product of education, or the state of being educated, and “finally the whole *intellectual and spiritual world* revealed by education, into which an individual, according to his nationality or social position, is born” (Jaeger, I: 303). The education system created by the Greeks, which was adopted by the Romans and later by Christianity, is unlike any other discovered by mankind. Jaeger describes the specific character of the Hellenistic culture (*paideia*) in the following manner:

By discovering man, the Greeks did not discover the subjective self, but realized the universal laws of human nature. . . . It starts from the ideal, not from the individual. Above man as a member of the horde, and man as a supposedly independent personality, stands man as an ideal. . . . It is the universally valid model of humanity which all individuals are bound to imitate. (I: xxiii-xiv)

The Greeks, unlike any other culture, sought to form an ideal civilization through educating the person according to an ideal civilized citizen. This quotation tells us that

paideia [both the educational form and its cultural product] is what made Hellenism unique, but it does not specify what essential characteristics characterize this ideal civilized person or the process of education that created this civilized person.

As time would pass, Greek civilization lost political power, but its education system still held sway throughout civilization. Indeed, many scholars argue that Cicero's coining of the phrase *artes liberales*, liberal arts, was relatively synonymous with and had an etymological connection to the Greek *enkuklios paideia*.⁹ The arts of the trivium were at the heart of education in both Greece and Rome. However, the Romans were unable to fully translate the *paideia* from Greek into Latin. The end product (*paideia*) of the trivium is similar to the end in the Roman system: *humanitas*. Through contact with Hellenistic culture, the purpose of education in Rome was to produce *humanitas*, or the "systematic instruction in the art of civilization" (Gwynn 57). Along these lines, *humanitas* also refers to the educating of the person into "his true form, the real and genuine human nature" (Jaeger, I: xxiii). The form of this ideal type of citizen was the *doctus orator*, or the learned speaker. The goal that is sought in producing the *doctus orator* is "the exercise of political prudence" (M. McLuhan, Trivium 70). The virtue of political prudence was necessary for the learned speaker because through his eloquence the public and its actions would be shaped. At its core, McLuhan's advancement of the trivium and the Ancient perspective is helpful in the electric age because its product is the ideal of political prudence, which has been problematized by the effects of electricity.

⁹ This etymology has recently been problematized in that evidence exists that the Roman terminology may have come before the Greek (Kimball 15-17). However, what is most important for this project and McLuhan's is that a strong connection between the Greeks and the Romans existed through their education systems.

An essential aspect for the production of political prudence was the presupposition that the aim of the trivium was “not knowledge but political power” (M. McLuhan, Trivium 44). In this regard, in ancient and medieval times dialectic was used “not to discover truth but to arrange and order what is already known” (M. McLuhan, Trivium 44). As was developed in the above section, dialectic was subordinate to these two studies because it helped to organize cultural knowledge and test evidence for rhetorical purposes. The essential characteristic of the liberal arts within the Isocratean lineage was a “dogmatist epistemology,” in that the goal of education was to “inform the student about the virtues rather than, as the Socratic tradition held, to teach the student how to search for them” (Kimball 38). In other words, the system itself is grounded upon tradition, which was handed down through grammar. Once again, given the first part of this chapter it is not unreasonable to assume that the virtues taught to the student were developed through the grammatical element of their education. This continuous “sophistic tradition” sought to produce wisdom in the form of the *doctus orator*.

Ultimately, grammar and rhetoric functioned together because grammar taught pupils morals and grounded the pupil within tradition, which was utilized as the foundation of wisdom by the orator. The value of encyclopedic learning was exemplified through eloquence, and the change from the *doctus orator* (the learned speaker) to the *vir bonus discendi peritus* (the good man speaking expertly) as the ideal product of this education helped to endear the Christian age and grammatical theology to this learning system (M. McLuhan, Trivium 71). Indeed, both grammatical theology and eloquence required encyclopedic learning, but it was eloquence’s additional requirement for virtue that would endure it to the Church fathers (M. McLuhan, Trivium 71). McLuhan

explains: “Ethics and eloquence were as inseparable in the nature of classical rhetoric as eloquence and learning were for Isocrates and Cicero. And it was the profoundly ethical character of eloquence which at first secured its adoption by the Fathers and later assured its cultivation by the medieval Church” (M. McLuhan, *Trivium* 111). This tradition, which was founded upon the trivium, was adopted by the Christian Church and would be passed down until the Modern takeover of education. As is shown below, contrary to the Modern perspective of the “Dark Ages,” education in the Middle Ages was a continuation of and extension of classical learning.

Medieval Learning

Contrary to the most histories, rhetoric, and therefore the trivium, did not decline with the fall of the republic and rise of the empire (Walker 71-135). In fact, the trivium had a large influence upon the culture leading up to the rise of Christendom. During the Second Sophistic of the second century, “rhetoric and philosophy were the twin cornerstones of higher education,” and grammar was equally important to these studies (Cameron, *Roman Empire* 94; Wells 234). So, the trivium was still the basis of education well into the later Roman Empire. By the time of the late Roman Empire Christian leaders were steeped in the trivium. Many Christians, especially the clergy, were educated within the liberal arts and became exemplars of “classical oratory” (Cameron, *Roman Empire* 72). Even though Emperor Julian outlawed Christians from teaching rhetoric and grammar in AD 362, rhetorical education remained a key element of higher education throughout late antiquity (Cameron, *Mediterranean* 63, 94) and was “essential to the functioning of the political and social structure” (Cameron, *Mediterranean* 131). Though some Christians were cautious of the values taught in the grammar school, the

Church was not officially opposed to the trivium. Indeed, as time passed and the Carolingian culture developed, society was a direct extension of the past and remained “literary and rhetorical” (Kimball 52). This era maintained the encyclopedic ideal that was grounded in Cicero and the Sophists (M. McLuhan, Trivium 44). Again, medieval culture was by and large a continuation of classical civilization.

During the Carolingian era (775-900), Alcuin (732-804) was one of the great exemplars and proponents of the trivium. He was truly learned in both secular and ecclesiastical learning and was considered one of the most learned of his age (West 118). Alcuin believed that the liberal arts were created by God himself and intended for the perfecting of human nature (Knowles 68). As such he desired to found a new Athens, better than the old, in France (Knowles 68). Alcuin “became the first Master of the Palace School [Paris], which under his leading gained a reputation such as it had never known before” (Gaskoin 58). Along these lines, he may have contributed to Charlemagne’s edict, *De Litteris Collendis*, which encouraged increased “verbal education” for the clergy (Kennedy 208). He is attributed as being the “moving spirit behind what we now know as the ‘Carolingian Renaissance’” (Wolff 16). Indeed, the verbal arts were named the “trivium” by Alcuin and his associates during the Carolingian era (Kimball 51). Alcuin’s description of the value of the arts is important for understanding the development of the trivium and what was exactly rejected by the Moderns.

Alcuin’s most famous work was his treatise on rhetoric and virtues.¹⁰ The treatise is written in the same dialectical manner as Plato’s *Dialogues* and Cicero’s *De Oratore*. All that separates Alcuin and Charlemagne from the “philosophers” of old is “faith and

¹⁰ *Disputatio de Rhetorica et de Virtutibus Sapientissimi Regis Karli et Albini Magistri*, or *The Dialogue of the Most Wise King Charles and the master Alcuin Concerning Rhetoric and the Virtues*.

baptism” (Alcuin 1212-1214). As those before him, Alcuin saw the art of rhetoric (the high point of the trivium) being concerned with public questions (52-64). In his description of rhetoric, specifically judicial rhetoric, there is a strong connection to dialectics and its common places (104-395).¹¹ Excellence in style came from following the rules of grammar and the authority of the ancients, knowledge of which came from the study of grammar (Alcuin 1000-1010). Besides outlining the art of rhetoric, Alcuin lists several virtues that are a part of the education process.

These values are worth noting because they show a continuation of the trivium education as the shaping of a person to these values, not an education concerning the discovery of values and Truth. Both in speech and in life, temperance is the virtue from which the others flow along with “elevation of mind, propriety of life, integrity of character, and superiority of training” (Alcuin 1169-1175). Living by the means had the potential to increase “virtue, knowledge, truth, and love of good” (Alcuin 1180-1209). In addition to temperance, there were three other virtues cultivated by the trivium: prudence, justice, and courage. Prudence was the “knowledge of things and of natures” (Alcuin 1223) and consisted of “Memory, Intelligence, [and] Foresight” (Alcuin 1225-1226). Concerning justice, Alcuin argues that, “Justice is a disposition of the mind to render to each what is his due. The worship of God, the laws of humanity, and the principle of equity in all life, are all preserved in this virtue” (1233-1235). Finally, he argues that courage is the “capacity to endure danger and hardship with an undaunted spirit,” and its

¹¹ Ong details a shift in the trivium education based upon the teaching of the topics rather than the categories. Through the extension of the topics in contrast to the categories, dialectic was furthering its separation to the other arts because the topics were free of predication, whereas the categories are intimately tied to predication. Predication was essential for the Ancient perspective because it was concerned with actual substance, and consequently, helped to maintain the relationship between language and the world (Ong, Ramus 104-112).

“attributes are High-Mindedness, Confidence, Forbearance, [and] Perseverance” (1264-1266). Ultimately, the cultivation of these virtues through the trivium is oriented toward the ability to “love God and our neighbor” (Alcuin 1223). Again, we see here that the trivium is grounded within a dogmatist epistemology that did not seek to find the truth, but rather to function from within the tradition that had been handed down.

Alcuin’s influence would last for several centuries after his death. Grammar and rhetoric would rule together over dialectics until the twelfth and thirteenth centuries. Contrary to popular belief, the Renaissance was not a rediscovery of Cicero or a “leap back over the centuries to Cicero,” but rather the “outcome of a continuous tradition” (M. McLuhan, *Trivium* 68). Indeed, “grammar and classical culture had been preserved by the Church after the fall of the Empire because grammar was then the indispensable mode of theology” (M. McLuhan, *Trivium* 138). Just as McLuhan notes in *Laws of Media*, he explains that the war between the Ancients and Moderns has been long standing and involves the relationship between the arts of the trivium: “The quarrels between the ancients and the moderns is a revival, or continuation, of the quarrel which Cicero waged with the philosophers, and which the medieval dialecticians waged against the grammarians” (M. McLuhan, *Trivium* 68). However, this battle took a decisive turn in the twelfth century. During the twelfth century a revolution was in the process of beginning: dialectics were beginning to become the preeminent verbal art. Logic would become the primary vehicle for understanding the world and would have the “widest consequences for the development of human knowledge” (M. McLuhan, *Trivium* 66-67).

