a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

EDCP 585
Fieldwork in Actor-Network Theory
Lecture Notes

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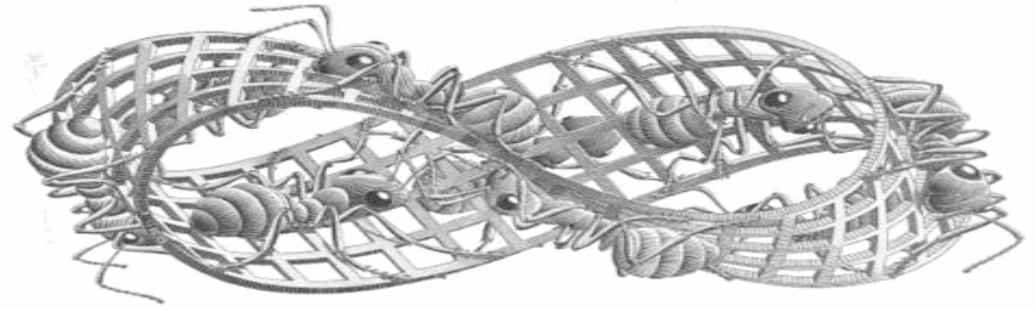
I. Intellectual History of ANT I
Networkery
(For Actantics [Dramatics and Theatrology], See Intellectual History of ANT II)



1. Networkery

a. *Grundrisse*, Marx (1857/1973, p. 101): The concrete is concrete because it is the concentration of many determinations, hence unity of the diverse. It appears in the process of thinking, therefore, as a process of concentration, as a result, not as a point of departure, even though it is the point of departure in reality and hence also the point of departure for observation and conception.

b. **Field theory** (e.g., Lewin, 1939): Instead of abstracting one or another isolated element from a situation, the meaning of which cannot be understood without reference to the total situation, the theory of the field starts with a characterization of the whole situation.

   i. Lewin

      1. Lewin (1939, pp. 889, 890, 891): Whether or not a certain type of behavior occurs depends not on the presence or absence of one fact or of a number of facts as viewed in isolation but upon the constellation (structure and forces) of the specific field as a whole. The "meaning" of the single fact depends upon its position in the field; or, to say the same in more dynamical terms, the different parts of a field are mutually inter- dependent. This is of fundamental importance in social psychology…. person and environment are both parts of one dynamical field.
      2. Since Einstein it has been known that Euclidean geometry, which previously was the only geometry applied in physics, is not best fitted for representing the empirical physical space. For psychology, a recently developed nonquantitative geometry, called "topology," can be used satisfactorily in dealing with problems of structure and position in a psychological field. This space permits representation of the position inside or outside of a certain region, the relation between parts and whole, and a great number of structural characteristics.
      3. Euclidean space generally is not suited for adequately representing the structure of a social field-for instance, the relative position of groups, or a social locomotion. For example, in a social field what is meant by a straight line or an angle of 200 cannot be determined (at least not at present).

However, the topological and the hodological space are, as far as I can see, applicable within sociology proper as well as in social psychology.

4. Reiser (1936, p. 546): Lewin states that the fundamental task of all psychological problems is the determination of topological relationships. Topology-for those who are not acquainted with the subject-is the most general (non-metrical) science of spacial relationships. As such, it is concerned with whole-part relations, and with the cognate concepts of surrounding region, point, being-included-in, Jordan curve, etc. These and related ideas have to do with the topological structure of a region as determining the possible locomotions in that space.
5. Lewin (1951, p. 624): You cannot understand a system until you try to change it.

ii. Bourdieu

1. Vendenberghe (1999, p. 52): Although it is perfectly conceivable that the internally related elements would peacefully "con-spire" to form an organic whole, Bourdieu has always thought of the field as a field of struggle or, as Elias says, as a "field of tension" (Elias [1970] 1984:127). From the beginning, his relational conception of the field was mingled with a highly conflictual vision of the world as a battlefield for power, prestige, and all sorts of capital in which competitive distinction, domination, and miscrecognition prevail over cooperation, disinterest, and recognition (Swartz 1997:63). In any case, whether the field is conceived in a conflictual way or not, given that the relations between the individual elements are the resultant of all factors that constitute the "figuration," when analyzing the field one always has to "start with the relations and think from there towards the related" (Elias [1970] 1984:127).

