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Harmonious disturbance: pushing the boundaries of communicology in the classroom and beyond

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HARMONIOUS DISTURBANCE:

PUSHING THE BOUNDARIES OF COMMUNICOLOGY IN THE CLASSROOM AND BEYOND

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Introduction

Communicology is the science of communication. It is a discipline which works with appreciation for and in alignment with both social and natural science, with two important differences: (1) communicology seeks *understanding* over knowledge, and (2) communicology seeks not to overcome the unknown, but instead to reconnect with or re-enter the uncertainty of that preverbal, preconceptual space in which a human being encounters the unmitigated other (the world), and communication begins. Rather than moving always out and away from the semi-knowable toward more knowledge, communicology moves bi-directionally, out from and also back into the semi-knowable source of bodily experience.

As a relatively young discipline, communicology is not yet an established area of study within most mainstream academic communication programs. I argue that it should be. The discipline, drawing heavily from philosophy, communication theory and logic, involves a level of complexity which may turn uninitiated students and scholars away. However, within this complexity one finds a core of elegant simplicity. Communicology is a useful discovery tool with capacity to do immense good. In an effort to demonstrate this capacity and make a case for sharing the discipline more widely, I have formulated two research questions which guide the direction of this thesis and the research therein. They are:

1. Can communicology be presented through university coursework in a way that is both accurate and accessible, contrary to some scholarly views suggesting that concepts related to communicology might be more effective if delivered indirectly and under other focus areas?
2. What case can be made regarding the need for a fourth step in addition to the three existing steps that make up the structured discovery process put forward as the semiotic phenomenological method? How would a fourth step develop in terms of name, function and praxis?

I will structure Part 1 of this thesis around the leading definition of communicology, written and developed by the discipline's founder and leading scholar, Richard L. Lanigan. The definition itself is brilliantly condensed, and demands from a reader advanced understanding of multiple challenging concepts. The explication in Part 1 is meant to open and explore the definition, creating multiple points of access and discussion for students. This exploration will serve as an instructor's companion to a proposed course syllabus which appears as the final section of this work.

In Part 2, I propose that a fourth step may already exist within communicology's triadic methodological framework, and make a case for the identification and clarification of this step. My motivation for such a proposal is rooted in two areas. First, Lanigan is currently exploring the possibility of a fourth research step or a fourth realm of analysis. I add my own research and perspective to this effort. Second, Lanigan's triadic research methodology for communicology corresponds with Charles Sanders Peirce's triadic semiotic and ontological systems, which emerged from and are situated within a Western scholarly viewpoint. My proposed fourth step examines materiality, or Peirce's realm of "secondness" in terms of its deeply nuanced subtlety. My goal is to legitimize non-dominant discovery methods and non-Western communication-oriented ontologies, allowing other perspectives to shine through more prominently. This for the purpose of addressing widespread and deep-seated cultural and societal problems that persist despite (or perhaps because of) various human interventions over many years. Climate change presents an existential threat to all life. Political divisiveness fractures communities. People in the United States are dying from suicide and drug overdoses at alarming rates. A global economic equality gap continues to widen, and social conditions are fragile worldwide in the wake of the COVID-19 pandemic. In other words, so many people are disconnected, ill-at-ease, alienated from the experience of their own lives. People who are confused or alienated are likely to build technologies, systems and societies that reproduce and amplify disconnection. This cycle is perpetuated as long as communication is viewed and understood with a natural attitude. In other words, we often

solve our problems with more problems; treat poison with more poison, etc. because communication—that thing which generates discourse and culture—is poorly understood.

Communicology is a critical-interpretive tool that, when understood and skillfully employed, has the capacity for what C.S. Peirce called "harmonious disturbance." It disrupts and suspends the natural attitude, opening into new vistas of possibility regarding (a) the communicative roots or sources of socio-cultural problems; and (b) innovative communication-oriented paths forward. Those paths which may have been previously obscured are revealed through the methodological process of semiotic phenomenology, the research tool associated with the discipline of communicology.

The following explication allows for exploration and understanding regarding what communicology is. It begins with the following definition, featured on the International Communicology Institute web page at communicology.org:

> **Communicology** is the **science of human communication**. One of the **Human Science** disciplines, it uses the **logic-based** research methods of **semiotics** and **phenomenology** to explicate human **consciousness** and behavioral **embodiment** as **discourse** within global **culture**... (emphasis added).

In part I, each term/concept marked in boldface within the definition will be addressed under the corresponding subhead, and in the order in which Lanigan presents them, in a comprehensive exploration of the theory behind communicology. All nine topic areas interconnect with one another, and all contribute to a coherent understanding of the theoretical concepts of semiotic phenomenology in general. Topics are covered in the following sections:

1. Communicology and communication
2. The science of human communication
3. Human Science

4. Communicology and logic
5. Semiotic phenomenology
6. Human consciousness
7. Embodiment
8. Discourse
9. Culture

Part I. Explication

1. Co*mmunicology* rather than *communication*?

The discipline of communicology studies the full range of human communication, similar to the way biology studies living organisms or anthropology studies human culture. The word *communicology* stems from the Latin prefix *communis* (that which is held in common and created/constructed in common), and the suffix *ology* (specifying logic) (Catt, Smith & Klyukanov, 2018). Communicology examines communication as the creative generation and outpouring of meanings that humans throw onto the worlds they inhabit, and the ways in which they reinforce those worlds socially and culturally.

The word *communication* is often defined in simplified terms as an expressive skill. People said to have "good communication skills" are considered competent speakers, writers, negotiators, listeners, etc. Expressive skills are usually a focus of academic "communication studies" programs, which train students in organizational communication, journalism, social media, public relations, etc.--specific industry or job-related subsets which are useful and valuable in their own right, but fail to address the vastness of the *inter-looping* (Borden, 2017) systems of communication that drive human experience, meaning, and relationship to *the other* in general.

Dominant cultural and academic attitudes tend to view communication in terms of information theory, or the transmission of messages as objects between a sender and a receiver. Communicology, by contrast, does not objectify the message, suggesting instead that the meaning of any message is co-created by both sender and receiver in a dynamic, generative process (Lanigan, 2019). Put simply communication is not just a way to convey meaning. Communication creates meaning (Fiske, 1990). This is true whether one refers to creating the meaning of a word or a *world*.

2. The science of communication.

Communication at its minimum is an ecosystem, according to Lanigan (1988), in the sense that "communication is the name for the reversible relationship between an *organism* (person) and its *environment* (lived-world), both of which exist in a mutual context or *Environment* (p. 11). The *organism* in this sense can also be conceived as a group or society. This relationship between organism and world is reversible in the sense that each flows into the other. The idea that both organism and environment exist within a "mutual context" or capital-E "Environment" suggests that communication unfolds between an organism and its personal, subjective "lived world". Each of these "lived worlds" exists within a larger ecosystem or Environment that (a) contains the interconnected lived worlds of many individuals, and (b) serves as the context or environment or *stage* where *organisms* and their lived worlds come into being and play out.

Such a view extends the concept of communication beyond a "verbal, explicit and intentional transmission of messages alone..." to include "...all those processes by which people influence one another" (Ruesch, 1968, p. 5-6). Human communication also includes processes and practices by which people (individuals and groups) influence and are influenced by the world and other beings as well.

A communicative relationship between an organism and its environment unfolds via multiple levels or types of practice ranging from internal experience and dialogue within one's own mind/body to

the relationship between environment and large group/culture. Lanigan (1988) suggests that the most advanced level of this reversible relationship connecting person and world through creative generation of meaning is language. Language is as immersive and commonplace as air—it sustains our engagement with and understanding of the world. A spider quite naturally and apparently without much contemplation weaves a complex, patterned web as a way of relating to its environment—a necessity for survival. We humans weave complex patterns of meanings with language.

Language, perception, thinking, action: all these give shape or body to the elusive experience of *meaning.* All of these bring meaning into being through concepts, practices and material artifacts, and all are *communication*.

In their major work titled "Communication: The Social Matrix of Psychiatry," Ruesch (a psychiatrist) and Bateson (an anthropologist, social scientist and semiotician) proposed a theory regarding a science of human communication. The authors recognized that human experience tends to be dissected and broken into categories based on part and whole within the context of relationships: "a cell and the surrounding tissue" for example, or "one organ within an organism; an individual within the family group; a family within the community; and ultimately, perhaps, the community within the framework of the nation; and the nation within the (world)" (Ruesch & Bateson, 1968, p. 4). Social and physical scientists view and examine each of these interconnected part-whole systems in isolation from the others. For example, biology studies human physiological perception by perhaps examining optic or olfactory systems in the body; psychology studies the way humans behave and function in interpersonal relationships; and anthropology studies the development and structure of human culture. Such differentiation can be necessary and beneficial in early stages of study, but the same separations eventually become obstructions to understanding the way communication functions on a larger scale (Ruesch & Bateson, 1968). From the authors' perspective, these multiple categories of analysis are all living parts of the same whole. Ruesch and Bateson, therefore, proposed a unified theory with the

capacity to encompass both part and whole. The proposed discipline—perhaps the only one capable of addressing and analyzing all the varied, interconnected realms of human life and experience at all levels—is communication.

Ruesch and Bateson's Theory of Human Communication proposes four distinct yet interconnected and interdependent network communication levels on which human communication occurs: intrapersonal, interpersonal, group and cultural levels. Each of these network levels contains insight or information regarding the others, given that they are all inter-looping and interdependent. From within this network-level view of communication, a researcher might magnify and focus on any one of these levels in a given analysis, without ever coming untethered from the other three, or from the dynamic living processes that move them.

The intrapersonal level involves individuals' internal experience—encounters with the physical world and with their own minds and bodies as part of the world. This level involves sense organs, bodily perceptions, thought expressions, internal dialogue, etc. "At the intrapersonal level, the focus of the observer is limited by the self, and the various functions of communication are found within the self" (Ruesch & Bateson, 1968, p. 274).

The interpersonal level involves interaction between two people and focuses on an individual's encounter with an *other*. At this network level, shared reality unfolds. Researchers are "interested to inquire into the ways an observer perceives the world rather than how this world really is, because the only method we possess to infer the existence of the real world is to compare one observer's views with the views of other observers" (Ruesch & Bateson, 1968, p. 273).

The group level involves multiple individuals, and includes communication either from one individual or small group of individuals speaking to the many, or the many speaking to the one (perhaps through a designated representative). The group network level may involve any group, including a

family, business or organization, political group, a theater company, a classroom including students and teacher, etc. (Ruesch & Bateson, 1968).

Finally, the cultural level involves large-scale inter-group communication. Unlike the previous three levels, which are explicitly perceived and recognized by individual participants, people do not generally recognize the influence of culture in their lives, as culture operates pre-consciously, and appears as common sense or natural.

> When participating in a cultural network, people are in many cases unaware of being the receivers or senders of messages. Rather the message seems to be an unstated description of their way of living. They attribute it to no human origin, but they themselves transmit the message to others by living in accordance with its content, which they may regard as 'human nature'" (Ruesch & Bateson, 1968, p. 282).

Messages sent and received at the cultural level may include "messages about language and linguistic systems", "ethical premises", and theories about how human beings relate to the universe and other people (Ruesch & Bateson, 1968, p. 282).

Communication at the intrapersonal network level is quite malleable and can be changed relatively easily. We have the capacity to change our minds according to what we experience around us. As communication moves up through the levels, however, it becomes increasingly rigid or *sedimented*—a term Merleau-Ponty coined to describe the process by which "we count upon the things that are there and that are given as a whole, without our having to repeat their synthesis at each moment" (Landes & Merleau-Ponty, 2014, p. 131). In other words, through sedimentation, we acquire and store "worlds of thought" regarding our bodily position and habitual movement in various environments which allow us to act semi-automatically without high levels of focus or concentration (Landes & Merleau-Ponty, 2014 & Webber, 2018). By the time messages reach the cultural level, they have reified into the natural

attitude—a set of ideologies and beliefs about *the way things are* (Lanigan, 2016). Though these levels are positioned as a hierarchy, with the intrapersonal level on the bottom and cultural level on the top, it is important to note that the cultural level feeds prominently into the intrapersonal level, determining to some degree what and how an individual perceives and thinks about the world. Likewise, each individual who reinforces cultural messaging, through thought and behavior, feeds back into the cultural network level. Therefore, this hierarchy can also be conceived as a loop or a cycle.

3. Human science

Simply put, human science studies people or their actions, in contrast with the natural or physical sciences, which study objects. Lanigan offers a more nuanced description, calling human science "the scientific methodology and subject matter of those states of consciousness and behaviors that we call human, as opposed to the objects studied by the physical sciences whose rubric is human sensation of those objects" (Lanigan, 2010, p. 102). This *rubric* of *human sensation,* which mediates all contact between humans and the objects they study, presents an often-overlooked problem within the physical sciences: humans can only study or know an object according to their subjective sensed experience of that object (seeing, touching, hearing, attitudes, beliefs, etc). Physical science tends to overlook or disregard the veil of human sensory processing that lies between a researcher and an object, while human science fully embraces it as one of the primary creative elements of the communicative process.

Foucault (1970) suggests the human sciences did not develop according to the same epistemological process that produced philosophy, quantitative natural science, and quantitative social sciences, but rather emerged because of them, in the space that exists between them. In other words, the more data, knowledge and collective wisdom humans acquired, the more starkly they saw themselves against the backdrop of the world, experiencing themselves as observers of the world.

Imagine that each of the three disciplines—natural science, social science and philosophy—occupies one point or angle of a triangle, and that the human sciences exist because an empty space appears between those three points, within the lines of the triangle. Existing there in between, the human sciences flow into all three points of the triangle. In this way, they are interdisciplinary (coordinating coherent links between multiple different disciplines) or transdisciplinary (uniting multiple different disciplines in a new context which transcends traditional boundaries). The quality of occupying the interstices allows the human sciences access to the territory of each specific point on the triangle, while the points themselves remain separated from one another.

Foucault's archaeology of human knowledge (1970) suggests even more specifically that the sciences emerged from within a tension between genesis and mathesis. Genesis refers to "the marks progressively imprinted in the mind by the resemblances between things and the retrospective action of the imagination," while mathesis refers to the "utilization of the symbols of possible operations upon identities and differences" (p. 73). In simplified terms, on the genesis end of the knowledge spectrum, humans perceived resemblances between things they could sense, and used imagination to establish connections between those things (abductive logic—see Section 4.4). On the mathesis end of the knowledge spectrum, humans developed operations to calculate and measure differences between sensed objects, and to put those things in some sort of order (computation—see Section 4.3). Between these two poles lies *taxinomia,* which "resides within (mathesis) and is distinguished from it; for it too is a science of order—a qualitative mathesis." Here Foucault reveals that the origins of science—mathesis—included a key qualitative element necessary for the pursuit of knowledge and understanding, or "the science of *truth"* (p. 74).

Mathematics is one set or style of operations which emerged from the inclusive and *unitary* body of knowing that is *mathesis* (Foucault, 1970). Foucault suggests that modern quantitative scientific methods did not become dominant according to new advances in the capacity of mathematics to

discover truth, but rather in response to a retreat of *mathesis* as a unitary field. (Foucault, 1970). Slowly, as methods of human thought and analysis changed shape and course, the unity between qualitative and quantitative thinking that was mathesis began to disappear. Foucault (1970) suggests that

> By disappearing, (mathesis) left nature and the entire field of empiricities free for an application, limited and controlled moment by moment, of mathematics; for do not the first great advances of mathematical physics, the first massive utilizations of the calculation of probabilities, date from the time when the attempt at an immediate constitution of a general science of non-quantifiable orders was abandoned (p. *350).*

There is little doubt that atrophy of the qualitative domain allowed for major advances in knowledge in physical sciences like physics and astronomy. Such dramatic success affirmed to scientific practitioners that quantitative methods for analysis were superior for arriving at knowledge. However, in areas like biology or psychology, quantitative measurements alone proved incomplete. After all, seminal works of thinkers like Darwin and Freud would have been impossible without qualitative research and insight. Foucault claims that the disappearance of mathesis and subsequent flourishing of quantitative mathematics actually created space for the unique field of biology, in part by demonstrating what mathematics could not do (Foucault, 1970). The human sciences emerged in the same way: "it was the retreat of the mathesis, and not the advance of mathematics, that made it possible for man to constitute himself as an object of knowledge" (Foucault, 1970, p. 350). As qualitative scientific explorations of human connection to and experience of the physical world dwindled and disappeared, humans were extracted from that world and placed into an interstice where they became observers of objects and objective reality, disconnected from the living systems of the world. That state of disconnection is bereft of meaning. Thus, the human sciences are those which study meaning or put meaning back into human experience.

4. Communicology and Logic

Communicology, with its methodology of semiotic phenomenology (see Section 5.3), studies territories of understanding which, due to their non-quantifiable, non-binary qualities, are often neglected in the physical and social sciences. Communicology approaches these territories through qualitative analysis. This is no indication, however, that communicology neglects reason. On the contrary, the human science discipline of communicology is conducted according to specific and rigorous standards of logic—that ancient and time-tested system underlying "the nature of reasoning and the rules for correct or right thinking" (Lanigan, 1988, p. 21). Logic composes the foundations of philosophy, human science and natural/physical science.

In order to see how types of logic operate within different forms of scientific inquiry, one must briefly examine the history of metatheory and methodology in the philosophy of science (Lanigan, 1988). In other words, one must consider how human theories and methods for understanding the world developed over time. Modern science is not something that has always existed. Both the physical and human sciences were developed by humans according to logic as ways of knowing the world.