Though the problem of the separation of dialectic from the other arts had its origins in the twelfth century, the actual separation does not take place until the abuses of

scholasticism by Ramus and Descartes. In fact during the twelfth century “the excesses to which the dialecticians went were corrected by the greatest of all the Schoolmen, St. Bonaventure and St. Thomas. They effected a return to the ancient *expositio*, but an *expositio* which had been greatly improved in technique and efficiency” (M. McLuhan, Trivium 173). So far from being a scholastic as the term is usually applied, McLuhan argues that it was only St. Aquinas that was able to reconcile grammar and dialectic (M. McLuhan, Trivium 174). Ultimately, it was during the Renaissance, that the Modern transformed the role of dialectic and separated it from the rest of the trivium and the tradition that it had supported.

The Modern Rejection of the Trivium System and the Rise of Dialectic

The understanding of dialectic as a mode of organizing one’s cultural and literary knowledge was the key point of the trivium education that the Modern would reject, and, consequently, would dissolve the relationship between the three arts of the trivium. Essentially, the Moderns utilized dialectic for the discovery of Truth. This is the difference between the Ancients and Moderns. Unlike the Sophists, Socrates viewed dialectics as a “way of testing evidence rather than of organizing facts” and he conceives of wisdom as “the possession of an intellectual virtue acquired by the constant exercise of critical examination of the status and nature of things” (M. McLuhan, Trivium 45). This perspective of wisdom is far different than the continuous Sophistic ideal of the eloquent speaker, the tradition of the *doctus orator*. This is not to say that they were unconcerned with the question of Truth. Rather, they were concerned with the probable, and through testing evidence, organizing knowledge, and eliminating inconsistencies helped one to draw closer to the Truth (M. McLuhan, Trivium 48). However, outside of the context of

the grammatical-rhetorical tradition, dialectic became an end in itself, which took place during the Renaissance.

Aristotle conceptualized the first non-grammatical science in his dialectical treatise, the *Posterior Analytics*, but this bore no fruit until the twelfth century (M. McLuhan, *Trivium* 17). The basic paradox in the twelfth century is that “grammar in its full classical sense reached an acme of successful cultivation at the moment when dialectics rose to challenge its very right to existence” (M. McLuhan, *Trivium* 132). In the twelfth and thirteenth centuries the dialecticians gained strength and would not “submit their science to those [methods] of the grammarian and rhetorician” (M. McLuhan, *Trivium* 67). In contrast to the whole trivium tradition, “the Ramist enterprise is the drive to tie down words themselves, rather than other representations, in simple geometrical patterns” (Ong, *Ramus* 89). Language was demeaned because “words are believed to be recalcitrant insofar as they derive from sounds, voices, cries,” and the “Ramist ambition is to neutralize this connection by processing what is of itself nonspatial in order to reduce it to space in the starkest way possible” (Ong, *Ramus* 89). Though a shift took place in the trivium that had significant consequences on knowledge, the trivium remained whole and the “Middle Ages never lost sight of the Ciceronian connection between oratory and letters, on the one hand, or between law and oratory, on the other” (M. McLuhan, *Trivium* 66). Through St. Thomas Aquinas’ christening of Aristotle’s thought,¹² the scholastics developed the dialectical methodology of Aristotle

¹² As was noted above, one should not mistake St. Thomas Aquinas as a Modern, simply because of his use of Aristotle’s thought. Indeed, McLuhan argues that St. Thomas was the model of the balancing of grammar and dialectics (M. McLuhan, *Trivium* 174). There is no one before or after St. Thomas who truly “reflects critically upon its own procedure, observes the bearing, the extent, the limitations of itself, makes itself accountable to the *sacra pagina*, and thus comprehends the intention of patristic theology as well” (M. McLuhan, *Trivium* 175).

and push it to an extreme and turn the trivium on its head by utilizing the trivium as a method for discovering Truth. However, the opposite was true in the fifteenth and sixteenth centuries “when grammatical humanism triumphed over an internally weakened, confused, and corrupt scholasticism” (M. McLuhan, Trivium 132).

The ascendancy of Aristotle in the twelfth century was devastating to the grammatical-rhetorical position because logic became absolute. Ironically, it became absolute where grammar and rhetoric were strongest because dialectics was used for the “sheer gain for theology but almost a total overthrow for grammar” (M. McLuhan, Trivium 138). The fight between the grammarians and dialecticians came to a high point in the twelfth century, but the grammatical slowly died through the corruption of scholasticism.

McLuhan offers Peter Abelard (1079-1142) as an example of the Modern confusion of the grammatical tradition because he is typically understood within the vein of dialectics, but he is still grounded within the trivium tradition, specifically within grammar. He explains that Abelard’s “own approach to theology was by way of huge digests of patristic, grammatical commentary on Scripture (*Summa Sentiarum*) and his own work, despite his genius for logic, remains more a monument to grammatical than to dialectical method, more in harmony with the spirit of St. Augustine than of St. Anselm” (M. McLuhan, Trivium 132). Abelard, “the greatest dialectician of his time,” does not utilize the known dialectical methods of his time in his commentaries on scripture, but rather, he frequently utilized etymology and the four levels of signification (M. McLuhan, Trivium 133). On the opposite side of the type of interpretation with which McLuhan aligns himself are the Calvinists of Nashe’s time that had armed themselves

“with scholastic method in theology and manning Ramistic ramparts in dialectics and rhetoric” (Gordon, *Escape* 111-112). It was the nominalism of Ramism and the mathematics of Cartesianism that would ultimately bring down the trivium tradition which was based upon the analogical connection between literary tradition and science (M. McLuhan, *Trivium* 31).

Though there were humanists that looked toward Ramus as a model for the Renaissance, Ramus was “a thorough-going scholastic,” which makes sense given that he was grounded within Calvin’s “scholastic theology” (M. McLuhan, *Trivium* 170). Here one can see a separation of handed down tradition for religious reasons. In terms of reform, Luther, far from being a Modern, was grounded within patristic, grammatical tradition, and disdained Calvin, who founded a new religion and counter-Church, for his scholasticism and Modern rejection of tradition (Belloc 115; M. McLuhan, *Trivium* 170). So far removed is his perspective from the Ancients, that “such notions as ‘the spirit’ of humanism or paganism or subjectivism or otherworldliness are totally useless in discussing the sixteenth century” (M. McLuhan, *Trivium* 170). Along these lines McLuhan shows that Faustus from Marlowe’s play is representative of the Ramist position that separates dialectic from tradition: “Faustus takes Jerome’s Bible, the text of the great grammarian-hero and model of Erasmus. He then proceeds very blatantly to apply the dialectical method to the text, instead of the grammatical method of exegesis; and he ends in Calvinistic despair” (M. McLuhan, *Trivium* 171). The Calvinists “rejected traditional grammatica as a mode of exegesis and resorted to rhetorical exegesis,” which had the effect of reducing the figurative expressions in Scripture to mere “ornament of a plain statement” (M. McLuhan, *Trivium* 190). Consequently, this Modern rhetorical

exegesis of Scripture, which had separated itself from the multiple-level interpretation of the grammatical humanists, was “a mere preliminary to scholastic dialectical method among the Calvinists” because the plain sense of passages of scripture was submitted to dialectical reasoning” (M. McLuhan, *Trivium* 190). The meaning that was found within the logos of the Ancient perspective is destroyed by the Moderns because the meaning of the sentence is destroyed when the science of dialectic “breaks a statement into its component parts” (Ong, *Ramus* 111). In terms of the McLuhan’s media theory described in Chapter 3, this breaking down of the meaning of the word is the natural consequence of the visual perspective that developed as a result of the invention of the printing press.

Many of the debates that took place during the time of the abandonment of the trivium tradition were not over theology, but rather, were over the differences of methodology between the patristics and the scholastics, both of which could be found in the various religious parties of the time (Gordon, *Escape* 112). The trivium is important for McLuhan because the takeover of learning by dialectics and mathematics has advanced knowledge, but not understanding (Gordon, *Escape* 104). McLuhan rejected the standard interpretation of the Logos as the leftovers of “a primitive worldview or uncritically held mythology” (Gordon, *Escape* 106). The point here is that even the dialectician par excellence of the Middle Ages was still grounded within the trivium. It is was through the developments of scholasticism and the pushing the methods of dialectics to an extreme for the purpose of discovering the truth that dialectics would be separated from the rest of the trivium.

The Trivium and the Renaissances

Along these lines, McLuhan takes a more broad perspective and explains that the different renaissances in Western civilization can be understood in terms of the trivium, and are helpful for understanding the rise of the Modern. The Carolingian renaissance was grammatical because it was shaped through the study of St. Augustine, who postulated science and theology in terms of grammar (M. McLuhan, Trivium 6). St. Augustine utilized the Isocratean and Ciceronian ideal rhetorician in conceptualizing the ideal theologian as the “*vir doctissimus et eloquentissimus*,” or the most learned and eloquent man (M. McLuhan, Trivium 7). The twelfth century was characterized as a “period of strife between dialectics and grammar,” but it was ultimately a dialectical renaissance because through the rise of Paris as a center for education, dialectics ascended over the other arts everywhere but Italy (M. McLuhan, Trivium 6). Finally, the fifteenth century renaissance that is typically recognized as *the Renaissance*, which McLuhan calls the Grand Renaissance, was a reassertion of grammar as the art of education, but its project would not be realized until the sixteenth century (M. McLuhan, Trivium 7). However, as was noted above, this reassertion of grammar was different from the old version because the people of the Renaissance had severed their relationship to the classical culture that had been handed down through tradition.

The primary difference between the period before and after the Grand Renaissance was that before this time, people understood the world “as a book, the lost language of which was analogous to that of human speech (M. McLuhan, Trivium 7). Indeed, language held such a high place up until the postulation of Ramist nominalism and the Cartesian revolution because it was seen as “simultaneously linking and harmonizing all the intellectual and physical functions of man and the physical world as

well” (M. McLuhan, Trivium 16). Indeed, the mark of this separation is noted by McLuhan in that the people of the Renaissance no longer experienced the magical word of the Logos, which had been the mark of the ancient and medieval alike (Gutenberg 27-28). McLuhan notes that all the way from Plato to Francis Bacon people would have understood Cratylus’ statement that a power greater than man gave things their names and that there was a truth to these names (Trivium 16). This statement was enhanced in the Christian era as the doctrine of names, the doctrine of essence, or the doctrine of Logos, which is described in the next chapter. After this period of time, with the separation of dialectic from the other arts of the trivium, people no longer understood the world through this worldview. The relationship between the world and the logos was separated in the minds of people.