c. **Network Theory** (e.g., Moreno & Jennings, "Statistics of Social Configurations," 1938, pp. 360-361): There are certain structural processes observable in the groups studied which are best explained if it is assumed that networks exist. One of these structural phenomena is the chain-relation…. The occurrence of these chain structures cannot be explained solely as a reflection of sociodynamic effects. Outside of a particular chain formation not only isolated or little chosen individuals but also pair structures or even leaders may remain left out. Another dynamic process must therefore stimulate chain formation. It had been seen that the individuals, who in the sociometric study of a whole community, form a social aggregate around one criterion form other social aggregates around other criteria and that the individuals who produce structures of chain-relations in one aggregate may produce them in other aggregates. If these chain-relations are traced as they cross through the boundaries of each particular aggregate, a new and larger configuration is seen developing a psychological network. The simple fact that individuals are more attracted to some individuals and not to others has many consequences.

i. Social Network

1. Boodin (1915): But happiness cannot be a series of discrete pulses of pleasure, a mere sum of discrete satisfactions. It must, somehow, have some organizing principle which makes the present activity refer to the past and to the future, and which is adequate to the complexity of claims within the social network in which we live and move and have our being.
2. Moreno (1941, p. 26): To be sure, an individual knows "face-to-face" a certain number of the people composing his social atom— they may belong to his family, home or work group— but he may be ignorant or unconscious of the existence of many individuals who feel strongly about him and there may be some individuals about whom he feels strongly but who are, in turn, either ignorant or unconscious of this fact. In other words, there are primary

social configurations, social atoms, psycho-social networks, and others, which are not primary groups.

ii. Networking

1. Merrow, Foster & Estes (1974, pp. 283-284): The term "network" applied to individuals and organizations is easy to understand. We are all involved in net works of different kinds: Neighbors are connected by common interests in children, safe streets, garbage collection, and so forth. Business connections are another network, as are "old school ties," political interest groups, etc. Net works may be formal or informal, temporary or relatively permanent. They facilitate the flow of information, help keep us adjusted to others, and generally serve to stabilize our lives. Networking, it turns out, is basically old wine in new bottles, in the sense that it means more interaction and more in formation exchange. But networking, as we mean to use the term, also calls for systematized, more efficient interactions, which require new behavior on the part of the superintendent. Self conscious networking is not the same as neighbors united by garbage, for the latter situation does not require new behavior.

d. **Sociometry** (e.g., Moreno, "Foundations of Sociometry," 1941, p. 28): Thus, we saw the entire community broken up into several so-called "psycho-social networks." We saw them partly overlapping one another; we saw that individuals as a rule belonged to more than one network; we saw that only a small proportion of the individuals who belonged to the same network knew each other personally—the large majority were tied to one another by a hidden chain of tele-links. We saw that only a small pro- portion of the social atoms of a community belonged to any one network; others belonged to different networks or remained un- related and scattered between the networks, doubly isolated— isolated as individuals, and left out of the networks. Once the networks in a community were described and mapped, it was easy to demonstrate their dynamic existence by a simple experiment.

i. Generalizations (Moreno, 1948)

1. The "tele" phenomenon
2. The law of the "social atom
3. The "network" phenomenon
4. The "sociodynamic law"
5. The "sociogenetic law"
6. The "law of social gravitation"

ii. Sociogram (Bronfenbrenner, 1944)