Examination of this logic begins with a differentiation between two ancient concepts, preserved and expressed today in the form of Latin phrases, both of which are translated from the original Greek. These concepts reveal the roots of two necessary and equally relevant human pursuits: understanding v. knowledge (Lanigan, 1987).

Quod erat demonstrandum (Q.E.D.) translates to "which was to be demonstrated" (Lanigan, 1988). The acronym Q.E.D. was historically written following the completion of mathematical proofs, indicating that a student or mathematician had demonstrated (or proven) that which was already the case (Fawcett, 1956). To demonstrate what is involves the reinforcement of established rules within a

field of limited possibility. Q.E.D. relates to the process of ending, sealing or closing a unit of knowledge which, having been proven, becomes subject to reification.

Quod erat inveniendum (Q.E.I.) translates to "which was to be found out" (Lanigan, 1988, 1994). The idea that something can potentially *be found out* indicates both possibility and uncertainty, and suggests exploring a field where anything could happen—a field of unpredictability and possibility. Q.E.I. is not meant to follow a statement of immutable knowledge like a mathematical proof, but instead relates to the process of opening, connecting and always beginning. Smith (2018) writes that

> Such an end (as Q.E.I.) does not establish identity once and for all, or knowing with certainty... but remains subject to refinement and elaboration...that involves conversation, argumentation and dialogical engagement—reasoning, feeling, valuing, learning communicatively...and remaining open to the unexpected no matter how much it may displace, throw one out of context, or disrupt an otherwise elegant design (Smith, 2018, p. 28).

Very different worlds will be constructed depending upon which meta-theoretical framework domnates. Q.E.D is always closing and delimiting along a linear path toward a final end—the edge of the world, so to speak. Q.E.D. is final, and nothing lies beyond it. By contrast, Q.E.I. is always opening along an ever-forking path which has no conceivable end. Q.E.I. is always beginning, and something always lies beyond the next bend. It is important to understand and differentiate between these two frameworks, as what can exist and be known in one cannot necessarily exist and be known in another. In a framework where Western Eurocentric Q.E.D-based views dominate, emergent cultures are in many ways unable to know or connect with a view of the world that is oriented toward opening, beginning or turning along a cyclical route. Communicology is a tool which navigates both frameworks by looking not just at data, as is the common practice in the physical sciences, but at two other areas as well: *capta* and *acta.*

4.1 Data, Capta, Acta

The Q.E.I. model is equipped to explore both quantifiable and non-quantifiable areas of study, whereas the Q.E.D. model relies upon measurable data to generate "proof." *Data* is a word often assumed to be synonymous with *information* or *facts,* however, its actual meaning is more nuanced. The Latin word *data* means "what are given," referring to objective facts which can be observed and measured.

Consider, by contrast, the Latin word *capta*, which means "what are taken." In the context of Q.E.I., *capta* represent that which a researcher (or any human being, for that matter) chooses to take up from a field of innumerable possibilities. Discourse and action are not comprised of data, according to Smith (2018), or pre-fabricated facts "sitting ready for plucking from the world" (p. 28). Rather, Smith describes discourse and action as "taken and constructed, worked through and lived, presented situationally...and fallibly as capta" (p. 28).

That which researchers often presume to be objective factual data are actually sense experiences filtered through and translated by the human body and mind, and shaped according to cultural presuppositions. The researcher chooses and constructs data preconsciously, using signs to create what appears to be the beginning or ground-level of awareness (see Section 5.1). Data-focused study requires that a researcher take for granted that the perceived data is as it appears.

Consider, for example, the typical social science survey. Participant answers to survey questions may or may not be true, but they are the answers *given* to the researcher. These answers, or that which is given, become the data that the researcher uses to calculate truths and predictions. All *truths* emerging from the study presuppose that the data is true, even though respondents had the opportunity to withhold the truth, and may have done so for myriad reasons.

Such insight is not intended to argue against the value of data or the Q.E.D. model, but to reveal the existence of a deeper level of human experience and analysis—the level of unmitigated human experience from which data emerges. It opens itself to study through communicology.

Lanigan (1988) describes a third Latin term, act*a*, which serves as a "unifying force" between *data* and *capta*, and also addresses the historical bifurcation of the two. This bifurcation, or forced separation, results in the type of crisis in the sciences which compelled Edmund Husserl to develop phenomenology (see Section 5.2), and which Thomas Kuhn explored in terms of scientific revolution. Acta is understood as Q.E.F. (quod erat faciendum; *which was to be done*). Lanigan (1988) writes that "our modern view of acta is 'science" (p. 7). In other words, science is what we do (or that which is done) to gain knowledge and/or understanding through Q.E.D. or Q.E.I. Lanigan (1988) writes that "the human sciences are incorrectly seen to be or are treated as *methodologically different* from the physical sciences, rather than *essentially different*" (p. 7). This essential difference, or difference in essence, does not pit the two sciences against one another, but rather unites them as two different planes or stages of inquiry, beginning with (1) capta, followed by (2) data, and finally (3) acta.

Here Lanigan offers an outline of a fourth stage (see Section 13.2): "(4) the progressive repetition of the process in the accumulation and communication of research findings and applications" (Lanigan, 1988, p. 7), suggesting that as it discovers meaning, research must repeatedly return that meaning back into the ground level of awareness (capta), re-emerge with *truer* data, and pass again through the acta or interpretation stage toward ever more comprehensive understanding/meaning. As one of the human sciences, communicology and its methodology is based on an overarching scientific rigor that results from the conceptual unity of all logical parts of a scientific process (Lanigan, 1988).

4.2 Four Logics

These three metatheory categories—the knowledge or data-collection model (Q.E.D.), the understanding or capta-seeking model (Q.E.I.) and the action or praxis phase (Q.E.F.)—all function according to four interconnected types of logic: deductive, inductive, abductive and adductive. All of these logics are involved in all sciences; the type of reasoning that dominates a particular analysis is generally a matter of emphasis. Generally speaking, deductive and inductive logics receive heavy emphasis in Q.E.D. metatheory. While the human sciences also rely on deductive and inductive logics, they also open more to abductive and adductive logics. To engage in abductive logic is to resist the notion of inexplicability (Lanigan, 2020).

4.3 Deductive and Inductive Logics

Deductive logic moves from the general toward the particular, or from a broad rule or statement toward the truth of a particular case. This type of reasoning follows the pattern: rule + case = result (Lanigan, 1992, p. 219; Lanigan, 1994). Examples include:

1. All men are mortal.
2. Socrates is a man.
3. Socrates is mortal.

1. All beans from the bag are white.
2. These beans are from the bag.
3. These beans are white.

Inductive logic begins with the particular and works toward the general, following the pattern: case + result = rule (Lanigan, 1992, p. 219; Lanigan, 1994). Examples include:

1. Socrates is a man.
2. Socrates is mortal.
3. All men are mortal.

1. These beans are from the bag.
2. These beans are white
3. All beans from the bag are white.

These two logical methods are opposites in the sense that they are contraries (Klyukanov, 2018). They do not represent one type of thinking moving in opposite directions along the same line, but represent separate types or lines of thinking. Induction can be used to test new hypotheses, starting with a particular case and working outward toward general laws or rules, and deduction demonstrates knowledge through the application and reinforcement of established laws and rules of reality. Together, they contribute to the type of reasoning James Bridle (2018) calls *computational thinking,* which holds that the world can be reduced into isolated parts and pieces—bits of measurable data—and that the more data we collect, the more we will have mastery and control over the world. Computational thinking, according to Bridle, is a form of solutionism that promotes the concept that any problem can be solved by the application of computation (p. 4). It depends upon the theme of division. Bridle writes that such thinking is only capable of computing solutions based on other computed solutions and previously collected data. In this case, any piece of computational knowledge is only as *true* or *good* as the piece(s) which came before it, which suggests that such thinking is more fallible than it readily admits to.

4.4 Abductive Logic

Deductive and inductive reasoning address the testing and affirming of hypotheses (new ideas) and the confirmation of knowledge. However, they do not account for the source or appearance of new ideas and new hypotheses. Before a hypothesis can be tested, it must come into existence. Philosopher and mathematician Charles Sanders Peirce explored the type of logic that accounts for the emergence of a new idea or hypothesis. Peirce called this type of logic abduction (Peirce, 1903). Abduction follows the pattern rule + result = case (Lanigan, 1988). The examples used above organized in terms of Abductive and adductive logic are as follows:

1. All men die.
1. All beans from the bag are white.

2. Socrates dies. 2. These beans are white.

3. Socrates is a man. 3. These beans (must be) from that bag.

This basic pattern does several things: it moves toward the particularity of a single case, it links two separate or seemingly unrelated perceptions together, and it jumps to a highly fallible yet possible hypothesis. If I want to determine, for example, where the white beans have come from and why they are all white, but have no hypothesis, my investigation is stalled. The source of the beans remains a mystery. At some point, a conversation or experience I am involved with triggers a memory or an awareness about a certain bag of white beans that exists somewhere, and I am struck with a new idea: what if these beans came from that bag? I have not discovered the answer, but I have developed a hypothesis which I can now test and explore using all four types of logic. Peirce (1903) describes adduction as follows:

> The abductive suggestion comes to us like a flash. It is an act of insight, although of extremely fallible insight. It is true that the different elements of the hypothesis were in our minds before; but it is the idea of putting together what we had never before dreamed of putting together which flashes the new suggestion before our contemplation (p. 227).

Abductive logic operates in multiple ways, but is especially likely to initiate when we face a situation that doesn't make sense. Abduction "is a way of understanding relations between disparate phenomena, such as in paradox, in light of which the phenomena would no longer appear surprising" (Klyukanov, 2018, p. 135). In other words, abductive logic comes into play in any situation that needs explaining. For example, if I am accustomed only to brown beans, and then one day I find white beans, the paradox will trigger an abductive process to determine the relationship between the white beans and my kitchen, a place where white beans are presumed nonexistent. Without the paradox, we are unlikely to wonder. If white beans belong in my kitchen, I will not feel curious about their source.

4.5 Adductive Logic

Adduction occurs on a larger, more universal scale. Involving not just paradox, but moving closer to anomaly, adduction involves any situation where one seems to reach the limit (Klyukanov, 2018). Paradox can occur as a curiosity within a working system, whereas a limit is something seemingly inexplicable—something that breaks or stops a working system or appears insurmountable.

Like abduction, adduction is a means by which a human being, immersed in the chaos of the unfolding world, makes a leap to intuitive insight or a hunch about the way things may be (Klyukanov, 2018). The difference between the two logics, according to Lanigan, is that "abduction is a particular and a posteriori claim whereas adduction is a universal and a priori claim" (Lanigan, 1995). Abduction involves *a posteriori* insight, which is based on observed experience, within a single context. Adduction involves *a priori* insight, and operates on a more universal level across multiple contexts.

Anomaly in the sciences will be ignored or worked around if possible. If it is too significant to be ignored, it will incite a scientific revolution on the order that Kuhn explored (Kuhn, 1996). It will open doors into a new reality or new truth or way of being, which necessarily involves destruction of the old reality and the old truth (Kuhn, 1996). The logic involved with conceiving a new cosmology (Kofman, 2018) or a new reality is adduction. Scientists and the cultures within which they are embedded are usually resistant to such revolution, and as a protective measure, will often avoid or denounce forms of logic or ways of thinking that reveal anomaly in an effort to protect existing theories, methods, cultural habits, etc. Bridle explores how computational thinking creates technology and science that make life better for large portions of humanity, while in many regards, the same science and technologies are destructive to other groups of people, other beings and to the natural world. Consider, for instance, ongoing political debates about fracking, or drilling for oil in wildlife preserves. Consider also that the science which creates livelihood for commercial farmers and allows the production of large monocrops

to feed people and livestock also destroys soil and threatens farmers' livelihoods. These are examples of anomaly with no cure within science-based industries that require adductive re-vision on a universal or cross-contextual scale to achieve balance or wellness.

Peirce (1903) writes that "perceptual judgements contain general elements, so that universal propositions are deducible from them..." (p. 227). The suggestion, here, is that any specific perceptual judgement (or anything humanly experienced) contains elements of (or passage into) a universal level of insight. It follows, then, that the reverse would be true: any general rule, law or insight contains elements of (or passage into) the detailed or particular. Peirce's work regarding perceptual judgments is based on logical analysis of the construction of the semiotic process. In other words, Peirce's work examines how a human body comes into contact with and perceives/expresses the world through signs, and what those perceptions/expressions are made of. If every human experience is made up, in some part, of the world's most general elements, then it follows that every experience, no matter how particular, nuanced or seemingly isolated, has the capacity to follow those same general elements toward a universal or cross-contextual understanding.

Abduction and adduction are logical, then, in that all phenomena are connected to one another (abduction) through interconnected systems, and all phenomena, by virtue of their existence, are connected to a universal system which contains the interconnected subsystems (adduction). The process of juxtaposing paradoxical or anomalous perceptions, and allowing for those perceptions to access one another through their universal elements, activates abductive and adductive logics. Unlike computational logic, which is based on a theme of division, abductive and adductive thinking is based on a theme of unity.

4.6 Beyond Computational Logic: Abduction and Metaphor

While Bridle's work with computational logic is specifically directed at technology-related science, the concept applies to other forms of mainstream positivist logics in the social and physical sciences as well. Bridle addresses the limitations of approaching knowledge seeking exclusively in computational terms, issuing a call to "remake" the metaphors of science and technology in order to find new, more expansive ways of thinking (Bridle, 2018). Bridle does not attempt to argue against science and technology in general, as "to do so would be to argue against ourselves (Bridle, 2018, p. 12). Rather, Bridle addresses the generally underestimated capacity of tropic or rhetorical logic by exploring the idea that metaphor and paradox—a combination involved in abduction/adduction—possess the weight and power to carve new vistas of reality or possibility into our relationship with the world.

Gregory Bateson (see Section 2) developed what he called "syllogisms of grass" (Borden, 2017) as a way to explore beyond the boundary of the logical trap of computational thinking. Despite years of mainstream scientific training, Bateson viewed the positivist sciences with skepticism, asking whether a purely computational system for explaining the nature of life could possibly account for a world that presented itself as a vastly complex interconnection of relationships and patterns. Bateson, following Peirce and others, saw that different types of logic are capable of producing different types of meaning, as in the difference between denotative and connotative meaning processes (Borden, 2017).

Bateson explored Peirce's conception of abductive logic as a way out of the Cartesian thought cycles that, in Bateson's view, obscured deeper experiential understanding. In the following quote, presented in Kaag (2014), Peirce writes about abduction by relating a strange and particular feeling or sensation that accompanies this spark of novelty, or *hypothetical inference*.

> In hypothetical inference this complicated feeling so produced is replaced by a single feeling of greater intensity, that belongs to the thinking of the hypothetical conclusion. Now, when our

> nervous system is excited in a complicated way, there being a relation between the elements of the excitation, the result is a single harmonious disturbance which I call an emotion . . . this emotion is essentially the same thing as an hypothetical inference and every hypothetic inference involves the formation of such an emotion (72-73).

Abduction is a spontaneous, emotional, imaginative structure involving creative analogy and metaphor (Kaag, 2014). It's the logical process behind hunch and intuition. It does not begin and end with observable data. Recall that, according to Bridle, computational logic is only capable of computing solutions based on other computed solutions and previously collected data, and data necessarily represents humanly-conceived divisions and categorizations. This means that the range of possible solutions is limited by the ideas and constructs created by a fallible human process. By contrast, abduction leaps over the boundary wall of the data set and into new insight. Abduction is meant as a complement to, rather than a substitute for, inductive and deductive logical processes, inviting new ideas to intermix with existing logics, thus enlivening and expanding logical developments and informing novel solutions.

To explicate the purpose and value of different ways of thinking, Bateson compared two types of syllogism—both presented as equally correct. The first is based on the classical example of deduction as noted above (Borden, 2017):

> Humans die;
> Socrates is human;
> Socrates will die.

To overcome this standard form of habitual thinking, Bateson adopted Peirce's abductive logic to create a new form of syllogism:

> Grass dies;
> Humans die;

Humans are grass.

The abductive syllogism results in a “yes-but-no" paradox (a metaphor) which reads more like poetry than traditional science, and that was exactly what Bateson wanted people to see (Borden, 2017).

> Metaphor, dream, parable, allegory, the whole of art, the whole of science, the whole of religion, the whole of poetry, totemism … the organization of facts in comparative anatomy—all these are instances or aggregates of instances of abduction (Bateson, 1979, p. 142).

Such a metaphor as “humans are grass” is not intended to be taken literally, but rather to upend the limitations of computational thinking and invite a more creative dialog with the world: the human life cycle is not so different from that of plants, human bodies emerge from the same earthly elements that compose the grass, or individual humans are common as blades of grass, etc. Just as Edward Lorenz suggested that the tiny disturbance caused by a butterfly’s wing stroke can lead to a powerful storm, the illuminating spark of a single peculiar metaphor or paradox can open a road into new territories of understanding.

4.7 Understanding v. Knowledge

Inductive logic tests and demonstrates hypotheses, while deductive logic demonstrates and confirms rules based on those hypotheses. As demonstrated above, hypotheses emerge via abductive and adductive logic, and all hypotheses are considered fallible. Therefore, when positivist physical and social sciences present “hypotheses” based on data, they are actually *hypostasizing*, or treating an abstraction as though it is a concrete reality. “Data,” after all, is abstracted from “capta.”