The problem is that the language of this book is not human language. In the Christian tradition, it was believed that Adam “possessed metaphysical knowledge” of this language and book, but it was lost in the fall; the task of the arts is to regain the knowledge of this language (M. McLuhan, Trivium 16). The source of this knowledge was in the study of grammar because its primary mode of study or investigation was etymology. Indeed, in this perspective etymology was a “main source of scientific and moral enlightenment” (M. McLuhan, Trivium 16). The idea that etymology or investigation into the history of words as the science for studying nature may seem silly to the average person today, but when one understands the idea of names being tied to the essence of things, it makes sense how this method of inquiry could be considered science. Essentially grammar was the allegorical exegesis of natural phenomena through cultural traditions and myths (M. McLuhan, Trivium 16-17). McLuhan explains that “the

analogists argued for the view that there is a universal grammar, since language is the effect of reason, which is the analogy of the universal Logos” (Trivium 26). What we see here is a Realist position that thought precedes language and the context of thought is the product of experiencing reality.

McLuhan associates the grammatical and rhetorical method with humanistic activity and dialectics with philosophical activity (Trivium 134). He lists the “traditional grammatical doctrines” as expounded by John of Salisbury: “man is distinguished from the brutes by speech; the secrets of nature need to be approached *via* language and vice versa; Nature is the font of all arts; and the encyclopedic or liberal arts serve for the exegesis of Nature” (Trivium 136). These as doctrines were essentially the “positions of the ancients” (M. McLuhan, Trivium 136). Indeed, these are exactly the positions that he is re-establishing through the promotion of the tetrad.

The rhetorician could make wisdom a reality by moving people toward the right action through speech. The ancients, other than Plato and Aristotle, did not fear the person who spoke well. The verbal arts were for Cicero extremely important on account of the role that the orator played within the community. Because the orator was the master of *ratio et oratio (logos)*, his burden was to be the person who speaks when all else are silent (Cicero, I: XXV). The orator’s power came from the possession of eloquence, which “embraces the origin, the influence, the changes of all things in the world, all virtues, duties, and all nature, so far as it affects the manners, minds, and lives of mankind” (III: XX). Cicero argues that “uneloquent good sense” is better than “loquacious folly;” however, “the palm is to be given to the learned orator” (III: XXXV).

The end product of the trivium for Cicero is the creation of an extremely intelligent, outstandingly virtuous, and active citizen who will lead the community (Kimball 37).

The modern distrust of rhetoric stems from Peter Ramus' success in "handing over to dialectic the first two branches of rhetoric (discovery and arrangement), leaving to rhetoric only embellishment (elocution), memory, and pronunciation or delivery" (M. McLuhan, *Trivium* 49). From this separation, dialectic would become the science of "knowledge," and rhetoric, rather being the highpoint of one's education and the queen of the humanities, would from this point on would be understood as embellishment and be treated as the trollop of the arts. The older conception of rhetoric was differentiated from dialectics in that rhetoric employed a different means, was delivered in a different mode, and sought a different end than dialectic (Camargo 102). Though these studies were differentiated from one another, they were grounded upon the encyclopedic knowledge gained through grammatical education; the three together made up the trivium. Fr. Walter Ong, the student of McLuhan's, details this movement in his book, *Ramus, Method, and the Decay of Dialogue*. Most telling in that work is that Ramus' move helped to establish modern science because through increasing role of visualization within dialectic that ended up shifting the study from being concerned with words to a concern with abstraction and quantification.

One of the points that is worth noting about Francis Bacon is that he stood relatively alone in the Renaissance as not having the "habit of ignoring the predecessors of the hated schoolmen" (M. McLuhan, *Trivium* 87). Francis Bacon was an Ancient because he did not ignore the literary tradition that came before him. However, historians have "repeated the views of the fifteenth and sixteenth century humanists that during the

Middle Ages nobody read the classics” (M. McLuhan, Trivium 87). The humanists of the Renaissance were glad to consider themselves the heirs of Greek and Roman civilization, but they were accustomed to believing that the Middle Ages had forgotten or despised antiquity. In fact, so far from being ignorant of the classics, the educated of the Middle Ages loved them (M. McLuhan, Trivium 87). Indeed, the “men of the Middle Ages seem always to have considered that they were modern men, living in a modern age and entrusted by God with the mission both of preserving the classical culture of Greece and Rome, and of enlarging it and bringing it to perfection through the teaching of Christ” (M. McLuhan, Trivium 90). Here we see the essential difference between the grammatical position of the humanists of the Renaissance and those that came before them. The grammarians of the Renaissance had separated themselves from the tradition itself and attempted to reinterpret the classics. Ironically, it was not the mind in the “dark ages” that was clouded by ignorance, but rather, it was the “enlightened” Modern mind that was ignorant of the learning in the Middle Ages on account of its hatred of the scholastics.

The difference between the Ancients and Moderns is a part of this section on the trivium because the shifts in the trivium are responsible for producing the differences of perspective found within the two worldviews. McLuhan and Powers state:

With print, via Gutenberg, the visual stress of the alphabet gained new ascendancy. Spearheaded by the French dialectician, Peter Ramus, a new battle of the Ancients (rhetoricians and grammarians) and Moderns was waged, and the dialectic method took over from tradition. Since that time

grammar and rhetoric have been cast in a dialectic or left-hemisphere mold, along with all our arts and sciences. (34)

The technology of the printing press shifted the ratio of the human sensorium, and this shift allowed the dialectic to rule over the liberal arts. This shift between grammar, rhetoric, and dialectic had the effect of allowing the Moderns to take over the academic and cultural milieu for over 500 years. However, as was alluded to above, this rule over the arts by dialectic would be problematized by another technology: electricity. McLuhan and Powers explain that “it is only with the return of acoustic space in our world, to right-hemisphere multi-sensory forms of awareness, that the tables begin to turn once more” (34). The shift from visual space to acoustic space, from left-hemisphere to right-hemisphere cognition, is the result of the advent of electric technology.

Implications

The history of the arts of the trivium is long and complex. The understanding of it as the holistic tradition that held together the continuity between Ancient pagan civilization and Medieval Christendom is clouded on account of the historical bias that is based upon its separation during the Renaissance and the Enlightenment. During this later period, dialectic was separated from the other arts because the model for logical thought was increasingly visualized and quantified. The effect of this change was that science reduced reality to that which could be quantified, and the connection between language and the material world was severed. The division created a form of specialization in the study of each of these arts, and yielded magnificent results. However, in making these advancements, we concomitantly miss out on the benefits of the holistic perspective of the trivium.

Throughout two millennia of Western civilization, an ideal form of person that was to be cultivated through education within the trivium had been passed down through tradition. The dogmatist epistemology of the trivium was abandoned during the Renaissance and the Enlightenment in favor of a skeptical epistemology that sought certain knowledge. As such, the connection between the material world and language was severed. Though this shift produced magnificent results in technology and medicine, the shift was not without consequence. Specifically, though our knowledge of the world was increased, our understanding has, at best, remained stagnant. However, the next chapter discusses the larger presuppositions of the Ancient worldview concerning language and causality. In addition to describing the presuppositions of this view, the applicability of this perspective within the electronic age is developed. The presuppositions of this perspective are the foundation of the neo-Medieval communication theory of McLuhan.

Chapter 6: Beyond Reversal: Logos and the Triptych Tetrad

With a knowledge of the trivium, for example, it is fairly easy to see why much of modern linguistic and semiotics, as presently constituted, will not succeed. Or to see the root problem of phenomenology, namely that it is an all-out attempt by dialectic to invent – or turn itself into – grammar, to force some sort of *ground* to surface. (McLuhan and McLuhan 10-11)

Electronic technology has transformed and continues to transform our civilization. Marshall McLuhan raised awareness to the fact that the world is now connected as a global village. Though many scholars have recognized this fact, McLuhan's warning that the global village is characterized as a state of terror because of the individual person's lack of ability to make sense of the continuous and simultaneous nature of information. This situation threatens to destroy Western civilization as it has developed over the last 2500 years. In response to this situation, McLuhan developed his tetrad as a model of pattern recognition that is grounded upon the stability of the Ancient worldview. This perspective functioned as a stable bridge between the acoustic space of oral society to the world of the visual space of the printing press. This chapter further details the presuppositions of the Ancient perspective, and it explains how the neo-Medieval communication theory of the triptych tetrad can help provide stability in this period of cultural upheaval.

Introduction

When McLuhan's dissertation was finally published by Gingko Press in 1996, *Explorations in Media Ecology* dedicated an issue to discussing the dissertation and its relationship to McLuhan's other work and Media Ecology. Several of the most prominent Media Ecologists wrote articles on the dissertation and its relationship to the rest of

McLuhan's work. In particular, Lance Strate, longtime president of the Media Ecology Association, analyzed McLuhan's work on the trivium and claimed that it was simply an "important piece of a puzzle that can be very, well, puzzling, after all" (Strate 222). Similar to the scholars described in Chapter 4 as Modern in their approach to the tetrad, Strate fragments McLuhan's thought and does not put the parts of his thought in relationship with one another or in relation to the greater whole of his vision. Thus, he fundamentally disagrees with the claim that McLuhan cannot be truly understood without reference to the trivium (Strate 226). The problem with this, at least for the Ancient perspective from which McLuhan functioned, is that the trivium is the ground out of which the laws of media and the tetrad emerged and to which it points. This move is to treat the tetrad as a figure without ground, which McLuhan considered to be the mark of the Modern's dialectic without grammar and rhetoric. From this perspective, one can have knowledge of fragments of McLuhan's theory, but not necessarily a holistic understanding of his vision. Essentially, the trivium itself is grounded within a specific metaphysics of the *Logos* that demands service to the *polis* from those educated in its system. It assumes a four-fold pattern of causality that transcends the Modern notion of a linear chain of events. This perspective is McLuhan's remedy for the problems that grow out of electric technology, and as such, have the potential to provide stability within a neo-Medieval future.

McLuhan's neo-Medieval triptych tetrad is developed within this chapter. In The Causality of the Logos, the underlying connection between language and causality is described. Specifically, the Ancient understanding of the Logos is developed. Within this perspective, the cosmos was seen as a living entity that was permeated with logos, or

language. The Aristotelian and Thomistic understanding of causality is also developed because science based upon the cosmos' connection to language transcends traditional notions of linear causality. In addition to developing these aspects of the neo-Medieval nature of the triptych tetrad, the influence of neo-Thomist Etienne Gilson is pointed towards in footnotes. These references are made because Gilson's influence has largely been neglected in the study of McLuhan, and "the influence of Gilson on McLuhan the doctoral candidate is perhaps most clearly seen in the realm of the Logos or universal reason, which placed grammar at the center of both Stoic physics and the earliest Christian theology" (Gordon, Editor's Introduction xv). Essentially, Gilson was influential upon McLuhan's understanding of the metaphysical character of the Logos (Gordon, Editor's Introduction xv). Specifically, McLuhan utilizes Gilson as a basis for understanding formal cause and metaphysics, his adaption is clearly a product of his own originality (Gordon, *Escape* 106-107). Finally, in Neo-Medieval Communication, the place of McLuhan's triptych tetrad as neo-Medieval communication is analyzed. To show this, the grounds of communication as neo-Medieval are described.