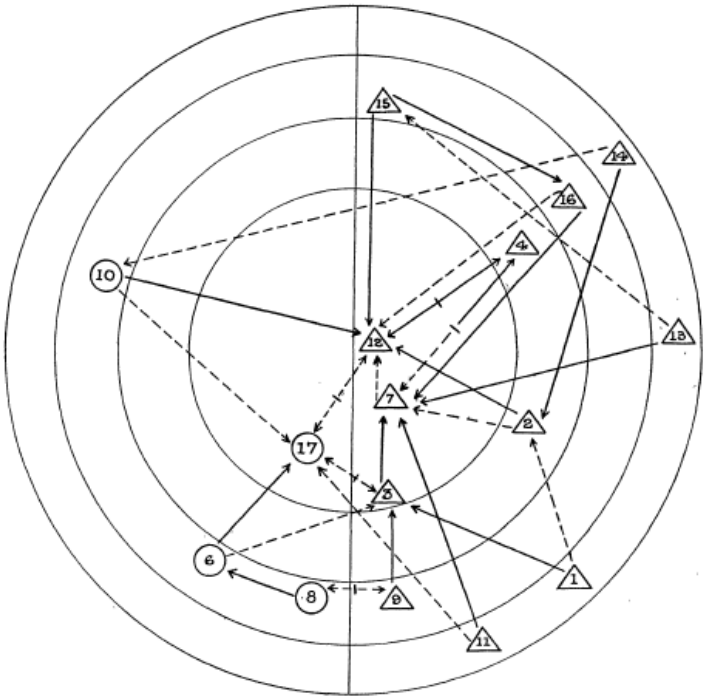


FIG. B.—SOCIOGRAM

iii. Sociomatrix

e. **Networks**

i. **Networks and Systems** (e.g., T. P. Hughes, *Networks of Power*, 1983), "The Seamless Web: Technology, Science, Etcetera, Etcetera,"

ii. Hughes (1986, pp. 281-282): There are problems with the contextual approach espoused by historians of science and technology, many of whom are reacting against the internalist mode. Flaws in contextualism began to appear when historians of technology rejected the notion that science is the context of technology, or that technology is simply applied science. They proposed an interactive relationship between technology and science. This, then, raised the question of whether the relationship between technology and other so-called contextual factors, such as the political and the social, should be redefined as interactive. The same question was asked about science and its context. A way out of the constraints of contextualism and into an interactive mode is now posed by the use of the 'systems' or 'networks' approach. Heterogeneous professionals — such as engineers, scientists, and managers — and heterogeneous organizations — such as manufacturing firms, utilities, and banks — become interacting entities in systems, or networks. Disciplines, persons, and organizations in systems and networks take on one another's functions as if they are part of a seamless web.

1. Communication Networks
    a. Television Networks
    b. Broadcasting Networks
    c. Media Networks
2. Computer Networks
3. Internet(work)
4. Infrastructure
    a. Pipelines
    b. Highways Networks
    c. Drainage Networks
    d. Electric Grid @ *Networks of Power*