Communicology (1) recognizes the difference between hypothesizing and hypostasizing; (2) recognizes interdependence among deductive, inductive, abductive and adductive logics; and (3) enters the territory of paradox and anomaly geared with sound logical and analytical tools for discovery.

Where mainstream physical and social sciences focus on building knowledge based on observation and data, the human science of communicology focuses on the understanding how things are based on lived experience of the world. Understanding describes and discovers, while knowledge explains and invents. The "understanding" model, because it is equipped to accept and address paradox, has the capacity to answer questions with yes *and* no, and *neither yes nor no*, whereas the "knowledge" model forces a binary "yes or no" answer, altering or eliminating any elements of an inquiry which do not adhere to the binary structure. Lanigan (1987) describes four key points of differentiation between understanding and knowledge. They are:

> *(1) possibility versus probability, (2) particular versus universal [or, singular versus general], (3) praxis versus practice, and (4) conscious experience versus the experience of conscious [or, perception/expression as theoretical versus sensation/observation as atheoretical—recalling, however, that observation is a modality of expression because expression is reflexive to perception!]* (p. 32).

While the first two points of differentiation are self-explanatory, the latter two require discussion.

The term "practice" in a scientific context indicates the application of an existing idea or theory. By contrast, "'praxis' means the movement of human existence as creative of meaning, the creation of meaning in the dialog with the world" (Kwant, 1963, p. 76). Praxis involves the action of everyday life or that which is lived. This concept of praxis helps to illuminate Lanigan's fourth and final characteristic. Within the understanding model, "conscious experience" involves an engagement with the world that produces meaning through praxis. By contrast, the knowledge model's "experience of conscious" takes the "conscious" for granted as an objective reality which is observable, but not negotiable, and without consideration for the living process from which consciousness emerges. Lanigan calls attention to the flaw in this view by pointing out that the act of observation involves both perceptive and expressive

qualities: in order to carry out any scientific observation, one must actively interpret what is observed and decide how to record it, choose which observations are important enough to be included in a study, engage in strategic and critical thinking during and regarding observation, etc. All these are forms of expression, and no such expression is possible without an initial perceptive/expressive interface with the world or "praxis." In other words, the logic of physical science and its methods depend upon the prior logic of the human sciences, as no thing or phenomenon can be observed without the active participation of a human being to sensually perceive the world and then interpretively express the world through a unique filter of personal presupposition.

In a social science study, for example, before I can observe a group of middle school students, I must decide on a context for observation: classroom, social time, detention, etc. I then must employ bodily sense organs to see and/or listen to the students, bringing stimuli into my body and employing consciousness to interpret and express thoughts and ideas about my observations. My personal presuppositions will influence how I interpret the data (participants' speech, body language, tones of voice). My attitudes and behaviors also influence the study. If I am kind and friendly, the students will act one way. If I am cold and intimidating, they will act another way. If I personally enjoy middle school children, I will view the data one way, and if I dislike them, I will view the data another way. All this contingency is swept under the rug, so to speak, in the process of gathering and presenting "data." When the "data" is presented in a mainstream social science context, it stands for empirical fact and is taken for truth.

To seek understanding about others' experience is to view participants as co-researchers (Smith, 2012, 2018) in a system of meaning which we all experience and influence together. "Understanding, in short, not only requires, but is a human participation in the phenomenon. Understanding is science in situ and properly called 'human science'" (Lanigan, 1987, p. 33) (see Section 3). The understanding model employs a theory and research methodology that differs from theories and processes of the

social and physical sciences. It is semiotic phenomenology—an expedition into the particularities of human experience. It is a path toward understanding which depends upon unity between two distinct fields of study: semiotics and phenomenology. It is discussed in the following section.

5. The Fusion of S*emiotics* and P*henomenology*

5.1 Semiotics is the study of signs and how they work, and of how signs operate within *semiosis*—a process of meaning-making. A sign is anything that can stand for anything else: words, sounds, photographs, bodily gestures, a painting, a melody, etc. Catt (2017) summarizes semiotics as the study of "what we have in common as cultural sign systems for expression" (p. 2), suggesting that anything we can experience of the other—people, things and other beings—is shared in common or *in communication* through signs. Fiske (1990), presents semiotics in terms of three main areas of study: *(1) the sign itself* (as human constructs, signs can be understood in terms of how people use them); *(2) the codes or systems into which signs are organized* (this might involve spoken language, sign language, a system of polite manners, traffic lights, etc.); and *(3) the culture within which these codes and signs operate* (see Section 9 for more on culture) (p. 40).

Semiotic examination of the interaction between signs, codes and culture reveals how language and meaning create cultural sedimentations that dominate the *thinking of the day* (Martinez, 2011). Such sedimentations create a story of how one is situated in a particular time and place, and how that situatedness constrains an individual within structures of meaning and possibility that limit thought horizons, behavioral choices and other life options. Such a story might involve overarching discourses like class, race, geography, gender, etc., as well as more particular discourses like fashion norms, music trends, literature preferences—all the semiotic building blocks of a life and identity. In terms of freedom or free will, it is possible for an individual to create a different story on an intrapersonal level, but not always possible to operationalize a different story on a group or cultural level. For example,

sedimentations around gender and sexual identity in the 1950's placed different limitations on life for LGBTQ people compared to the 21st century. Today, being LGBTQ in the United States means something different than in Saudi Arabia, for example. An LGBTQ person can practice openness on an intrapersonal level, however the culture of time and place may exert forceful and oppressive limitations on that individual regardless of intrapersonal attitudes. It can be difficult to recognize such taken-for-granted cultural conditions as sedimented sign systems, as they exist and play out pre-consciously in our lives. The establishment of a formal study of signs was key for developing insight in this area.

Swiss linguist Ferdinand de Saussure (1857-1913) and American logician and philosopher Charles Sanders Peirce (1839-1914), were two of the first thinkers to carefully examine signs in terms of human language and meaning. Both are generally credited as founders of the modern field of semiotics, though they approached the study of signs in two very different ways. Saussure put down the foundation for structuralism, taking a dualistic, binary approach to the study of signs. Each sign, according to Saussure, is comprised of a signifier (the form a sign takes—a word, drawing, odor, etc.) and signified (the meaning or the concept that a signifier stands for). Saussure's dyadic model focused mainly on relationships between concepts and the signs representing those concepts. As a linguist, Saussure's primary interest involved how words operate within a language. Saussure saw words as units of meaning within a larger linguistic structure, where each word derives meaning in terms of its distinction or differentiation from other words. For Saussure, a word has meaning only in terms of what it is not (Fiske, 1990, Hall, 1997).

To aid in this process of differentiation, Saussure engaged the concept of binary opposition to demonstrate the differences which give signs meaning. For example, day is day only because it is not night and vice versa. Saussure's critics recognized gaps in this reasoning, noting that differentiation through binary opposition is only one rather simplistic way of marking difference—a way which does not

account for, in this example, dawn, dusk, half-light, twilight, or any other sign indicating the slow transitional grades that exist between *day* and *night* (Hall, 1997).

This gap in reasoning stems from Saussure's singular focus on words in relation to one another—a worthwhile exploration of signs in language, but lacking insight regarding the source and generation of words and other signs. Saussure's model involved only a mental world of concepts, where the meaning of one conceptual sign is discovered in relation to another conceptual sign. Peirce overcame this problem by diverting focus from a study of words in relation to other words within a closed language structure to words in relation to their objects (Fiske, 1990). Thus, Peirce's model located a sign in the physical, non-mental world of material objects (Kjaerhjolm, 2014). It recognized a lived, tangible, grounded essence in a representamen. Peirce's semiotics involved a more complex examination of semiosis (or sign process) as a way of exploring lived human experience of the world (see section 5.3 for more on semiosis). In a departure from Saussure's dyadic structure, Peirce's semiotic theory involved a triadic model that introduced a third element into sign analysis: the object. According to Peirce, every sign is a dynamic set of living relationships; not a structure in Saussure's sense, but structure as process involving three elements: the representamen, the object and the interpretant.

> A sign, or *representamen*, is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the *interpretant* of the first sign. The sign stands for something, its *object*. It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes called the *ground* of the representamen (Peirce, 1897).

In Peirce's triad, the sign is active. It *addresses* us; it *creates*. The sign (representamen) occurs when an object (not necessarily a material object) combines with the human interpretive impulse

(interpretant)—the experience of the object triggers the interpretive impulse in the experiencer. The sign, in this view, is adaptive and contingent, transfiguring in real time according to the changeable natures of each of its three interacting elements. A single object can inspire diverse interpretants in various experiencers, and may therefore be the source for more than one sign. Signs, in their contingency and variability, may influence perceptions of an object. There can be no final true understanding of any sign, but only an infinite range of understandings that emerge according to the different interpretive conditions of countless different minds (Kjaerhjolm, 2014). Meaning, therefore, is not fixed or guaranteed. In communicology, Peirce's model shows that communication is dependent upon and unfolds according to semiosis (or sign process), and that semiosis occurs not according to positivist quantification, prediction and control methods, but as a phenomenon which cannot be directed or isolated, like rainfall, or the sprouting of a seed. Peirce's model further suggests that a linear information transmission model of communication cannot account for the true scope of communicative meaning, as the "sign" sent by a sender may be different from the "sign" received by a receiver. (See Roman Jakobson's communication model for more detail).

Peirce's model does not eliminate the structural element of semiotics, but transforms it from the rigid constraints of the dyadic Saussurean structure into the living creative process of the Peircean model.

> When we talk about structures in this sense, we should not think of columns that define the shape and dimensions of a building. Rather, we should understand structures more like the structure of an ocean current, or the rhythmic structure of the rising and falling tide (Martinez, 2011, p. 57).

To view signs and structures in this way, according to their living vitality, Peirce developed a type of study which he called phaneroscopy, or "the general survey of the building-materials, the elements out

of which concepts are to be built" (Peirce, C.S.,1865-1909). Here, Peirce found that in order to deeply examine signs through the study of semiotics, it was also necessary to reduce the contents of a consciousness—all that is perceived and expressed—down into their "indecomposable" elements (Peirce, 1998). These *indecomposable* or irreducible elements, in other words, are *the things themselves.* In his study of semiotics, Peirce entered the existential realm of phenomenology.

5.2 Phenomenology

Phenomenology "conceptualizes communication as dialogue or the experience of otherness" (Craig, 2007, p. 217). In examining the essence of *the other*, whether that other is a person, being or the world itself, phenomenology breaks out of and away from structure to pursue a sort of raw, unmitigated experience as it exists pre-conceptually. Philosopher Edmund Husserl (1859-1938), developed phenomenology, or a *return to the things themselves.* With use of the word *things,* Husserl was referring to phenomena, or sensed objects, entities and experiences. After growing frustrated with mainstream objective science for failing to acknowledge its own dependence upon and immersion in human experience of the world. Husserl viewed such a failure as a crisis within the European sciences (Husserl, 1970). Husserl saw that, in order to claim total objectivity, science must essentially pretend that it is not a discourse that emerges from and is sustained by an already-existing world.

As a response to this crisis, Husserl developed a rigorous approach for investigating 'things as they appear' in people's consciousness that would enable the inquirer to 'come face to face with the ultimate structures of consciousness' or the 'essence' of a particular experience." (Matua & Van Der Wal, 2015, p. 23.) In other words, Husserl wanted to discover that which underlies and gives rise to human conscious experience. As part of this investigation, Husserl developed the concept of L*ebenswelt*, or the *life-world.*

> The life-world is the world of our immediately lived experience, as we live it, prior to all our thoughts about it. It is that which is present to us in our everyday tasks and enjoyments—reality as it engages us before being analyzed by our theories and our science...It was Husserl's genius to realize that the assumption of objectivity had let to an almost total eclipse of the life-world in the modern era, to a nearly complete forgetting of this living dimension in which all of our endeavors are rooted...The consequent impoverishment of language, the loss of a common discourse tuned to the qualitative nuances of living experience, was leading, Husserl felt, to a clear crisis in European civilization (Abram, 1996, p. 40-41).

The life-world is the fertile domain of all interconnection with world. It comes before science. Science and scientists necessarily emerge from within the life-world. It is not conceivable that a researcher or observer could somehow become separate from or stand outside *Lebenswelt*—not so long as that person is breathing and living and experiencing anything at all. Abram (1996) points out that Husserl understood the life-world as a grounding source of normative influence. In other words, to turn one's back on the life-world, allowing it to be eclipsed by some conceptual mathematical human-centered realm, is to abandon the guiding source for health and balance, opening a gateway toward pathology and confusion, or in Husserl's terms, *a crisis*.

Husserl did not intend to explain the function Lebenswelt, or the human relationship with the world, as did the mathematically-based sciences. Instead, Husserl's aim was to describe this relationship in terms of the subjective, experiential realm which the sciences had taken for granted (Abram, 1996). To this end, Husserl developed the phenomenological reduction, a method by which an investigator engages in description, without explanation, of the world as it is experienced. This reduction involved the process called *epoché*—the act of bracketing or setting aside explanations and presuppositions about *how the world is*. Husserl's method relied heavily upon targeted attention and meditation that aimed ultimately to access a sort of pure or transcendental consciousness—a sort of pure essence, free

from materiality. Husserl's work never specifically addressed the semiotic element of human conscious experience.

French existential philosopher and phenomenologist Maurice Merleau-Ponty (1908-1961), approached phenomenology from a radical perspective, rejecting Husserl's ideal of a transcendental ego and looking, instead, to the physicality of the human body as the source of essential experience. Abram (1996) explores Merleau-Ponty's perspective on the body, writing that

> If this body is my very presence in the world, if it is the body that alone enables me to enter into relations with other presences, if without these eyes, this voice, or these hands I would be unable to see, to taste, and to touch things, or to be touched by them, if without this body, in other words, there would be no possibility of experience—then the body itself is the true subject of experience. (P. 45).

This view suggests that every living body is a world in itself which offers itself to and receives the world of the other. The body does not unite mind and matter as two separate entities, but rather *is* both mind and matter at once and together (Kwant, 1963).

This body subject exists in the world with intentionality—but not according to the traditional definition in which to *intend* is to work some particular will in a situation. Merleau-Ponty's *intentionality* suggest that to be conscious, one must be conscious *of something* (see Section 6). The body's consciousness moves like a wave out beyond itself to assess, to measure, to apply and receive meaning, and like any wave it recedes, folding all this back into itself. It always moves outward with intentionality or, in other words, in an ever-questioning, ever "thinking" way. Think of the Martinez quote above, in which semiotic structures are conceived of in fluid or dynamic terms, like waves in an ocean. Merleau-Ponty asserts that this intentionality places the body subject in constant *dialogue* with the world in the sense that the body-subject is always perceiving and expressing with and in response to the world.

This *dialogue* relates not only to pre-conscious experience, but also explicitly to everyday speech and discourse. Merleau-Ponty examines how the body subject engages with and through language by presenting two separate purposes and uses of language: language as an existing logical structure/code that can be used to form messages (parole parlée) and language as a living, generative, poetic phenomenon (parole parlante).

Parole parlée, or speech spoken, refers to an existing structure in which words already correspond with meaningful definitions. From this perspective, speech exists independently of thought; word meaning has already been assigned within the parole parlée system, while thoughts exist separately inside the minds of individual people. To communicate thoughts, one must simply select from the already-formed language system the linguistic components that most directly match the ideas to be expressed.

Merleau-Ponty, however, points out that the "spoken word" or parole parlée system is comprised of words and expressions that have been passed from one generation to another. They have become common and shared in terms of meaning with repeated use, though they "must once have been spoken for the first time. Therefore the 'spoken word' refers to the 'speaking word' as its origin" (Kwant, p. 53). Every word, at some point, comes into being through a creative process of meaning-making. This is what language does—it creates meaning. It's capacity for novelty and discovery depends on how that language is used.

To differentiate between parole parlée and parole parlante is to acknowledge that immaterial thought is not independent of physical speech, but that "on the contrary, thought becomes thought in speaking" (Kwant, 54). This involves the physical act of speaking, the conversational relationship with other person/people/world, the constantly unfolding phenomenological experience of the world, and the semiotic interpretation of that experience. Turkle (2015) points out that, at the beginning of a

conversation, one does not know precisely what one will say—thoughts are born as words being spoken, and a person often comes to realize personal feelings or attitudes by speaking them.

Consider further that the body itself "thinks" through a sort of physical, preconscious communication with the world. This preconscious, preverbal thought exists through what Merleau-Ponty calls "practognosis," or a thought in action. "In walking, for example, we take into account the condition of the ground, for we do not walk in the same way through a forest and over a smooth road" (Kwant, 54). And yet, a person does not need to measure the ground or calculate a strategy for different styles of walking according to varying terrain. The human body, in order to move, balance, etc., assesses physical circumstances, considers options for appropriate action, processes innumerable micro-adjustments or micro-decisions in relation to the surrounding world. It knows and does all this pre-consciously throughout every bodily action. Just as preverbal knowing comes into existence through physical action, unarticulated thought comes into existence through the action of human speech.

> ...Thought comes to exist in a new way and, in this new way of existing, thought depends on the word. To know something here means to be able to indicate it in a coherent succession of words. Knowledge cannot be divorced here from the words (Kwant, 55).