This chapter functions as the culmination of this project. In the previous chapters, the connection between the tetrad and the trivium has been made. Specifically, McLuhan found the development of visual epistemology problematic because it ignores a large part of reality and human experience. The printing press as an extension of the human sensorium cut off the human person from their own bodies and the communities in which they exist. Electric technology pushed this extension to an extreme and threatens Western civilization by reversing it into a culture based on tribal modes of existence. However, he saw the Ancient perspective, which was connected to the trivium, as a perspective that

could develop the human faculty of understanding. This chapter builds upon these previous chapters by further developing the assumptions of the Ancient perspective and describing the effects of functioning from a neo-Medieval perspective.

The Causality of the Logos

As was shown in the previous chapter, the arts of grammar, dialectic, and rhetoric functioned with one another as the basis for continuity within ancient and medieval civilization. The arts were at a minimum connected as the language arts of the trivium, i.e., arts of the logos. The meaning of the word “logos” has never been fully translated from the original Greek; among the several of the connotations of the word is the basis for each of the three verbal arts. The term “*logos* could have a variety of meanings from grammar (‘sentence’ or ‘phrase’), from logic (‘proposition’) or even from ordinary language (‘speech,’ ‘reason,’ ‘meaning,’ or ‘argument’)” (Huntsman 68). The trivium’s connection to logos is extremely important because the logos was also considered to be a divine principle, and by being connected to the divine, the arts were more than just topics of study. The intimate relationship between the three verbal arts can be clearly seen when they are put within the perspective of the Ancient doctrine of the Logos. The Greek worldview assumed that “the Logos or universal reason is at once life and order which are all things and in the mind of man” and this belief, or doctrine of the Logos, was translated from Greek culture to Roman culture. The Romans had no way of translating logos with a single word, so they translated it as *ratio et oratio*, i.e., reason and speech (M. McLuhan, Trivium 22).¹ In their translation, we see the essential connection between speaking and reasoning for the Ancient mind, which, as was developed in the previous

¹ The Roman translation of logos is discussed in a similar manner in McLuhan and McLuhan’s *Laws of Media* on page 22.

chapter, is a connection that was severed by the Moderns. Eventually, the doctrine of the Logos was rigorously appropriated by Christianity for two scriptural reasons. First, the doctrine was adapted because the creation of the world in the Book of Genesis was a divine act of speaking. Second, it was adapted because of the Gospel of John began with the incarnation of the Logos (M. McLuhan, Trivium 22). Essentially, the arts are intimately related and cannot be separated when the logos is privileged.²

The Doctrine of the Logos

The relationship between the arts within logos is not trivial. Far from being simply the studies of written and oral discourse, the three arts studied the logos and was the focal point of the relationship between the human person and the living cosmos because through human reason, which these arts develop, the person developed “a participation in the Logos or divine reason, and the whole external world is a network of analogies expressing the universal reason” (M. McLuhan, Medieval Grammar 169). The idea that language constitutes all of Being was an especially important part of the acoustic worldview, which viewed the world as a part of the living cosmos, rather than a mechanical universe. The cosmos was considered to be both resonating and magical because of verbal connection to and characteristics of the acoustic space (M. McLuhan, Gutenberg; M. McLuhan, Understanding 120; McLuhan and McLuhan 37-38). The cosmos was not only resonating, but it was considered to be “a living creature, whose breath is drawn in from the boundless air enveloping it outside” (McLuhan and McLuhan

² As was developed in the previous chapter, the Moderns during the Renaissance and Enlightenment rejected the importance of logos, and even saw it as an impediment to knowledge (M. McLuhan, Gutenberg 92; Ong, Ramus 89).

34).³ Indeed, in ancient Greece, logos was strongly related with the cosmos itself as the “informing principle of cosmology, of the kosmos” (McLuhan and McLuhan 36).⁴ In addition to being the informing principle of the cosmos, for Heraclitus (c. 535- c. 475 BC) and others, “the divine body that encircles the world is that part of the resonant logos which never ‘changes.’ This part is not contained by the world, but keeps outside, as an environment (McLuhan and McLuhan 36). Relating to this logos as the divine body encircling the world, the chief name of God was Logos, i.e., Highest Reason, Wise Being, or the Only Wise Being (McLuhan and McLuhan 36). Heraclitus’ conceptualization of Logos continued throughout time, and was adopted and altered by the Stoics. Indeed, it is this logos that gives life to the animism that was a foundation for the classical and medieval worlds.⁵

The Stoics deviated from this perspective by understanding Heraclitus’ “lasting body of the Logos” surrounding the world as penetrating the world rather than existing outside of it (McLuhan and McLuhan 36). In fact, logos was considered to be a material component common to all parts of the cosmos (McLuhan and McLuhan 37). Logos was

³ Gilson’s influence can be seen here within his argument that all of the Greek divinities, whether a person, i.e., Zeus, a physical reality, i.e., the Earth, or one of the great natural fatalities, i.e., Terror or Strife, are held together by at least one common element: “Whatever the real nature of what they designate, these names of gods all point to living powers, or forces, endowed with a will of their own, operating in human lives and swaying human destinies from above” (Gilson, *God and Philosophy* 7-8). By and large, the characteristics of the divine powers are three-fold: 1) the power has life and is never an inanimate thing, 2) the power is “related much more to man than the world at large” in that they rule our lives, and 3) the power always submits its authority and power to “other gods equally supreme in their own order” (Gilson, *God and Philosophy* 9-10). Indeed, these three principles would apply to the Logos that McLuhan advances as essential to the Ancient.

⁴ Gilson argues that though there were different accounts of the nature of the informing principle, e.g., water, fire, air, the Indeterminate, the specific “name [given to the principle] does not make any difference” because the Greeks were left with the same philosophical perspective of the world (Gilson, *God and Philosophy* 3).

⁵ Discussed below is the trifurcation of the logos into three separate forms that correspond to the three arts of the trivium. The *logos spermatikos* is the word as seed and is seen as a material component which gives form to matter. Grene notes in a metaphysical explanation of why the chicken has to come before the egg in Aristotelian thought that for Aristotle semen is the carrier of the soul and even calls it “cognate pneuma” (36).

considered to be the “formal, structure, plan, of each thing and all things” (37). As such, the logos is connected to the material world through form and is directly related to formal causality as the “existential essence of things” (McLuhan and McLuhan 36). Logos was to the Stoics that which gave form to the cosmos. In fact, the logos was the formal cause of the cosmos and was responsible for “nature and configuration” of all things (McLuhan and McLuhan 37). Consequently, if one wanted to study the cosmos, they would need to first study language and understand formal causality, which is developed in the next section of this chapter. Both ideas, that logos surrounds the cosmos and that logos permeates the cosmos itself, are foreign to most people in contemporary society, but they are essential for understanding the neo-Medieval communication theory McLuhan is advancing.

One may argue that though the Stoics may have conceptualized the cosmos as being given form by logos, this was a mere theory and not a lived reality during ancient and medieval times, but according to McLuhan and McLuhan, this perspective was representative of cognition through an acoustic space paradigm. They state that “while common-sense acoustic space held sway, the cosmos was perceived as a resonant and metamorphic structure informed by logos” (McLuhan and McLuhan 37). This logos permeated space cosmos as a non-static, resonating, and complete entity: “The boundless, spherical, resonating kosmos of acoustic space constituted an environmental ground of energies and potencies and forms, to which men, things, and events were almost accidentally figures, and into which they might easily emerge” (McLuhan and McLuhan 37-38). In the acoustic space lived in by ancient humans, they did not abstractly analyze figures by themselves. The perceptual concept of the “figure was not yet abstract and was

inseparable from its metamorphic relation to ground” (McLuhan and McLuhan 38). Consequently, the world was not divided and fragmented into pieces for the purpose of study, but rather, was viewed collectively as containing an essence greater than its parts. The Stoic reformulation of the Heraclitian Logos that was outside of the world to one permeating it is tremendously important because it provides a connection between the Book of Scripture, and the Book of Nature.

The Stoics are especially important in McLuhan’s perspective because within their reformulation of the Heraclitian dogma was the proto-trivium. In addition to reformulating the Heraclitian cosmology, the Stoics adapted the Heraclitian doctrine of the Logos and formulated it in a tripartite manner that “served as a precursor of the trivium” (McLuhan and McLuhan 36). The verbal arts are united by the logos itself because they correspond to different aspects of the logos. The relationship is built upon the presupposition that our understandings of the world are affected by the technologies within society, as was developed in Chapter 3. In the case of the trivium, the birth of the phonetic alphabet created the arts themselves. Essentially, the phonetic alphabet fragmented logos, and the Greek Stoics unified the fragments within the structure of the trivium.

The Stoics conceptualized the three verbal arts of the fragmented oral logos as being corresponding to three different forms of the logos. The first form of logos was the *logos hendia thetos*, which was an inner, abstract word that was prior to or minus speech (McLuhan and McLuhan 124; McLuhan and Powers 33). The *logos hendia thetos* “adumbrates dialectic (logic or philosophy) with its left-hemisphere emphasis on abstraction (figure-minus-ground) and absolutes, and on correct thought form (sequence),

irrespective of content or audience” (McLuhan and McLuhan 124; McLuhan and Powers 33). The second form of logos was the *logos prophorikos*, and it was “the uttered word and corresponds to rhetoric as the science of transforming audiences with speech” (McLuhan and McLuhan 124; McLuhan and Powers 33). The final form of the tripartite logos was the *logos spermatikos*, and it was “the uttered word as words embedded in things animate and inanimate which structures and informs them and provides the formal principles of their being and growth (becoming) (McLuhan and McLuhan 124; McLuhan and Powers 33). This form of logos was the logos of grammar, and through it, one was connected to the cosmos as a living entity. In addition to providing the connection to the cosmos, it is related to formal causality. For McLuhan, functioning from the position of a grammarian, the *logos spermatikos* is essential to understanding because of its relation to the reality.