5. Neural Nets and Networks
6. Social Networks

iii. Technical Network Analysis

1. Frank, "Network Analysis" (1970, p. 94): This new planning method can be applied to power grids, computer networks, gas pipelines and other flow-handling systems... A modern society is to a large extent a system of networks for communication, transportation and the distribution of energy and goods. The complexity and cost of these networks demand that existing networks be effectively used and that new networks be rationally designed. To meet this demand there has evolved a new discipline called network analysis. Network analysis is the study of connected lines and points.
2. The origins of network analysis are old and diverse. Network analysts rely heavily on graph theory, a branch of mathematics that was founded with Leonhard Euler's formulation and solution of the first graph-theory problem in 1736. More than a century later James Clerk Maxwell and Gustav Robert Kirchhoff discovered certain basic principles of network analysis in the course of their studies of electrical circuits. Early in the 20th century telephone engineers in Europe and the U.S. devised methods for determining the best capacity of telephone trunk lines and switching centers in order to guarantee specified levels of customer service. In the 1940's operations research yielded a number of techniques for the mathematical study of large-scale systems.
3. Pipeline Flows and Circulations
    a. Gavett (1943, p. 268): To illustrate the antiquity of the knowledge of network analysis, one may refer to the description of a graphical method of network analysis by Freeman, dated June 8, 1892. In this paper, the author showed the application of his method, not only to compound pipe in series and parallel, but also to a fairly complicated net. In 1916, Kingsbury described the use of the graphical method in solving a composite twin pipeline problem.
4. Vacuum tubes, gas tubes, transistors, and magnetic amplifiers
    a. Rothstein, review of *Active Networks* (1955, p. 333): After an introductory chapter on fundamental concepts, including those of elementary network analysis, a discussion is given of the characteristics of vacuum tubes, gas tubes, transistors, and magnetic amplifiers as elements of active networks.
5. Traffic Flows
    a. Chandler (1958, p. 166): Although the fluid flow approach mentioned above shows considerable promise of providing a framework for a general theory of traffic, we feel that it is worthwhile to investigate the possible application of another highly developed branch of modern applied mathematics, namely, the theory of servomechanisms and network analysis.
6. Martian Canal Flows
    a. Webb (1957, p. 26): Method of Network Analysis: A surface network is composed of a primary set of points distributed over the surface, with at least three radiant lines connecting every point with three other points of the set. Out of any point set a great variety of networks may be constructed, depending on the manner in which the individual points are connected. A convenient statistical method for classifying networks according to type consists of counting and calculating the percentage of lines in the pattern that radiate from

junctions having, respectively, three, four, five, or more connecting rays. It is found that network patterns of nature and artifice, when thus analyzed, fall into different groups.

iv. Social Network Analysis

1. J. Van Velsen, *The Politics of Kinship* (Manchester: Manchester University Press) (1964, p. 140): "a series of connected events to show how individuals in a particular structure (or network of relationships) handle the choices with which they are faced. Individuals are interlinked through continually changing alignments in small and often ephemeral groups."
2. Adams (1967, p. 78): We have attempted to synthesize the questions "who" and "why" in social network analysis. Categories and components of social relations must be brought together, and the concern component-as a positive attribute-be incorporated into interaction theory along with consensus and liking, if such theory is to comprehend social network involvement.
3. Prattis (1978, pp. 383, 384): Thus the concept of a social network involves a map of an individual's trajectory through a field of relationships by which the observer can discover whom his actions affect and by whom they are affected. This analytic focus shifts attention from notions of an actor's structured response to a system; and, as far as the choices of individuals are concerned, to their instrumentality within that same system…
    a. we are left with either highly abstract conceptual schemes that do not interpret variance and instrumentality or with analytic tools that inform us of activities in small scale actor networks and nothing else.
4. Boissevain (1979, p. 392): How is the enthusiasm for network analysis to be explained?... The enthusiasm for network analysis is related to and part of the theoretical shift in the social sciences away from the structural-functional analytical framework which dominated anthropology, sociology, and political science in Britain and the United States for the past 30 years.
5. Levine (1980, p. 20): The interlocks between boards of directors of some 400 of the world's largest corporations are studied with methods of network analysis and, in particular, with the original methods of centroid scaling and frequency reconstruction scaling.
6. BMS (1987, p. 12): In February 1987, Alexis Ferrand organized in Paris a two day international conference on Network Analysis, the first such meeting in France. As a result of this conference, working group including Alexis Ferrrand (Inst. Urban., Univ. Grenoble), Alain Degenne Lise Mounier (LASMAS-CNRS, Paris), and Karl M. van Meter (LISH-CNRS, Paris), formed. This group, in collaboration with the BMS, has decided to create the "Association Française des Analystes de Réseaux Sociaux" (AFARS* or French Association of Network Analysts). The AFARS intends to encourage network analysis in France and furnish means of exchanging information and of coordination among those persons either interested network analysis or actually doing network analysis; in short, a French network of networkers.
7. Scott (1988, p. 53): The concept of 'social network' has been a powerful idea in social research. It implies an image of individuals tied to one another by invisible bonds knitted together in a criss-cross mesh of connections, much as a fishing net or a length of cloth is made from intertwined fabrics. Social network analysis has developed as an approach which attempts to take this metaphor seriously and to develop its theoretical basis, and in recent years it has spawned a number of sophisticated technical methods for charting the mathematical features of social networks.