This connection between pre-verbal (phenomenological) and verbal (semiotic) knowing reveals how the human body-subject relates to and interfaces with the preconscious world, a dimension Merleau-Ponty referred to as *existence*." According to Kwant (1963), Merleau-Ponty worked to demonstrate that "our existence is the soil in which meaning, light, germinate." This line of thinking creates a chiaroscuro of light and shadow, where speech throws light (meaning) on the shadow/soil of the mysterious dimension of *existence* (Kwant, 1963). Such insight reveals "a mode of being that hitherto had largely escaped man's attention...his greatest achievement is that he did not only discover the hidden dialog between body and world but also managed to penetrate into it" (Kwant, 1963, p. 34-35).

Abram (1996) addresses the body-world dialog, writing that Merleau-Ponty disclosed “a more eloquent way of speaking, a style of language which, by virtue of its fluidity, its carnal resonance, and its careful avoidance of abstract terms, might itself draw us into the sensuous depths of the life-world" (p. 44). Through analysis of the nature and role of language and speech in meaning generation, combined with the phenomenology of a body-subject in dialogue with the world, Merleau-Ponty suggests that human beings emerge from the ground or soil of existence through physical language, and that life stories and desires and beliefs, that cities and symphonies and epic poems are all creations of language. Within this suggestion lie two shining clues: (1) if humans find themselves in a place of darkness or pathology, they must return to the soil and rebuild; (2) the way back is discoverable through semiotic analysis of language. This involves an unraveling of the computational thinking model discussed above, in which each new idea or step or solution is stacked atop a teetering scaffolding made up of the countless other ideas, steps or solutions that people have previously added. This also relates to Lanigan’s fourth stage discussed in Section 4.1.

Merleau-Ponty employed a methodology based on Husserl’s original descriptive methodology; a reduction process that consists of three steps: (1) Sensation, (2) Interpretation, and (3) Perception (Lanigan, 2010). However, though Merleau-Ponty used this method, he did not offer a systematic description of how it works (Kwant, 1963). According to Lanigan, however, Merleau-Ponty found a missing piece in Husserl’s methodology.

> Merleau-Ponty offers a major correction to the method of Husserl’s phenomenology by stressing the importance of semiotics in the description of phenomena, the importance of structural analysis in defining (reducing) phenomena, and the importance of hermeneutic principles for the interpretation of phenomena” (Lanigan, 2010, p. 108).

Merleau-Ponty's philosophical correction clarified communication as a process involving a body subject in a state of active and intentional dialogue with the other, or with the world, where the action is experience or phenomenology, and the dialogue through speech is semiotic. Peirce also specifically examined the interplay between experience and semiotics and developed a phenomenological method which he called semiotic. Lanigan recognized consistency between these two views to successfully identify and further develop Semiotic Phenomenology as both a theory and a method (Lanigan, 1988).

5.3 Semiotic Phenomenology

Semiotics and phenomenology combined to form semiotic phenomenology—the theory and research methodology used in communicology.

> Although semiotics and phenomenology are commonly understood as belonging to intellectual traditions that are at odds, for communicology, the vocabularies of both traditions allow for descriptions and interpretations of lifeworld features that neither can accomplish on its own: namely, the logic of signs and their embodied experience in the process of semiosis (Butchart, 2018).

Semiotics examines how human beings use signs to create reality and meaning. Phenomenology focuses on temporarily setting aside those same signs and meanings to examine the lived experience of things as they actually are, without the filter of semiotic presupposition.

Upon close examination, however, it becomes clear that everything a human being perceives, knows, thinks, says and does is encoded through signs or, in other words, understood and experienced by way of a code. Even “the perception of reality itself is an encoding process” (Fiske, 1990, p. 66). The experience of human perception, including vision, hearing, taste, etc., is the result of sensory stimuli entering a body through the sense organs, undergoing translation through neurological systems, and finally entering human consciousness as a set of signs related to that thing which was originally sensed.

For example, what we perceive as music is made up of audible musical notes—signs which stand for the actual sound waves that enter our ears. One could propose then, through semiotic phenomenology, that human experience of the world is semiotic, and that signs at their most fundamental level are phenomenological.

Lanigan has demonstrated that what appears as an apparent conflict between semiotics and phenomenology actually unites the two in examining two different but intertwining functions of human experience. According to Smith (2018),

> Richard Lanigan's development of "semiotic phenomenology" has paved the way for a broadening of both phenomenology and semiotics, expanding in complementary fashion the epistemological horizons of each, linking onto existential, hermeneutic, ethnographic, rhetorical, critical-cultural and postcolonial theories and methods (p. 23).

A subtle but important change occurs when a researcher brings semiotics and phenomenology into relation with one another—something like a chemical reaction: as discussed above in the description of Peirce's work, the focus moves "from the study of signs and sign systems to the study of *semiosis*, or the ongoing action of signs" (Martinez, 2011, p. 98). To study semiosis is to study how experience and signs weave into one another, at all network levels of communication, to form the living fabric that is culture and meaning. This applies to anything from the meaning of a simple sentence to the meaning of a complex cultural phenomenon like institutional racism.

Semiotic phenomenology studies all aspects of human conscious experience, and it does so primarily through analysis of language. However, "the only way humans can know or study language as a sign-system is by using it, by taking it up as both an object and means of study—thus the bringing together of semiotics and phenomenology" (Martinez, 2011, p. 99). When Lanigan (1988) wrote that communication is a relationship between an organism and its environment (or a person and the

person's life-world) he also wrote that "at its most sophisticated level this relationship is one of language" (p. 11).

Semiotic phenomenology is language studying language, not as a structural system frozen in time, but in terms of semiosis. Language presents the most reliable and compelling access into the obscure origins of human life experience. To examine the meaning of any human situation—historical, political, religious, personal—one seeks language about that situation. If someone asks, "what do you mean?" a person usually responds via language. Poetry, journalism, tax law, and medicine are all recorded and managed via language. It is inescapable. It is the very atmosphere in which live and function, and holds clues to how humans come to know and understand this world we live in.

When considering analysis of language, it is important to recall the difference between Merleau-Ponty's parole parlée and parole parlante, or the difference between reified linguistic structure and dynamic living interface with the world. The latter involves the spontaneous and simultaneous intertwining of perception and expression into a sort of being or *body* made of signs, or meaning embodied. The communicator, in other words, uses signs to recreate or reproduce the shape and "contours of experience" (Merleau-Ponty, 1970, p. 25, Lanigan, 1988, p. 173).

This intertwining of perception/experience and expression/semiotics suggests that human bodily perception is always more than a biological function involving sense organs. Rather, perception occurs in conjunction with expression. One does not perceive without also experiencing some simultaneous form of expression, whether it is a thought, a bodily reaction, a feeling, a recognition, verbal language, a preverbal choice, etc. Not only are perception and expression co-occurring, but they are also reversible, reflexive and reflective. "This means that what we come to perceive in our embodied relation to others and the world is always already an expression of our interconnection with others and the world" (Martinez, 2011, p. 101).

Perception influences expression, and expression influences perception. The bi-directional movement between the two is what we call reversibility. Reversibility is "the process of converting consciousness into experience and vice versa" (Lanigan, 1988, p. 14, Dillon, 1983). The idea that perception and expression shape and influence one another is what we call reflexivity. Reflexivity works as a kind of feedback loop, where the outputs of a system circle back as inputs, continuously re-creating and re-directing the whole. Reversibility allows bi-directional movement between the sensory *experience* of perception and the co-emergent semiotic expression that is *consciousness* (i.e. thinking, speaking, acting). One ignites the other and vice versa. Reflexivity creates potential for growth and change. The idea that perception and expression mirror one another is *reflectivity*.

For example, perhaps I perceive homelessness as a nuisance and blame homeless people for their condition. Here, I am perceiving some sedimented cultural attitude (expression) that already exists. This perception mirrors my own expressive thoughts and words about homelessness. This situation is reflexive: my perception influences what I think and say about homelessness while likewise, my thoughts and words about homelessness influence how I perceive homeless people. In this example, I embody cultural attitudes that are harmful and oppressive to vulnerable people. My participation as a body-subject in the culture would serve to reinforce and prolong the crisis of homelessness. To understand a cultural problem like homelessness, one must understand the interdependent perceptive and expressive elements of the communicative process that create the reality of homelessness—give it body, make it manifest, bring it into actual being by ignoring the suffering human bodies struggling to survive on the street (see section 7: Embodiment). Semiotic phenomenology and communicology can help address cultural problems.

One pervasive problem which touches almost every part of human lived experience is our tendency to approach communication with a natural attitude. This thesis presents a critical theory and research method with capacity to create "harmonious disturbance" (Kaag, 2014)in everyday

communicative presuppositions. In other words, it aims to address and challenge the automatic way in which we communicate and view communication, with a goal to initiate deep change and reorganization. To such an end, the practical tool of a syllabus (See part III) is designed to (a) attract students to the study of communicology; and (b) effectively transfer understanding regarding communicology.

Semiotic phenomenology and communicology can help address cultural problems. Reflexivity allows for new types of thinking and speaking (expression) to influence more clarity in perception, and reversibly, for clearer more truthful perception to inspire beneficial changes in collective thinking and speaking. Catt (2010) writes that "only with reflexivity can scholars make a real difference in human affairs" (p. 15).

The section on methodology (Part II) outlines how semiotic phenomenology is applied in research.

6. Consciousness

Consciousness is "wonder before the world" (Landes, 2014, p. lxxvii; Lanigan, 2005 p. 17). It is a living interface between a person and the world. French philosopher Maurice Merleau-Ponty (2014) writes that consciousness is the perspective "by which a world first arranges itself around me and begins to exist for me" (p. lxxii). As explored in the previous section, consciousness involves semiosis, or the process of meaning as it unfolds through the experience of signs (sign process). The body perceives stimuli (light and shadow; sound waves) through sense organs—this is experience. The body simultaneously expresses awareness or behavior in response to symbolic representations of that stimuli (seeing images; hearing sounds)—this is consciousness. If unmitigated experience occurs at the world-body intersection, then consciousness occurs where bodily perception intersects with bodily expression.

Perception and expression—body and sign—arise together and influence one another, forming human conscious experience.

As discussed in Section 5.2, consciousness involves intentionality. In this context, *intentionality* refers to the idea that, in order to be conscious at all, one must always be conscious *of something* (Kwant). Intentionality is a binding thread that connects us to the world (Merleau-Ponty, 2014).

Grounded in this living matrix of world-body-consciousness, we see that no knowledge can encompass or explain the true nature of the world, because all knowledge is built symbolically in response to the world. According to Merleau-Ponty (2014),

> To return to the things themselves is to return to this world prior to knowledge, this world of which knowledge always speaks, and this world with regard to which every scientific determination is abstract, signitive, and dependent, just like geography with regard to the landscape where we first learned what a forest, a meadow, or a river is (Page#).

Therefore, when communicology seeks to "explicate human consciousness," it is addressing the process by which we humans spin communication like a web out of conscious experience. "Communication inheres in the intentionality of consciousness" (Catt, 2017 p. 14). In other words, if one is looking for the source or location of communication, one finds it within the intentional threads that bind us to the world.

7. Embodiment

If consciousness is cultural and semiotic, then *behavioral embodiment* is personal and phenomenological (Catt, 2017).

In describing the concept of embodiment in the context of communicology, Martinez (2011) writes that semiotic phenomenology "stakes out...a logic of embodiment that establishes the fact and

presence of human consciousness as it is situated within the concrete reality of other human consciousnesses and a physical environment" (p. 97). Embodiment gives consciousness a way of being in the world—a living shape and form that can interact with other beings—starting with the unrefined experience of body-in-the-world and expanding into the more abstract semiotic phenomena of culture. Martinez describes how culture relates to individual people in the sense that it arises through human communication with and about the world (Martinez, 2011).

> When we talk about embodiment we are referring to the human condition of living within culture whereby humans unconsciously and preconsciously take up and re-create the norms of culture in experience. These last two words, "in experience," are crucial. What we experience does not emerge in a vacuum. It is precisely "in experience" that we embody the practices and norms of our culture and community (Martinez, 2011, p. 100).

In addition to characterizing the individual relationship with culture, embodiment can refer to the more abstract concept of *embodied discourse*. The following section explores how human discourse takes material form. It is this form—in artifact and action—that gives discourse opportunity to take shape in and become involved with the world, just as our physical bodies give our own consciousness an opportunity to exist in the world.

Lanigan writes that "embodiment is a matter of perception that discovers expression; embodiment is a preconscious being of the person that is the lived-comportment prior to a consciousness that has experiences" (Lanigan, 1995, p. 354). Embodiment, then, refers to the human state of being that occurs prior to conscious awareness, explication or critical analysis. This preconscious lived-comportment can be explored and examined in a search for understanding regarding the nature and source of human communication.

Likewise, and in terms of *embodied discourse*, embodiment refers to the dynamic living system of human discourse before it becomes aware of its own existence and looks critically at itself. Discourse, as it emerges from human communication, becomes a living fabric or living body that is kept alive through the constant and ongoing experiential embodiment that builds and reinforces it. Communicology researchers—just like all people—are tethered to and woven into this fabric. Therefore, to say that researchers analyze discourse is also to say that discourse analyzes itself. A communicology researcher jumps into the stream of discourse, experiencing and becoming a part of it even while observing and studying it.

Embodiment occurs at a level of awareness where the *natural attitude* holds sway; in other words, where things and conditions are taken for granted, or viewed as "just the way things are." When communicology examines embodied discourse, it examines how humans gave body or contour to a particular discourse through communication, where and how the discourse lives, and how it exerts influence on people, other living beings and the world. In studying discourse, communicology identifies the tangled knot of its embodiment, and then works to loosen the tangle so that it might be understood and potentially reconfigured.

8. Discourse

The word 'discourse' is most prominently known as a linguistic term meaning "passages of connected speech" (Hall, 1997, p. 44), or "a verbal interchange of ideas, especially conversation" (Merriam-Webster dictionary). However, in his work exploring the history of human knowledge, Foucault expanded the word's meaning to indicate

> a group of statements which provide a language for talking about—a way of representing the knowledge about—a particular topic at a particular historical moment...Discourse is about the production of knowledge through language. But...since all social practices entail meaning, and

> meanings shape and influence what we do—our conduct—all practices have a discursive aspect (Hall, 1992, p. 291).

This conceptualization of discourse unites language (consciousness; what we say and think), with human action or practice (what we do) into one total system or operation of discourse. (Both language and practice involve the perceptive-expressive reversibility explored above.) Discourse constitutes everything that human beings know and do and create. Just as a bricklayer might use verbal language to ask a fellow worker to "pass me another brick," the bricklayer also performs the action of adding the brick to the wall. It is not the words alone or the physical bricks or the isolated actions which build the wall. Instead, language (consciousness), materiality and action (experience) intertwine to create the material structure of the wall, as well as its meaning in terms of the wall's physical and symbolic purpose (Laclau & Mouffe, 1990; Hall, 1997). As a spider spins webs, the human spins discourses.

Think of any individual person's life as a system of language-experience interfaces—or stories—that contain everything this person has learned and experienced, thought, discussed and believed. Consider how this fluctuating totality of beliefs and experiences influences the person's actions—what this person did, created, etc., and how this person influenced and interacted with others. These interfaces which make up a human life can be examined through human science in terms of the "meaning of the discourse as a life-event" (Lanigan, 1988, p. 147).

If an individual human life is a discourse, then so are the collective lives that make up a family; the policies and practices of an organization; the culture and tradition of a particular town or village; cultural institutions like education, criminal justice and health care; and global institutions of inequality, violence, immigration, climate degradation, etc.

The perceptual-expressive force of discursive meaning generation moves outward from stories and events, growing into *discursive formations*. These formations involve the existence of a discourse, in

a particular style with specific themes and tones and particular to a specific time period, which is shared widely across multiple institutional sites and outlets (e.g. schools and universities, divisions of government, media, faith institutions, etc.). These formations shape the conceptual frameworks that influence how people acquire knowledge, build identities and view reality, and may include sweeping concepts like 'madness', 'punishment' or 'sexuality' (Hall, 1997). The discussion regarding semiotic sedimentation in Section 5.1, which examines how cultural constraints linked to one's situatedness in time and space may impact a person's actions and thought horizons. The example considered how being gay in the U.S. in the 1950s involved different constraints than being gay in the U.S. in 2021. Such constraints are discursive formations that solidify in religious thinking, law, film and entertainment, etc.

Two points must be emphasized: (1) Discourse is not simply conversation *about* things and knowledge. Rather, discourse creates and produces things and knowledge. (2) According to Foucault, "nothing which is meaningful exists outside discourse" (Hall, 1997, p. 44). This is not to say that material objects do not exist. We sense and experience and interact with material objects in the world every day—brick walls, tree roots, food, water, dry socks, etc. Consider what any of these objects can potentially mean in the context of various discourses and cultures. "Foucault does not deny that things can have a real, material existence in the world. What he does argue is that nothing has any meaning outside of discourse" (Hall, 1997, p. 45).

Discourse is the means by which our lived human experience takes narrative shape in the world. This is how the story of human life emerges both conceptually and materially, and takes on meaning. Discourse builds Husserl's *lifeworld* for each individual person--what Catt (2010) describes as "a matrix where culture and conduct continually and perpetually meet" (p. 2). To find and master a logically and philosophically sound study of discourse is to find a way into this matrix, which is often hidden from view and/or taken for granted.