The concept of the *logos spermatikos* is essential for understanding McLuhan’s theory of interpretation and media, for it refers to the spoken verbal component that exists within all phenomena, both animate and inanimate, which would include the extensions of the human sensorium. The *logos spermatikos*, which exists in all phenomena, is the essential component, or the formal principle relating to formal causality, that gives the phenomenon its ultimate being and how it becomes what it is to be. Consequently, the scientific study of the material world itself is grounded within the study of *logos spermatikos*, i.e., in grammar. McLuhan and Powers explain this connection in the following manner:

This *logos* [*logos spermatikos*] is the root of grammar (the Greek word for which is ‘literature’ in the Latinate rendering), with its twin concerns of

etymology and multiple-level exegesis, the ground search for structure and roots. All of the sciences (e.g., the later quadrivium of music, arithmetic, geometry, and astronomy) were, structurally, subdivisions of grammar, as forms of exegesis of (the book of) nature; to which they are returning today. (33)

As was noted above, the Stoics believed that all phenomena had an essential principle that was verbal in nature. This verbal component permeated and gave meaning to the whole cosmos. Consequently, any study that dealt with the cosmos and its parts inevitably was related to the study of literature through its connection to the grammatical logos within the material world. Indeed, the etymological component was central to the study of being because one could scientifically discover the essence of a thing by studying the roots of its name.⁶

The nature of the Logos, as McLuhan understands it, is metaphysical in nature (Gordon, *Escape* 106). Through his adaptation of the Logos and the perspective of the Ancients he is trying to reestablish metaphysics in an environment that had rejected metaphysics for the last three hundred years. The visual form of triadic logic, whether “Hegel’s polar thesis-antithesis-synthesis or the container-structured logical syllogism,” has had the effect of blinding “the West to the metaphysical and verbal properties of human artefacts as metaphors and extensions of ourselves” (McLuhan and McLuhan 225). McLuhan’s goal was to “demonstrate the outgrowth of the tradition uniting science and grammar by the concept of language as the expression *and* analogy of the Logos” (Gordon, *Escape* 107). The different arts worked with one another within the different

⁶ The relationship between the name of a thing and its essence is first formulated in Plato’s *Cratylus* and can also be found within Adam’s call to name all of the creatures of the earth (M. McLuhan, *Medieval Grammar* 170; M. McLuhan, *Trivium* 15-16).

groups of early theorists, but they become nearly inseparable in the thought of the Stoics (Gordon, *Escape* 108). This idea of the physical sciences being subsets of the art of grammar may seem foreign to the modern reader, but it is of the utmost importance for McLuhan because we are entering a point in time when the arts of the trivium are increasingly being put back into their place within the art of grammar. Just as the arts are returning in importance, we saw earlier that our notions of causality are changing.

Ancient Causality and the Interpretation of Texts

McLuhan summarizes the ideas of the Stoics as representative of the Ancient perspective, as contrasted to the Modern. Even Plato, who is considered to be the paragon of dialectical method, was a part of this Ancient perspective. This view was already contained in Plato's *Timeaus*, and had the most influential of Plato's texts on the medieval mind (*Trivium* 21). In fact, McLuhan argues that the Plato's *Timeaus* is "the most complete expression of this doctrine as applied to the physics that antiquity offered to the Christian world" (*Medieval Grammar* 169). Indeed, Plato is respected by St. Augustine specifically for Plato's "respect for the method of grammar in philosophy" (M. McLuhan, *Trivium* 26). The point here is that this cosmology was alive and well before in groups as divergent as the Pythagoreans and the Stoics (M. McLuhan, *Trivium* 21), and as has been discussed throughout this project, would continue to be the cosmology of the Western world until the Renaissance.

The doctrine of the Logos is central to this perspective and was highly influential upon other systems of thought. Indeed, St. Augustine finds within Plotinus a "synthesis of Plato, Aristotle and the Stoics" (Gilson, *God and Philosophy* 45). The doctrine of the *Logos* is metaphysical in character (M. McLuhan, *Trivium* 24), and is inseparable from

“the cosmological view of the *rerum natura*, the whole, as a *continuum*, at once a network of natural causes and an *ordo naturae*, whose least pattern expresses analogically a divine message” (M. McLuhan, *Trivium* 20-21). The natural world was thought to contain a message and was, consequently, read analogically as a text.⁷ Hence, the verbal arts are concerned with understanding the world outside of ourselves and the ordering and disciplining of the person him or herself in accord to the divinely spoken message contained within nature.⁸ Here it is worth noting that contrary to many Modern criticisms of the grammatical methods of allegory and etymology, it is not a naïve animism or uncritically held mythology, but rather the perspective is metaphysical in nature (M. McLuhan, *Trivium* 24). The way nature was interpreted was through the metaphysical four causes of Aristotelian and Thomistic causality.

To summarize, the four causes—material, efficient, formal, and final—can be understood through the following definitions and examples. Material cause is the “passive receptacle” in which the other causes could act (McLuhan and McLuhan 88). The material cause is simply the material substance of which a phenomenon consists. For instance, the material cause of a wooden desk is wood. The next cause is efficient cause, which is the “motive force” or the “external compulsion” to which the material responds. In other words, the efficient cause of a phenomenon is referred to as the agent of change. Taking this example of the desk the next step, the efficient cause of a wooden desk would be the agent that made the desk, whether it be a single person, a machine, or an assembly line. The formal cause of an object is that which “contributed to the essence, idea, or

⁷ The position that the world was a text is partly built upon the understanding that the world was taken as a given reality, and the goal was to ask “what its ‘nature’ was, that is, what was the essential substance of all things and the hidden principle of all their operations?” (Gilson, *God and Philosophy* 17).

⁸ The assumption that there was a divine message spoken into nature was based upon the belief that “behind necessity, there is law; behind Fate, there is a will” (Gilson, *God and Philosophy* 19).

quality” of the object (McLuhan and McLuhan 88). The formal cause of an object is the shape that the efficient cause gives to the material cause. However, this is where the causes begin to get complex. Upon first reflection, it would seem that formal cause comes temporally after the material and efficient causes, but this is not the case.

As has already been indicated, the causes are simultaneous to one another, which makes them useful for understanding in the electric era. In actuality, the effects of formal cause are prior to the cause. McLuhan and McLuhan explain this relationship through Greek literature: “As George Steiner points out, ‘Much of Greek theory of history is founded on the tensions which occur between realized necessity and meaningful action’ - that is, between Formal and Efficient Cause. Formal Cause, which sends the effects ahead of the cause, found expression in Greek tragedy as Fate, or fateful necessity” (88). We know what the character of a story is going to do in this tradition because the essence of who they are and will be is already established within Fate before the character even acts. Putting this in terms of the greater project on technology, through an understanding of formal cause, one can see the effects before the cause comes into being, and with this knowledge, we can choose whether or not to use a technology based upon the effects of its form. Finally, final cause is the “goal to which everything strove” or the purpose, or ends, for which the object is being brought into existence. In the terms of the example of the desk, the purpose of the desk is, among other things, to place one’s working materials and to perform the writing. To this end, or final cause, the efficient cause, i.e., the agent, must match the material and formal cause in order to create the phenomenon in its appropriate form. The essential difference between this form of causality and Modern causality is that the four causes explain the essence of a subject, which grammatically and

philosophically has existence in the world, whereas the efficient causality of the Modern explains a process or behavior/action, which is predicated to a subject and has no actual existence outside of the subject.

The contemporary mind is used to understanding the relationship between cause and effect in linear and sequential terms. Until recently, Western children were surrounded by a “visual technology of uniform time and uniform continuous space in which ‘cause’ is efficient and sequential, and things move and happen on single planes and in successive order” (M. McLuhan, Gutenberg 19). However, this form of causality is not the only form of understanding cause and effect in the natural world. As was discussed in the previous chapters of this project, the ancient world understood causality in a manner that is far different than the contemporary linear understanding of causality. Indeed, outside the linear perspective, the world is a “magical world of the resonant oral word,” in which one “encounters not efficient causes but formal causes of configurational field” (M. McLuhan, Gutenberg 19). In other words, as we move back into post-Euclidean space, the understanding of Ancient causality should obsolesce our notions of linear causality.

In the Ancient perspective, there are four causes that served as the basis of science. These four causes—material, efficient, formal, and final—were first observed by Plato and then systematized by his student, Aristotle (McLuhan and McLuhan 87). However, the four causes have been misunderstood because of the confused nature of formal causality in Aristotle’s systemization: “Aristotle retains and confuses the oral nature of formal cause, which explains why he frequently confuses formal and final

cause” (McLuhan and McLuhan 88). These four causes were the basis for understanding the world until the time of the Renaissance.

Prior to the change, the four causes allowed people to understand the nature of the “becoming” in a static state, i.e., being, because each of the causes were simultaneous with one another.⁹ This understanding of causality, and the worldview itself, was brought down by Galileo when he reduced causality down to a bastardized form of efficient causality.¹⁰ Galileo’s efficient cause, far from the agent of change in the Ancient perspective, was from then on considered to be “the necessary and sufficient condition for the appearance of something” (88). The whole of Ancient and Medieval causality was reduced to a question of whether or not one could prove that one event was a part of a linear chain of events.

The causality that was advanced through Galileo produced magnificent results in that it spurred the scientific revolution. However, a large part of reality was left unexplained because of Galileo’s reduction. The logical culmination of the Galileo’s reduction and the philosophy of the Enlightenment was the development of logical positivism—the scientific philosophy that anything that cannot be empirically proven true is an illusion. By and large, the critiques of McLuhan’s Catholicism and Thomism, which were noted in earlier chapters, are the result of the influence of the philosophy of positivism and the Modern notion of causality upon which it is based. Indeed, with the grounding of McLuhan’s thought within this tradition, his position was anything but the

⁹ Gilson’s influence can be seen here in that within his book, *The Spirit of the Medieval Philosophy*, he develops the argument that one of the Christianity’s truly unique extensions classical philosophy was its concern for development and resolution of the co-existence of God as Being and the material world as becoming (42-107).

¹⁰ Grene notes that “whenever and however ‘the scientific revolution’ happened, it was in some sense founded on the rejection of an Aristotelian cosmology” (66). Likewise, Meikle argues that Enlightenment philosophers vehemently rejected Aristoteliansim and its metaphysics without truly understanding what it was (181-182).

fideism of which Theall accused him (35). In terms of McLuhan's theory, the Ancient form of causality is attentive to both figure and ground, and the Modern is skeptical of ground because its causality excludes ground from its analysis of individual figures. In other words, the Ancient understanding of language being the formal principle of a subject's nature can seem superstitious and downright ridiculous when attempting to control the forces of nature through an understanding of causality as reduced to a mechanical chain of events. Likewise, for the Ancient, the desacralization of the cosmos for the sake of material advance is equally problematic. To move past this either-or predicament, the history of this obsolesced understanding of causality must be retrieved within the context of the electric era.

Though the causality of the Ancient may seem superstitious to the Modern mind, the four causes play a key role in McLuhan's laws of media. In part, this key role refers back to the war between the Ancients and the Moderns. As was noted above, the four causes were abandoned and replaced by a modified form of efficient cause. Through this change modern science was born, but contrary to the popular narrative, its birth was not a sudden event. The predecessor of the modern scientist was the grammarian who practiced alchemy, and McLuhan makes a great effort to show that the alchemists were grammarians studying the Book of Nature. McLuhan explains that the alchemists' physical experiments were guided by "the system of analogy, rooted in the ancient notions of the Logos and grammar" (Trivium 144-145). As was developed in the previous chapter, this analogical understanding of causality held sway over the mind of the West until it was obsolesced when the printing press "gave complete ascendancy to visual

space and modern scientific Method was born” (88). To understand the importance of this transformation, we must look to the place of the four causes in the laws of media.