8. Embirmayer (1994, pp. 1411-1412): Recent years have witnessed the emergence of a powerful new approach to the study of social structure. This mode of inquiry, commonly known as "network analysis," has achieved a high degree of technical sophistication and has proven extremely useful in a strikingly wide range of substantive applications. Since the seminal work of Barnes (1954) and Bott (1971), sociological studies utilizing network analysis have appeared with increasing frequency; a veritable explosion of such work has taken place over the last 15 years, particularly with the founding of two specialized journals, *Social Networks* and *Connections*, in the late 1970s. Today network analysis is one of the most promising currents in sociological research.

v. Actor-Network Analysis

1. Latour, *Reassembling* (2005, pp. 128-131): Defining at last what a network is:
    a. I would define a good account as one that traces a network. I mean by this word a string of actions where each participant is treated as a full-blown mediator. To put it very simply: A good ANT account is a narrative or a description or a proposition where all the actors do something and don't just sit there.... Thus, the network does not designate a thing out there that would have roughly the shape of interconnected points, much like a telephone, a freeway, or a sewage 'network'.... Network is a concept, not a thing out there. It is a tool to help describe something, not what is being described. It has the same relationship with the topic at hand as a perspective grid to a traditional single point perspective painting: drawn first, the lines might allow one to project a three dimensional object onto a flat piece of linen; but they are not what is to be painted, only what has allowed the painter to give the impression of depth before they are erased. In the same way, a network is not what is represented in the text, but what readies the text to take the relay of actors as mediators. The consequence is that you can provide an actor-network account of topics which have in no way the shape of a network—a symphony, a piece of legislation, a rock from the moon, an engraving. Conversely, you may well write about technical networks— television, e-mails, satellites, salesforce—without at any point providing an actor-network account.

f. Webworks

i. ANT might just as well have been AWT (Actor-Webwork Theory)

ii. Geertz, for instance, is just as likely to use webwork as network to describe the interrelations and associations oh humans and nonhumans.

1. Geertz (1964, p. 29): All these various patterns, and a large number of others, are combined in various ways to yield a dense network of land rights and labor obligations which is, of course, at the same time a social network.... In the context of "village" life generally, the ties between economic patron and economic dependent which grow out of the structure of productive organization in agriculture entwine with those growing out of residence, age, title, kinship and personal friendship to join subak and bandjar together, not into a single bounded, self-contained unit, but as strands in a webwork system of social interconnections which spreads out in countless crisscrossing lines and in all directions over the entire countryside.

2. Geertz famously stated (1973, p. 4): Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs.

iii. Hughes (1986, p. 282): A way out of the constraints of contextualism and into an interactive mode is now posed by the use of the 'systems' or 'networks' approach. Heterogeneous professionals — such as engineers, scientists, and managers — and heterogeneous organizations — such as manufacturing firms, utilities, and banks — become interacting entities in systems, or networks. Disciplines, persons, and organizations in systems and networks take on one another's functions as if they are part of a seamless web.

iv. Davis (1995): As computers blanket the world like digital kudzo, we surround ourselves with an animated webwork of complex, powerful, and unseen forces that even the 'experts' can't totally comprehend.

v. Berry (2002, p. 84): We never considered the possibility that we might be trapped in the webwork of communication and transport that was supposed to make us free.

vi. Douglas (2010, p. 300): Is the subject position this webwork of satellites, videophones, cameras, and cables seeks to constitute a globally empathetic one?