9. Culture

Klyukanov (2010) writes that "culture, like communication, is easy to define but difficult to understand" (p. 183). Culture might be defined as "shared meanings" (Hall, 1997, p. 1), "patterns of practice, understanding, and preference that are shared and transmitted from generation to generation" (Martinez, 2011, p. 100), "shared patterns of behavior" (Klyukanov, 2010, p. 183), and "generalizations about people and groups of people...what people do and say and what they have done and said" (Ruesch & Bateson, 1968, p. 40). Such variety suggests that the true nature of human culture cannot be so easily pinned down. Martinez (2011) clarifies that in order to understand culture within the context of communicology and semiotic phenomenology, it must be emphasized that

> culture is re-created through communicative practice...It is very important that we see [culture] as an orientation toward preference that is within each of us and which we actively take up and re-create both preconsciously and unconsciously as a choice of context (p. 100.)

Culture is inextricably linked with language and dialogue. "Language...sustain(s) the dialogue between participants which enables them to build up a culture of shared understandings and so interpret the world in roughly the same ways" (Hall, 1997, p. 1). Culture is a form of conversation, and "conversation implies something kinetic. It is derived from words that mean "to tend to each other, to lean toward each other,' words about the *activity of relationship"* (Turkle, 2015, p. 44). Such a perspective indicates that conversation/dialogue is that which tethers us to each other as well as to our individual and collective realities—our own experience of the world. According to Fiske (1990), "communication is central to the life of our culture: without it culture of any kind must die. Consequently the study of communication involves the study of the culture with which it is integrated" (p. 2). Martinez (2011) describes the purpose of communicology as relates to culture:

> In order to be able to examine the presuppositions that inform our most fundamental modalities of seeing and understanding, we must be able to examine those very sedimentations and intersubjective conditions. This is precisely the point and purpose of communicology and its methodological expression as semiotic phenomenology (p. 55).

Dominant forms of scientific analysis used in the physical and social sciences generally seek to delimit the potential meaning(s) of a topic such as *culture* in order to isolate and study it. What is studied, then, is not *culture*, but a frozen fragment of culture captured within imposed boundaries. So captured, culture becomes a simplified or "bounded essence" subject to "reification--i.e. turning dynamic flowing patterns into static, fixed 'cultures'" (Klyukanov, 2010, p. 183).

It is certainly more manageable to conduct scientific study when *culture* is forced into a static, reified state, just as it is easier to dissect and study a human body after the life has been taken from it. Under such control-based circumstances, researchers may build a catalogue of data and knowledge, but will access little to no understanding about the living functions and patterns of the culture (or creature) so cut, pinned and segmented.

Communicology lifts boundaries of definition and control from the subject of *culture,* and studies it as a living system growing out of a dialogue (discourse) between the human and *The Other*. Communicological inquiry into culture involves the study of *dynamic flowing patterns* (Klyukanov, 2010) and *activity of relationship* (Turkle, 2015) of lived human meaning and reality.

10. Synthesis and Discussion

Having moved through all the concepts outlined at the beginning of this paper, the discussion now circles back into Lanigan's definition of communicology as presented in the introduction. The explication in sections 1-9 provides a working understanding of the philosophical and logical concepts operationalized in the definition, repeated here:

> Communicology is the science of human communication. One of the Human Science disciplines, it uses the logic-based research methods of semiotics and phenomenology to explicate human consciousness and behavioral embodiment as discourse within global culture...

This condensed summary leads into a more robust description:

> **Communicology is the study of human discourse in all of its semiotic and phenomenological manifestations of embodied consciousness and practice in the world of other people and their environment.** As a young discipline in Human Science research, Communicology is the critical study of discourse and practice, especially the expressive body as mediated by the perception of cultural signs and codes. Communicology uses the logic based research method of semiotic phenomenology in which the expressive body discloses cultural codes, and cultural codes shape the perceptive body—an ongoing, dialectical, complex helix of twists and turns constituting the reflectivity, reversibility, and reflexivity of consciousness and experience (Lanigan, Communicology.org).

Culture generally moves toward a totality of sameness, where a universalizing system of thinking or way of life shuts out the *Other* and all its strangeness or exteriority (Saldukaitytė, 2016). Such totality suppresses potential ruptures through the enforcement of sameness or continuity. Communicology, through its method of semiotic phenomenology, intentionally ruptures that which is taken for granted through a sort of deconstruction of—or a stepping back from—the *dominant epistemic center* (Anderson & Baym, 2004), seeking understanding through lived experience rather than re-analysis of sedimented objective norms. Communicology opens to both the dominant center as well as the alternative ways of discovery. Anderson and Baym (2004) argue that "the truths found in the epistemological margins...may ultimately be richer, perhaps more complete, than the understandings generated within the epistemic center" (p. 605).

This paper has proposed that communication is a creative force that builds cultures and realities, and that discursive sedimentation within culture leads to constraints that limit what we are capable of thinking, knowing and doing. Such constraints can generate harmful problems, and as those constraints are re-created and reinforced through communication and culture, people come to mass unconscious agreement that *this is just the way things are* (the natural attitude). Even when problems (i.e. homelessness, wealth gap, technology-related social problems, climate change) are identified, these same constraints prevent us from seeing solutions and/or alternative possibilities.

This paper has also argued that the threads of intentionality can indeed be loosened through semiotic phenomenological praxis, allowing for opening in terms of view and discovery. What we must explore now is how these concepts come together to form a research methodology that can be used as a discovery tool and applied to relevant issues and problems. According to Merleau-Ponty, this begins with a kind of rupture. "We must—precisely in order to see the world and to grasp it as a paradox—rupture our familiarity with it, and this rupture can teach us nothing except the unmotivated springing forth of the world (Landes, 2014, P. lxxvii).

The three-step method of semiotic phenomenology is based on Husserl's process of phenomenological reduction and epoché. Husserl originally developed the technique to provide detailed accurate descriptions of the true essence of "things themselves." As mentioned above, Merleau-Ponty made a correction to Husserl's method of reduction by adding a semiotic element to the description of phenomena (Lanigan, 2010). This correction made way for the development of a more contemporary model of interpretive phenomenological research, which shifts the purpose of the research toward the pursuit of an in-depth understanding of the *experience itself,* as well as the embodied experience of any research participants, with efforts concentrated on revealing the dormant or hidden meanings within the contextualized experiences of the individual, as well as the explicit meaning which the individual consciously attaches to the experience (Matua & Van Der Wal, 2015). Peirce's triadic model of semiosis

contributes to this interpretive model in two vitally important ways: it (a) links the sign to the material world through the *object*, and (2) it allows for any sign to link with an infinite range of possible meanings (interpretant) (see Section 5.1).

The method of semiotic phenomenology does not attempt to extract a set of generalized facts, but to reveal particular meaning as it moves within and through discourse(s). Interpretive phenomenological research never reaches a determinate end, as it will always reveal new questions (Smith, 2012). This is why Merleau-Ponty said "the most important lesson of the reduction is the impossibility of a complete reduction" (Landes & Merleau-Ponty, 2014, P. lxxvii).

Part 2: Methodology

11. The Three-Step Reduction Process of Semiotic Phenomenology

The three-step reduction process of semiotic phenomenology is the method by which researchers use and operationalize theory to reveal new understanding and, in the case of communicology, to (a) seek truth and understanding about the world itself, not just the world mediated by culture; and (b) identify and respond critically to social problems and constraints that cause harm to human beings and the world they inhabit. In describing this method, I will draw most heavily from Richard Lanigan's 1988 book "Phenomenology of Communication: Merleau-Ponty's Thematics in Communicology and Semiology," and Jacqueline Martinez's 2011 book "Communicative Sexualities: A Communicology of Sexual Experience," in which Martinez draws from and beautifully interprets Lanigan's work.

What follows is a three-step method which is both recursive and synergistic (Lanigan, 1988; Martinez, 2011). This means that each single step in the process involves the integrated movement of all three steps (see figure x). Each basic or general step contains multiple complex sub-steps. Consider, for

example, the description step: to describe any phenomena, the human conscious must first perceive and process the phenomena. In other words, "the moment we try to describe an experience, we have already interpreted it" (Martinez, 2011, p. 102).

It is important to understand, before analyzing the following process as it is broken into pieces and categories, that neither communication nor understanding naturally occur in consecutive categorized steps or segments. Meaning in communication occurs all at once, like a full symphony. We capture and segment it into different parts only as a means for analysis and understanding (Martinez, 2011; Smith, 2012).

Figure 1.

Lanigan's Theory and Methodology of Semiotic Phenomenology

Description	1. DESCRIPTION 2. Interpretation 3. Reduction 4. Description	Examine and then bracket presuppositions and modalities that influence description. (Do not explain. Only describe.)
Reduction	5. REDUCTION 6. Interpretation 7. Reduction 8. Description	Pull from the description the pertinent or "shining" pieces and engage imaginative free variation.
Interpretation	9. INTERPRETATION 10. Interpretation 11. Reduction 12. Description	Interpret linkages or themes toward a thematic whole.

Source: Adapted from "Human Communication," from Richard L. Lanigan, *Phenomenology of Communication* (1988), p. 9.

11.1 Description

Before one can describe experience, one must *go back* to the moment when one selected that particular experience as worth describing, or saw in that particular experience some relevant theme or framework to explore (thematizing). Before description begins, one *interprets* the thematic purpose of the selected experience (why do I choose to describe *this* experience and not another?). One then

reduces that material to "seek out the 'modality' of thematization that led us to experience that experience as we did" (Martinez, 2011, p. 103). In other words, one seeks the mode(s)—the type of behavior, way of life, way of expression—that made that experience unfold in a particular way for the particular participants. This *going back* process engages the researcher in *the invocation of epoché* or the bracketing process discussed in Section 5.2, where we realize and set aside our assumptions and presuppositions in order to move closer to the thing or experience itself. Following both the interpretation and reduction steps, one is now able to offer a description of the actual experience as it is lived (rather than unconsciously providing a description of one's cultural assumptions about an experience). This process applies whether a researcher is looking at one's own experience, looking at written text, or working with narratives from interviewees or research participants (in phenomenology, research participants are thought of as co-researchers). A description serves the purpose of data capture (capta, or what has been taken). In this stage, the researcher captures all that may be meaningful or relevant.

Summary of Description Phase

Select an experience to describe.

- Step 2: Why that experience? What theme or framework did you see/interpret in that particular experience that made you (or the co-researcher) choose it?
- Step 3: Within that theme or framework, what modality (or way of life or type of behavior) led you to experience the experience as you did?
    - Engaging these two stages invokes the *epoché*
- Step 4: Now that you have bracketed your assumptions about the experience, you are ready to describe the experience *as it is lived*. Resist the temptation to explain or explicate at this stage.

11.2 Reduction

The description, if done well, will include much more detail than can be used. Some parts will show essential meaning, while others will fade to a uniform background. During the reduction step "the task of the researcher/analyst now turns to determining what is gravel to be washed away, and what remains as gold--that is, the most pertinent signs of the phenomenon to be analyzed further" (Smith, 2012, p. 53). Another way to say this is that reduction involves a process of abstraction whereby the researcher pulls from the description elements that stand out or shine out. "We select parts from within the description, or descriptions, and shift them around here and there seeking to make differentiations through our varying combinations. In phenomenological terms, we call this *imaginative free variation* (Martinez, 2011, p. 103).

Through reduction, a researcher abstracts these pertinent descriptive points from the description and allows them to influence or interact with one another. Recall Merleau-Ponty's assertion that thought and/or meaning occurs or comes into being through language. In this stage, the researcher may find "thoughts" that hadn't occurred or emerged until the description process has been spoken or written. Recall also Peirce's work with abductive logic, where the juxtaposition of two seemingly unrelated ideas, or the bringing together of paradoxical ideas, can illuminate new hypotheses and original thinking. These philosophical concepts find action within this stage. A researcher moves through the interpretation, reduction and description phases of this step by noting and maintaining "that as we move through each step, we are still relying on our already thematized (interpreted) understanding of our experience and the phenomenon" (Martinez, 2011, p. 103). Even after the bracketing process, a researcher cannot separate entirely from the particularity of one's own experience and view.

For more technical detail on the imaginative free variation procedure, see Smith (2012, p. 54-55).

Summary of Reduction Step

Abstract or pull away from the description those elements which stand out or shine out, and engage in a process of imaginative free variation, allowing abductive reasoning to set the stage for skilled interpretation.

- In step 6, note the influence of your own interpretation, both on how the descriptive elements were formed and on how you choose elements to abstract from the description.
- In step 7, further bracket found assumptions and presuppositions that found their way into your description.
- In step 8, you are ready to put down or describe the insight generated through your reduction.

11.3 Interpretation

The interpretation step involves the analysis and explication of the key elements of the phenomenon as discovered through the previous two steps. The general purpose of this step is to clarify the essential meaning of those key elements which emerged from the description and reduction stages—a process which can be called *semiotic or hermeneutic analysis* or *phenomenological interpretation* (Lanigan, 1988, p. 10). The researcher, at this stage, must engage a *radical hermeneutic* to link all those observations, interviews and/or other data which have been selected and worked through the reduction step (Smith, 2012). Martinez (2011) points out that any such interpretation will inevitably be influenced to some degree by the researcher's own "thematizations and interpretive schemes" (p. 103). Smith (2012) describes the process as follows:

> One pulls together what participants know for themselves; what they say that suggests nuance of meaning that may not be fully known, but that the researcher can infer from his or her "privileged" position; and reflective interpretations of the findings that go beyond what was learned in the interview itself (p. 62).

Summary of Interpretation Step

You have collected a great deal of detail in the description. You have washed away the gravel, so to speak, and revealed the pertinent or *shining* pieces. Now you have something to work with.

- Step 10: Interpret linkages between the shining pieces revealed during the reduction step.
- Step 11: Identify personal or subjective “interpretive schemes” or biases and intentionally bracket, focusing interpretive work on revealing, and not imposing.
- Step 12: Describe the interpretation as it has emerged from the three basic steps of description, reduction and interpretation. Here the work exposes a *signified*, according to Lanigan’s chart, or in other words—a meaning.

To illustrate the process, it may be helpful to imagine a box full of an author’s papers—mixed receipts, shopping lists, bill stubs, and some sheets of original poetry or journal notes. Rather than attempting to interpret the entire heap of unorganized stuff—seeking creative connections between a beautiful stanza fragment, for instance, and an old owner’s manual for a toaster—you focus on those pieces that you have deemed most relevant to an analysis of the author’s literary work. The description phase would be the taking of all papers that are available and potentially relevant. The reduction phase involves carefully pulling out from the heap the manuscript pages, author’s notes and literary fragments. Finally, the interpretation stage involves looking at all these selected pages, juxtaposing and re-sorting them, allowing a hermeneutic theme to arise that illustrates the lived experience behind the writings. This process as a whole is not comprised of quantifiable or mechanical steps, but requires practice and skill—

not unlike playing an instrument. Anyone can drag a bow across the cello strings, but only a skilled musician creates music.

12. Method and Paradigm

The three-step process as outlined above is not a clearly delineated, rigidly structured or easy-to-implement system. According to Martinez (2011), "if the previous discussion leaves you with the feeling that these 'three basic steps' in phenomenological research are very complex, deeply interconnected, and not entirely distinct, then you are understanding correctly" (p. 103). This is no indication, however, that the method is confused. On the contrary, Lanigan's method encompasses and mimics the true natural process of communicative meaning-making. Only when a method can work synergistically with real processes of human communication can it approach truth in its discoveries.

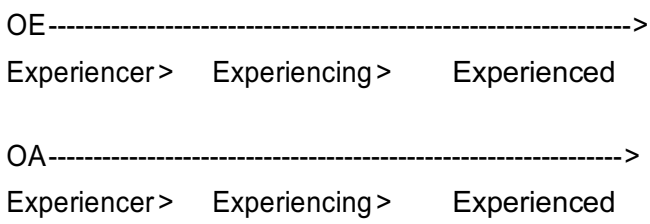
When conducting research using the methodology of semiotic phenomenology, one must maintain awareness regarding the paradigm (or research framework) in which the work develops. Lanigan (1994) differentiates between the phenomenologist's paradigm (postmodern) and the positivist's paradigm (modern) by pointing out differences between order of analysis (OA) and order of experience (OE). Lanigan (1994) clarifies the difference by comparing

> the encounter with evidence (OE) as it appears to consciousness versus the method (OA) of experiencing the evidence. In both orders of judgment, it is a matter of combining the experiencer (researcher) with the activity of experiencing (researching) the phenomenon being experienced (what is researched) (p. 112).

The idea of combining the researcher, the activity of experiencing and the phenomenon itself into a dynamic system of investigation is consistent with Peirce's triadic combination of representamen (researcher), interpretant (activity of experiencing) and object (the phenomenon itself) when all three elements are able to work reflexively in a process of meaning-making (semiosis). This is not the way of mainstream natural and social science investigation, which generally holds that there is an objective reality with its own meaning that can be known and studied independently of human experience. Therefore, positivist researchers use the OE model (Figure 2), taking the experience of a phenomenon for granted as "the way things are," unconsciously assigning their own experiencer view, including any presuppositions, as a starting point for knowledge seeking, and then repeating the same order in the scientific analysis.

Figure 2

Positivist's Paradigm



Source: "Comparative Research Procedure Involving the Order of Experience (OE) and the Order of Analysis (OA)," from Richard L. Lanigan, *The Human Science of Communicology* (1992) p. 20.