This four part form of causality is applicable to both nature and human made objects and is extremely useful in the electronic era (McLuhan and McLuhan 87). McLuhan and McLuhan begin their analysis of the four causes by putting them in terms of the hemispheres of the brain: “The first two [material and formal] were generally regarded as related to *being* (right hemisphere), the last two [efficient and final] to *becoming* (left hemisphere)” (88). Consequently, since the four causes are understood as simultaneous with one another, being and becoming take place with one another.

The doctrine of the Logos is hugely important for understanding the Ancient notions of causality and the “interfusion of language and physics” (M. McLuhan, Trivium 22). Indeed, the doctrine of Logos is essential for understanding McLuhan’s thought because his tetrad interfuses physics and language. This position is easily seen in his argument that all things are words. The problem is that until McLuhan, no one had given serious attention to the fact that grammar and science “were inseparably linked in their origins” (M. McLuhan, Trivium 27). Indeed, as was developed in the last chapter, the Modern visualization and quantification of nature separated the arts of the trivium and developed dialectics as the sole art of performing science and producing knowledge.

The relationship between the tetrad and the grammatical-rhetorical tradition is further solidified in the New Science of the Ancients, in contrast to the Old Science of the Moderns. McLuhan envisions the tetrad as a form of etymological research, which is a part of the grammatical tradition, into the nature of objects. McLuhan and McLuhan state: “Each tetrad gives the etymology of its subject, as an uttering or outering of the

body physical or mental, and provides its anatomy in fourfold-exegetical manner” (224). The four pattern of the tetrad is directly related to the forms of interpretation that were used in the classical and medieval trivium education. The four causes and the four levels of interpretation corresponded with one another in this tradition.

The four causes corresponded to the four levels of interpretation in the following manner: formal cause and the literal level, material cause and the figurative (allegorical level), efficient cause and the tropological level, and finally, final cause and the anagogical (or eschatological level (McLuhan and McLuhan 218). The four causes and four levels worked together in the classical and medieval mind to interpret multiple, simultaneous truths about the Book of Nature and the Book of Scripture. Since the Moderns reduced this configuration down to a modified form of efficient cause, it is “hardly surprising then that present-day media analysts find it impossible not to moralize, or that they substitute moralism for understanding” (218). Modern science and theories of communication are distorted unnaturally because they do not take into account all of the causes or interpretations, which is the result of the dominance of the left hemisphere over the right hemisphere. McLuhan and McLuhan state:

Old Science affords only abstract method and the Shannon-Weaver pipeline and its variants - both of these are based on left-hemisphere elaborations of efficient cause and lack the ground that is supplied by formal cause and by interaction with the other causes. Since the four levels, like the four causes are simultaneous, it is obvious that to perform any one level to the exclusion of the others, as a visual figure minus a ground, is to produce a grievous distortion. (218)

The tetrad form works to incorporate the different causes and levels of interpretation in its four-fold configuration, while at the same time working to understand both figure and ground, not one to the exclusion of the other.

In the final analysis, the shift from the four causes to a transformed version of efficient cause is key to understanding McLuhan because he is highly critical of Old Science's unresponsiveness to the changes taking place as the result of the extension of the right hemisphere through electric technology. Along these lines, Aristotle's thought, and consequently, the worldview of the Ancients, was considered incompatible with the print mind (M. McLuhan, Gutenberg 175-177). In contrast, this project has shown that McLuhan's theory of communication was utilizing the Ancient perspective and its understanding of causality as related to logos as the basis for his New Science because they correspond to the form of electricity. In addition to corresponding to the nature of the developing electric world, the tetrad was formulated because the system of thought upon which it is built sought to form the human person in harmony to nature for the sake of developing a stable citizenship and community. Consequently, the final section of this project develops McLuhan's triptych tetrad neo-Medieval and the effects upon the student of this paideia.

Neo-Medieval Communication

The advances of science and technology have been both a blessing and a curse. Through these advances, contemporary human beings have been able to create technologies that are extremely efficient in the alleviation of the needs and hardships of human existence. Though these advances are all based upon the Modern separation of dialectic from the other arts of the trivium, McLuhan, even as an Ancient, would not want

to turn back the clock and return to the Medieval ages. However, that being said, the fragmentation that these advancements were built upon is less than desirable because human beings have not progressed alongside the developments of the technology. And in some ways, we have become worse as a species because our technological advancements have been also utilized for the systematic elimination of millions upon millions of human beings. The desirability of the Ancient perspective that the triptych tetrad is built upon is desirable for the simple fact that it is oriented toward develop the whole human person and not simply lessening human need.

The trivium, as has been developed throughout this project, is central to understanding the tradition from which McLuhan is functioning and which he advocates for the balancing of culture and the sensorium in the electronic age. As has been developed, according to McLuhan we are regressing back into an acoustic era that has the potential to be more frightening than the one that preceded the birth of Western civilization. However, the manuscript culture, which began with the ancient Greeks, was passed to the Romans, and culminated in the Medieval epoch, was generally one of cultural stability. Indeed, there was virtual unanimity of the doctrine of the Logos from the advent of phonetic literacy until the Renaissance, and in this tradition, wisdom and eloquence were united with one another (M. McLuhan 64). Consequently, the perspective of the Ancients, which is promoted through the form of the tetrad, could deepen our understanding of science and reality, and potentially provide stability during this time of change.

The Neo-Medieval Theory of Communication

Since McLuhan's triptych tetrad is neo-Medieval in nature, it is not simply an iteration of medieval rhetorical theory. Indeed, every retrieval "is not simply a matter of hauling the old thing back onto stage, holus-bolus" because "some translation or metamorphosis is necessary to place it in relation to the new ground" (McLuhan and McLuhan, *Laws* 101). In many ways, to call his work a theory is antithetical to his vision. As was discussed in Chapters 3 and 4, McLuhan advanced a perceptual understanding of the world, and not a theoretical or conceptual view. Along these lines, he was known for saying that he had no "theory" of communication, per se (E. McLuhan, *Theory* 26-28). However, since McLuhan did not provide a term to escape the modern parlance, the term "theory" is used here to describe a few of the essential characteristics for the utilization of his tetrad in a more holistic fashion than has been done in the past.

The first and most important characteristic of the neo-Medieval perspective is that speech and reason, i.e., logos, is understood as being embedded within the world around us, and it is that which connects the human species to our environment. From here we can truly begin to see the importance of the relationship between the tetrad and the trivium. After explaining that the arts of the trivium are once again beginning to be reordered through the return of acoustic space, McLuhan and Powers make the connection between the trivium and the tetrad: "Hence the perceptual patterns of the tetrad form belong properly to grammar, not to philosophy in its present rhetorical guise" (34). They make it clear that they are functioning from a grammatical/rhetorical perspective by linking the tetrad to grammar and by explaining that their development of the tetrad and its methodology belong to the traditional methods of grammar. McLuhan and Powers state

that their “concern in this book is etymology and exegesis” (34). As such, the etymological analysis of the neo-Medieval perspective finds the meaning of all human technologies within the body itself (McLuhan and Powers 34). On the exegetical side of grammar, they explain that the tetrad itself is exegesis: “The tetrad is exegesis on four levels, showing the *logos*-structure (not *mythos*) of each artifact; its four parts as metaphor or word” (34). Here they link their project and the tetrad to language itself. The importance of their project is that it places “for the first time the whole study of technology and artifacts on a humanistic and linguistic basis, one which is ‘valuable’ rather than valueless” (34). In other words, the tetrad is radical because it is grounded in an understanding of the grammatical connection of language and science, and this is the very point that is missed by the Moderns that utilize his tetrad to gain “knowledge” of developing technologies.

Specifically, “each tetrad is the word or the *logos* of its subject, and all these words are peculiarly human, with the utterer as the etymology (McLuhan and Powers 14). In other words, when we use the triptych tetrad to understand any medium, we look to the literary tradition and our environment to understand ourselves as the formal cause of the artifact. In this manner, the triptych tetrad serves “to bring up to date the ancient and medieval tradition of grammar-allied-to-rhetoric in a way that is consonant with the forms of awareness imposed on the twentieth century by electronic technology” in opposition to the Modern modes of communication science (McLuhan and Powers 7). In explaining how the tetrad is naturally a right-hemisphere theory of communication, in opposition to the left-hemisphere theories produced by Western science, McLuhan and

Powers directly connect the user of the triptych tetrad and a part of the classical and medieval trivium.

In this regard, the neo-Medieval perspective of communication recognizes the history and origins of phenomena within literary tradition and within the human body itself. In terms of developing technology, we can look toward the tetrad as a way to explain the effects of the technology. At this level, the Moderns have utilized the tetrad well, but in contrast, the technology can be understood in terms of neo-Medieval communication by looking toward the literary tradition to explain the effects of the technology. Two examples of this, which were noted above, were McLuhan's explanation of the automobile's retrieval of private identity through Mark Twain, and Levinson's explanation of the illusion of choice offered by the internet through *Starship Troopers*.

The second quality is that the neo-Medieval communication theory advanced within the triptych tetrad is attentive to transformation and participation (Theall 8). By understanding the transformative nature of our communication, we can begin to escape the either-or logic of the Modern paradigm. Indeed, the tetrad is "simply an intuitive tool based upon principles very similar to Heraclitean dynamics involving the reconciliation of opposites" (McLuhan and Powers 102). The tetrad is linked to the transformative logic of right-hemisphere thought and helps us to see 'and-both,' the positive and negative results of the artifact" (11). The logic of the tetrad being right-hemisphere helps to balance the visual and left-hemisphere biases of Western science and conceptualizations of communication (McLuhan and Powers 13). Consequently, the

triptych tetrad provides the needed balance between the hemispheres and their modes of thought.

Along these lines, “Western scientific models of communication” are too static because “modern scientific theories abstract the figure from the ground” (3). The abstraction of the figure minus ground makes the figure a static object of attention and does not recognize the transformative nature of ground. McLuhan and McLuhan further their analysis by contrasting a tetradic analysis of the tetrad with a tetradic analysis of the “sequential triad of dialectic (scientific) method” (224-225). Dialectic (scientific) method extends “polarity,” “abstraction,” and “homeostasis” (McLuhan and McLuhan 225). The dialectic enhances and highlights the opposition between opposing positions and propositions. It enhances abstraction by using it to examine propositions outside of their natural context. In this manner, the dialectician can take propositions outside of their temporal context in order to validate and invalidate them through principles such as non-contradiction. In this way, the figure itself of the dialectic method is “figure minus ground” (McLuhan and McLuhan 225). Finally, it extends homeostasis because as a method without ground it functions within any context to regulate “proper” thought and rationality. This type of extension ends up obsolescing “interval,” and “transformation.”