g. **Ethnomethodology** (e.g., "Studies of the Routine Grounds of Everyday Activities," Garfinkel, 1964, p. 226): Although sociologists take socially structured scenes of everyday life as a point of departure they rarely see as a task of sociological inquiry in its own right the general question of how any such common sense world is possible. Instead, the possibility of the everyday world is either settled by theoretical representation or merely assumed. As a topic and methodological ground for sociological inquiries, the definition of the common sense world of everyday life, though it is appropriately a project of sociological inquiry, has been neglected. My purposes in this paper are to demonstrate the essential relevance to the program of sociological inquires of a concern for common sense activities as a topic of inquiry in its own right and, by reporting a series of studies, to urge its "rediscovery."

i. Garfinkel (1967, pp. 11, 1-2): I use the term "ethnomethodology" to refer to the investigation of the rational properties of indexical expressions and other practical actions as contingent ongoing accomplishments of organized artful practices of everyday life.

ii. Their central recommendation is that the activities whereby members produce and manage settings of organized everyday affairs are identical with members' procedures for making those settings "accountable." The "reflexive," or "incarnate" character of accounting practices and accounts makes up the crux of that recommendation. When I speak of accountable my interests are directed to such matters as the following. I mean observable-and-reportable, i.e. available to members as situated practices of looking-and-telling. I mean, too, that such practices consist of an endless, ongoing, contingent accomplishment; that they are carried on under the auspices of, and are made to happen as events in, the same ordinary affairs that in organizing they describe; that the practices are done by parties to those settings whose skill with, knowledge of, and entitlement to the detailed work of that accomplishment- whose competence-they obstinately depend upon, recognize, use, and take for granted; and that they take their competence for granted itself furnishes parties with a setting's distinguishing and particular features, and of course it furnishes them as well as resources, troubles, projects, and the rest.

iii. Garfinkel (1988, pp. 103-104): For ethnomethodology the objective reality of social facts, in that and just how it is every society's locally, endogenously produced, naturally organized, reflexively accountable, ongoing, practical achievement, being everywhere, always, only, exactly and entirely, members' work,

with no time out, and with no possibility of evasion, hiding out, passing, postponement, or buy-outs, is thereby sociology's fundamental phenomenon.

iv. Concerned with, and profoundly reasoned about generic, massively recurrent properties of human action in and as the properties of populations, *The Structure of Social Action* set an example for formal analytic sociology and has become emblematic of analytic sociology and of the worldwide social science movement. Ethnomethodology has its origins in this wonderful book. Its earliest initiatives were taken from these texts. Ethnomethodologists have continued to consult its text to understand the practices and the achievements of formal analysis in the work of professional social science.

h. **Relationality** : : Primacy of Relations @ Infinite Regress v Infinite Reduction
   i. Comte (*General View of Positivism*, 1848, pp. 8-9; *System of Positive Polity*, 1851, p. 6): With this object in view the philosopher endeavours to co-ordinate the various elements of man's existence, so that it may be conceived of theoretically as an integral whole. His synthesis can only be valid in so far as it is an exact and complete representation of the relations naturally existing. The first condition is therefore that these relations be carefully studied. When the philosopher, instead of forming such a synthesis, attempts to interfere more directly with the course of practical life, he commits the error of usurping the province of the statesman, to whom all practical measures exclusively belong.
   ii. Concretion & Relationality: See Peirce, James. Bergson, and Whitehead below

i. **Relativity** : : Physical, Cultural, and Philosophical
   i. Cosmology & Quantum Mechanics, ca. late 19th and early 20th centuries
      1. Anthropology
      2. Physics
      3. Philosophy (Metaphysics & Ontology)
   ii. Gordin (1926, p. 520): It follows that relativity is in no way equivalent to "relative," but to relational, a term which, if it were to replace relativity, would save us from all that confusion which is caused by the use of the latter. Relationality and absoluteness are merely a twofold oneness, only two aspects, nay, one aspect, of the cosmos which is relational within and absolute without. Likewise the "within of history'" is relational, but the "without of history," that is, the future, is absolute….
   iii. Cosmological relativity coincides with philosophical relativity, both equally meaning relationality, which is equivalent to structure, to use physico-biological terminology, or system, to use logical and philosophical language. We speak, therefore, of the structure of the universe and the system of history. The principle of relativity, conceived as relationality, really has been the *leit-motif* of science and philosophy almost from their very beginning in India and Greece, but was especially emphasized by Hume, Kant, and more than all by Hegel and Herbert Spencer, these latter two philosophical antipodes being at one in considering relativity as the first principle of science and philosophy. Relativity (and let us not forget that whenever we use relativity it means relationality) is only a modern formulation of the old postulate of uniformity or, as others call it, lawfulness or orderliness of nature. It has always represented the first principle of science and philosophy, at least from the days of Pythagoras, who considered the world as a cosmos, as a well-ordered unity, in a word, as a relativity system.