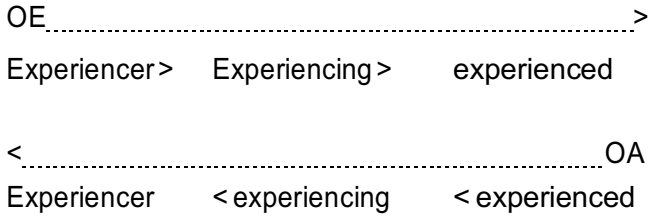
In this model, a researcher studying family communication, for example, might collect data that places research subjects into categories of "single mother," "poverty" and "divorced," and then proceed outward, away from the family's lived experience, according to generalized and assumed meanings of those categories. The positivist's paradigm positions the researcher's experience and related assumptions as ground or beginning of the knowledge-seeking process, and bases all other knowledge on it. This framework implicitly suggests that nothing exists prior. This model works for analyses that are designed to collect and measure data according to natural scientific methodologies. However, it does not allow access to or insight regarding capta—that level where a person encounters the dynamic and real lived experience of conditions and phenomena.

A phenomenologist researcher, by contrast, recognizes that anything we choose to focus on and come to see in our work is connected to our own original experience of perception and expression (Martinez, 2011). As discussed in Section 4.1, human beings cannot possibly be aware of all the sensory information we are exposed to and unconsciously processing at any given moment. We focus on, to a degree, preconsciously, what will enter our awareness and how. This is capta, or what is taken. When a researcher involves capta in an analysis, the researcher reverses the *order of experience* so that the analysis returns toward the original experiencer interface with The Other.

A phenomenologist researcher is inclined to view research participants not as "subjects" to observe and categorize, but co-researchers who work with the researcher. The *arcing back* or *going back* movement presented in the Phenomenologist's paradigm allows a researcher and co-researcher(s) to repeatedly examine and test layers of meaning as they unfold in experience. If a researcher is studying family communication, for example, every new concept, category or hypothesis would be examined in terms of the experience of a particular family (Eicher-Catt, 2005). Assumed categories like "single mother," "poverty," or "divorced" would have no meaning of their own, but would gain meaning through the lived experience of the particular family members and family culture involved in the research.

Figure 3

Phenomenologist's Paradigm



Source: "Comparative Research Procedure Involving the Order of Experience (OE) and the Order of Analysis (OA)," from Richard L. Lanigan, *The Human Science of Communicology* (1992) p. 20.

By adding arcs to the top and bottom arrows in Figure 2, the Phenomenologist's Paradigm can be visualized as a circle. This will not work for the Positivist's paradigm, as both arrows point in the same

direction—away from the experiencer interface. In the Positivist's Paradigm, the top and bottom arrows can be placed next to one another, spreading out to form a linear expansion:

Figure 4

Positivist's Paradigm and Computational Thinking

OE > OA -> OE >
Experiencer>Experiencing>Experienced Experiencer>Experiencing>Experienced Experiencer>

Adapted from Lanigan's "Positivist's Paradigm." *Source:* "Comparative Research Procedure Involving the Order of Experience (OE) and the Order of Analysis (OA)," from Richard L. Lanigan, *The Human Science of Communicology* (1992) p. 20.

This model shows how computational thinking operates, positioning the beginning of any analysis atop previous data-oriented solutions. Again, Bridle (2018) reveals that such thinking is only capable of computing solutions based on other computed solutions and previously collected data. As it progresses or expands, it moves farther and farther from the original Order of Experience—away from original human interface with the actual world. The line in figure 4 shows that a new OE involves interface not with the world, but with the previously computed cycle.

13. Exploring an Expanded Methodology

At this stage I will argue that the existing triadic theory, research methodology and paradigm outline are yet incomplete. I argue that the addition of a fourth research step serves as the force which arcs or bends the lines of the phenomenologist's paradigm into a circle. Though Lanigan formally presents the semiotic phenomenology research method as a three-step process, Lanigan also directly references a fourth step in the research and discovery process (see Section 4.1): "(4) the progressive repetition of the process in the accumulation and communication of research findings and applications" (Lanigan, 1988, p. 7). A problem arises when attempting to operationalize Lanigan's fourth step within a three-step model.

The key to Lanigan's 4th step is the p*rogressive* repetition. To retrace the steps of the process and go back to a less-developed stage would be a *regression*, whereas a *progression* involves movement toward a more advanced stage. Lanigan's description of a fourth step suggests that as meaning is abstracted through the three stages, a researcher must carry that meaning into *capta*-level (experiencer) awareness without regressing. At this point the question must be asked: from what source do the abstractions emerge? In other words, a fourth step suggests that capta (that which presents itself to our consciousness) must arise from somewhere or something. Lanigan (1992) calls it the *concrete*: "the coherence of a whole or category before anything is abstracted from it" (p. 215). Merleau-Ponty called it "the soil," as in "our existence is the soil in which meaning, light, germinate" (Kwant, 1963). The suggestion here is that *progressive* research cannot find direct *progressive* access to the capta state without passing through that step which gives rise to capta.

Based on Lanigan's work and descriptions, I argue that a fourth step already exists within the semiotic phenomenology framework, and that by identifying and adding it into the formal model, a researcher gains access to a step that Rotman (1987) and Kjaerholm (2014) call *zeroness.* This zeroness can be conceptualized as Merleau-Ponty's *soil.* Consistent with this metaphor*,* the process of entering the soil of zeroness can be likened to a growth and harvest cycle involving (0) germination: hidden, soil, shadow, decomposition, regeneration; (1) seedlings: appearance, light; (2) growth: fruits, taking form; (3) harvest: gathering, combining, finishing. Lanigan's fourth step is where discovered meaning turns back into the ground level of awareness—the pre-capta level—but not by undoing the harvest and the growth. Instead, the fourth step of *zeroness* completes a loop, moving research/understanding along a circular path that leads into the soil of existence/the source of lived experience. Kjaerholm (2014) approached this concept of zeroness through analysis of Peirce's ontologies in comparison with non-western views regarding "secondness."

13.1 Peirce's Ontologies

Peirce's ontological categories of "firstness, secondness and thirdness sum up the forms and conditions under which anything can exist, within the framework of the ontological tradition that Peirce belonged to" (Kjaerhjolm, 2014, p. 185). *Firstness* might be described as the intangible world of preconscious existence, or the pure, unmitigated human interface with the world as it presents itself. Peirce described it as "what the world was to Adam on the day he opened his eyes, before he had even drawn distinctions, or had become conscious of his own existence' (Kjaerholm, 2014, p. 185). Firstness is the realm of capta, a vast field of innumerable sensible detail in pure form, from which the human takes up particular focus, and which the human filters through unconscious layers of sedimented presuppositions and lived experiences to form secondness. *Secondness* involves the world of sensed tangibility where we interact, experience, touch, see and discover—where objects and qualities manifest, differentiate and take form. Secondness involves the appearance of objectivity, and is the realm in which data is collected and measured. *Thirdness* involves an interpretant, or a mediating thought that connects firstness with secondness. Thirdness has to do with symbolic systems of habitual meaning-making (Kjaerholm, 2014) that determine how we view and interact with the world. To illustrate, essential, pure hotness (firstness) manifests in the experience of smoke (secondness), and my symbolic understanding of the connection between heat and smoke (fire) is the interpreting thought, or interpretant, that completes the generation of meaning. These three ontologies correspond with elements of Peirce's sign system as follows:

Figure 5

Peirce's Sign System

Firstness	Icon	Representamen
Secondness	Index	Object
Thirdness	Symbol	Interpretant

The *icon* is a visual representation, or a thing as it appears. For example, a photograph is a direct representation of the thing photographed, and an ancient cave painting can be understood by modern viewers because of its iconic quality. When Adam opened his eyes on the first day, he experienced pure icon. The *index* is attached to or indicative of the thing it represents. For example, smoke is an indexical sign that indicates fire; a hoofprint in the snow is an indexical sign that indicates deer, and a road sign with an arrow pointing in a particular direction is an indexical sign that indicates both place and direction. Finally, the *symbol* has no direct relationship with the thing it represents. For example, the letters in an alphabet, though technically only arbitrary shapes, represent different sounds in language, and letters can be arranged into words that stand for various objects. Symbols have meaning only according to commonly agreed-upon code. One must understand the code to understand the symbol. Thus, ancient symbols accompanying cave paintings in the caves of Font de Gaume, for instance, cannot be understood by modern viewers, because we do not understand the code of the ancient artists. Section 5.1 explores the relationship between *representamen*, *object* and *interpretant*.

When this triadic system of ontologies from Peirce comes into contact with non-western ontology, the model does not break down, per se, but rather becomes incomplete. For example, Kjaerholm (2014) addresses the concept of "'double-substance thinking' which assumes precisely what Peirce's ontology precludes: that something can exist prior to firstness, and accordingly we stand in need of applying a new concept, zeroness, in an understanding of this ontology" (p. 186).

The key differentiation between the two ontological types (single-substance versus double-substance thinking) resides in secondness—in nuanced understandings of indexicality and materiality. Peirce claimed that icons and indices alone assert nothing (Atkin, 2005). According to the philosophy of Swami Narayanananda, however, soils and muds of different textures and consistencies naturally

organize themselves in different areas and layers, and such segregation immanent in nature is a sign of how all separations must occur. This iconography and indexicality is a semiotic indication that to separate into different classes, such as a caste system, is unavoidable (Kjaerholm, 2014).

> The conclusion is that there must be a difference in ontology, which makes it possible for Narayanananda to read signs in a way that is radically different from Peirce's...A clue as to the ontological difference which makes such signs possible in the Indian context may be found in Sankhya philosophy, which introduces the idea of a subtle substance, unreachable by the human senses, but which is the cause of the coarse substance that humans can observe and experience. (Kjaerholm, 2014, p. 195).

This concept visible in Sankhya philosophy appears also in other—often indigenous—ontologies. Navajo (or *Diné*) Native American ontology assigns causal or assertive properties to a type of fine or subtle substance that directs or infuses *course* material with a type of agency necessary to create signs. For example, the "Holy People," in the traditional Navajo worldview are living sources of a power (Vecsey, 2015) which gives rise to and emerges through course or rough secondness: Holy People are materially embodied in the four great mountains (just as Aboriginal ancestors are embodied in particular land forms). When a Navajo closes a fist, the mountains take shape in the four knuckles rising from the whole hand, which is the Earth, and so a fist should not be used to hit another person, because the Earth and mountains are sacred (Vecsey, 2015). Here, coarse matter is the bulk and stone of the mountain and the bone and blood of the hand; and subtle matter is that which makes materiality come together into a holy mountain-body, or holds the blood and skin and bone together and causes the animated form of a hand to be a sign of the mountains and the Earth. Specific types of power live within particular physical places (Johnson, 2019), and emerge through particular types of materials and not others. For instance, in crafting a yucca-leaf drumstick for a healing Chantway ritual, a Navajo chanter or medicine man passes by a hundred yuccas before finding a tree with appropriately assertive indexicality: leaves shaped

and situated in a particular way indicating suitability for containing or conducting the substance that must enter the drumstick to complete the healing ritual (Johnson, 2019). After a drumstick is sung and prayed over and used in a ritual, it must be pulled apart to release and sacrifice that which has been transferred into it through the voice of the chanter and the sounds of the songs and prayers (Johnson, 2019).

Kjaerholm (2014) points out that in Malaysian cultural ontology, there exists a subtle substance called *ur* which connects a Tamil person with their home or place of origin. It can only be accessed by spending time in the place and allowing *ur* to be absorbed. If a Tamil person is born away from the family's village of origin, that person must travel to the village and stay there for a period of time in order to fully access their own potential and personal capacity by connecting with the subtle substance of that particular place.

Aboriginal people across Australia also describe materiality in terms that suggest both a course and a subtle substance. The Dreaming, or Dreamtime, is the non-linear place-based creation time that exists and is accessible simultaneously as the present moment, as the past and as the future. It is a sort of "every when," or "time out of time" (Howitt & Suchet-Pearson, 2003)-- a powerful temporality which is hidden behind and within the objective material land that we experience and interact with (Abram, 1996).

Before the land had taken form, Ancestors from the dreamtime "emerged from their slumber beneath the ground and began to sing their way across the land, seeking food, shelter and companionship" (Abram, p. 164). In this way, they sang the world into being. Their paths are marked physically on the land today. The evidence is all around. A sandhill is more than a pile of sand—it is where the Ancestor Little Wallaby left his *buda* (skin waterbag). An Aboriginal person may understand a body of water as a freshwater lake and simultaneously understand it as the place where Little Wallaby

urinated during his journey at the dawn of creation (Abram, 1996). Here, land and water formations are signs of a hidden element in the land—the Dreaming.

Signs like these come from, sustain and re-create *songlines*—auditory maps made of detailed songs that tell the stories and follow the paths of the Ancestors' journeys and the land's creation. The songs move toward and call attention to different places of power and energy. They guide travelers along criss-crossing paths through harsh and arid landscapes. After the Ancestors completed their journeys, they "went back in," re-entering the ground at a specific place and going back to sleep and into the dreaming. Their power and life metamorphosed back into the earth and became that place. They are there still, possibly in the form of a hill or a rock, and dreaming. No materiality is lifeless or purely mechanical; land is dreaming. "The Dreaming nurtures the landscape as a nourishing terrain" called Country. *Country* "in Aboriginal English encompasses people (countrymen), place (homeland) and past, here-and-now and horizon" (Howitt & Suchet-Pearson, 2003, p. 6).

Within this ontological framework, the Dreaming and Country cannot be conceived of as separate from one another. They intertwine to become the material world. Aunty Shaa (2019) of the Gumbaynggirr People, differentiates between the subtle substance of *country* and the course substance of *landscape* or *land* in terms of communication:

> Country is everywhere. It is everything. Country nourishes us, holds us, communicates with us and teaches us. Country is our history, our family and our future. Country is our relationships, our food, our memories and our emotional connections; it is energies and winds, waters and songs, spirits, dreams and stories. Country is a rich landscape – rich with connections. While landscape or land is seen in dominant frames as something to be bought and sold, and something that sits in the background, Country is active and knowledgeable. It is never

> background and its beauty is in its teachings, patterns and relationships, and in the traditional Aboriginal lore/law that it holds and that helps us to live (Smith, A. S., & Yandaarra, 2019, p. 2).

In both Navajo and Aboriginal ontologies, physical landforms possess two types of materiality: a sandhill is a sandhill, yes, and it is also Little Wallaby's water bag; a mountain is a mountain, obviously, and it is also the body of a Holy Person.

This concept of subtle substance doesn't exist only in indigenous ontologies, but can be found preconsciously within dominant Western thinking. For example, Kjaerholm (2014) explores the idea that a physical object can be considered "irreplaceable"—for example, an object once owned by a deceased relative. A replacement or copy of the object, regardless of the copy's monetary value or precision, is not considered equal in *meaning* to the original. Westerners find meaning within the material substance as a type of living connection to a relative (or to a place or time, etc.). This concept of object irreplaceability suggests a subconscious recognition of a subtle substance which infuses the realm of secondness (Kjaerholm, 2014). There is a sense that the object itself—its material situation in the world--absorbed some vestige of the lost relative's subtle materiality. For instance, your late great-grandfather's watch is a watch, of course, and yet it is also some part of the man who touched and used and valued it for so many years—the particular watch has something of that life in it, while a replica does not.

Florence Williams (2017) explores another subtle communication phenomenon titled the "3-day effect." Studies show that three days spent in a wild natural environment made measurable impacts on research participants' overall creativity, mood and cognitive performance. Williams also calls this the phenomenon the "nature fix." Western science is not, at this point, able to fully explain reasons the phenomenon, but tests administered in the field show with little doubt that the effect is real. This "nature fix" is consistent with practices like forest bathing in Korea, or ecotherapy used in Scotland to

address mental illness. It is the idea that some subtle communicative substance within the materiality of the natural world connects dynamically and with a degree of agency in ways that are observable and measurable via controlled experiments. To "connect dynamically" is another way to say "communicate."

These examples demonstrate how a sort of other secondness is recognized, either explicitly (as in many indigenous frameworks) or preconsciously (in the Western framework), across multiple different cultural ontologies, and is unaccounted for in Peirce's structure.

> In a certain sense one could describe [zeroness] as a constant state of 'possession', where coarse substance is possessed by subtle substance, and this would make it logical to pay such attention to iconic signs, since they point to the, somehow more real, world of subtle substance. This is an ontology which also makes the Indian [Sankhya] attitude understandable as a communication with a subtle kind of secondness, through the medium of another coarse kind of secondness. Thus, what is termed secondness in Peirce's semiotic theory in the Indian [Sankhya] context hides another and more real secondness, so that the coarse secondness is, so to speak, secondness by proxy. The question is whether new semiotic terms should be coined in order to take this into account, or whether it is enough to point out that the interpretant in the Indian context is based on an ontology not accepted in the Peircean system (Kjaerholm, 2014, p. 196).

I would like to highlight Kjaerholm's concept of *communication with a subtle kind of secondness through the medium of another coarse kind of secondness* as an important description of how and why one might engage with zeroness through research. In other words, this key phrase addresses the questions: "why is the idea of subtle substance relevant," and "how does *zeroness* influence research?"