Above, the resonant interval and the relationship between figure and ground were developed. These are essential aspects of the perceptual science that McLuhan had advanced. When the dialectic method is characterized as figure minus ground, no interval between figure and ground can exist. Additionally, without a recognition of ground, the dialectic method holds objects in abstract conceptualization that lacks reference to time. The concept is thought to be eternal, and consequently, the dialectic method obsolesces

transformation. Consequently, these old models of communication are theories of transportation and not communication because “communication means change” (E. McLuhan, Theory 30). The point here is that attentiveness to the transformations of figure and ground through the tetrad recognizes the nature of transformation and our own participation in the construction of the meaning of messages.

Within this context, the idea of electricity creating instantaneous revelation of the nature of things is also important. Before the electronic, all information that was communicated between persons had to be processed through time. However, electronic communication is instantaneous and establishes a new mode of being: “At electronic speeds all forms are pushed to the limit of their potential: on the telephone (or on the air) it is not the message that travels at electronic speed. What actually occurs is that the sender is sent, minus a body, and all the old relationships of speaker and audience tend to be erased” (McLuhan and Powers 20). Essentially, the discarnate human condition in the electronic era is one such that we are cut off from the audience, or community to which our speech is directed. With a neo-medieval understanding of communication, one’s speech is directly connected to the audience as the formal cause of the discourse. One must be attentive to the audience and community itself.¹¹

In this regard, neo-Medieval communication can help society understand important cultural texts simultaneously through a hermeneutic of continuity and a hermeneutic of transformation. A text like the constitution could be read in a wholly new manner by understanding its transformation not only to new contexts, but also as a document itself. Through the triptych tetrad, one could interpret the constitution in terms

¹¹ That this observation is specifically medieval in nature can be seen in McLuhan’s analysis that St. Thomas Aquinas’ communication is in “perpetual flux” as a response to his public, and that this is essentially formal causality in action within communication (Chesterton 75).

of extension, obsolescence, retrieval, and reversal. Though the reversal stage would allow the meaning of the text to be transformed, the tetrad's connection to literary tradition would also allow for a degree of continuity of interpretation.

The final characteristic of the neo-Medieval perspective is that it recognizes the importance of the poetic as a form of knowledge and play as a mode of discovery (Theall 15-16). McLuhan's theory of communication is a direct result of his Catholicism (Kroker 70, 78). Indeed, his communication theory is searching to establish a new incarnation (Kroker 78). McLuhan, in the final analysis, was an advocate of "historical imagination," which held creative freedom to be its highest value and not justice (Kroker 80).¹² This historical imagination and poetic perspective grounded upon the embodiment of the human person that was essential to the Ancient, and consequently, Thomistic-Catholic perspective (E. McLuhan, Theory 27). Consequently, McLuhan's communication theory, true to Catholic humanist and Thomistic form, brought "to the study of technology and culture the more Catholic hope that even in a world of despair . . . a way out of the labyrinth could be found by bringing to fruition the 'reason' or 'epiphany' of technological society" (Kroker 62). Along these lines, the neo-Medieval communication theory retrieves the importance of the poetic from its exile as an obsolete and disconnected form of literature.

The wisdom that is provided through this system is not meant to be an abstract, figure-minus-ground, "scientific" wisdom. As was developed in Chapters 3 and 5, science since the Enlightenment, being founded upon dialectic, is predominately concerned with concepts, not percepts. However, the trivium form of wisdom that

¹² As Grosswiler points out, McLuhan was critiqued by scholars of Frankfurt School critical theory for his inattention to matters of economic justice in his historical analysis.

McLuhan is proposing is concerned with percepts themselves that are a part of common experience. Indeed, McLuhan even holds up the work of Etienne Gilson as the paragon unifier of the poetic and scientific within discourse.

Gilson is held up by McLuhan as an exemplar because Gilson's method accomplishes unity between art/poetry and science (Catholic Humanism 155). Essentially, McLuhan argues that the neo-Thomist, Gilson, is one of the only people to accomplish the retrieval of poetic science in discourse. Along these lines, neo-Medieval communication can be understood in practical terms through McLuhan's upholding of Gilson's communication. McLuhan argues that Gilson's message does not advance a theory per se, but rather a perception in that "he enables us to participate in them as though we were there. We see that they really were" (Catholic Humanism 155). As was developed throughout this project, the distinction between percepts and concepts is that science based on percepts is concerned with understanding, whereas conceptual science is concerned with the production of knowledge. In this way, neo-Medieval communication is able to advance a poetic/perceptual science where "*only wrong answers are possible*" [emphasis added], and this should be celebrated because "by repeating the process of participation several times we are liberated from both past and present. We don't arrive at a simple unifying concept but are put on the road to achieving a wisdom. And the road to this wisdom is by way of sympathetic reconstruction, involving the abeyance of personal prejudice and preconception" (Catholic Humanism 155). Consequently, McLuhan argues that for perceptual science to develop and thrive, "there must exist a mental dictionary, not of abstract philosophical *ideas*, but of concrete poetic-philological sensibilities conformal to the things and artefacts of common experience" (221). Since McLuhan is

attempting to continue the perspective of the Ancients, he argues that the tetrads of media and technology function to create a mental dictionary or poetic perspective that grounds all individuals within the perceptual world.

The laws of media in tetrad form “bring to a conclusion this part of the labour of grammar begun with the Ancients,” and it provides “a ‘mental’ dictionary in that it displays patterns and transformations of sensibilities” (223). Because all phenomena are equally verbal in nature, all other distinctions hold “no scientific relevance,” and, consequently, all human artifacts are susceptible to “rhetorical (poetic) investigation” and “grammatical investigation” (McLuhan and McLuhan 224). Indeed, the tetrad is able to create a mental dictionary of all human artifacts because tetrads are verbal structures and poetic science in one. (McLuhan and McLuhan 224). Here we find the essence of the New Science: in viewing all words as things and all things as words, science and poetics become one. The benefit of unifying science and poetics is that understanding once again becomes human, whereas after the Enlightenment science and poetics, and correspondingly, the mind and body, had been unnaturally split from one another.

The laws of media are a form of perception that is a continuation of the grammatical and rhetorical perspective, which stands against the perspective created by dialectic. The grammatical and rhetorical tradition was aligned to the view that “civilized education” was the “alignment of encyclopedic wisdom and eloquence” (McLuhan and McLuhan 125). This perspective is a middle ground between different modes of thought. McLuhan and McLuhan explain: “*Laws of Media* offers a bridge between the hemispheres, a dialogue-structure in accordance with the role of the *corpus callosum*, which neurosurgeons identify as the organ that facilitates interplay between the two types

of cognition” (125). The corpus callosum is the bundle of nerves that functions as the medium of communication between the left and right hemispheres of the brain. Indeed, the trivium itself functions to retrieve the oral logos that was obsolesced by the phonetic alphabet and providing balance between the hemispheres.

In the final analysis, the neo-Medieval Communication theory has three basic characteristics that are attentive to the ground of electricity. First, the perspective retrieves the importance of language for the study of science. Second, it is cognizant of the transformative nature of language itself. Finally, given its value of embodiment, it is attentive to the poetic modes of existence and the minds connection to the world itself. Indeed, just as the trivium paideia formed the person after the model of the doctus orator, so too is this effect of education retrieved within the neo-Medieval perspective.

The Effects of Neo-Medieval Communication Studies

The relationship between the three arts of the trivium is especially important today because the epistemology of the modern human has shifted dramatically within the twentieth century. One of the problems that has developed from the instantaneous and continuous nature of electric information is it has created the state of postliteracy within the West. The shift from literacy to postliteracy has transformed the visual space orientation of the West back to an acoustic space orientation, and in a matter of decades has had the effect of reversing the effects of the phonetic alphabet (McLuhan and McLuhan 4). There is an extreme need for the neo-Medieval perspective because all three of the arts of the trivium “are reasserting themselves now, at the close of the second millennium, as never before” (McLuhan and McLuhan 10). The Ancient perspective that gave rise to trivium, as formulated by the Stoics and handed down through tradition, held

that the cosmos was a living organism that was given life by the Logos. This cosmos is characterized in the same manner as was the acoustic space that McLuhan developed in both *The Global Village* and *Laws of Media*. The arts of the trivium were fundamental to this perspective because through the study of logos, one could understand the underlying principle that gave form and life to the cosmos. In addition to understanding the reality of the material world, through the study of logos, one could find “the relief of man’s fallen state” (M. McLuhan, *Trivium* 140). In other words, through the study of trivium, i.e., the arts of the logos, one could attain harmony with nature. And as was developed in the previous chapter, the study of the trivium throughout its two millennia of pedagogy produced a product, i.e., the doctus orator, that McLuhan is attempting to retrieve.

The trivium, as the method for understanding logos, was thought to work against the fallen state of humanity. The consequences of the “fallen estate” are “ignorance, concupiscence, and death,” and the remedies were “Wisdom, Virtue, and Need” (M. McLuhan, *Trivium* 187). This fallen state was not simply a Christian doctrine, but rather it existed in ancient Greece and Rome as the idea that humans are not naturally in harmony with nature. Within this perspective, people had to struggle to become in harmony with nature. Whatever one calls it, the Ancient perspective functions from a perspective that assumes that something is wrong with human beings, which prevents them from acting as they ought to act. Indeed, a person would need to be in harmony with nature to act as one ought because everything, including one’s emotions, virtues, and vices, was understood as coming from outside of the person (Gilson, *God and Philosophy*

13).¹³ In the Ancient perspective, the trivium is a part of a tradition that attempts to establish harmony between the person and nature.¹⁴

Grammar was the foundation of this perspective because it “is the most basic art of all,” and “man cannot look with understanding on the book of nature until he has been perfected in the art of grammar” (M. McLuhan, Trivium 140). The connection to grammar is furthered through understanding the content of its study, i.e., the doctrine of the Logos, which permeated the Ancient view, and consequently, McLuhan’s. In viewing the Logos as the cause of everything in both the material and spiritual place and as the common and universal principle for all phenomena, “it is the duty of man to obey this ‘Logos’, and so place himself in harmony with the rest of nature” (M. McLuhan, Trivium 63). The Ancient perspective held that all action and study should be oriented toward one of two ends. These ends were first the “reparation of the integrity of our nature,” and second “alleviating the needs to which life is subjected” (M. McLuhan, Trivium 142). The world, in other words, was studied so that people would be better human beings and so that the difficulties of human life could be lessened. These two ends are put in the context of theory, practice, and mechanics: “The integrity of our nature is repaired by Wisdom, to which *Theorica* relates, and by Virtue, which *Practica* cultivates. Need is

¹³ The notion that the person was a receptacle for the divine powers is well known concerning the Greeks and the Romans. In describing the influences upon St. Bonaventure, St. Francis, who cured St. Bonaventure of disease at a young age (Bonaventure 59), Gilson describes St. Francis within this tradition: “The universe as St. Francis saw it in his passage was then endowed with a quite particular essence: so that his body was for him nothing more than a barrier hiding God from him” (Bonaventure 64).