j. Whitehead
   i. Alfred North Whitehead's organic philosophy (or process thought) is some times discussed along with the work of the pragmatists. Like Dewey, Whitehead rejected the idea that attention to value required belief in a "final order" ([1929] 1978, 111), but like James, his writing did not shy from discussion of powers commonly thought of as religious. He used words like richness, quality, importance, intensity,

harmony, and contrast in discussing value. Like the pragmatists, Whitehead pointed to relationality as central: "Existence ... is the upholding of value intensity. Also no unit can separate itself from the others ... yet each unit exists in its own right." ([1938] 1966, 111). Unlike the pragmatists, however, Whitehead explicitly took his metaphysics of experience and relationality "all the way down," to physics and atomic particles. (Nelson, "Value as Relationality," 2001, p. 146)

k. …all the way down
   i. James ("Rationality, Activity and Faith," 1882): The moral judgment is irreducible, and independent of all judgments of fact. It applies to the subjective interests as well as to the phenomena which they measure. Not only is it best for my social interests to keep my promise, but best for me to have those interests, and best for the cosmos to have this me. Like the old woman in the story who described the world as resting on a rock, and then explained that rock to be supported by another rock, and finally when pushed with questions said it was "rocks all the way down," he who believes this to be a radically moral universe must hold the moral order to rest either on an absolute and ultimate *should* or on a series of *shoulds* "all the way down."
   ii. Haraway (1997, p. 126): First, I am physically hypersensitive to the historically specific, materially/semiotically dense practices that constitute science-made, as well as science-in-the-making (Latour 1987). As my colleagues put it, science is practice and culture (Pickering 1992) at every layer of the onion. There is no core, only layers. It is "elephants all the way down," in my purloined origin story about science. "Elephants all the way down" is an aphorism from the Indian origin story that has the world supported on the back of a pachyderm, who is, in turn, supported on another elephant, and so on, ad infinitum. Everything is supported, but there is no transcendent foundation, only the infinite series of carrying all there is.
   iii. Hawking (*A Brief History of Time*, 1988, p. 1): A well-known scientist (some say it was Bertrand Russell [was actually William James]) once gave a public lecture on astronomy. He described how the earth orbits around the sun and how the sun, in turn, orbits around the center of a vast collection of stars called our galaxy. At the end of the lecture, a little old lady at the back of the room got up and said: "What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise." The scientist gave a superior smile before replying, "What is the tortoise standing on." "You're very clever, young man, very clever," said the old lady. "But it's turtles all the way down!"
   iv. Russell ("Why I am not a Christian," 1927): If everything must have a cause, then God must have a cause. If there can be anything without a cause, it may just as well be the world as God, so that there cannot be any validity in that argument. It is exactly of the same nature as the Hindu's view, that the world rested upon an elephant and the elephant rested upon a tortoise; and when they said, "How about the tortoise?" the Indian said, "Suppose we change the subject." The argument is really no better than that. There is no reason why the world could not have come into being without a cause; nor, on the other hand, is there any reason why it should not have always existed. There is no reason to suppose that the world had a beginning at all. The idea that things must have a beginning is really due to the poverty of our imagination.
   v. ["The earth rests on a giant elephant, which is standing on a giant turtle. After that, it's turtles all the way down."]
   vi. In this sense, an ontology of networks is an ontology of turtles. Yet not all the turtles are equal, or some are more equal than others. The best portrayal is Theodor Geisel (Dr. Seuss, "You Can't Build a Substantial V[ictory] out of Turtles," 1942 and *Yertle the Turtle*, 1950)