13.2 A Fourth Step

This paper explores the idea of adding new terms and a fourth step to Lanigan's semiotic phenomenology research model in an effort to account for Lanigan's "progressive repetition" through the "concrete." It is difficult, however, to conceptualize or organize a realm of existence that is, from the dominant Western ontological perspective, difficult to reach or perhaps even non-existent. Merleau-Ponty himself navigated this realm—*the soil of existence*—via intuition without ever finding a consistent way to systematize the navigation process (Kwant, 1963). I believe this other secondness is, in many ways, incommensurable with Eurocentric research methods, and therefore is difficult to access using dominant Western methodologies. Communicology, however, is intentionally open to engagement with abductive and adductive logics, and therefore has greater capacity than many Western models. Its structure has capacity to carry research beyond the positivist boundary line that so often delegitimizes *other* or different types of knowledges within dominant scientific frameworks. In other words, I propose that communicology has the capacity to unite Western-style academia with non-Western communication ontologies. To illustrate, I begin with Lanigan's existing three-step methodology for semiotic phenomenology as a base, and expand as follows:

Figure 6

Demonstration of a Fourth Concept

Description	Firstness	Icon	Representamen	Preconscious; self-awareness	Capta
Reduction	Secondness	Index	Object	Conscious; awareness of awareness	Data
Interpretation	Thirdness	Symbol	Interpretant	Unconscious/subconscious; representation of the awareness of awareness	Acta
Grounding	Zeroness	Soil	Concrete	Germination	Voxa

The first three rows of the table contain a compilation of Lanigan's analyses of the semiotic phenomenological model (Lanigan, 1992, Lanigan, 1994, Lanigan 2010, Lanigan, 2010), and are based in large degree on Peirce's semiotic. The fourth row represents my own experimental effort to incorporate a fourth concept into the existing framework based on Kjaerholm's (2014) concept of "zeroness". The term "voxa" is a working term based on the Latin word *vox,* meaning voice, sound or word. Voxa in this context refers to voice as the material embodiment of experience. In this case, voxa (or voice) indicates (1) agency, as in "having a voice" (Weidman, 2014), (2) efficacy, as in using the "voice" to produce meaning and change through signs, and (3) as the material, muscular sound and/or gesture of language.

In the description of the Aboriginal concept of Country above, Aunty Shaa & Yandaarra (2019) write that "Country communicates with us and teaches us...Country is active and knowledgeable." In other words, Country possesses *voice.* It sings and inscribes signs and Ancestors' paths into the Earth. In Sankhya philosophy, the material world demonstrates agency, inscribing signs into the soils and muds. In the Navajo chantway ritual, the muscular, audible songs and prayers take form in the world through the chanter's embodied sounds and movements, and then interact with some specific piece of course materiality to cause change. From the modern Western Eurocentric perspective, specific material objects—not a copy or replacement—contain a kind of sacredness or vividness related to a person, place or time that is not present. Experiments around the 3-day effect in nature suggest that a level of subtle secondness in the world, unaccounted for in Peirce, acts as some communicative voice or gesture which causes changes in the course "everyday" materiality and function of a human being.

In the wake of such an assertion, questions arise around how *voxa* is to be incorporated into the research process, and how it makes a difference in the discovery process. First, recall once again Kjaerholm's statement suggesting "c*ommunication with a subtle kind of secondness through the medium of another coarse kind of secondness*" as a way to understand the way these two types of secondness interact with one another. This interaction can be organized as follows:

Figure 7

Zeroness and Voxa

Zeroness	Subtle matter, the soil, existence	Voxa (voice; agency; material source of capta; chiasmic interchange between materiality [body/world] and the symbolic [conceptual mind])
Firstness	Preconscious interface; experience	Capta (in which we focus on and take up particulars among the many)
Secondness	Coarse matter	Data (what is given; "objective")
Thirdness	Interpretation; meaning	Acta (the act of research, inquiry and interpretation; praxis)

The information in this table is perhaps more effectively visualized as four inter-looping circles forming a loop that allows for progressive and reversible movement (Figure 8).

Figure 8

Reversible Inter-Looping Cycle

The logo for the International Communicology Institute is a knot–like image of four interconnected circles made from an infinitely-looping thread:

Note that the shaded areas in Figure 8 where the circles overlap, along with the space in the center, create a knot-like or flowering shape similar to that of the logo. The symbol itself suggests a four-part approach to communicology methodology.

An adapted methodological process guide might function as follows:

Figure 9

4-Step Semiotic Phenomenological Reduction

Description	1. DESCRIPTION a. Interpretation b. Reduction c. Description d. Grounding	Examine and then bracket presuppositions and modalities that influence description. (Do not explain. Only describe.)
Reduction	2. REDUCTION a. Interpretation b. Reduction c. Description d. Grounding	Pull from the description the pertinent or "shining" pieces and engage imaginative free variation.
Interpretation	3. INTERPRETATION a. Interpretation b. Reduction c. Description d. Grounding	Interpret linkages or themes toward a thematic whole.
Grounding	4. GROUND a. Interpretation b. Reduction c. Description d. Grounding	Connect the research with the voice, agency or physicality (course materiality) of the subject or phenomenon; open the research process to allow access to a subtle materiality through the course materiality.

Source: Adapted from "Human Communication," from Richard L. Lanigan, *Phenomenology of Communication* (1988), p. 9.

13.3 Grounding

Grounding is a step that resists solutionism. It is a step that addresses the limits of any discovery, and therefore is the step which creates space for adductive logic (see Section 4.5). By the time a researcher has completed the interpretation step, an answer or a solution may begin to take shape. Grounding is a step that involves the decomposition and regeneration of answers and solutions. Bridle (2018) puts it like this: "Computational thinking supposes—often at an unconscious level—that the world really is like the solutionists propose. It internalises solutionism to the degree that it is impossible to think or articulate the world in terms that are not computable." To enter the fourth step is to "think the problem" outside of computable terms, and within the context of both realms of materiality--zeroness and secondness.

All stages of any research process inevitably involve elements of all four types of logic discussed in Section 4. However, the reduction and interpretation steps within Semiotic Phenomenology engage a researcher rather explicitly in abductive processes that focus on addressing paradox and making connections within the context of particulars. These steps involve an implied limit, as they are limited to the particulars of the specific research topic or questions being addressed.

The grounding step is that which carries the research beyond its implied limit, moving from within the boundaries of one particular context to the more universal level of adduction. It is that level where a whole-systems view comes to inform the research. It is the link that connects the subject of investigation to its material existence and origin. Bridle calls this process "re-earthing." As an example of re-earthing, Bridle explores and "grounds" the central metaphor of the internet: the cloud. The metaphor of the cloud implies weightlessness, lightness, shapelessness and invisibility, however the

cloud, which serves a digital information storage function, is not amorphous or made of thin air. "It is a physical infrastructure consisting of phone lines, fibre optics, satellites, cables on the ocean floor, and vast warehouses filled with computers, which consume huge amounts of water and energy and reside within national and legal jurisdictions (p. 7)." Bridle points out that to think "the cloud" in terms of its grounded materiality makes it possible to understand it as an energy-consuming technology implanted by humans into and onto the body of the earth, and directing communication in very specific ways. Another way Bridle grounds technology and "the cloud" is by pointing out that technology, just like human life, depends upon nonhuman things. Humans don't live without molecules, bacteria, food, water, air, and "the cloud" doesn't exist without raw natural materials transformed into cable or satellite. Bridle (2018) demonstrates how even a complex, formless system like the high-frequency trading infrastructure and the economic system it drives, is grounded in materiality:

> in silicon and steel, in the speed of light through glass, with fog and birds and squirrels. Technology can be an excellent lesson in the agency of nonhuman actors, from rocks to bugs, whenever they obstruct or permit, chew through or short out, our lines of communication and power (p. 14).

This concept of re-earthing applies not just to technology, but to anything than can be problematized and studied. To understand how Bridle approaches this "grounding' work, it is important to note that in addition to re-earthing, Bridle talks about re-enchanting our tools. The term "re-enchant" suggests that *grounded* phenomena are always already imbued with some level of enchantment—even if "enchantment" refers simply to the fullness of their interconnection with all things—and that computational thinking severs that connection in order to dismantle complex systems into parts and pieces that can be measured and manipulated in isolation. If this is the case, then enchantment may, very simply, be a byproduct of the undoing of solutionism. To suggest re-enchantment is not to suggest that humans engage in some fantastical realm of human imagination. If anything, that's what natural

sciences, technology and computational thinking do for us—create imagined realms. Rather, to re-enchant is to return to the thing itself—the place, the person, the voice.

According to Bridle, the key to re-enchanting our tools is the construction of new metaphors. Here I return to Gregory Bateson's Syllogisms of Grass (section 4.6) as an exploration of the logic of enchantment. We have already explored abduction as a fundamental and necessary form of logic—no new idea could ever occur without it. Bateson urges the reinvigoration of abductive logic as a way for humans to see beyond the limitations of their own computed solutions. In other words, Bateson suggests intentionally activating and operationalizing abductive logic (steps 2 and 3 in the Semiotic Phenomenological process) as a path toward adductive insight (step 4). Bateson's example led us to the statement that "humans are grass." Above, in examining the concept of subtle substance, we saw that mud inscribes, mountains are living bodies, an antique watch is a grandfather, and the cloud is a mass of hardware dug into and mounted upon the earth.

Grounding or re-earthing, then, is a return to and/or recognition of the material source of any phenomenon under examination. In all cases, a phenomenon will have origins in the form of a physical body, whether that is a human body (body-subject) or the material body of the earth. Communicology is a process that moves toward opening, and the proposed grounding step should provide space for the culmination of such opening. Therefore, the fourth step offers no precise solution or fixed answer regarding the problem or phenomenon under analysis. In fact, Bridle (2018) writes that

> Along the way, what may be presented as 'revelations' about the 'truth' of the world should always be held at arm's length, as mere...rethinkings of that world. Indeed, arm's length should be the resonant, representative gesture of the work, as holding something at arm's length has the effect, from another perspective, of pointing at something else in the distance, something beyond the immediate realisation, and promising more (p. 14).

To engage the grounding or re-earthing step is to include in the research process an exploration of Merleau-Ponty's "soil of existence"—that hidden, non-computable realm where phenomena cannot be known through separation and isolation, but can be understood in terms of their complex communicative interrelation. Within this soil, everything with material origins (and that means everything) can potentially decompose and regenerate. This is the realm of subtle substance, where the force of a fine and mysterious (a.k.a. non-computable) materiality rises in and through course materiality to form discourses, and then falls back in again, in a wave-like motion that mimics the waves of intentionality explored in section 5.2 (Landes & Merleau-Ponty, 2014, Kwant, 1963). Grounding and re-enchantment involve "metaphor, allegory, the whole of science...art...religion...poetry... these are instances or aggregates of instances of abduction" (Bateson, 1979, p. 142), and present the only clear passages to the realm of adduction. It is fantasy (as opposed to enchantment) to imagine that humans could exist in the world without abductive and adductive engagement.

It is no stretch—even within the positivistic realm of the natural sciences—to suggest that some type of subtle materiality, or agency, exists within non-human living organisms. After all, natural science cannot produce materiality, but collects, observes and manipulates it. No scientist can make something out of nothing, and material energy is indestructible (Bateson & Ruesch, 1968). There is debate in Western philosophy and science around the question of whether non-human things have agency. According to Latour (2005), intentional, causal agency is not the only type of agency to consider. The question when considering agency in non-human and/or non-living entities, claims Latour, is "[d]oes it make a difference in the course of some other agent's action or not? Is there some trial that allows someone to detect this difference?" (Latour, 2005, p. 71). If the answer to both of those questions is yes, then an actor—nonhuman or otherwise—is exercising agency (Sayes, 2014). According to Latour (2004), "there might exist many metaphysical shades between full causality and sheer in-existence: things might authorize, allow, afford, encourage, permit, suggest, influence, block, render possible,

forbid, and so on" (p. 226). To consider agency from this perspective during the grounding step is a way for a researcher to consider "subtle substance."

13.4 Summary of Grounding Step (see figure 9):

- Step 4a: Link entities or phenomena under analysis (along with any associated insights) to their material origins.
    - This step may appear deceptively easy. Keep in mind that language and culture can be conceptualized as material living fabrics, and that any embodied experience has its own particular physicality. Likewise, embodied discourse is a living, adapting entity that takes material form. The process of linking with material origins involves viewing phenomena through a lens of embodiment.
    - This step also may reveal interconnectedness between large grounded systems. A researcher may find that, in grounding a *particular* problem or phenomenon, the analysis will take on elements of universality as well. This represents the emergence of adductive logic, and is an important part of the process.
- Step 4b: The explicit link with materiality along with interpretive work from step 3 may initiate solutions or revelations about the problem or phenomenon. Such insights are valuable and useful to a degree. At this stage, however, the researcher holds those interpretive insights at "arm's length," letting go of any attachment to these ideas which might cause a researcher to cling to them as solutions, holding them too close in. When held at arm's length, a researcher can see these insights in relation to other systems and ideas, and can see what the insights point to, or what lies beyond—the coming stretch along a path which cannot logically arrive at any final end.

- Step 4c: The researcher opens to adductive logic to experiment with the construction of new metaphors, which can be approached via Lanigan's work, as well as through Bateson's perspective on *syllogisms of grass.* Such universal, cross-contextual descriptions are not designed to be calculated or measured. Rather, they come together to explore voice or agency (subtle substance) within the physical origins of the problem (course materiality—people, objects, places, etc.) under analysis.
    - Adductive logics will be fallible. The grounding step, which involves both decomposition and regeneration, fully opens to this level of fallibility, as insights at this stage are meant to be held at arm's length and allowed to form, fall apart, and re-form.
    - This step need not be forced, but rather presents an opening.
    - As with the original reduction step, focus should lie in describing the phenomena as it is lived while resisting any urge to explain.
- Step 4d: Here, all previous steps converge toward the wonder of the phenomena, now grounded in some form of materiality, and within a living system. The phenomenon becomes understandable in terms of interconnection with other living systems. At this stage, communicology is the tool which becomes re-enchanted, and so fortified, can break through the hard shell of computational or Q.E.D. logic that encases many modern views and knowledges.

14. Applications and Further Research

Modern solutionism and computational thinking have contributed to declining wellness and productivity in multiple wide-ranging areas, including massive environmental degradation, declining successes in pharmacology, personal privacy and autonomy, opacity and confusion regarding technology and AI, human social functioning, empathy, family relationships, and mental health (Bridle, 2018, Turkle, 2015, Zuboff, 2019). At the same time, modern science and technology—products of Q.E.D logic and

computational thinking—have profoundly improved human life in many ways. To argue against them entirely would be to abandon ourselves (Bridle, 2018). The challenge is opening science into a larger vision that starts from the phenomenological soil of lived experience of a living world, and finding balance between different logics and methods of knowing. Today, as part of dominant discourses around race, environment, community divisiveness and mental health, many scholars and other thinkers are calling for renewed consideration of *other* knowledges, especially non-Western knowledges, in building a path toward a healthier, happier global society—toward Latour's "new cosmology" (Kofman, 2018). For example, the Australian government has collaborated with Aboriginal people to employ indigenous fire prevention methods and other land management projects, while Aboriginal Gumbaynggirr storyteller Aunty Shaa (Smith, 2019) seeks a way that indigenous and modern thinking can come together to inform a new way of knowledge seeking and living together in the world. A high degree of incommensurability makes such collaboration difficult to put into practice. Communicology, as both a theory and method, has capacity to explore *all* lived experience from a logic-based perspective, offering a framework that can bring modern Q.E.D.-based logics and methods into alignment with alternative or non-western logics and methods. This capacity comes from semiotic phenomenology, where the wonder of lived experience interfaces with the symbolic (and potentially computational) realm of conceptual thinking to create the discourses that we live by.

Communicology is the study of *embodied* human discourse. The word *embodied* demonstrates that the discipline itself is already grounded in physical materiality. Any human endeavor is an embodied discourse, even if some (e.g. physical sciences) choose the fantasy of objectivity. To study embodied discourse is to study culture. To study culture is to study embodied humans. To study embodied humans is to study human-other interface. To study human-other interface is to study human interconnectedness with larger systems of "nature." Communicology research is not limited to any single domain.

In other words, communicology in general and the proposed fourth step are in no way limited to analyses that investigate explicitly body- or nature-related phenomena. Culture, language and discourse all have embodied origins, and can themselves be viewed as living fabrics that exist with and through unique forms of materiality. However, more communication-oriented research needs to be done regarding how subtle substance or double substance thinking operates and emerges in non-western cultures as well as covertly or subconsciously in Eurocentric ontology. Further, communicological analyses specifically related to human conceptions of and interaction with "nature" potentially build paths toward a new discourse with capacity to influence related discourses. A broader, logic-based understanding of the hidden realm of materiality—this fourth step called *grounding*—could reveal a surprisingly practical entry into domain that has long been dismissed as non-quantifiable and therefore irrelevant by positivist natural and social science methods. I take care with terms like "re-enchantment," or "soil of existence" when describing this realm, as the terms are marked to some degree as non-scientific. For this reason, Abram (1996) refers to such a realm with the term "ambiguity:"

> The living world—this ambiguous realm that we experience in anger and joy, in grief and in love—is both the soil in which all our sciences are rooted and the rich humus into which their results ultimately return, whether as nutrients or as poisons. Our spontaneous experience of the world, charged with subjective, emotional, and intuitive content, remains the vital and dark ground of all our objectivity (p. 34).