¹⁴ Along these lines, Gilson notes that for St. Bonaventure the contemplation of the divine was the Franciscan ideal because “to follow the way of the soul towards God means to strive with all one’s strength to live a human life as close as possible to that of the blessed in heaven” (Bonaventure 67). Indeed, he notes that the human soul naturally “desires knowledge, happiness and peace; knowledge, since we see his thought is curiously investigating the sources of things: happiness, since each man and indeed each animal acts with a view to procuring a good or avoiding an evil: peace since the pursuit of knowledge or that of happiness are not followed simply for the sake of the pursuit but in order that the desire in which it is born may be appeased by the calm and the repose that follow from the attainment by a movement of its end” (Bonaventure 79).

alleviated by the administration of temporalities, to which *Mechanica* attends” (M. McLuhan, Trivium 142). Here we see a direct connection between theory, practice and the mechanical. The Modern has worked wonders in terms of the mechanical and the alleviation of human need, but they have neglected the cultivation of Wisdom and Virtue. McLuhan explains that “for the adherent of the doctrine of the Logos, grammar is the basis of science, and dialectics a part of philosophy, itself, rather than a mere technique of testing evidence, so rhetoric is a virtue, and one which is synonymous with wisdom” (Trivium 64).

Representative of this tradition was Isocrates who believed that education in speech could help develop the moral consciousness of the person (Kennedy 39). This culture of discourse, grounded in the trivium, had the potential to perfect a student through the power of the logos. The logos was considered to be metaphysical in character, and thus, structured who the persons was. As the study of logos, the trivium was related to the effects of logos. Isocrates argues that the power of speech is such that “nothing done prudently occurs without speech (*logos*),” and that logos is the “leader of all thoughts and actions,” which is why “the most intelligent people use it most of all” (Nicocles 9). Intimately connected to McLuhan’s observation on technology, Isocrates notes that logos is responsible for all of our inventions (Nicocles 6-7). In addition to the connection to our inventions, logos legislates “in matters of justice and injustice, and beauty and baseness, and without these laws, we could not live with one another” (Nicocles 6-7). Also, logos is responsible for the refutation of that which is considered bad, and the praise of the good” (Nicocles 6-7). Finally, in extension of logos being reason and wisdom, through one’s command of logos, or lack thereof, intelligence and

ignorance are recognized (Nicocles 6-7). In this regard, speaking well is “the clearest sign of a good mind, which it requires, and truthful, lawful, and just speech,” which is sign “of a good and faithful soul” (Nicocles 6-7). The study of the logos helped to develop an individual that was in harmony with nature and in service to the community from which he or she gained the logos. The logos is what makes us particularly human, and as such, the study of it through the trivium helped to cultivate the individual. Hence, the product of the trivium education is able to cultivate the individual in a form that is attentive to the community and its needs.

So according to Isocrates, the trivium educates the pupil in far more than language studies. The trivium produces leaders who can make wise choices in the face of uncertainty. In Isocrates words, “Since the human nature cannot attain knowledge that would enable us to know what we must say or do, after this I think that the wise (*sophoi*) are those who have the ability to reach the best opinions (*doxai*) most of the time, and philosophers¹⁵ are those who spend time acquiring such an intelligence as quickly as possible” (Antidosis 271). The human being that developed the ability to make wise judgments in the particular moment was also trained to move other people through eloquence, and as such, the education sought to produce a learned speaker, or doctus orator.

The ideal of the doctus orator is important in both *The Global Village* and *Laws of Media*, and is a central theme within *The Classical Trivium*. McLuhan and McLuhan explain that the Roman translation for the Greek logos, ratio atque oratio, “provided the basis for the past formula for the ideal man of learning as one possessed of ‘wisdom’

¹⁵ Isocrates uses the term *philosophia* to refer to what we call rhetoric (Mirhady, Papillon and Too 3-9). The philosopher was an orator not the philosopher in the Platonic sense.

(grammatical tradition and technique) ‘and eloquence’” (McLuhan and McLuhan 10). Wisdom was considered to be eloquence because only through “eloquence can knowledge be applied to the minds and hearts of men” (M. McLuhan, Gutenberg 24). In this manner, the ideal of eloquence as wisdom was conceptually “knowledge in action” (M. McLuhan, Gutenberg 99). This ideal, grounded within grammar and rhetoric, lasted for two thousand years and is essential to understanding the New Science that McLuhan was proposing.

The difference between Ancients and Moderns is with reference to this tradition: “Because of their conservative attachment to tradition, grammarians and rhetoricians were ever styled as ‘Ancients,’ while dialecticians, who in each age propose marvelous new systems and methods for organizing knowledge and thought and endeavour, were styled ‘Moderns’” (McLuhan and McLuhan 10). Whether one was an Ancient or a Modern had less to do with the period of time in which he or she lived than with their orientation towards tradition, knowledge, and understanding. The differences between these two positions have been developed throughout this project, and were seen as having the utmost significance for McLuhan, who was looking simultaneously at the twentieth century and the future. Indeed, the doctus orator was for two millennia the “road to power and top executive action” (M. McLuhan, Gutenberg 161). Thus, if we want to survive the structural changes to our sensorium, we must have leaders that are skilled in the art of political prudence, which was the essence of the doctus orator. As Gilson states about the culmination of Greek religious and philosophical thought: “Truly wise men do not play at being gods; they rather aim to achieve the practical wisdom of moral and political life. God is in heaven; it is up to men to take care of the world” (God and Philosophy 34).

Since the electronic environment was similar to, but different than, the acoustic era that preceded the literacy, McLuhan sought to adapt the tradition of the Ancients to the electronic age. He did so by postulating the tetrad based upon the trivium tradition, i.e., the triptych tetrad. As was developed throughout this project, the triptych tetrad was produced to provide civilization with a mode of understanding and pattern recognition instead of a tool for the production of knowledge.

The trivium is needed within the electronic age for the very least reason in that it should be able to provide a sense of balance in the tumultuous shifts taking place throughout the world. It was basis for continuity between the shift from orality to print linearity, and the breakaway of dialectic from grammar and rhetoric produced many significant and positive effects. However, in its development, it also threatens to implode the system itself through the discarnation of the human person in the electronic age. Thus, he believed that his tetrad could provide balance to the changes that were taking place within the electronic age because it based on the trivium, with “grammar and rhetoric on the one hand, and dialectic on the other, provided balance of the hemispheres” (McLuhan and McLuhan, Laws 125). Indeed, the production of eloquence as wisdom is the “harmonizing of our faculties” and the “unifying all knowledge” (M. McLuhan, Gutenberg 258). Consequently, the development of the triptych tetrad in the electric era would allow for the ability to recognize patterns and put information into a greater perspective and view of the world.

Implications

In the final analysis, Marshall McLuhan was a Catholic humanist that was attempting to awaken civilization to the threats of electronic technology. Though he was

often criticized as the prophet of the electric age and the death of literacy, he had attempted to bring awareness to the fact that our technologies have structural side effects that are the result of their forms. This project has shown that his warnings and his prophecies concerning technology are the result of his Ancient, and, specifically, neo-Thomistic perspective. Along these lines, he formulated the tetrad as a heuristic tool from which a person could practice science otherwise than convention.

It was shown that his “science otherwise than convention” was grounded upon a perspective that rejected the Cartesian split between the mind and body. The mind and the body are a unified whole, and the individual person was connected to cosmos through the faculty of reason and the ability to use language. Indeed, the cosmos itself was understood as being permeated by and given its form from language, or logos. This logos does not function in a linear pattern, but rather it is understood as a simultaneous configuration of cause and effect. To study the cosmos, in this perspective, was to study the arts of the trivium because they were the arts of the logos. However, with the advent of the printing press, the human sensorium would be transformed to the privileging of the left hemisphere of the brain and the visual space that it produced. The world from this perspective was no longer seen as a living, logos informed cosmos, but rather as a machine that followed unchanging mechanical laws. This perspective would advance human knowledge and produce great scientific and technological advancements. The greatest advancement of this perspective was the harnessing of electricity.

Just as the phonetic alphabet and printing press had done before, electronic technology is restructuring and transforming civilization. According to McLuhan, electricity pushed the angelism, or split between the mind and body, of the printing press

to an extreme, and has the potential to reverse into robotism. Robotism is a form of human being in which the human person lacks a perspective from which they can understand the world. The person is completely submerged back into the group, which is especially problematic in the electric era because the totalitarian nature of electronic technology. In other words, the robotism is the numbing of the human mind because of the atrocity of electricity being the externalization of the left and right hemispheres of the brain.

Consequently, McLuhan offered his tetrad as a remedy for the threat caused by electronic technology. His triptych tetrad was essentially an extension of the corpus callosum, which was the physical place of translation and balance between the left and right hemispheres. The triptych tetrad is neo-Medieval because far from rejecting the advancements of electricity, McLuhan sought to translate the Medieval developments of the trivium tradition into the electronic era. The neo-Medieval theory of communication has three basic characteristics that are attentive to the electronic environment in which we live. The first characteristic is that it retrieves and translates the doctrine of the Logos into our understanding as the connection between the human species and our environment. Second, it recognizes communication in terms of transformation and participation. This recognition helps us to transcend the literal and linear models of communication that continue to shape the predominant paradigm of communication studies. Finally, neo-Medieval communication legitimizes the poetic as a form of knowledge and play as a form of discovery. As such, neo-Medieval communication retrieves joy within the human condition from the malaise of the nihilism that has tainted the Western mind since the Enlightenment and, furthermore, since the Second World War.

Indeed, the tetrad is specifically founded upon the trivium for the purpose of retrieving the product of its study, i.e., the doctus orator. The trivium education produces balance between the arts, and by extension, between the hemispheres of the brain. The effect of this balance is a unified field of mind. With this unified field of mind, the doctus orator attains a perspective that is committed to a life lived in prudent action and service to the community. Consequently, in the midst of the turmoil of the changes produced within the transformation to the electric era, stability could hopefully be found within the retrieval of the eloquent wisdom produced through the triptych tetrad. For these reasons, it has been advanced, in opposition to the Modern understanding of McLuhan, that McLuhan's dissertation is essential to understanding his vision.

In the final analysis, the neo-Medieval communication theory of McLuhan is a promotion of understanding rather than knowledge. Consequently, he was interested in language, transformation, perception, participation, and the legitimation of poetic science and play as a mode of discovery. Along these lines, the value of the triptych tetrad is largely found within its advancement of the continuous reconstruction of tradition in the contemporary moment in such a manner as to produce only wrong answers. As such, we are joyfully required to consistently reconstruct the tradition that has been passed on to us in ways that are attentive to the historical situation in which we find ourselves, and, consequently, to continue to travel the road to wisdom.

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