You Can't Build
A Substantial
V
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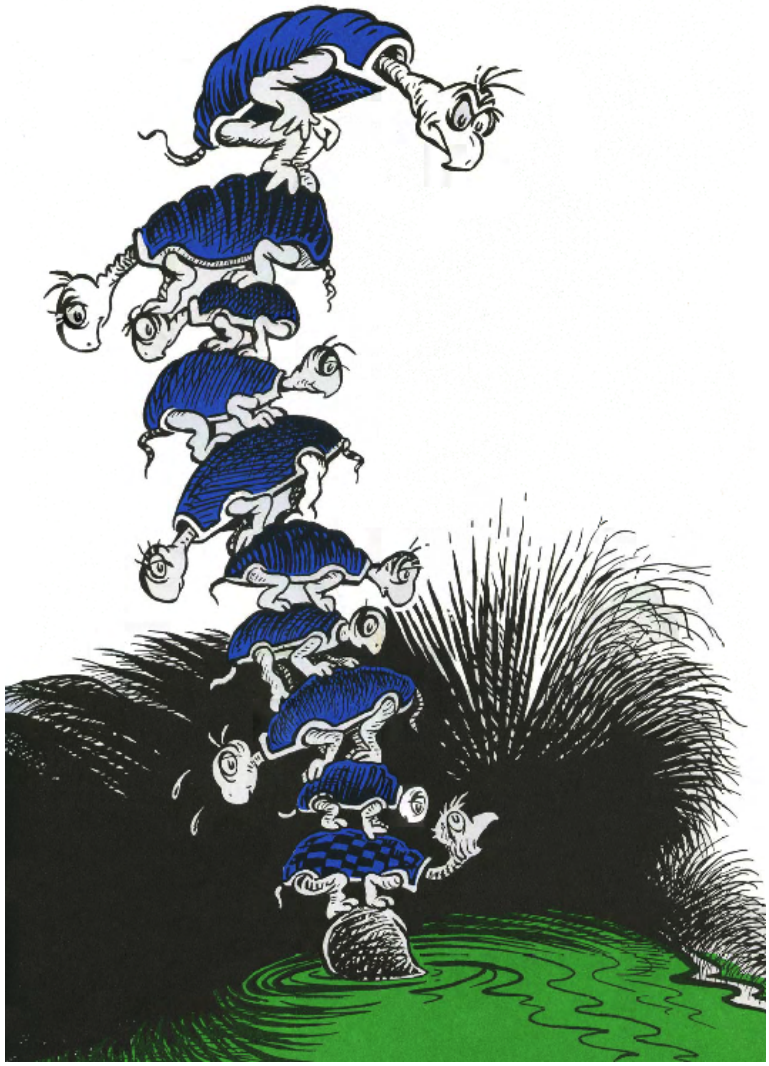
Turtles!
DAWDLING
PRODUCERS



l. "Manifesto for a Relational Sociology," Embirmayer (1997, p. 312): *Entities of the World—Relate!*
m. ***Frame Analysis*** offers a very promising source and here Goffman has quite a bit to say about alignment, albeit in a different sense than attended to in your dissertation. However, those that generated frame alignment theory from Goffman are directly relevant to this task of informing alignment. For example, Snow, Rochford, Worden & Benford (1986) (the primary source here) argue that "frame alignment [i.e., linkages across, activities, goals, interests, etc.], of one variety or another, is a necessary condition for movement participation, whatever its nature or intensity" (p. 467). "The four processes [of frame alignment] include: (a) frame bridging, (b) frame amplification, (c) frame extension, and (d) frame transformation" (p. 467). These processes hold great potential to inform alignment and translation.
n. **tba**