Part III. Course Syllabus

15. Syllabus for a General Introductory Communicology Course

Communicology is not generally offered as part of university Communication Studies curricula. Many leading scholars acknowledge that Communicology, with its research method of semiotic phenomenology, is difficult to learn as well as to teach. Communicology is still a young discipline, skirting the edges of the academic mainstream. It also involves a number of rather complex philosophical concepts. Issues like these tend to turn away students and scholars alike. This thesis serves as my argument for including Communicology in mainstream academics as well as in the public.

The theoretical section of this thesis approaches Lanigan's condensed summary/definition as a starting point to explore the question: "what is communicology?" Throughout my theoretical analysis, I have attempted to open up the definition in such a way that an instructor might find multiple access points to help students connect and engage with the material in a way that both inspires and makes logical sense.

The following course syllabus offers an example of how Lanigan's definition can be expanded and explored over the course of an entire university term. The definition serves as an anchor for students, preventing the philosophical boundaries of the discipline from blurring into infinity. The course schedule aligns with subheads explored throughout the theoretical analysis, culminating in an opportunity to discuss and explore a fourth realm for theory and research. Any instructor should remain current with Lanigan's work, incorporating new concepts and ideas into the syllabus as necessary—especially the section addressing a fourth research concept.

The theoretical analysis within this thesis explores the power and potentiality of communicology to address serious socio-cultural problems, while the syllabus offers readings with examples of how

scholars are using the discipline of communicology in the field today. Readings should be reviewed and updated regularly.

As a student myself, I struggled to understand the boundaries and purpose of communicology. Much brilliant work exists in and about the discipline, though I found no straightforward or accessible paths for the newcomer. I hope the following syllabus provides a useful tool for organizing and presenting the discipline of communicology in a sensible format, for balancing theoretical learning with practical application, and for transferring a sense of fascination regarding the possibilities associated with semiotic phenomenology as both theory and praxis.

SYLLABUS

Time & Place:
Instructor:
Office Location:
Phone Number:
E-mail Address:
Office hours:

Why study Communicology?

The study of Communicology examines how meaning in our lives emerges through communicative practices involving ourselves, other people, and the world around us. It considers how all inquiry—all science and research—emerges from not only our lived experience of the world, but also the way language and communication interconnect with that experience. Communicology offers a critical-interpretive approach to addressing serious social and cultural problems, helping students interrupt the "natural attitude" toward communication, and developing skills for initiating deep reorganization and change.

Course Objectives

Students who complete this class will:

- differentiate between Communicology and Communication Studies.
- understand a general history of the development of the field of Communicology.
- analyze the ways that culture is constructed through communication and vice versa.
- explain how Communicology can be applied to understand and address problems.
- provide an informed and thought-provoking answer to the question: "Why study communication?"

Text Books

Readings as assigned.

Approach

Given that communicology is the study of embodied human discourse and communication, this class will be conducted primarily through large- and small-group discussion. Each student will be part of a working group. Working groups will be responsible for answering questions and leading fellow classmates through discussions about assigned readings. Students will complete written exercises to help them understand and apply concepts. Students will take several exams to assess understanding and concept mastery.

Assignments and Grading

Concept Summary 10 @ 10 each	100 points
Prepared Questions 10 @ 10 each	100 points
Learning Group Panels 5 @ 15 each	75 points
Tests 2 @ 75 each	150 points
Group Project Report	40 points
Final Project Paper	55 points
Final Examination	80 points
Total Points Available	**575 points**

Assignments

Prepared Questions: Each student must prepare three questions regarding each assigned reading. Students will bring questions to class, use questions as a guide during learning group and other class discussion. Students must turn in questions before leaving class in order to receive credit.

Concept Summary: At the end of every class, you will write down the key concepts and ideas that we will have identified together. Each summary will be collected and graded as a demonstration of your attendance and participation in class. The summary sheets will be used as a basis for the tests. You will turn this in at the end of class and will receive it back at the beginning of next class.

Learning Groups: A learning group is composed of 3-5 students who meet during (and optionally outside of) class to promote mutual understanding of reading topics and share this understanding during presentation regarding assigned topics in class.

- During class time, student groups will (a) meet to discuss material; (b) present an overview of the selected material to the class; and (c) lead a class discussion to elaborate, explain and expand upon the material presented in the readings, fielding questions prepared by classmates as well as the instructor.
- Every group member must read all of the assigned material and should be prepared to answer questions regarding all readings. Do not divide the reading up among your group's members. Students and instructor may direct questions to specific group members.
- Questions should be of three kinds: 1. Recall of information from the reading, 2. Questions that provoke discussion of concepts, and 3. Questions that link the present reading to other or previous course readings.
- Students in groups will be graded on the basis of their informed, accurate, well-articulated responses to questions. It is the group's responsibility to make sure that all members are given an equal opportunity to respond to questions, and to avoid situations where a single member or two of your group dominates the discussion.
- Students in the audience will also be graded on participation as well as quality of prepared typed questions.

Applied Semiotic Phenomenology exercise: Life Story Interviews

Students will work together to select a broad discourse topic for experience-based life-stories. Each group will narrow that down to a focused sub-topic. Each student will select and share a life story that relates to the topic in some direct way. Individual groups will function as small research teams. Each student will provide a written description of their own selected life story to each group member (max 2 pages, double spaced), making an effort to resist explanation. The student will also tell (impromptu, without reading what they have written) their selected life story to the small group. Each group member will treat this as an interview opportunity, asking questions, taking notes and sharing written summaries of those notes with all group members.

For example, "lived experience of being a university student" might be a general topic, and narrow topics might include:

- Pressure
- Boredom
- Fascination
- Alienation
- The Classroom
- The Future

Employing the research framework learned in class, each student will prepare a Group Project Report identifying (1) clearly defined research steps (description, reduction, interpretation); (2) capta, data and acta; (3) phenomenology, semiotic and an instance of semiosis. Goals include: (a) reveal specific meaning or understanding that was initially hidden within the discourse; (b) demonstrate limits of the natural attitude.

Note: if this structure causes any IRB-related conflict, instructor will supply material for use with this assignment.

Final Project Paper: Students will prepare a final research paper using the communicology research methodology to perform an analysis of a topic of their choice. This could include research material generated in class, an individual life experience, an interview(s) or other topic.

Tests: Students will take 2 tests based on the readings, class discussions, and group presentations. Concept summaries will serve as study guides.

Final examination: The final examination is comprehensive and will include mostly short and essay questions. Concept summaries will serve as study guides.

Class Schedule

Module 1. Introduction and Overview: Communicology & the Science of Human Communication

- Introductions & Syllabus
- Assign student working groups
    - Working groups meet and assign group roles.
- Essential terms and concepts (philosophy; ontology; epistemology, rhetoric, Communicology)
    - Groups receive terms to research and present to class
- Introduce Richard Lanigan and discuss Lanigan's Communicology definition.
- Introduce Ruesch & Bateson's four network levels of Communication.
- Class question/discussion: What is Communicology? Why study communication?

Reading 1: *Communicology: What's in a Name?* (Catt, Klyukanov & Smith)

Reading 2: *History, Time and Context* (Martinez Ch. 3)

[DATE] ASSIGNMENTS DUE:

- Concept Summary
- 3 typed questions for each individual assigned reading
- Group-led discussion of readings

Module 2: Discourse, Culture, Embodiment and Consciousness in Communication

- What is discourse, and how is it "embodied?"
    - In-class exercises regarding communication and the generation of meaning
- Embodiment and Consciousness
- What is culture?
    - How are discourse and culture related to one another?
    - How does culture influence communication and vice versa?

Reading 3: On Homeworld and Community Models of the City: The Communicology of Egocentric and Sociocentric Cultures in Urban Semiotics (2011) Richard L. Lanigan

Reading 4: Culture in the Context of Communicology, by Klyukanov, I., in Communicology: The New Science of Embodied Discourse

Reading 5: The Wonder of Culture, in *Communication Theory Through the Ages (*2018). Klyukanov, I & Sinekopova, G.

[DATE] ASSIGNMENTS DUE:

- Concept Summary
- 3 typed questions for each reading
- Group-led discussion of readings

Module 3. Logic in Communicology and the Human Sciences

- Differentiating between Communicology and Communication Studies; Natural Sciences and Human Sciences
    - Shannon and Weaver Information Theory Model
    - Jakobson Discourse/Communicology model
- What is logic?
- Exploring the four logics
- Lanigan on Q.E.D v. Q.E.I.
    - Why does this matter?
- How do the four logics operate in natural sciences v. human sciences?
- Discuss science from the perspective of Bruno Latour and Thomas Kuhn.
    - Two brief interviews with Latour regarding scientific inquiry
    - General outline of Kuhn's structure

Reading 6: The Monstrosity of Adduction (2018). Klyukanov, I.

Reading 7: Applied communicology in organization PR and R&D: Peirce on synechism, Fuller on synergetics, Gordon on synectics, and Alinsky on socialism (2020) Lanigan, R.L.

Reading 8: Human Communication, in *Phenomenology of Communication* (1988). Lanigan, R.L.

Reading 9: TBD current work in the field

[DATE] ASSIGNMENTS DUE:

- Concept Summary
- 3 typed questions for each reading
- Group-led discussion of readings

Module 4. Semiotics and Semiology

- Semiotics: de Saussure and Peirce
    - Structuralism & post-structuralism
    - Peirce's triadic framework

Reading 9: Semiotics in Communicology, in *Communicative Sexualities.* (2011*).* Martinez, J.

Reading 10: The Photographic Message (Barthes)

Reading 11: What is a sign? (C.S. Peirce)

Optional other: Signs of Sacred Play: Musings on the Semiotics of Rainbows (Eicher-Catt)

[DATE] ASSIGNMENTS DUE:

- Test 1
- Concept Summary
- 3 typed questions for each reading
- Group-led discussion of readings

Module 5. Phenomenology

- Continental Philosophy and Existential Phenomenology – what are they and what do they have to do with Communicology?
- Phenomenology:
    - Edmund Husserl
    - Martin Heidegger's Dasein
    - Maurice Merleau-Ponty

Reading 12: Philosophy on the Way to Ecology: A Technical Introduction to the Inquiry (Abram)

Reading: Phenomenology in Communicology, in *Communicative Sexualities.* (2011*).* Martinez, J.

Reading 14: Preface to Phenomenology of Perception, Maurice Merleau-Ponty, translation: Landes (2014)

[DATE] ASSIGNMENTS DUE:

- Concept summary due
- 3 typed questions for each reading
- Group-led discussion of readings

Module 6. Semiotic-Phenomenology—Theory

- The interface between these two seemingly opposed communication theories.
    - Peirce's phaneroscopy (phenomenology) in conjunction with Peirce's semiotic—an interplay.
    - Merleau-Ponty's phenomenology in conjunction with Merleau-Ponty's parole parlante/parole parlée (semiotic)--an interplay.

Reading: Semiotic Phenomenology, in *Communicative Sexualities.* (2011*).* Martinez, J.

Reading: The Foundations of Semiotic Phenomenology, in Phenomenology of Communication (1988). Lanigan, R.L.

Reading: TBD: Current work related to the discipline

[DATE] ASSIGNMENTS DUE:

- Concept summary
- 3 typed questions for each reading
- Group-led discussion of readings

Module 7. Semiotic Phenomenology—Research Paradigm & Methodology

- Semiotic Phenomenology as a Research Methodology
    - Lanigan's research Steps and their functions
- Possibility of a fourth step.
    - Discuss Lanigan's allusions to fourth research step and explore ideas/possibilities
- Incorporating non-western knowledges.
- Select topics for Group Project
    - Discuss problematizing an issue

Reading 15: Epistemology and ethics in human science research. (2012) Smith, Andrew R.

[DATE] ASSIGNMENTS DUE:

- Concept Summary 6 due
- 3 typed questions for each reading
- Group-led discussion of readings

Module 8. Semiotic Phenomenology Applied

- Life Story Project begins
- Lecture on research praxis and review of readings
- Examples of contemporary applications of communicology in the field
- Groups conduct research interviews.

Reading 16: Delegitimizing Violence: Resistance as Communicative Practice in Authoritarian Regimes (Andrew R. Smith)

Reading 17: Advancing Family Communication Scholarship (Eicher-Catt)

[DATE] ASSIGNMENTS DUE:

- Life story (max 2 typed pages double spaced)
- Concept Summary
- 3 typed questions for each reading
- Group-led discussion of readings

Module 9. Synthesis, Collaborations and Research Applications

- Interdisciplinary applications and manifestations
- The future of communicology: capacity and potential
- How does communicology augment or work alongside other methods?

Reading 19: TBD - Current work related to the discipline

Reading 20: TBD - Current work related to the discipline

[DATE] ASSIGNMENTS DUE:

- Group Project Report
- Concept Summary
- 3 typed questions for each reading
- Group-led discussion of readings

Module 10. Final Week
[DATE] ASSIGNMENTS DUE:

- Final Project Paper due
- Final Exam

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Curriculum Vitae

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Education

MS	April, 2021	Eastern Washington University, Cheney, WA Communication Studies, Emphasis in Cultural Communication. Research Area: communicology/philosophy of communication
BA	June, 1998	Eastern Washington University, Cheney, WA English, Emphasis in Creative Writing 1998, Certified English as a Second Language Instructor
AA	August, 1995	Grays Harbor Community College, Aberdeen, WA General Studies

Professional Experience

Grants Specialist
Lutheran Community Services Northwest
2012 - Present
Achievements

- Expert-level writing for diverse audiences on a wide range of complex clinical, social, political and policy-related topics delivered in accurate, engaging formats that educate and persuade.
- Generate $20 million in diversified funding for multiple programs.
- Expand community-based advocacy program staff by 55%.
- Increase access by 25% for low-to-moderate income people to receive evidence-based behavioral health treatments.
- Enhance access by 15% for crime and trauma survivors to access victim advocacy services.
- Manage a full annual schedule of government and private grant writing and implementation projects according to a demanding deadline schedule.

Communications and Fundraising Coordinator
Providence Sacred Heart Medical Center
2001 - 2005
Achievements

- Develop a rich, immersive storytelling strategy for organizational foundation communications, including fundraising appeals, feature stories and an enhanced annual report.

- Broaden the foundation communications audience by several hundred readers for the purpose of expanding the donor base.

Freelance Writer
2001 - 2005
Achievements

- Conceptualize, research and write feature stories on a freelance basis for a range of publications, including *Publishers Weekly, The Spokesman Review, The Anderson Valley Advertiser* and *The Sentient Times.*

Journalist/Editor
The Del Norte Triplicate
1999-2001
Achievements

- Pitch, investigate and write news stories and features for this daily newspaper, generating 40% lead and front-page storytelling.
- Edit all news copy in preparation for print.
- Research and understand regional politics, geography, demographics and economy as part of a commitment to telling relevant, meaningful stories for the benefit of the local community.

Publications

Feature and News Stories

Dugan, O. (2000, January). Fishermen escape from sinking boat. *The Del Norte Triplicate*. 1A
Dugan, O. (2000, February). Flocks drawn to festival. *The Del Norte Triplicate*. 1A, 3A.
Dugan, O. (2000, February). Successful Del Norte County author pushes button with writing. *The Del Norte Triplicate.* 1A, 3A.
Dugan, O. (2000, February). Lighthouse cross controversy continues. *The Del Norte Triplicate.* 1A
Dugan, O. (2000, March). A watershed of education. *The Del Norte Triplicate*. 1A, 3A.
Dugan, O. (2000, March). Aleutian goose gazing: Resurgent goose population feeding on county ranches. *The Del Norte Triplicate*. 1A, 3A.
Dugan, O. (2000, March). Those who lived through it remember tsunami of 1964. *The Del Norte Triplicate*. 1A, 3A.
Dugan, O. (2000, June). The class of 2000 on a very hot night. *The Anderson Valley Advertiser.* 1A, 7A.
Dugan, O. (2000, July). Goats eyes. *The Anderson Valley Advertiser.*
Dugan, O. (2000, August). Goat head update. *The Anderson Valley Advertiser.*
Dugan, O. (2000, August). Goat head finale. *The Anderson Valley Advertiser.*
Dugan, O. (2000, September). Philo's bit pot party. *The Anderson Valley Advertiser.* 1A, 7A.
Dugan, O. (2001, November). The intimate stranger. *The Anderson Valley Advertiser.* 1A, 4A.
Dugan, O. (2002, July). Truths and atrocities. *Publishers Weekly.*

Dugan, O. (2002, October). A healing song: Because of his music, transplant patient's spiritual heart is strong, even if his physical one isn't. *The Spokesman Review South Side Voice*, 1A, 5A.

Dugan, O. (2002, December). Racer. *The Spokesman Review,* 10A, 11A.

Reviews

Dugan, O. (2000, June) A language older than words. [Review of the book *Language older than words,* by D. Jensen]. *The Sentient Times*, p. 17.

Original Plays

Dugan, O. (1995, May). Sporting the socks of the deceased. Performed live on stage at Bishop Center for Performing Arts, Aberdeen, Washington.

Dugan, O. (2012, May). Powerhouse. Performed live on stage at Gonzaga University, Spokane, Washington.

Dugan, O. (2012, August). You don't get gloves. Performed live on the air at Spokane Public Radio.

Dugan, O. (2013, April). No hike for you. Performed live on stage at Stage Left Theater, Spokane, Washington.

Dugan, O. (2016, April). Italian Leather. Performed live on stage at Stage Left Theater, Spokane, Washington.

Conferences Attended

The Semiotics of Borders and the Borders of Semiotics (2019), Semiotic Society of America

Awards and Honors

Dean's Honor Award in Creative Writing
Eastern Washington University, 1998